Chevron

January 30, 1996

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 6004
San Ramon, CA 94583-0904

Marketing – Sales West
Phone 510 842-9500

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

MW5-7 *
MW8/B8

Re: Former Signal Service Station #S0800
800 Center Street
Oakland, California

Dear Ms. Eberle:

Enclosed is a copy of the Soil and Groundwater Investigation report that was prepared by our consultant Pacific Environmental Group, Inc. (Pacific), to investigate the soil and groundwater conditions at the above referenced site. This investigation was to delineate the vertical and lateral extent of petroleum hydrocarbons in the soil and groundwater at this site.

To complete the delineation of petroleum hydrocarbons in the soil and groundwater at the site, Pacific drilled four borings and three were converted into monitoring wells. Two wells were installed across Center Street west of the site. One well was installed off-site to the northeast and the boring was drilled off-site to the north of the site. Soil samples were taken from each boring at 5, 10 and 15 feet below grade and were analyzed for TPH-g and BTEX constituents. Water samples were collected from each well and analyzed for TPH-g and BTEX constituents. Geochemical indicators were also collected for future reference.

All of the twelve soil samples were below method detection levels for TPH-g or BTEX constituents, except for the sample from monitoring well MW-5 at the five foot level. It detected Toluene at 0.016ppm, Ethyl-benzene at 0.0083ppm and Xylene at 0.046ppm. Benzene and TPH-g constituents were below method detection limits in this sample. The three water samples were below method detection limits for the TPH-g and BTEX constituents. The geochemical indicators are noted under Attachment B of this report.

It appears that the vertical and lateral extent of the petroleum hydrocarbons have been determined at this site and no additional investigation is needed. Chevron will review all of the data that has been gathered for this site and will develop a remediation plan that will not be in conflict or will interfere with the timeline of the proposed housing development that is to start construction this year.

If you have any questions or comments, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

cc: Ms. B. C. Owen, Chevron

Mr. J. N. Robbins, Chevron

Mr. Terrell A. Sadler
618 Brooklyn Avenue
Oakland, CA. 94606

Mr. James Scott
BPH, Inc.
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Ms. Sandi Nichols
Washburn, Briscoe & McCarthy
55 Francisco Street, Suite 600
San Francisco, CA. 94133

Mr. Hollis Rodgers
c/o Victor E. Brown, Esq.
580 Grand Avenue
Oakland, CA 94610

PACIFIC
ENVIRONMENTAL
GROUP, INC.

January 24, 1997
Project 320-162.1B

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

Re: Soil and Groundwater Investigation
Former Signal Service Station S0800
800 Center Street at 8th Street
Oakland, California

Dear Mr. Briggs:

This letter, 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 above referenced site (Figure 1). The purpose of this investigation is to delineate the vertical and lateral extent of petroleum hydrocarbons in soil and groundwater at the site, in response to the Alameda County Health Care Services Agency (ACHCSA) letter dated May 20, 1996. This work was conducted in accordance with the PACIFIC work plan dated June 26, 1996, and ACHCSA letter of concurrence dated August 13, 1996.

Included in this letter are a brief 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 located at the northeast corner of the intersection of Eighth Street and Center Street in Oakland, California. The former station building and the former pump islands remain at the site; however, the site is currently unoccupied. Land use near the site is commercial and residential.

The site was utilized as a retail service station from 1932 to the early 1970s. Station facilities included four 1,000-gallon fuel underground storage tanks (USTs), a waste oil tank, a product island, and associated piping. The USTs were reportedly removed from the site during 1973.

Previous Investigations

Previous investigations at the site have been conducted by Subsurface Consultants, Inc. (SCI), Groundwater Technology, Inc. (GTI), and PACIFIC. In August 1989, SCI installed and sampled five soil borings ranging in depth from 4.5 to 26 feet below ground surface (bgs). Temporary groundwater monitoring wells were installed in two of the five borings. In October 1995, GTI drilled three additional soil borings to a depth of 12 feet bgs and four groundwater monitoring wells to a depth of 15 feet bgs. In March 1996, PACIFIC drilled nine Geoprobe borings to depths ranging from 6 to 20 feet bgs.

