PACIFIC
ENVIRONMENTAL
GROUP, INC.

August 11, 1997
Project 320-164.1B

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

Re: Soil and Groundwater Investigation
Chevron Service Station 9-0917
5280 Hopyard Road
Pleasanton, California

Dear Mr. Briggs:

This letter report, prepared by Pacific Environmental Group, Inc. (PACIFIC) on behalf of Chevron Products Company (Chevron), presents the results of a soil and groundwater investigation conducted at the site referenced above (Figure 1). The purpose of the investigation was to define the extent of petroleum hydrocarbons in soil and groundwater to the south of the site. The investigation was performed in accordance with PACIFIC's *Revised Work Plan* dated September 4, 1996, and as modified during a telephone conversation with the Alameda County Health Care Services Agency (ACHCSA) on September 17, 1996. The ACHCSA approved the work plan in their letter dated September 17, 1996 with the stipulation that the location of Well MW-9 be modified slightly. This letter report includes a discussion of site background, , scope of work, findings and conclusions.

Field and laboratory procedures, and boring logs are presented as Attachment A. Certified analytical reports and chain-of-custody documentation are presented as Attachment B.

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 four 12,000-gallon double-walled fiberglass tanks to be used for gasoline. 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. Groundwater flow directions was southerly in fourth quarter 1995, however since then, groundwater flow has been either northerly or northeasterly.
- Historically, total purgeable petroleum hydrocarbons calculated as gasoline (TPPH-g) and benzene concentrations were non-detectable in Wells MW-1 through MW-4 except for sporadic low levels of hydrocarbons detected in Wells MW-1 and MW-4. TPPH-g and benzene concentrations have historically been reported in Wells MW-5 and MW-6. During the second quarter 1997 sampling event, Well MW-5 reported 11,000 parts per billion (ppb) TPPH-g and 1,800 ppb benzene. Well MW-6 reported 470 ppb TPPH-g and less than 0.5 ppb benzene during the second quarter 1997 monitoring event.

SCOPE OF WORK

In order to provide further delineation of petroleum hydrocarbons beneath the site, the following scope of work was performed:

- **Permits.** PACIFIC obtained groundwater monitoring well construction permit 972427 from the Zone 7 Water Agency prior to initiating field work.
- **Encroachment.** Chevron negotiated access agreements with C and H Development Company and Motel 6 to facilitate installation of Monitoring Wells MW-7 through MW-9.
- **Underground Utility Clearance.** Prior to well installation, Underground Service Alert was notified, and the well locations were cleared by a utility locator.

- **Well Installation.** Three groundwater monitoring wells (Wells MW-7 through MW-9) were installed to delineate the extent of petroleum hydrocarbons in groundwater. Well locations are shown on Figure 2.
- **Soil and Groundwater Analysis.** Selected soil samples were analyzed for the presence of total purgeable petroleum hydrocarbons calculated as gasoline (TPPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), and methyl tertiary-butyl ether (MtBE). Physical soil, including organic content, bulk density, porosity, and water content, were determined for each lithologic unit encountered. These parameters may be utilized for the determination of Risk-Based Corrective Action at the site.
- **Groundwater Flow Direction Study.** A review of topographic and geologic maps, and a review of site reports and regional literature was performed to evaluate regional and site groundwater flow direction for the site.

FINDINGS

Subsurface Conditions

The site is underlain by basin deposits of silt and clay which are relatively impermeable and subject to ponding. Soils encountered during drilling consist primarily of clay and silty clay. A clayey sand unit was encountered at approximately 15 feet bgs in MW-7. Groundwater stabilized at between 8.3 and 8.7 feet bgs in the monitoring wells upon completion.

Soil and Groundwater Analytical Results

Soil samples were analyzed for TPPH-g, BTEX compounds, and MtBE. These compounds were not detected in any samples. A summary of the soil analytical results is presented in Table 1. Results of physical soil testing are included in Attachment B. Groundwater Monitoring Wells MW-7 and MW-8 were developed and sampled on June 17, 1997. Well MW-9 was developed and sampled on June 20, 1997. TPPH-g, BTEX compounds, and MtBE were not detected in any of the groundwater samples (Table 2). The wells were surveyed (Attachment A) and will be included in the quarterly groundwater monitoring program.

unacceptable!

Groundwater Flow Directions

The Livermore Valley Groundwater Basin has been divided into twelve subbasins based on fault traces and hydrologic discontinuities. The site is located in the Dublin Subbasin of the Livermore Valley Groundwater Basin. Regionally, the upper, unconfined groundwater in the Dublin Subbasin generally flows south toward the Bernal Subbasin. Aquifers in the Dublin Subbasin are generally flatlying, but there is a drop in groundwater elevation of approximately 50 feet across the Parks Fault. (Evaluation of Ground Water Resources: Livermore and Sonol Valleys, Department of Water Resources Bulletin Number 118-2, June 1974). The Park Fault trends east north-east approximately 1 mile south of the site.

Historic groundwater flow direction and gradient at the site are presented on Table 3. Analysis of the flow direction was performed using rose diagram software (*Rose 1.02* developed by Todd Thompson and Steve Baedke). The Santa Clara Valley Water District utilizes the software to study historic flow directions. The rose diagram is presented on Table 3 and indicates a mean flow direction to the northeast (44.5 degrees). The consistency of the gradient is low (35%). The gradient is shallow to the northeast (0.006). The groundwater flow direction has been influenced by consistent recent flow since March 1996 to the northeast. Further gauging events incorporating the newly installed wells will better define the groundwater flow direction.

CONCLUSIONS

The vertical and lateral extent of petroleum hydrocarbons southerly of the site has been delineated to non-detectable concentrations. PACIFIC recommends inclusion of Wells MW-7 through MW-9 in the quarterly monitoring program for the site to ensure plume stability.

If there are any questions regarding the contents of this letter report, please call.

Sincerely,

Pacific Environmental Group, Inc.

Ross W.N. Tinline
Project Geologist
RG 5860

Attachments:

Table 1 - Soil Analytical Data - Total Petroleum Hydrocarbons (TPPH as Gasoline, BTEX Compounds, and MtBE)
Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPPH as Gasoline, BTEX Compounds, and MtBE)
Table 3 - Groundwater Flow Direction and Gradient
Figure 1 - Site Location Map
Figure 2 - Site Map
Attachment A - Field and Laboratory Procedures, Boring Logs and Survey Results
Attachment B - Certified Analytical Reports, Chain-of-Custody Documentation and Well Development Logs

Table 1
Soil Analytical Data
Total Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

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

Well Number	Sample Depth (feet)	Date Sampled	TPPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	MTBE (ppm)
MW-7	5	05/05/97	ND	ND	ND	ND	ND	ND
	10.5		ND	ND	ND	ND	ND	ND
MW-8	5.5	05/05/97	ND	ND	ND	ND	ND	ND
	10.5		ND	ND	ND	ND	ND	ND
MW-9	5	05/05/97	ND	ND	ND	ND	ND	ND
	10		ND	ND	ND	ND	ND	ND

TPPH = Total purgeable petroleum hydrocarbons
MTBE = Methyl tertiary-butyl ether
ppm = Parts per million
ND = Not detected
See certified analytical reports for detection limits.

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

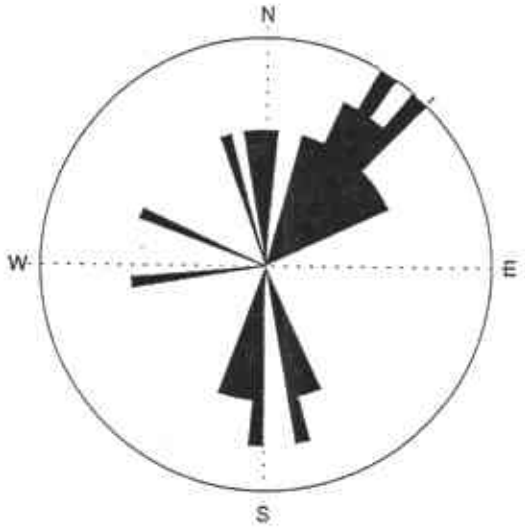
Chevron Service Station 9-0917
5280 Hopyard Road
Pleasanton, California

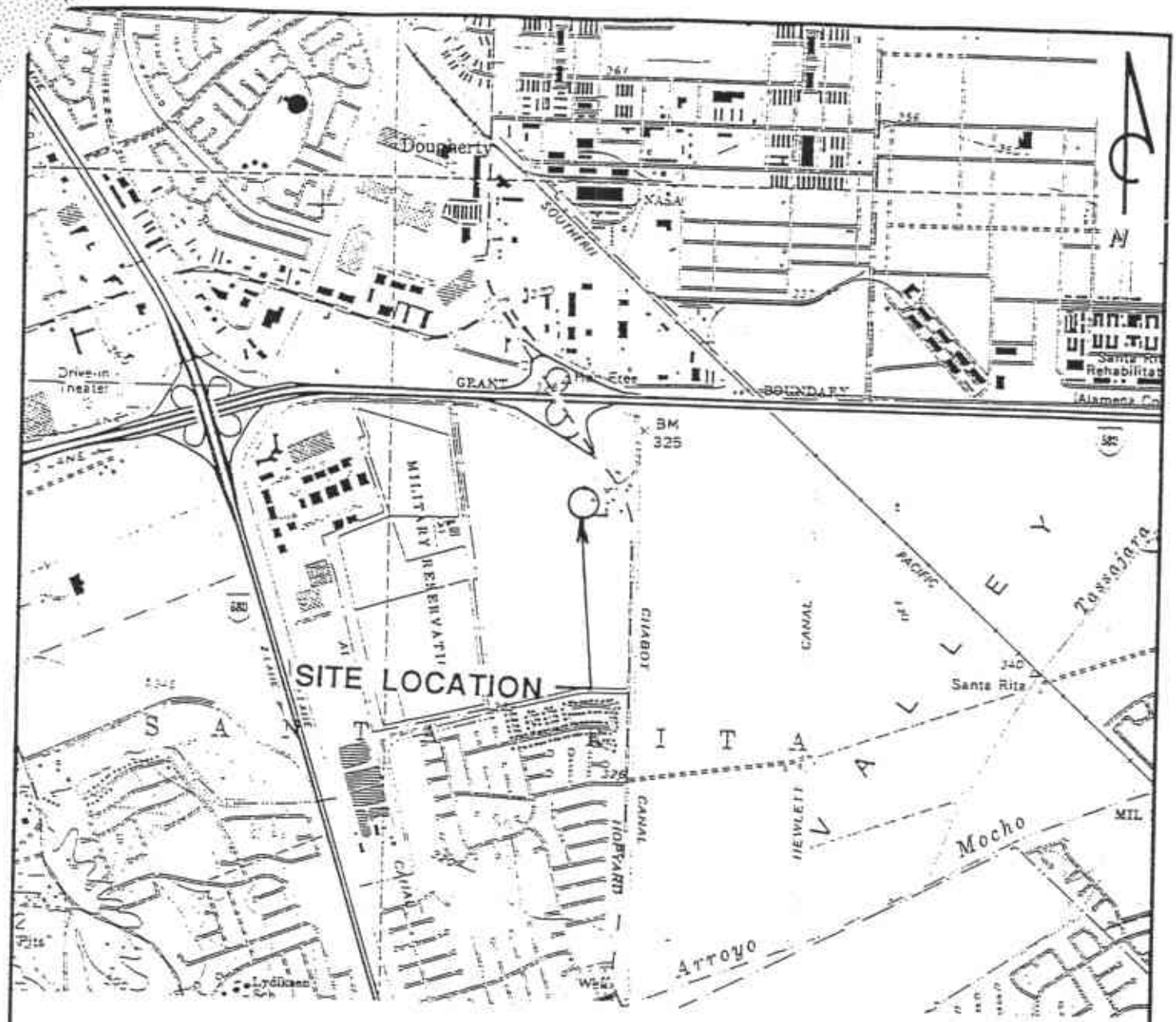
Well Number	TOC Elevation (feet, MSL)	Depth to water (feet)	Groundwater Elevation (feet, MSL)	Date Sampled	TPPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	MTBE (ppm)
MW-7	326.37	8.05	318.32	06/17/97	ND	ND	ND	ND	ND	ND
MW-8	325.89	7.74	318.15	06/17/97	ND	ND	ND	ND	ND	ND
MW-9	325.73	7.85	317.88	06/20/97	ND	ND	ND	ND	ND	ND

TOC = Top of casing elevation
TPPH = Total purgeable petroleum hydrocarbons
MTBE = Methyl tertiary-butyl ether
ppm = Parts per million
ND = Not detected
See certified analytical reports for detection limits.

Table 3
Groundwater Flow Direction and Gradient
Chevron Service Station 9-0917
5280 Hopyard Road
Pleasanton, California

Date	Flow Direction (degrees)	Gradient
8/2/89	37	0.002
10/24/89	184	0.015
3/12/90	180	0.014
3/26/90	158	0.2
9/11/90	166	0.011
4/18/91	263	0.003
9/16/91	342	0.001
1/22/92	31	0.009
3/26/92	355	0.004
6/5/92	33	0.002
9/23/92	54	0.001
12/30/92	193	0.004
3/22/93	42	0.007
6/14/93	21	0.003
7/25/93	32	0.001
9/23/93	161	0.002
12/28/93	292	0.005
3/21/94	354	0.001
6/7/94	62	0.001
10/7/94	186	0.003
12/29/94	27	0.003
3/6/95	1	0.009
6/14/95	165	0.001
9/14/95	39	0.009
12/16/95	198	0.003
3/28/96	40	0.01
6/28/96	59	0.003
9/26/96	41	0.01
12/30/96	25	0.006
3/17/97	17	0.005
6/30/97	46	0.006





QUADRANGLE LOCATION

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

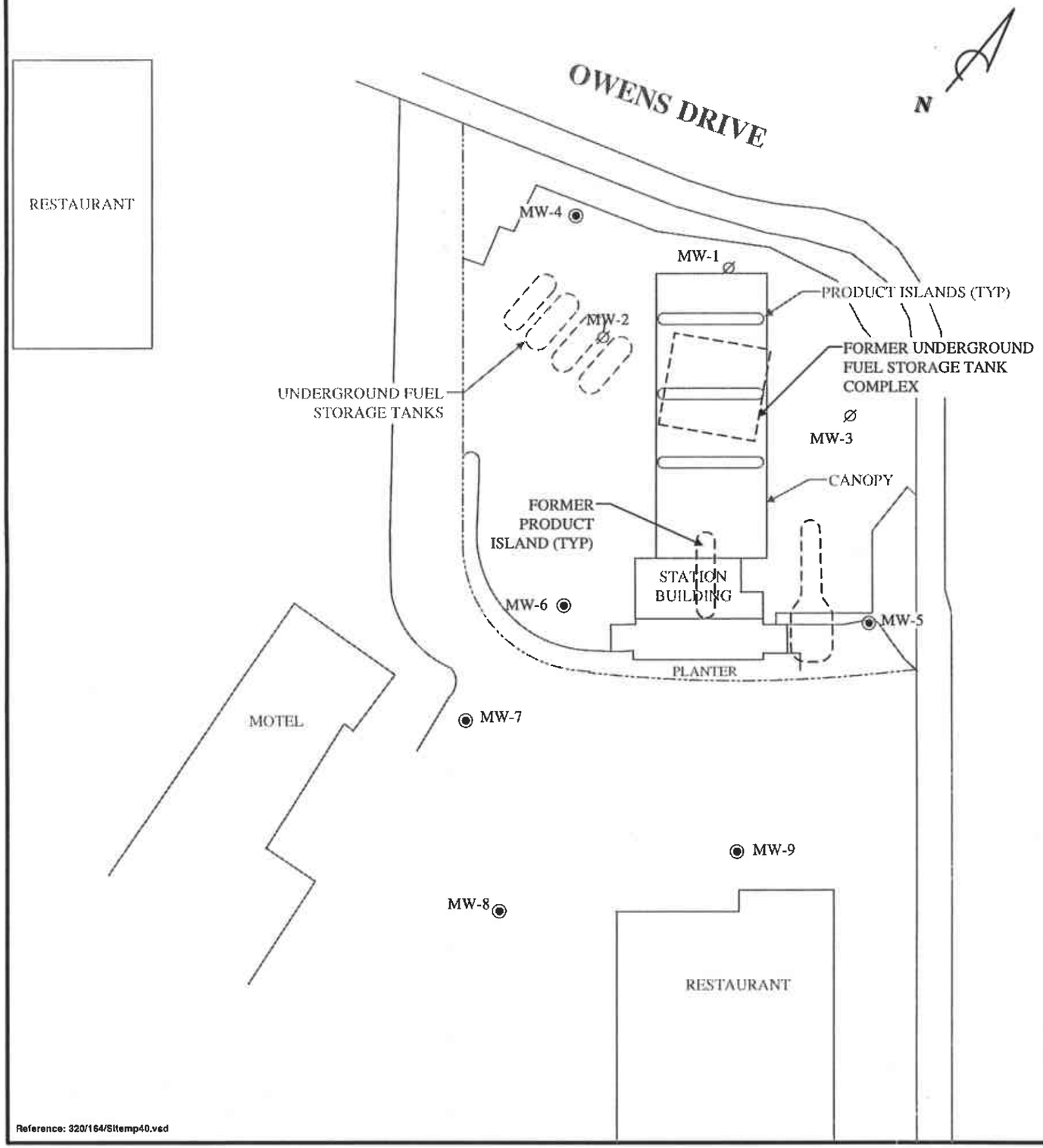
SCALE IN FEET
2000 0 2000

PACIFIC ENVIRONMENTAL GROUP, INC.

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

SITE LOCATION MAP

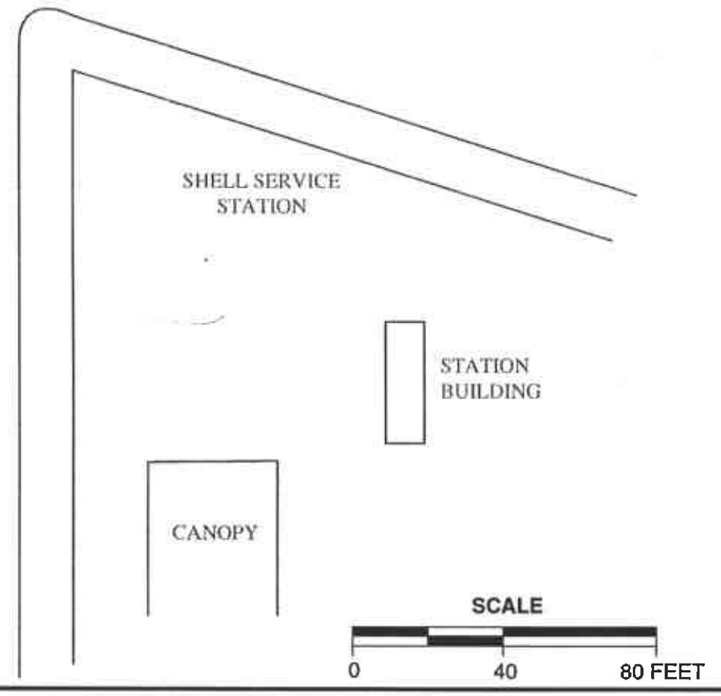
FIGURE: 1
PROJECT: 320-164.1A



LEGEND

MW-4 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

MW-1 Ø ABANDONED GROUNDWATER MONITORING WELL LOCATION



PACIFIC ENVIRONMENTAL GROUP, INC.