A brief discussion of the findings of these investigations is summarized below:

- The lithology encountered during the site investigations has indicated that the site is underlain by soils consisting of sandy clay to sandy clayey silt.
- In August 1989, groundwater was encountered at depths of 11 to 13 feet bgs; in October 1995, groundwater was encountered at depths of 10 to 11 feet bgs; and in March 1996, groundwater was encountered at depths of approximately 6 feet bgs. Based on gauging data obtained from the groundwater monitoring wells, the groundwater flow direction at the site is toward the southwest at a gradient of 0.002 foot per foot.
- Analytical results of soils have indicated that petroleum hydrocarbon concentrations are present in the area adjacent to the former pump island and in the vicinity of the former USTs. Petroleum hydrocarbon concentrations in soils are generally highest at the 10 to 12 foot bgs interval. During the August 1989 soil and groundwater investigation, maximum total volatile hydrocarbons calculated in soils ranged from 950 parts per million (ppm) in Boring 3 to 31,000 ppm in Boring 2 (beneath the former USTs). Maximum benzene concentrations ranged from not detected in Boring 3 to 500 ppm in Boring 2. During the October 1995 investigation, maximum total purgeable petroleum hydrocarbons calculated as gasoline (TPPH-g) concentrations in soils ranged from below detection limit in Wells MW-2, MW-3, MW-4, and

SB-3, to 14,000 ppm in Well MW-1. Maximum benzene concentrations ranged from not detected in Wells MW-2, MW-4, and SB-3 to 120 ppm in Well MW-1. During the March 1996 investigation, maximum TPPH-g and benzene concentrations in soils ranged from not detected in Boring P-8 to 13,000 and 41 ppm, respectively, in Boring P-3.

- Analytical results from the October 1995 investigation indicated that dissolved TPPH-g concentrations in groundwater ranged from below detection limit in Well MW-2 (in the southeastern corner of the site) to 170,000 parts per billion (ppb) in Well MW-1 (near the former USTs). Benzene concentrations in the groundwater monitoring wells ranged from below detection limit in Well MW-2 to 19,000 ppb in Well MW-1. Groundwater analytical data from Borings P-1 through P-9 during the March 1996 investigation indicated that TPPH-g and benzene concentrations ranged from not detected in Boring P-9 to 800,000 and 13,000 ppb, respectively, in Boring P-2.
- Previous investigations defined hydrocarbon concentrations in groundwater at the site to the northwest, the southwest, and the southeast. Further delineation is necessary to the north, northeast and west.

SCOPE OF WORK

To complete delineation of hydrocarbons in soil and groundwater in the vicinity of the site, a total of three groundwater monitoring wells were installed and one soil boring was drilled during this investigation. The specific scope of work is detailed below.

- **Permitting.** Appropriate well installation and encroachment permits were obtained from the County of Alameda and the City of Oakland.
- **Well Installation.** Three groundwater monitoring wells designated Wells MW-5 through MW-7 were drilled off-site. Wells MW-5 and MW-6 were installed across Center Street to the west of the site. Well MW-7 was installed off-site to the northeast. Boring MW-8 was drilled to the north of the site. The boring was not converted to a monitoring well as no evidence of petroleum hydrocarbons was observed. Well and boring locations are shown on Figure 1.
- **Well Elevation Survey.** Wells MW-5 through MW-7 will be surveyed to mean sea level (MSL) by a state-licensed surveyor.

- **Well Development and Sampling.** Wells MW-5 through MW-7 were developed prior to groundwater sampling. Groundwater samples were collected and submitted to a California State-certified laboratory for analysis of TPPH-g and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). Additionally, groundwater was analyzed for several geochemical indicators of intrinsic biodegradation including dissolved oxygen, alkalinity, oxidation-reduction potential, sulfates, nitrates, and ferrous iron.

FINDINGS

Subsurface Conditions

The soils encountered during drilling consisted predominantly of poorly sorted sand to silty sand to the total depth explored of 21.5 feet bgs. Groundwater was first encountered between 6.5 and 9.5 feet bgs and stabilized at approximately 8 feet bgs.

Soil Analytical Results

Three soil samples from each boring at 5, 10, and 15 feet bgs were submitted for analysis. TPPH-g and benzene were not detected in any soil sample analyzed. Soil analytical data is presented in Table 1. Physical soil testing was also performed on samples collected from the boring for Well MW-7 and are presented as Attachment A.