TITLE:

MONITORING WELL LOCATION MAP

PREPARED FOR:

CHEVRON SERVICE STATION 9-0917
5280 Hopyard Road at Owens Drive
Pleasanton, California

DATE: 3-18-96	PROJECT: 320-164.1A	FIGURE: 2

Reference: 320/164/Sitemp40.vsd

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES
BORING LOGS AND SURVEY RESULTS

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

Soil Boring Drilling Procedures

The borings for the monitoring wells were drilled using 8-inch diameter hollow-stem auger drilling equipment. The borings were logged by a PACIFIC geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and chemical analysis were collected at a minimum of 5-foot depth intervals by advancing a California-modified split-spoon sampler with brass liners into undisturbed soil beyond the tip of the auger. The sampler is driven a maximum of 18 inches using a 140-pound hammer with a 30-inch drop. Soil samples for chemical analysis were retained in brass liners, capped with Teflon and plastic end caps, and sealed in zip-lock plastic bags. These samples were placed in a cooler on ice for transport to the laboratory accompanied by chain-of-custody documentation.

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

Well Installation Procedures

The borings were converted to groundwater monitoring wells with the installation of 2-inch diameter Schedule 40 PVC casing and 0.020-inch factory-slotted screen. Screen was placed through the saturated zone and extend to 20 feet below ground surface. Graded sand pack (Lonestar 2 x 12) was placed in the annular space across the screened interval, and extends approximately 1 to 2 feet above the screen. A maximum 1 foot of bentonite was placed on the top of the sand pack. A neat cement grout was placed in one continuous operation until the borehole was filled. A waterproof locking cap with permanently attached appropriate identification was completed within a waterproof protective vault box. The monitoring wells were surveyed for location and for elevation relative to mean sea level.

Well Development and Groundwater Sampling

The groundwater monitoring wells were developed and sampled a minimum of 24 hours after completion of the wells. Well development procedures included swabbing and bailing and/or pumping. Water was removed from the well until relatively turbid free water was produced, or until a minimum of four casing volumes had been removed. The groundwater sampling procedure consists of first measuring the water level in the well, and checking it for the presence of separate-phase hydrocarbons (SPH). If SPH are not present, the well was purged of a minimum of four casing volumes of water. During purging, temperature, pH, and electrical conductivity was monitored until stable to document that a representative sample is collected. After the water level recovers, a sample was collected from each well using a Teflon bailer and placed into appropriate EPA-approved containers. The samples were labeled, logged onto a chain-of-custody document, and transported on ice to the laboratory.

Rinsate, Purge, and Development Waters, and Soil Cuttings Storage and Disposal

Waters produced during field activities were transported via a purge trailer and disposed of at a state-certified treatment and disposal facility. When necessary, waters were temporarily stored on site in DOT-approved 55-gallon drums pending transport and disposal.

Soil cuttings generated during drilling were placed on and covered by visqueen. Samples of the cuttings were collected and sent to a state-certified laboratory for analysis. The soil cuttings were hauled by a state-certified waste hauler to a state-certified treatment and disposal facility.

Laboratory Procedures

Selected soil samples from the soil borings were analyzed in the laboratory for the presence of total petroleum hydrocarbons calculated as gasoline, benzene, toluene, ethylbenzene, and xylenes, and MtBE by modified EPA Methods 8015 and 8020. The samples were 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 were performed by a California State-certified laboratory.

WELL LOG
KEY TO ABBREVIATIONS

Drilling Method

HSA - Hollow stem auger
CFA - Continous flight auger
Air - Reverse air circulation

Gravel Pack

CA - Coarse aquarium sand

Sampling Method

Cal. Mod. - California modified split-spoon sampler (2" inner diameter) driven 18" by a 140-pound hammer having a 30" drop. Where penetration resistance is designated "P", sampler was instead pushed by drill rig.
Disturbed - Sample taken from drill-return materials as they surfaced.
Shelby - Shelby Tube thin-walled sampler (3" diameter), where sampler is pushed by drill-rig.

Moisture Content

Dry - Dry
Dp - Damp
Mst - Moist
Wt - Wet
Sat - Saturated

Sorting

PS - Poorly sorted
MS - Moderately sorted
WS - Well sorted

Plasticity

L - Low
M - Moderate
H - High

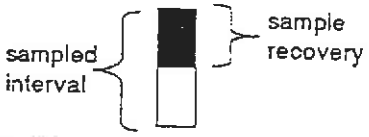
H-NU (ppm)

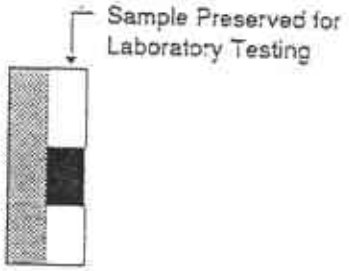
ND - No detection

Symbols

▽ - First encountered ground water

▼ - Static ground water level





Density (Blows/Foot - Cal Mod Sampler)

Sands and gravels

0 - 5	- Very Loose
5 - 13	- Loose
13 - 38	- Medium dense
38 - 63	- Dense
over 63	- Very dense

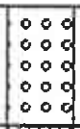
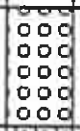
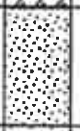
Silts and Clays

0 - 2	- Very Soft
2 - 4	- Soft
4 - 9	- Firm
9-17	- Stiff
17 - 37	- Very Stiff
37 - 72	- Hard
over 72	- Very Hard

GRAIN - SIZE SCALE

GRADE LIMITS U.S. Standard inch	sieve size	GRADE NAME
12.0		Boulders
3.0	3.0 in.	Cobbles
0.19	No. 4	Gravels
0.08	No. 10	coarse
	No. 40	medium Sand
	No. 200	fine
		Silt
		Clay Size

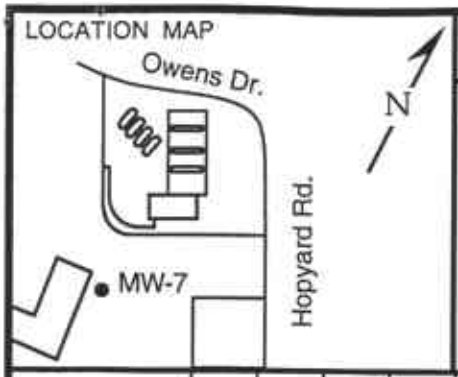
PACIFIC ENVIRONMENTAL GROUP, INC.

Primary Divisions			Group Symbol/Graphic		Typical Names
COARSE GRAINED SOILS more than half is larger than #200 sieve	GRAVELS half of coarse fraction larger than #4 sieve	CLEAN GRAVELS (less than 5% fines)	GW		Well graded gravels, gravel-sand mixtures; little or no fines
			GP		Poorly graded gravels or gravel-sand mixtures; little or no fines
		GRAVEL WITH FINES	GM		Silty gravels, gravel-sand-silt mixtures
			GC		Clayey gravels, gravel-sand-clay mixtures
	SANDS half of coarse fraction smaller than #4 sieve	CLEAN SANDS (less than 5% fines)	SW		Well graded sands, gravelly sands, little or no fines
			SP		Poorly graded sands or gravelly sands; little or no fines
		SANDS WITH FINES	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sand-clay mixtures, plastic fines
FINE GRAINED SOILS more than half is smaller than #200 sieve	SILTS AND CLAYS liquid limit less than 50%		ML		Inorganic silts and very fine sand, rock flour, silty or clayey fine sands or clayey silts, with slight plasticity
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL		Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS liquid limit more than 50%		MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH		Inorganic clays of high plasticity, fat clays
			OH		Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			Pt		Peat and other highly organic soils

PACIFIC ENVIRONMENTAL GROUP, INC.

Unified Soil Classification System

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

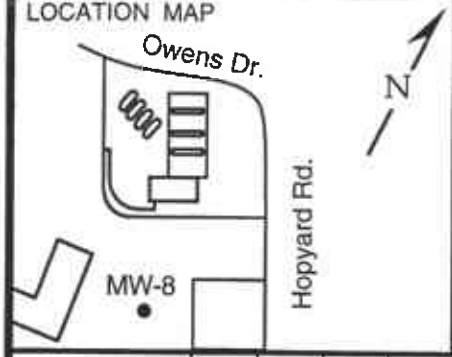
WELL NO. MW-7
PAGE 1 OF 1

PROJECT NO. 320-164.1B
LOGGED BY: T.B.
DRILLER: MDE
DRILLING METHOD: HSA
SAMPLING METHOD: CALMOD
CASING TYPE: SCH 40 PVC
SLOT SIZE: 0.020"
SAND PACK: 2 X 12 SAND

CLIENT: CHEVRON
DATE DRILLED: 5-5-97
LOCATION: 5280 Hopyard Rd., Pleasanton
HOLE DIAMETER: 8"
HOLE DEPTH: 21.5'
WELL DIAMETER: 2"
WELL DEPTH: 20'
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY/ SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT				1				ASPHALT
				2			CL	SILTY CLAY: dark brown; medium plasticity; 80-90% silt and clay; 10-20% sand; dense; no product odor.
	Dp			3				
				4				
	Dp		27	5			CL	CLAY: dark brown; medium plasticity; 90% silt and clay; 10% fine to medium sand; very stiff; no product odor.
BENTONITE				6				
				7				
				8				
				9				
	Mst		24	10				@10': as above; dark brown; medium plasticity; 95% silt and clay; 5% sand; very stiff.
SAND				11				
				12				
				13				
				14				
	Wt		17	15				@15': as above.
				16			SC	CLAYEY SAND: very dark grayish brown; 45% silt and clay; 55% sand; medium dense; no product odor.
				17				
				18				
				19			CL	SANDY CLAY: dark brown; medium plasticity; 70% silt and clay; 30% sand; stiff; no product odor.
SLOUGH	Wt		13	20				
				21				
				22				BOTTOM OF BORING AT 21.5'

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

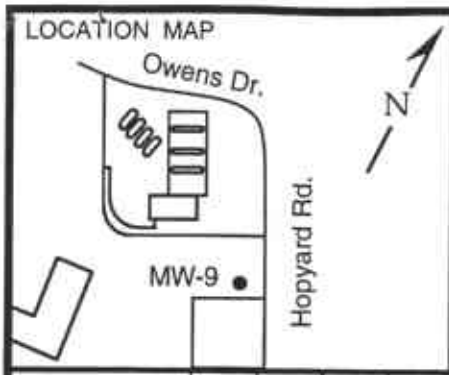
WELL NO. MW-8
PAGE 1 OF 1

PROJECT NO. 320-164.1B
LOGGED BY: T.B.
DRILLER: MDE
DRILLING METHOD: HSA
SAMPLING METHOD: CALMOD
CASING TYPE: SCH 40 PVC
SLOT SIZE: 0.020"
SAND PACK: 2 X 12 SAND

CLIENT: CHEVRON
DATE DRILLED: 5-5-97
LOCATION: 5280 Hopyard Rd., Pleasanton
HOLE DIAMETER: 8"
HOLE DEPTH: 21.5'
WELL DIAMETER: 2"
WELL DEPTH: 20'
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT				1				ASPHALT
	Dp			2			CL	SILTY CLAY: dark brown; moderate plasticity; 90% silt and clay; 8% medium sand; 2% fine subrounded gravel; no product odor.
				3				
				4			CL	CLAY: black to very dark brown; moderate plasticity; 90% silt and clay; 7% medium sand; 3% fine subrounded gravel; very stiff; no product odor.
			29	5				
BENTONITE				6				
				7				
				8				
				9				
	Mst		17	10				@10': very dark brown; moderate plasticity; 90% silt and clay; 5% medium to fine sand; 5% gravel; very stiff; no product odor.
				11				
				12				
SAND				13				
				14				
	Wt		12	15				@15': dark grayish brown with dark gray mottling; moderate plasticity; 95% silt and clay; 5% fine to medium sand; trace gravel; stiff; no product odor.
				16				
				17				
				18				
				19				
	Wt		20	20				@20': dark grayish brown with dark gray mottling; moderate plasticity; 95% silt and clay; 5% fine to medium sand; trace gravel.
SLOUGH				21				
				22				BOTTOM OF BORING AT 21.5'

LOCATION MAP

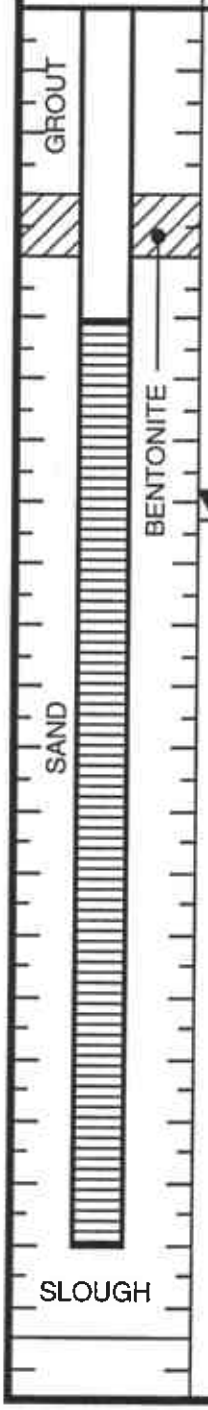


PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-9
PAGE 1 OF 1

PROJECT NO. 320-164.1B
LOGGED BY: T.B.
DRILLER: MDE
DRILLING METHOD: HSA
SAMPLING METHOD: CALMOD
CASING TYPE: SCH 40 PVC
SLOT SIZE: 0.020"
SAND PACK: 2 X 12 SAND

CLIENT: CHEVRON
DATE DRILLED: 5-5-97
LOCATION: 5280 Hopyard Rd., Pleasanton
HOLE DIAMETER: 8"
HOLE DEPTH: 21.5'
WELL DIAMETER: 2"
WELL DEPTH: 20'
CASING STICKUP: NA



MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
			1			CL	ASPHALT CLAY: dark yellowish brown; moderate plasticity; 95% clay and silt; 5% fine to medium sand; trace gravel.
Mst		19	5				@5': very dark brown; moderate plasticity; 95% silt and clay; trace sand; 5% fine gravel; very stiff.
Mst		19	10				@10': dark brown; moderate plasticity; 95% silt and clay; 5% sand; trace fine gravel; very stiff.
Wt		17	15				@15': dark grayish brown; moderate plasticity; 98% silt and clay; 2% medium sand; trace fine gravel; very stiff.
Wt		25	20				@20': grayish brown; moderate plastiicty; 97% silt and clay; 2% sand; very stiff.
			22				BOTTOM OF BORING AT 21.5'

Mid Coast Engineers

Civil Engineers and Land Surveyors

70 Penny Lane, Suite A - Watsonville, CA 95076
phone: (408) 724-2580
fax: (408) 724-8025
email: midcoast@compuserve.com

Richard A. Wadsworth
Civil Engineer

Stanley O. Nielsen
Land Surveyor

Jeff A. Roper
Civil Engineer & Land Surveyor

Lee D. Vaage
Land Surveyor

Jeff S. Nielsen
Land Surveyor

LETTER OF TRANSMITTAL

To: *John Barry*
Pacific Environmental Group
2025 Gateway Pl., Ste. 440
San Jose, CA 95110

Date: *June 17, 1997*

Job No.: *97067*

Re: *Chevron, Pleasanton*
Project #320-174.1B

We are transmitting herewith:

Coordinate list and sketch

Copy To:

Signed: _____
Lee Vaage, Land Surveyor

If enclosures are not as noted, kindly notify us at once.

Mid Coast Engineers
Civil Engineers and Land Surveyors
70 Penny Lane, Suite A - Watsonville, CA 95076
phone: (408) 724-2580
fax: (408) 724-8025
email: 104051.3267@compuserve.com

Richard A. Wadsworth
Civil Engineer
Stanley O. Nielsen
Land Surveyor
Jeff A. Roper
Civil Engineer & Land Surveyor
Lee D. Vaage
Land Surveyor
Jeff S. Nielsen
Land Surveyor

June 17, 1997

Tom Barry
Pacific Environmental Group, Inc.
2025 Gateway Place
Suite 440
San Jose, Ca 95110
FAX (408) 441-7539

Re: Project # 320-174.1B - Chevron, 5820 Hopyard Rd., Pleasanton

Dear Mr. Barry,

Find attached the coordinate list and sketch for the referenced project.

Our crew was able to find only previously existing wells 4 and 6, and were unable to make a correspondence with elevation data that you provided. It is possible that the site has been regraded or repaved since that information was gathered.

Consequently, we used a city benchmark some 3800 feet south of the project to determine the elevations on site. Revised numbers for wells 4 and 6 are shown, as well as the requested wells 7 through 9.

Please let me know if you have questions or need additional information.

Sincerely,

Lee Vaage

CC-COGO output, date: 06-17-1997, time: 8:03:49 AM, FILE: 97067.CCC

3	- - - - - - - - - - - -	N	5111.056,	E	4960.012	326.933	MW4toc
4	- - - - - - - - - - - -	N	5111.438,	E	4960.218	327.382	MW4tob
5	- - - - - - - - - - - -	N	5037.926,	E	5030.215	327.819	MW6toc
6	- - - - - - - - - - - -	N	5038.359,	E	5030.155	328.049	MW6tob
7	- - - - - - - - - - - -	N	4986.904,	E	5025.823	326.366	MW7toc
8	- - - - - - - - - - - -	N	4987.051,	E	5026.209	326.574	MW7tob
11	- - - - - - - - - - - -	N	4939.357,	E	5074.259	325.893	MW8toc
12	- - - - - - - - - - - -	N	4939.697,	E	5074.435	326.205	MW8tob
9	- - - - - - - - - - - -	N	5004.249,	E	5130.714	325.726	MW9toc
10	- - - - - - - - - - - -	N	5004.497,	E	5130.906	325.939	MW9tob

MONITORING WELL	NORTHING AT NORTH RIM PVC	EASTING AT NORTH RIM PVC	ELEVATION AT NORTH RIM PVC TOC	ELEVATION AT NORTH RIM BOX TOB
MW-4	N5111.056	E4960.012	326.93	327.38
			(327.28)	
MW-6	N5037.926	E5030.215	327.82	328.05
			(328.48)	
MW-7	N4986.904	E5025.823	326.37	326.57
MW-8	N4939.357	E5074.259	325.89	326.20
MW-9	N5004.249	E5130.714	325.73	325.94