Groundwater Analytical Results

Groundwater Monitoring Wells MW-5 through MW-7 were developed and sampled on January 3, 1997. TPPH-g and benzene were not detected in any well analyzed. Groundwater analytical data is presented in Table 2.

CONCLUSIONS

The vertical and lateral extent of petroleum hydrocarbons in soil and groundwater at the site have been defined to not detected concentrations.

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

Sincerely,

Pacific Environmental Group, Inc.

Charlie Rous
Staff Geologist

Ross W.N. Tinline
Project Geologist
RG 5860

Attachments:
- Table 1 - Soil Analytical Data - Total Petroleum Hydrocarbons (TPPH as Gasoline and BTEX Compounds)
- Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPPH as Gasoline and BTEX Compounds)
- Figure 1 - Site Map
- Attachment A - Field and Laboratory Procedures, and Boring Logs
- Attachment B - Certified Analytical Reports and Chain-of-Custody Documentation

Table 1

Soil Analytical Data

Total Petroleum Hydrocarbons

(TPPH as Gasoline and BTEX Compounds)

Former Signal Service Station S0800
800 Center Street at 8th Street
Oakland, California

Well/ Boring Number	Date Sampled	Sample Depth (feet)	TPPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)
MW-5	12/18/96	5	<1.0	<0.0050	0.016	0.0083	0.046
		10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-6	12/18/96	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-7	12/18/96	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-8/B-8	12/18/96	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
		15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050

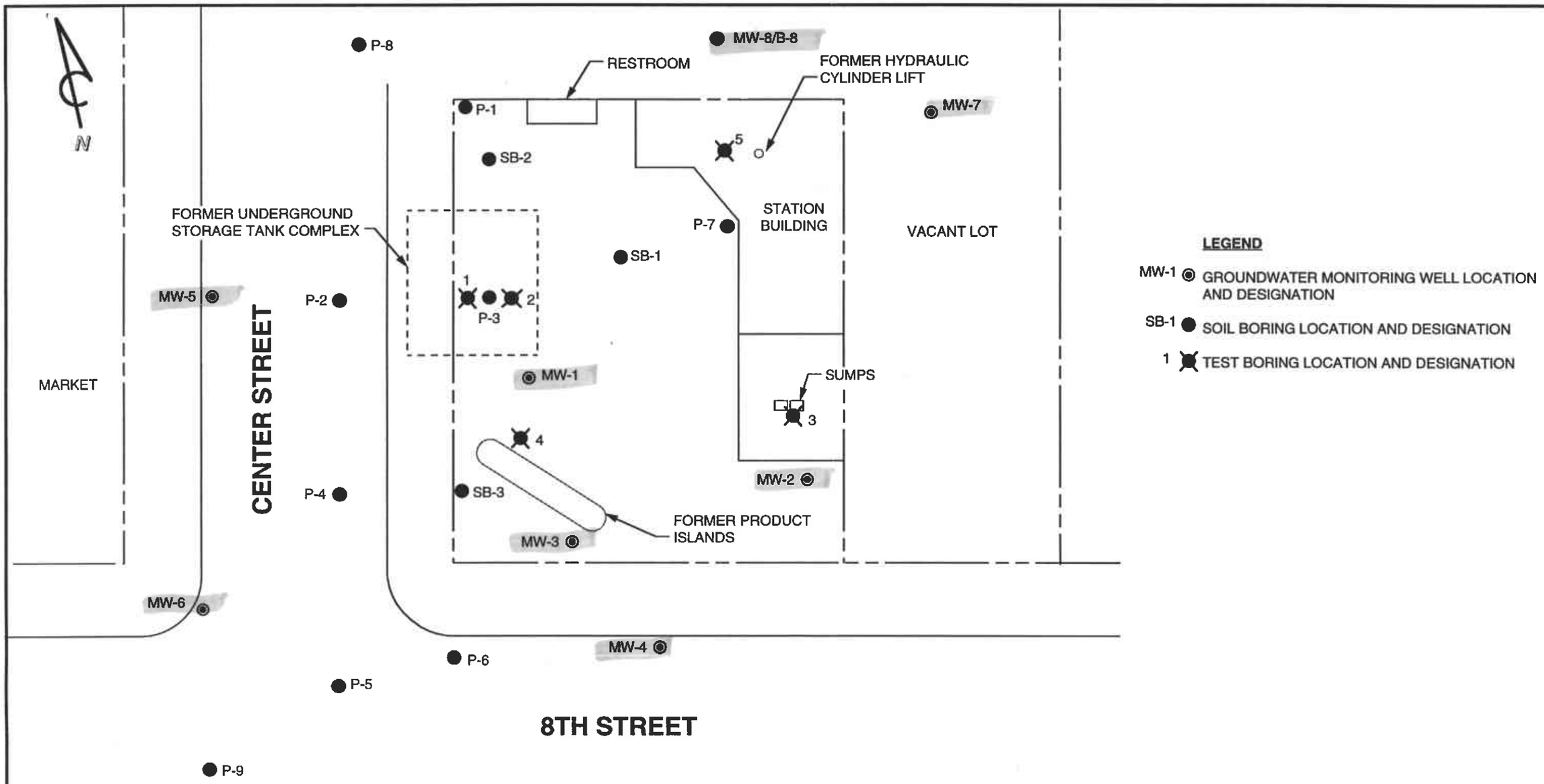
TPPH = Total purgeable petroleum hydrocarbons
ppm = Parts per million