NUMBERS IN PARENTHESES INDICATE RECORD DATA
PROVIDED BY PACIFIC ENVIRONMENTAL GROUP

NOTES

1. COORDINATE BASE FOR THIS SURVEY IS ASSUMED.

2. SURVEYED AT THE REQUEST OF PACIFIC ENVIRONMENTAL GROUP IN JUNE 1997, PROJECT NO. 320-174.1B.

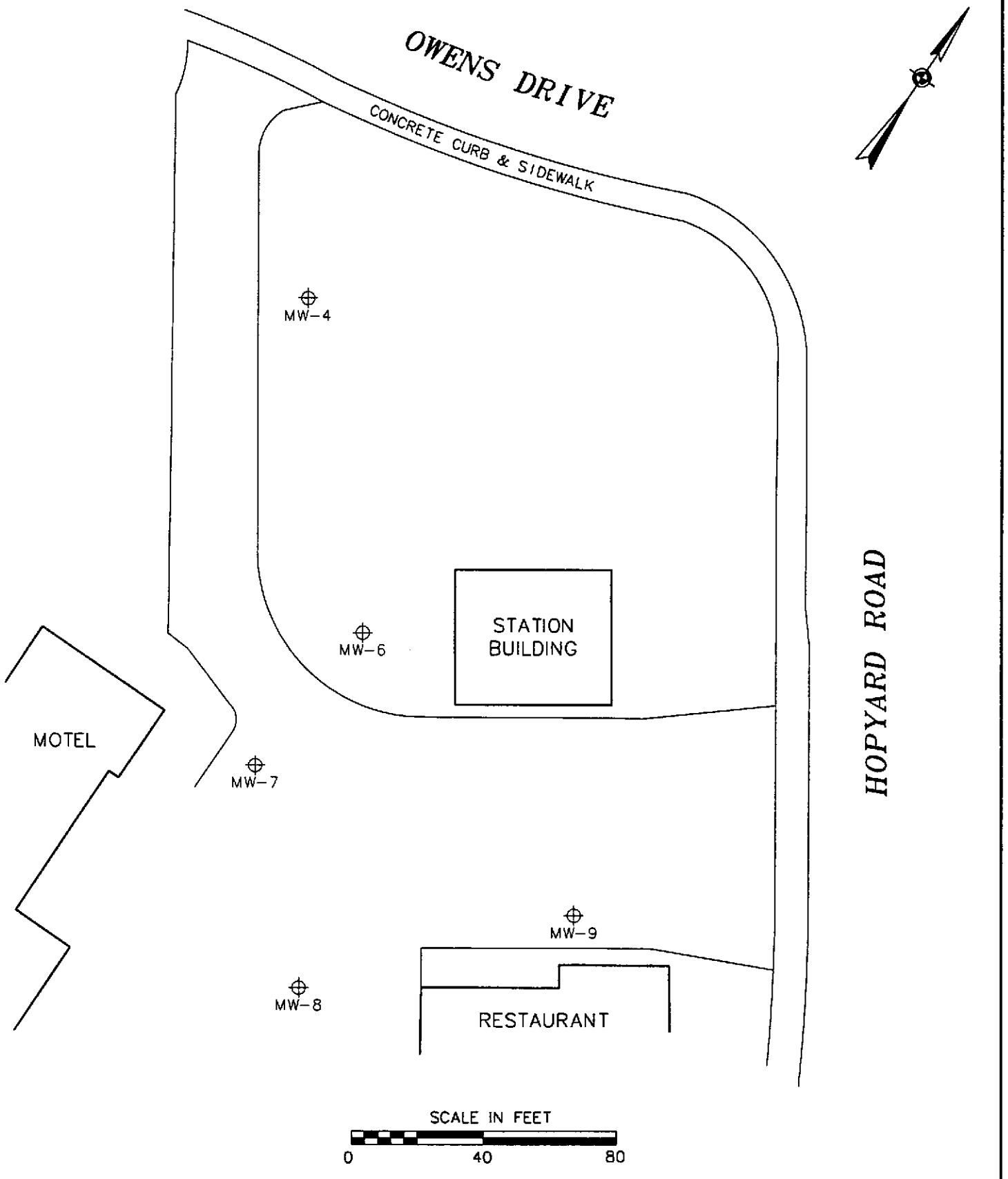
3. BENCHMARK IS CITY OF PLEASANTON E981, DISK IN MONUMENT BOX APPROX 3800' S. OF PROJECT, 20' W. OF CENTERLINE OF HOPYARD ROAD, AND 250' SE OF CENTERLINE OF INGLEWOOD DRIVE TO SOUTHWEST.
ELEVATION = 324.875 NGVD 29.

MONITORING WELL LOCATIONS FOR
CHEVRON STATION #9-0917

5820 Hopyard Road
Pleasanton, California

MCE
MID COAST ENGINEERS
CIVIL ENGINEERS AND LAND SURVEYORS
70 PENNY LANE SUITE A WATSONVILLE, CA 95076
(408) 724-2580

SCALE:
JOB NO. 97067
DATE: JUNE 1997
SHEET: 2 OF 2



MONITORING WELL LOCATIONS FOR
CHEVRON STATION #9-0917

5820 Hopyard Road
Pleasanton, California

MID COAST ENGINEERS
CIVIL ENGINEERS AND LAND SURVEYORS
70 PENNY LANE SUITE A WATSONVILLE, CA 95076
(408) 724-2580

SCALE:	1" = 40'
JOB NO.	97067
DATE:	JUNE 1997
SHEET:	1 OF 2

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS
CHAIN-OF-CUSTODY DOCUMENTATION
AND WELL DEVELOPMENT LOGS

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

May 15, 1997

Tom Barry
Pacific Environmental Group
2025 Gateway Place
Suite 440
San Jose, CA 95110

RE: NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Dear Tom Barry:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 05/07/97.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Method: EPA 8020A
Matrix: Low Soil

NEI/GTEL Sample Number	W7050082-01	W7050082-03	--	--
Client ID	MW-7 5.0'	MW-7 10.5'	--	--
Date Sampled	05/05/97	05/05/97	--	--
Date Analyzed	05/12/97	05/12/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
MTBE	10.	ug/kg	< 10.	< 10.	--	--
Benzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Toluene	5.0	ug/kg	< 5.0	< 5.0	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	--	--
BTEX (total)	--	ug/kg	--	--	--	--
TPH as Gasoline	1000	ug/kg	< 1000	< 1000	--	--
Percent Solids	--	%	75.7	80.7	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A		Acceptability Limits:	43-136%
051297GC4-1	CV051297204	Calibration Verifi	120.
051297GC4-3	BL0512974	Method blanks low	122.
051297GC4-7	MS05008401	Matrix Spike	104.
051297GC4-8	MD05008401	Matrix Spike Dupli	109.
--	05008201	MW-7 5.0'	112.
--	05008203	MW-7 10.5'	111.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 320-164.1B
Project ID (Name): Chevron SS #9-0917
5820 Hopyard Rd.
Pleasanton, CA
Work Order Number: W7-05-0082
Date Reported: 05-15-97

METHOD BLANK REPORT

Volatile Organics In Low Soil
EPA Method 8020

Date of Analysis: 12-MAY-997 QC Batch No: 051297GC4-3

Analyte	Concentration, ug/Kg
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
Xylene (total)	<5.0
TPH as Gasoline	<1000

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A Units:ug/L	QC Batch:051297GC4-1			
Benzene	20.0	23.2	116.	77-123%
Toluene	20.0	23.1	116.	77.5-122.5%
Ethylbenzene	20.0	22.9	115.	63-137%
Xylenes (Total)	60.0	68.1	114.	85-115%
TPH as Gasoline	500.	449	89.8	80-120%

Notes:

QC check source: Supelco #LA12389

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050082
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W7050084-01 MS ID:MS05008401 MSD ID:MD05008401
Analysis Date: 12-MAY-97 12-MAY-97 12-MAY-97

Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Benzene	5.0 (1.15)	73.3	77.8	83.6	112.	87.7	111.	0.900	22.6	61.1-125.9
Toluene	< 5.0 (0.891)	73.3	77.8	80.6	109.	84.2	107.	1.90	27.5	59.8-124.6
Ethylbenzene	< 5.0 (0.405)	73.3	77.8	79.3	108.	82.3	105.	2.80	26.4	57.5-138
Xylenes (Total)	< 5.0 (1.41)	220.	233.	230.	104.	240.	102.	1.90	26.7	54.3-137
TPH as Gasoline	< 1000(21.1)	531.	545.	533.	96.4	559.	98.7	2.40	40	60-140

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0917
Facility Address 5820 Hopyard Rd. Pleasanton
Consultant Project Number 320-164.1B
Consultant Name Pacific Environmental Group
Address 2025 Gateway pl. San Jose
Project Contact (Name) Tom Barry
(Phone) 408-441-7500 (Fax Number) 408-441-7539

Chevron Contact (Name) Philip Briggs
(Phone) 510-842-9136
Laboratory Name GTEL
Service order Laboratory Release Number 9033195 service code: 2760
Samples Collected by (Name) T. Barry
Collection Date 5/5/97
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MtBE				Remarks
MW-75.0'	01	1	S				Y	X								X				1
MW-75.5'	02	1																		2 HOLD
MW-10.5'	03	1						X								X				3
MW-11.0'	04	1																		4 HOLD
~~MW-15.5'~~																				
~~MW-16.0'~~																				
MW-20.5'	05	1																		5
MW-21.0'	06	1	↓				↓	↓								↓				6
	07																			
	08																			
	09																			
	10																			