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

Former Signal Service Station S0800
800 Center Street at 8th Street
Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-5	01/03/97	<50	<0.50	<0.50	<0.50	<0.50
MW-6	01/03/97	<50	<0.50	<0.50	<0.50	<0.50
MW-7	01/03/97	<50	<0.50	<0.50	<0.50	<0.50

TPPH = Total purgeable petroleum hydrocarbons
ppb = Parts per billion



SOURCE: MAP BY GROUNDWATER TECHNOLOGY; DATED: 3-7-95

PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE
0 20 40 FEET

FORMER SIGNAL SERVICE STATION S0800
800 Center Street at 8th Street
Oakland, California

SITE MAP

FIGURE: 1
PROJECT: 320-162.1B

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES, AND BORING LOGS

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

Exploratory Drilling

The soil borings were drilled using 8-inch hollow-stem auger drilling equipment to a depth of approximately 21 feet below ground surface and logged by a Pacific Environmental Group, Inc. geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging were collected at 5-foot depth intervals using a California-modified split-spoon sampler. The sampler was driven a maximum of 18 inches using a 140-pound hammer with a 30-inch drop. All soil samples for chemical analysis were retained in brass liners, capped with Teflon® squares and plastic end caps, and sealed in clean zip-lock bags. The samples were placed on ice for transport to a California State-certified laboratory accompanied by chain-of-custody documentation. All down-hole drilling and sampling equipment were steam-cleaned following the completion of the soil borings. Down-hole sampling equipment was washed in a tri-sodium phosphate solution between samples.

Monitoring Well Construction

After drilling to the total depth and obtaining the appropriate soil samples, the soil borings were converted to groundwater monitoring wells with the installation of 2-inch diameter flush-threaded Schedule 40 PVC casings. The monitoring wells were constructed by placing approximately 15 feet of 0.020-inch factory-slotted screen into the saturated zone and extending approximately 5 feet bgs above the saturated zone. Solid casing was then placed on the top of the screened casing to the ground surface. An RMC 2 x 12 sand was placed in the annular space and extends 1/2 foot above the screened interval. A 1-foot thick bentonite seal was placed on top of the sand pack. The remainder of the each well was grouted with neat cement to ground surface. A locking water-tight cap and a protective vault box were installed on the monitoring wells. The boring logs for the wells show well construction details.

Monitoring Well Development and Sampling

Well development procedures consist of purging a minimum of ten casing volumes of groundwater (unless the well dewatered) from the well. The well screen was surged along the

full screen length with a surge block. During the purging, the well was monitored for temperature, pH, and electrical conductivity (EC).

Sampling procedures consisted of purging the well of approximately three casing volumes of water (or until dry), during which time temperature, pH, and electrical conductivity were monitored to indicate that a representative sample was taken. Dissolved oxygen and oxidation reduction potential were measured before and after purging. After purging, the water levels of the wells were allowed to restabilize. Groundwater samples were then collected using a Teflon® bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California State-certified laboratory.

Organic Vapor Procedures

Soil samples collected at 5-foot depth intervals during drilling were analyzed in the field for ionizable organic compounds using the HNU Model PI-101 (or equivalent) photo-ionization detector (PID) with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this subsample in a clean sealable plastic bag. The bag was warmed for approximately 20 minutes (in the sun), then pierced and the head-space within the bag was tested for total organic vapor, measured in parts per million as benzene (ppm; volume/volume). The instrument was calibrated prior to drilling using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 55 which relates the photo-ionization potential of benzene to that of isobutylene at 100 ppm. The results of the field testing were noted on the boring logs. PID readings are useful for indicating relative levels of contamination, but cannot be used to evaluate hydrocarbon levels with the confidence of laboratory analyses.

Laboratory Procedures

Selected soil and groundwater samples were analyzed for the presence of total petroleum hydrocarbons calculated as gasoline (TPPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) using modified EPA Methods 8015 (modified) and 8020. Groundwater samples were also analyzed for alkalinity, sulfate, ferrous iron, and nitrates. Additionally, a minimum of two soil samples from the borings were analyzed for Fractional Organic Compounds according to the Walkley-Black Procedure, and physical parameters of the soil were measured including bulk density, porosity, and water content. 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

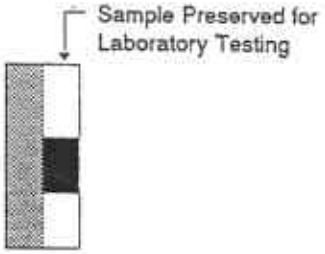
H-NU (ppm)

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

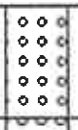
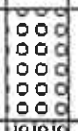
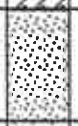
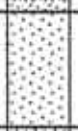
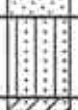
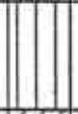
Silts and Clays

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		GRADE NAME
inch	sieve size	
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

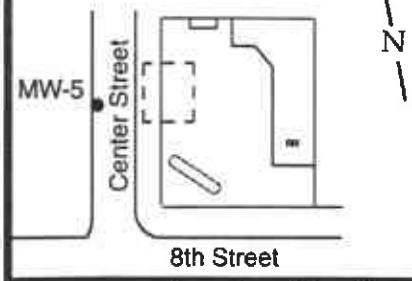
PACIFIC ENVIRONMENTAL GROUP, INC.

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.

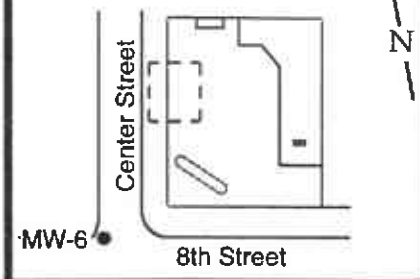
WELL NO. MW-5
PAGE 1 OF 1

PROJECT NO. 320-162.1B
LOGGED BY: M.K.
DRILLER: WOODWARD
DRILLING METHOD: HSA
SAMPLING METHOD: CALMOD
CASING TYPE: SCH 40 PVC
SLOT SIZE: 0.020"
GRAVEL PACK: 2 x 12 LONESTAR

CLIENT: CHEVRON
DATE DRILLED: 12-18-96
LOCATION: 800 Center Street
HOLE DIAMETER: 8"
HOLE DEPTH: 21'
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
CEMENT				1			SP	0-0.4' ASPHALT GRAVELLY SAND: greenish gray; trace of fines; 50% fine sand; 10% medium sand; 10% coarse sand, subangular; 30% fine gravel, subangular to subrounded to 3/4" diameter; no staining; no product odor.
				2				
				3				
				4				@1.5': light olive brown; trace of fines; 95% fine sand; iron oxide staining; dense; no product odor.
	Dp	37	62	5				@5-7': greenish gray; no product odor.
				6				
BENTONITE				7				
				8				
				9				
	Mst	81	48	10				@10': olive; 5% low to moderate plasticity fines; 95% fine sand; trace of iron oixde staining; dense; no product odor.
				11				
				12			SP-SM	SAND TO SILTY SAND: light olive brown; 10% moderate to high plasticity fines; 90% fine sand; medium dense; no product odor.
				13				
SAND				14				
	Wt	48	13	15				
				16				
				17				
				18			SP	SAND: light olive brown; 5% moderate to high plasticity fines; 90% fine sand; trace of fine gravel, subangular to 1/4" diameter; iron oxide staining; medium dense; no product odor.
				19				
	Wt	34	26	20				
SLOUGH				21				BOTTOM OF BORING AT 21'
				22				