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6		PEG	5/6/97 10:35AM
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6/97 14:15		Nei/GTEL	5/6/97 14:15
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	Nei/GTEL	5/6/97 1700			5/7/97 0910

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0917
Facility Address 5820 Hopyard Rd. Pleasanton
Consultant Project Number 320-164.13
Consultant Name Pacific Environmental Group
Address
Project Contact (Name) Tom Barry
(Phone) 408-441-7500 (Fax Number) 408-441-7539

Chevron Contact (Name) Philip Briggs
(Phone) 510-842-9136
Laboratory Name GTEL
Service order
Laboratory Release Number 9033195 Service code: 2760
Samples Collected by (Name) T. Barry
Collection Date 5/5/97
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MtBE				Remarks
MW-75.0'			S				Y	X								X				
MW-75.5'																				HOLD
MW-10.5'								X								X				
MW-11.0'																				HOLD
~~MW-15.5'~~																				
~~MW-16.0'~~																				
MW-20.5'																				
MW-21.0'																				

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6		PEG	5/6/97 10:35AM
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6/97 14:15		Nei/GTEL	5/6/97
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

May 15, 1997

Tom Barry
Pacific Environmental Group
2025 Gateway Place
Suite 440
San Jose, CA 95110

RE: NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Dear Tom Barry:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 05/07/97.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Method: EPA 8020A
Matrix: Low Soil

NEI/GTEL Sample Number	W7050084-01	W7050084-02	--	--
Client ID	MW-8 5.5'	MW-8 10.5'	--	--
Date Sampled	05/05/97	05/05/97	--	--
Date Analyzed	05/12/97	05/12/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
MTBE	10.	ug/kg	< 10.	< 10	--	--
Benzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Toluene	5.0	ug/kg	< 5.0	< 5.0	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	--	--
BTEX (total)	--	ug/kg	--	--	--	--
TPH as Gasoline	1000	ug/kg	< 1000	< 1000	--	--
Percent Solids	--	%	76.7	80.7	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A		Acceptability Limits:	43-136%
051297GC4-1	CV051297204	Calibration Verifi	120.
051297GC4-3	BL0512974	Method blanks low	122.
051297GC4-7	MS05008401	Matrix Spike	104
051297GC4-8	MD05008401	Matrix Spike Dupli	109.
--	05008401	MW-8 5.5'	106.
--	05008402	MW-8 10.5'	112.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 320-164.1B
Project ID (Name): Chevron SS #9-0917
5820 Hopyard Rd.
Pleasanton, CA
Work Order Number: W7-05-0084
Date Reported: 05-15-97

METHOD BLANK REPORT

Volatile Organics in Low Soil
EPA Method 8020

Date of Analysis: 12-MAY-997 QC Batch No: 051297GC4-3

Analyte	Concentration, ug/Kg
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
Xylene (total)	<5.0
TPH as Gasoline	<1000

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A Units:ug/L	QC Batch:051297GC4-1			
Benzene	20.0	23.2	116.	77-123%
Toluene	20.0	23.1	116.	77.5-122.5%
Ethylbenzene	20.0	22.9	115.	63-137%
Xylenes (Total)	60.0	68.1	114.	85-115%
TPH as Gasoline	500.	449.	89.8	80-120%

Notes:
QC check source: Supelco #LA12389

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050084
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W7050084-01 MS ID:MS05008401 MSD ID:MD05008401
Analysis Date: 12-MAY-97 12-MAY-97 12-MAY-97

Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Benzene	5.0 (1.15)	73.3	77.8	83.6	112.	87.7	111.	0.900	22.6	61.1-125.9
Toluene	< 5.0 (0.891)	73.3	77.8	80.6	109.	84.2	107.	1.90	27.5	59.8-124.6
Ethylbenzene	< 5.0 (0.405)	73.3	77.8	79.3	108.	82.3	105.	2.80	26.4	57.5-138
Xylenes (Total)	< 5.0 (1.41)	220.	233.	230.	104.	240.	102.	1.90	26.7	54.3-137
TPH as Gasoline	< 1000(21.1)	531.	545.	533.	96.4	559.	98.7	2.40	40	60-140

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain of Custody Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0917
Facility Address 5820 Hopyard Rd. Pleasanton
Consultant Project Number 320-164.1B
Consultant Name Pacific Environmental Group
Address 2025 Gateway pl. San Jose
Project Contact (Name) Tom Barry
(Phone) 408-441-7500 (Fax Number) 408-441-7539

Chevron Contact (Name) Philip Briggs
(Phone) 510-842-9136
Laboratory Name GTEL
Laboratory Release Number (Service order#) 9033195 Service Code: 720 2760
Samples Collected by (Name) T. Barry
Collection Date 5/5/97
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MtBE					Remarks
MW-85.5'	01	1	S				Y	X								X					NOTE: DO NOT BILL TB-LB SAMPLE
~~MW-86.0'~~																					
MW-810.5'	02	1						X								X					
~~MW-811.0'~~																					
MW-815.5	03	1																			Hold
MW-816.0'	04	1																			
MW-820.5'	05	1																			
MW-821.0'	06	1	↓				↓	↓								↓					↓
	970507-05																				
	37																				
	3																				

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6	Krissy Flesoras	PEG	5/6/97 1035 AM
Krissy Flesoras	PEG	5/6/97 14:15		Nei/GTEL	5/6/97 1415
Joe Weber	Nei/GTEL	5/6/97 1700	Received For Laboratory By (Signature)		Date/Time 5/7/97 0840

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0917
Facility Address 5820 Hopyard Rd. Pleasanton
Consultant Project Number 320-164.1B
Consultant Name Pacific Environmental Group
Address
Project Contact (Name) Tom Barry
(Phone) 408-441-7500 (Fax Number) 408-441-7539

Chevron Contact (Name) Philip Briggs
(Phone) 510-842-9136
Laboratory Name GTEL
Laboratory Release Number (Service order#) 9033195 Service Code: 770 2760
Samples Collected by (Name) T. Barry
Collection Date 5/5/97
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MtBE					Remarks
MW-85.5'			S				Y	X								X					
~~MW-86.0'~~																					
MW-810.5'								X								X					
~~MW-811.0'~~																					
MW-815.5																					Hold
MW-816.0'																					
MW-820.5'																					
MW-821.0'			↓				↓	↓								↓					↓

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	5/6	Krissy Flesoras	PEG	5/6/97 1035 AM
Relinquished By (Signature) Krissy Flesoras	Organization PEG	Date/Time 14:15 5/6/97	Received By (Signature)	Organization Nei/GTEL	Date/Time 14:15 5/6/97
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

May 15, 1997

Tom Barry
Pacific Environmental Group
2025 Gateway Place
Suite 440
San Jose, CA 95110

RE: NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050079
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Dear Tom Barry:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 05/07/97.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050079
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

Method: EPA 8020A
Matrix: Low Soil

NEI/GTEL Sample Number	W7050079-01	W7050079-04	--	--
Client ID	MW-9 5.0'	MW-9 10.0'	--	--
Date Sampled	05/05/97	05/05/97	--	--
Date Analyzed	05/12/97	05/12/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
MTBE	10.	ug/kg	< 10.	< 10.	--	--
Benzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Toluene	5.0	ug/kg	< 5.0	< 5.0	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	--	--
BTEX (total)	--	ug/kg	--	--	--	--
TPH as Gasoline	1000	ug/kg	< 1000	< 1000	--	--
Percent Solids	--	%	82.8	80.4	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

NEI/GTEL Client ID: PAC01CHV08 QUALITY CONTROL RESULTS
Login Number: W7050079 Volatile Organics
Project ID (number): 320-164.1B Method: EPA 8020A
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050079
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A		Acceptability Limits:	43-136%
051297GC4-1	CV051297204	Calibration Verifi	120.
051297GC4-3	BL0512974	Method blanks low	122.
051297GC4-7	MS05008401	Matrix Spike	104.
051297GC4-8	MD05008401	Matrix Spike Dupli	109.
--	05007901	MW-9 5.0'	108.
--	05007904	MW-9 10.0'	107.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 320-164.1B
Project ID (Name): Chevron SS #9-0917
5820 Hopyard Rd.
Pleasanton, CA
Work Order Number: W7-05-0079
Date Reported: 05-15-97

METHOD BLANK REPORT

Volatile Organics in Low Soil
EPA Method 8020

Date of Analysis: 12-MAY-997 QC Batch No: 051297GC4-3

Analyte	Concentration, ug/Kg
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
Xylene (total)	<5.0
TPH as Gasoline	<1000

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050079
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Calibration Verification Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A	Units:ug/L	QC Batch:051297GC4-1			
Benzene		20.0	23.2	116.	77-123%
Toluene		20.0	23.1	116.	77.5-122.5%
Ethylbenzene		20.0	22.9	115.	63-137%
Xylenes (Total)		60.0	68.1	114.	85-115%
TPH as Gasoline		500.	449.	89.8	80-120%

Notes:

QC check source: Supelco #LA12389

NEI/GTEL Client ID: PAC01CHV08
Login Number: W7050079
Project ID (number): 320-164.1B
Project ID (name): CHEVRON/9-0917/5820 HOPYARD RD/PLEASANTON/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W7050084-01 MS ID:MS05008401 MSD ID:MD05008401
Analysis Date: 12-MAY-97 12-MAY-97 12-MAY-97

Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Benzene	5.0 (1.15)	73.3	77.8	83.6	112.	87.7	111.	0.900	22.6	61.1-125.9
Toluene	< 5.0 (0.891)	73.3	77.8	80.6	109.	84.2	107.	1.90	27.5	59.8-124.6
Ethylbenzene	< 5.0 (0.405)	73.3	77.8	79.3	108.	82.3	105.	2.80	26.4	57.5-138
Xylenes (Total)	< 5.0 (1.41)	220.	233.	230.	104.	240.	102.	1.90	26.7	54.3-137
TPH as Gasoline	< 1000(21.1)	531.	545.	533.	96.4	559	98.7	2.40	40	60-140

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

Chain of Custody Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-0917
Facility Address: 5820 Hopyard Rd. Pleasanton
Consultant Project Number: 320-164.1B
Consultant Name: Pacific Environmental Group
Address: 2025 Gateway pl. San Jose
Project Contact (Name): Tom Barry
(Phone) 408-441-7500 (Fax Number) 408-441-7539

Chevron Contact (Name): Philip Briggs
(Phone): 510-842-9136
Laboratory Name: GTEL
Laboratory Release Number: Service Order # 903195 service code: 2760
Samples Collected by (Name): T. Barry
Collection Date: 5/5/97
Signature: T Barry

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	M+BE					Remarks
MW-95.0'	01	1	S				Y	X								X					1
MW-95.5'	02	1																			2 Hold
MW-96.0'	03	1																			3 Hold
MW-910.0'	04	1						X								X					4
MW-910.5'	05	1																			5 Hold
MW-911.0'	06	1																			6
~~MW-911.5'~~																					
MW-915.0'	07	1																			7
MW-915.5'	08	1																			8
MW-916.0'	09	1																			9
~~MW-916.5'~~																					
MW-920.0'	10	1																			10
MW-9210'	11	1	↓				↓	↓								↓					"

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
T Barry	PEG	5/6	Kristy Flesoras	PEG	5/6/97 10:35AM
Kristy Flesoras	PEG	5/6/97 1415	Dan Weber	Nei/GTEL	5/6/97 1415
Dan Weber	Nei/GTEL	5/6/97 1700	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number 9-0917 Facility Address 5820 Hopyard Rd. Pleasanton Consultant Project Number 320-164.1B Consultant Name Pacific Environmental Group Address Project Contact (Name) Tom Barry (Phone) 408-441-7500 (Fax Number) 408-441-7539	Chevron Contact (Name) Philip Briggs (Phone) 510-842-9136 Laboratory Name GTEL Laboratory Release Number Service Order: 9083195 service code: 2760 Samples Collected by (Name) T. Barry Collection Date 5/5/97 Signature [signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	M+BE					Remarks
MW-9 5.0'			S				Y	X								X					
MW-9 5.5'																					Hold
MW-9 6.0'																					Hold
MW-9 10.0'								X								X					
MW-9 10.5'																					Hold
MW-9 11.0'																					
~~MW-9 11.5'~~																					
MW-9 15.0'																					
MW-9 15.5'																					
MW-9 16.0'																					
~~MW-9 16.5'~~																					
MW-9 20.0'																					
MW-9 21.0'																					

Analyses To Be Performed

NOTE: DO NOT BILL TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature] PEG		5/6	Krissy Flessas	PEG	5/6/97 10:35 AM
Krissy Flessas	PEG	5/6/97 1415	[signature]	Nei/GTEL	5/6/97 1415
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Ross Tinline

Client Proj. ID: 320-164.1B/9-0917,Pleasanton
Sample Descript: MW9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9706D22-01

Sampled: 06/20/97
Received: 06/24/97

Analyzed: 06/27/97
Reported: 07/01/97

QC Batch Number: GC062797BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	320-164.1B/9-0917, Pleasanton	
2025 Gateway Place, Suite 440	Matrix:	Liquid	
San Jose, CA 95110			
Attention: Ross Tinline	Work Order #:	9706D22 01	Reported: Jul 9, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. MIRAFTAB	A. MIRAFTAB	A. MIRAFTAB	A. MIRAFTAB	A. MIRAFTAB
MS/MSD #:	9706C5807	9706C5807	9706C5807	9706C5807	9706C5807
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 mg/L	10 mg/L	10 mg/L	30 mg/L	60 mg/L
Result:	9.8	9.6	9.7	29	67
MS % Recovery:	98	96	97	97	112
Dup. Result:	9.5	9.4	9.5	29	60
MSD % Recov.:	95	94	95	97	100
RPD:	3.1	2.1	2.1	0.0	11
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK062797	BLK062797	BLK062797	BLK062797	BLK062797
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 mg/L	10 mg/L	10 mg/L	30 mg/L	60 mg/L
LCS Result:	9.3	9.1	9.2	28	64
LCS % Recov.:	93	91	92	93	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: 320-164.1B/9-0917,Pleasanton	Received: 06/24/97
2025 Gateway Place, Suite 440		
San Jose, CA 95110	Lab Proj. ID: 9706D22	Reported: 07/01/97
Attention: Ross Tinline		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 5 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT) M. Sorrels

WORKORDER: 9706022
DATE OF LOG-IN: 6/25/97

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s) — Present / ~~Absent~~ Intact / Broken*
2. Custody Seal #: — Put in Remarks Section
3. Chain-of-Custody — ~~Present~~ / Absent*
4. Traffic Reports or Packing List: — Present / ~~Absent~~
5. Airbill: — Airbill / Sticker Present / ~~Absent~~
6. Airbill #: —
7. Sample Tags: — ~~Present~~ / Absent
   Sample Tags #s: — ~~Listed~~ / Not Listed on Chain-of-Custody
8. Sample Condition: — ~~Intact~~ / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? — ~~Yes~~ / No*
10. Proper Preservatives used: — ~~Yes~~ / No*
11. Date Rec. at Lab: 6-24-97
12. Time Rec. at Lab: 1721
13. Temp Rec. at Lab: 14°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A-C	MW9	3x VOA	Liq	6/24/97	

6-24-97

*if Circled, contact Project Manager and attach record of resolution.

Revision 6/18/97
RCPTLOG.XLS

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0917
Facility Address 5820 Hopyard Rd Pleasanton
Consultant Project Number 320164.1B
Consultant Name Pacific Environmental Group
Address 2025 Gateway Place Ste.440 San Jose 95110
Project Contact (Name) Ross Tineline
(Phone) (408)441-7500 (Fax Number) 441-9102

Chevron Contact (Name) Phil Briggs
(Phone)
Laboratory Name Sequoia
Laboratory Release Number 9704339
Samples Collected by (Name) Ross Tineline
Collection Date 6-20-97
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015) MTBE	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						Remarks
MW9	1	3	W	G	9:05	HCl	Y	X													

NOTE:
DO NOT BILL
TB-LB SAMPLE

9706022

5 24 5 21

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG			PEG	6/24/97 1345
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	6/24/97 2:30		Sequoia	6/24/97 2:30
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
		6/24/97			6-24-97 17:21

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: -

Client Proj. ID: 320-164.1B/9-0917,Pleasanton
Sample Descript: MW-7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9706A83-01

Sampled: 06/17/97
Received: 06/18/97

Analyzed: 06/21/97
Reported: 07/24/97

QC Batch Number: GC062197BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: -

Client Proj. ID: 320-164.1B/9-0917,Pleasanton
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9706A83-02

Sampled: 06/17/97
Received: 06/18/97

Analyzed: 06/21/97
Reported: 07/24/97

QC Batch Number: GC062197BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: -

Client Project ID: 320-164.1B/9-0917, Pleasanton
Matrix: LIQUID
Work Order #: 9706A83 01, 02
Reported: Jul 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062197BTEX06A	GC062197BTEX06A	GC062197BTEX06A	GC062197BTEX06A	GC062197BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	970663312	970663312	970663312	970663312	970663312
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/21/97	6/21/97	6/21/97	6/21/97	6/21/97
Analyzed Date:	6/21/97	6/21/97	6/21/97	6/21/97	6/21/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.7	8.4	8.4	24	61
MS % Recovery:	87	84	84	80	102
Dup. Result:	8.4	8.0	8.1	23	58
MSD % Recov.:	84	80	81	77	97
RPD:	3.5	4.9	3.6	4.3	5.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK062197	BLK062197	BLK062197	BLK062197	BLK062197
Prepared Date:	6/21/97	6/21/97	6/21/97	6/21/97	6/21/97
Analyzed Date:	6/21/97	6/21/97	6/21/97	6/21/97	6/21/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.5	9.1	9.1	26	65
LCS % Recov.:	95	91	91	87	108
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: -

Client Proj. ID: 320-164.1B/9-0917,Pleasanton
Lab Proj. ID: 9706A83

Received: 06/18/97
Reported: 07/24/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 4 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): LAC

WORKORDER: 9706A83
DATE OF LOG-IN: 6/20/97

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s) — Present / (Absent) Intact / Broken*
2. Custody Seal #: — Put in Remarks Section
3. Chain-of-Custody — (Present) / Absent*
4. Traffic Reports or Packing List: — Present / (Absent)
5. Airbill: — Airbill / Sticker Present / (Absent)
6. Airbill #: _____
7. Sample Tags: — (Present) / Absent
   Sample Tags #s: — (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: — (Intact) / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? — (Yes) No*
10. Proper Preservatives used: — (Yes) / No*
11. Date Rec. at Lab: 6-18-97
12. Time Rec. at Lab: 1218
13. Temp Rec. at Lab: 7°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A	MW-7	3 VOA	liq	6-17-97	
2	A	MW-8	↓	↓	↓	

all containers 6-18-97

*if Circled, contact Project Manager and attach record of resolution.