LOCATION MAP



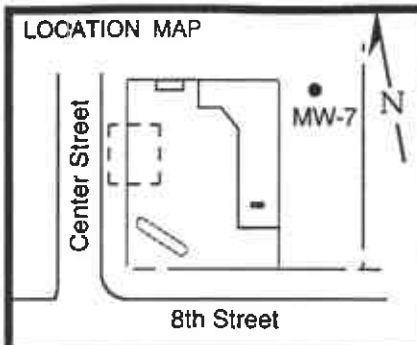
PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-6
PAGE 1 OF 1

PROJECT NO. 320-162.1B	CLIENT: CHEVRON
LOGGED BY: M.K.	DATE DRILLED: 12-18-96
DRILLER: WOODWARD	LOCATION: 800 Center Street
DRILLING METHOD: HSA	HOLE DIAMETER: 8"
SAMPLING METHOD: CALMOD	HOLE DEPTH: 21.5'
CASING TYPE: SCH 40 PVC	WELL DIAMETER: 2"
SLOT SIZE: 0.020"	WELL DEPTH: 20'
GRAVEL PACK: 2 x 12 LONESTAR	CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY / SAMPLE INTERVAL / GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CEMENT				1			ASPHALT AND CONCRETE
				2		SP	SAND: light olive brown; trace of fines; 95% fine sand; no product odor.
				3			
				4			
	Dp	<1	4	5			@5': light olive brown; trace of fines; 95% fine sand; very loose; iron oxide staining; no product odor.
BENTONITE				6			
				7			
				8			
				9			
	Wt	<1	40	10			@10': light olive brown; 5% fines; 95% fine sand; iron oxide staining; medium dense; no product odor.
				11			
				12			
				13		SP-SM	SAND TO SILTY SAND: light yellowish brown; 10% moderate to high plasticity fines; 90% fine sand; iron oxide staining; medium dense; no product odor.
SAND				14			
	Wt	<1	18	15			
				16			
				17			
				18		SP	SAND: pale olive; trace of fines; 95% fine sand; medium dense; no product odor.
				19			
SLOUGH	Wt	<1	28	20			
				21			
				22			BOTTOM OF BORING AT 21.5'

LOCATION MAP



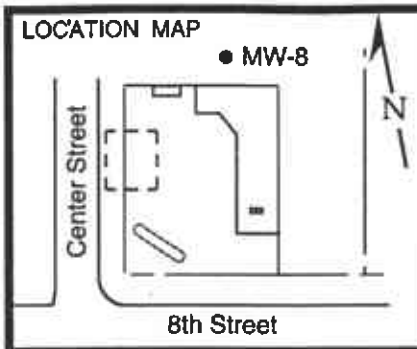
PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-7
PAGE 1 OF 1

PROJECT NO. 320-162.1B	CLIENT: CHEVRON
LOGGED BY: M.K.	DATE DRILLED: 12-18-96
DRILLER: WOODWARD	LOCATION: 800 Center Street
DRILLING METHOD: HSA	HOLE DIAMETER: 8"
SAMPLING METHOD: CALMOD	HOLE DEPTH: 21.5'
CASING TYPE: SCH 40 PVC	WELL DIAMETER: 2"
SLOT SIZE: 0.020"	WELL DEPTH: 20'
GRAVEL PACK: 2 x 12 LONESTAR	CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY / SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CEMENT				1			SP-SM	SAND TO SILTY SAND: very dark gray; 10% low plasticity fines; 90% fine sand; abundant rootlets; no product odor.
				2				
				3			SP	SAND: light olive brown; trace of fines; 95% fine sand; loose; no product odor.
				4				
	Dp	<1	14	5				
				6				
BENTONITE				7				
				8				
				9				
	Wt	<1	42	10				@10': light olive brown; trace of fines; 95% fine sand; iron oxide staining; medium dense; no product odor.
				11				
				12				
				13				
SAND				14				
	Wt	<1	28	15				@15': gray; trace fines; 95% fine sand; iron oxide staining; medium dense; no product odor.
				16				
				17				
				18			SP-SM	SAND TO SILTY SAND: grayish brown; 10% moderate to high plasticity fines; 90% fine sand; fine rootlets; iron oxide staining; medium dense; no product odor.
				19				
	Wt	<1	30	20				
SLOUGH				21				BOTTOM OF BORING AT 21.5'
				22				

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. MW-8/B-8
PAGE 1 OF 1

PROJECT NO. 320-162.1B
LOGGED BY: M.K.
DRILLER: WOODWARD
DRILLING METHOD: HSA
SAMPLING METHOD: CALMOD
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 12-18-96
LOCATION: 800 Center Street
HOLE DIAMETER: 8"
HOLE DEPTH: 21.5'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	FID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY / SAMPLE INTERVAL / GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
Backfilled With Grout				1–4		SP	SAND: dark grayish brown; trace of fines; 95% fine sand; abundant rootlets and staining; organic odor; no product odor. @2': metal and clay pipe debris.
	Mst	<1	9	5–6			@5': grayish brown; 5% fines; 95% fine sand; loose; no product odor.
				7–8		SP-SM	SAND TO SILTY SAND: light olive brown; 10% low to moderate plasticity fines; 90% fine sand; medium dense; no product odor.
▽	Wt	<1	39	9–11			
				12–13		SP	SAND: light olive brown; 5% fines; 95% fine sand; iron oxide staining; medium dense; no product odor.
	Wt	<1	29	14–16			
	Wt	<1	37	17–21			@20': light olive brown; trace of fines; 95% fine sand; iron oxide staining; medium dense; no product odor.
				22			BOTTOM OF BORING AT 21.5'

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

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: 3201621B, 50800, Oakland

Lab Proj. ID: 9701091

Sampled: 01/03/97
Received: 01/03/97
Analyzed: see below

Reported: 01/10/97

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9701091-01				
Sample Desc : **LIQUID,MW-5**				
Alkalinity: Total	**mg CaCO3/L**	**01/06/97**	**1.0**	**270**
Ferrous Iron	**mg/L**	**01/09/97**	**100**	**18**
Nitrate as Nitrate	mg/L	01/03/97	1.0	N.D.
Sulfate	**mg/L**	**01/03/97**	**1.0**	**70**
Lab No: 9701091-02				
Sample Desc : **LIQUID,MW-6**				
Alkalinity: Total	**mg CaCO3/L**	**01/06/97**	**1.0**	**160**
Ferrous Iron	**mg/L**	**01/09/97**	**5.0**	**5.6**
Nitrate as Nitrate	**mg/L**	**01/03/97**	**1.0**	**51**
Sulfate	**mg/L**	**01/03/97**	**1.0**	**73**
Lab No: 9701091-03				
Sample Desc : **LIQUID,MW-7**				
Alkalinity: Total	**mg CaCO3/L**	**01/06/97**	**1.0**	**180**
Ferrous Iron	**mg/L**	**01/09/97**	**100**	**15**
Nitrate as Nitrate	**mg/L**	**01/03/97**	**1.0**	**22**
Sulfate	**mg/L**	**01/03/97**	**1.0**	**270**

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: 3201621B, 50800, Oakland	Sampled: 01/03/97
2025 Gateway Place, Suite 440	Sample Descript: MW-5	Received: 01/03/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/06/97
Attention: Ross Tinline	Lab Number: 9701091-01	Reported: 01/10/97

QC Batch Number: GC010697BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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

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Pacific Environmental Group	Client Proj. ID: 3201621B, 50800, Oakland	Sampled: 01/03/97
2025 Gateway Place, Suite 440	Sample Descript: MW-6	Received: 01/03/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/06/97
Attention: Ross Tinline	Lab Number: 9701091-02	Reported: 01/10/97

QC Batch Number: GC010697BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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

Attention: Ross Tinline

Client Proj. ID: 3201621B, 50800, Oakland
Sample Descript: MW-7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9701091-03

Sampled: 01/03/97
Received: 01/03/97

Analyzed: 01/06/97
Reported: 01/10/97

QC Batch Number: GC010697BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: 3201621B, 50800, Oakland	Received: 01/03/97
2025 Gateway Place, Suite 440		
San Jose, CA 95110	Lab Proj. ID: 9701091	Reported: 01/10/97
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 10 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