Revision 9/10/96
RCPTLOG.XLS

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-0917
Facility Address: 5820 Hopyard Rd, Pleasanton CA
Consultant Project Number: 320-164.1B
Consultant Name: Pacific Environmental Group
Address: 2025 Gateway Place Ste.440 San Jose 95110
Project Contact (Name): _____
(Phone) (408)441-7500 (Fax Number) 441-9102

Chevron Contact (Name): Phil Briggs
(Phone): _____
Laboratory Name: Sequoia
Laboratory Release Number: _____
Samples Collected by (Name): Don Watenpaugh
Collection Date: 6/17/97
Signature: Don Watenpaugh

Analyses To Be Performed: 9706A83

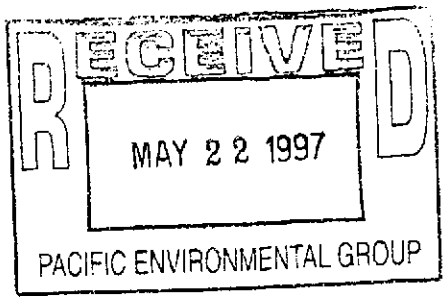
Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MtBE				Remarks
MW-7	1	3	W	G	13:15	HCl	Yes	X								X				
MW-8	2	3	W	G	13:52	↓	↓	X								X				

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Don Watenpaugh	PEG Inc	6/17/97 7:00	Krissy Fleenor	PEG	6/18/97 810 AM
Krissy Fleenor	PEG	6/18/97 9:00		Sequoia	6/18/97 9:00
			Received For Laboratory By (Signature)		

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COOPER
TESTING LABORATORY



COOPER TESTING LABORATORY
1951 Colony, Unit X
Mountain View, California 94043
Tel: 415 968-9472 FAX: 415 968-4228

LETTER OF TRANSMITTAL

TO: Pacific Environmental Group
2025 Gateway Place, #440
San Jose, CA 95110
Attn: Tom Rarry

DATE: May 20, 1997

PROJECT: 320-164.1B

CTL#: 049-024

ENCLOSED: Laboratory soil test data.

REMARKS:

David R Cy

COOPER TESTING LAB

Organic Content
ASTM D2974

Cooper Testing Lab

JOB NO.: 049-024					
CLIENT: Pacific Environmental			DATE: 05/12/97		
PROJECT 320-164-1B			BY: DC		
BORING:	MW-7	MW-8	MW-8		
SAMPLE:					
DEPTH, ft.:	16	6	11		
SOIL CLASSIFICATION: (visual)	gray brown clayey SAND	black CLAY with sand	gray brown CLAY with sand		
SOIL, ORGANICS & DISH, gm:	159.61	126.14	121.38		
SOIL & DISH, gm:	158.08	124.07	119.92		
DISH, gm:	82.68	84.55	81.93		
SOIL, gm:	75.4	39.52	37.99	0	0
SOIL & ORGANICS, gm:	76.93	41.59	39.45	0	0
% ORGANICS:	2.0	5.0	3.7	ERR	ERR

Specific Gravity
ASTM D-854

Cooper Testing Lab

Job#: 049-024a Date: 05/15/97
Client: Pacific Environmental By: DC
Project: 320-164-1B

Boring:	MW-8	MW-8	MW-7			
Sample:						
Depth, ft.:	6	11	16			
Soil Classification: (visual)	bick CLAY w/sand	gray brown CLAY w/sand	grayish brown clayey SAND			
Wt. of Pycnometer Soil & Water, gm:	700.8	721.2	707.6			
Temp. centigrade:	22	23	23			
Wt. of Pycnometer & Water, gm:	671.35	671.24	662.58			
Wt. Dry Soil, gm:	46.72	79.2	71.31			
Temp. Correction Factor:	1	1	1			
Specific Gravity:	2.71	2.71	2.71	ERR	ERR	ERR

Remarks: The temperature correction factor is shown as 1 if the weight of the pycnometer is taken from the lab temperature correction curve.

COOPER TESTING LABS

MOISTURE DENSITY - POROSITY DATA SHEET

Job #	049-024
Client	Pacific Environmental
Project/Location	320-164.1B
Date	5/15/97

Boring #	MW-8	MW-8	MW-7		
Depth (ft)	6	11	16		
Soil Type	black CLAY w/sand	grayish brown CLAY w/sand	grayish brown clayey SAND		
Specific Gravity	2.71	2.71	2.71		
Volume Total cc	282.774	287.645	131.467		
Volume of Solids	163.224	170.468	84.054		
Volume of Voids	119.550	117.177	47.413		
Void Ratio	0.732	0.687	0.564		
Porosity %	42.3%	40.7%	36.1%		
Saturation %	98.4%	98.2%	97.0%		
Moisture %	26.6%	24.9%	20.2%		
Dry Density (pcf)	97.7	100.3	108.2		

Remarks

SAMPLE FIELD DATA SHEET

PROJECT No.: 320-164.18 LOCATION: 5820 Hopyard Rd Pleasanton, CA WELL ID #: MW-7

CLIENT/STATION No.: Chevron 9-0917 FIELD TECHNICIAN: Don Tatarian

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 8.26 TOB 8.03 TOC
Total depth: 20.06 TOB 19.84 TOC
Date: 6/17/97 Time (2400): 12:50

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator 31
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☒	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 19.84 - DTW 8.03 = 11.81 x Gal/Linear Foot .17 = 2 x Number of Casings 4 = Calculated Purge 8

DATE ~~PURGED~~ Developed: 6/17/97 START: 13:00 END (2400 hr): 13:10 ~~PURGED~~ Developed BY: DT

DATE SAMPLED: 6/17/97 START: 13:15 END (2400 hr): 13:15 SAMPLED BY: DT

DTW TOC	TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
8.02'	13:00	2	7.32	3730	74.4	Brown	>200	None
2.30'	13:03	4	7.14	3830	76.6	Brown	>200	None
1.02'	13:06	6	7.05	3780	77.1	Brown	>200	None
.62'	13:09	8	7.02	3460	75.6	Brown	>200	None

Pumped dry Yes (No)

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

~~PURGING~~ Developing EQUIPMENT/I.D. #
- ☐ Bailer:
- ☒ Centrifugal Pump: 31
- ☒ Other:
- ☐ Airlift Pump:
- ☐ Dedicated:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 31-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-7	6/17/97	13:15	3	40ml	VOA	HCl	TPPH-g/BTEX/MtBE

REMARKS: 1. 11.02 2. 12.30 3. 14.02 4. 14.62 TOC

Final TD = 19.90' TOC

SIGNATURE: Don Tatarian

PACIFIC ENVIRONMENTAL GROUP, INC.

Well Development

SAMPLE FIELD DATA SHEET

PROJECT No.: 320-164.1B LOCATION: 5820 Hopyard Rd Pleasanton, CA WELL ID #: MW-8

CLIENT/STATION No.: Chevron 9-0917 FIELD TECHNICIAN: Don Watson

WELL INFORMATION

Depth to Liquid:	TOB —	TOC
Depth to water:	8.04 TOB 7.74	TOC
Total depth:	20.39 TOB 20.05	TOC
Date:	6/17/97 Time (2400):	13:25

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator 31
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☒	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 20.05 - DTW 7.74 = 12.31 x Gal/Linear Foot .17 = 2 x Number of Casings 4 = Calculated Purge 8

DATE PURGED: Destroyed 6/17/97 START: 13:35 END (2400 hr): 13:50 PURGED BY: DW

DATE SAMPLED: 6/17/97 START: 13:52 END (2400 hr): 13:52 SAMPLED BY: DW

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
13:35	2	6.71	18,000	78.3	Brown	>200	None
13:38	4	6.80	16,550	76.6	Brown	>200	None
13:43	6	6.88	17,380	76.1	Brown	>200	None
13:50	8	7.06	18,280	78.6	Brown	>200	None

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

TW TOC
11.45'
12.06'
7.12'
8.62'

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☒ Centrifugal Pump: 31
- ☐ Other:
- ☐ Airlift Pump:
- ☐ Dedicated:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 31-B
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	6/17/97	13:52	3	40ml	VOA	HCl	TPH-g/BTEX/MTBE

REMARKS: 1 - 11.45 2 - 12.06 3 - 7.12 4 - 8.62

Final T.D. = 20.35' (TOC)

SIGNATURE: Don Watson

PACIFIC ENVIRONMENTAL GROUP, INC.

WELL DEVELOPMENT DATA SHEET

Project#: 320184 1B Well #: MW-9 Development Method Used: 2" SURGE Block

Site Address: 5820 Hopyard PLEASANTON DTW (feet): 7.85 (TOC) 8.07 (TOB)

DTL (feet): — (TOC) — (TOB)

Purge Vol (10 Casings): 2006 (gal)

Time		Depth		Gallons		Measurements				Comments: (odor, clarity, grain size, etc.) activity
begin	end	to water	to bottom	pumped	total	pH	cond	temp	turbity	
8:35	8:45	7.85	20.00	4.25	4.13	7.31	3850	65.7	>200	Brown Mod silty sand
	8:55	10.55	20.00	8.5	4	7.12	3200	69.9	>200	Brown Mod silty sand
				Dry at 8.5 gal						
					5 Gallons At 9:05					