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Pacific Environmental Group	Client Project ID:	320-162.1B / 50800, Oakland	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Ross Tinline	Work Order #:	9701091 01-03	Reported: Jan 12, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC010697BTEX21A	GC010697BTEX21A	GC010697BTEX21A	GC010697BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9612H7503	9612H7503	9612H7503	9612H7503
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/6/97	1/6/97	1/6/97	1/6/97
Analyzed Date:	1/6/97	1/6/97	1/6/97	1/6/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	11	10	10	31
MSD % Recov.:	110	100	100	103
RPD:	9.5	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK010697	BLK010697	BLK010697	BLK010697
Prepared Date:	1/6/97	1/6/97	1/6/97	1/6/97
Analyzed Date:	1/6/97	1/6/97	1/6/97	1/6/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.8	10	31
LCS % Recov.:	100	98	100	103
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	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

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Pacific Environmental Group	Client Project ID:	320-162.1B / 50800, Oakland	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Ross Tinline	Work Order #:	9701091 01-03	Reported: Jan 12, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0109972008MDA	ME0109972008MDA	ME0109972008MDA	ME0109972008MDA
Analy. Method:	EPA 200.8	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8
Analyst:	R. Sharma	R. Sharma	R. Sharma	R. Sharma
MS/MSD #:	970124701	970124701	970124701	970124701
Sample Conc.:	N.D.	2.5	0.20	0.070
Prepared Date:	1/9/97	1/9/97	1/9/97	1/9/97
Analyzed Date:	1/9/97	1/9/97	1/9/97	1/9/97
Instrument I.D.#:	MPE5	MPE5	MPE5	MPE5
Conc. Spiked:	100 µg/L	100 µg/L	100 µg/L	100 µg/L
Result:	88	84	91	87
MS % Recovery:	88	82	91	87
Dup. Result:	92	86	92	90
MSD % Recov.:	92	84	92	90
RPD:	4.4	2.4	1.1	3.4
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	BLK010997	BLK010997	BLK010997	BLK010997
Prepared Date:	1/9/97	1/9/97	1/9/97	1/9/97
Analyzed Date:	1/9/97	1/9/97	1/9/97	1/9/97
Instrument I.D.#:	MPE5	MPE5	MPE5	MPE5
Conc. Spiked:	100 µg/L	100 µg/L	100 µg/L	100 µg/L
LCS Result:	92	91	91	91
LCS % Recov.:	92	91	91	91
MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

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

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	320-162.1B / 50800, Oakland	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Ross Tinline	Work Order #:	9701091 01-03	Reported: Jan 12, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Alkalinity	Nitrate	Sulfate
QC Batch#:	IN01069740300A	IN0103973000ACA	IN0103973000ACA
Analy. Method:	SM 403	EPA 300.0	EPA 300.0
Prep. Method:	N.A.	N.A.	N.A.
Analyst:	J. Saadeh	S. Fong	S. Fong
MS/MSD #:	9612G8201	970105101	970105101
Sample Conc.:	32	N.D.	26
Prepared Date:	1/6/97	1/3/97	1/3/97
Analyzed Date:	1/6/97	1/3/97	1/3/97
Instrument I.D.#:	MANUAL	INIC2	INIC2
Conc. Spiked:	200 mg/L	10 mg/L	10 mg/L
Result:	232	11	35
MS % Recovery:	100	110	90
Dup. Result:	228	11	34
MSD % Recov.:	98	110	80
RPD:	1.7	0.0	2.9
RPD Limit:	0-20	0-20	0-20

LCS #:	IND032096	LCS010397	LCS010397
Prepared Date:	1/6/97	1/3/97	1/3/97
Analyzed Date:	1/6/97	1/3/97	1/3/97
Instrument I.D.#:	MANUAL	INIC2	INIC2
Conc. Spiked:	100 mg/L	10 mg/L	10 mg/L
LCS Result:	100	9.9	9.5
LCS % Recov.:	100	99	95

MS/MSD	75-125	75-125	75-125
LCS	80-120	80-120	80-120
Control Limits			

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 SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT) Rich Herlong

WORKORDER: 9701091
DATE OF LOG-IN: 1/3/97

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: 1/8/96
12. Time Rec. at Lab: 1600
13. Temp Rec. at Lab: 9°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	E	MW5	(1) 1L plain	liq	1/3/96	97 (PV)
1	D		(1) 1L HCL			
1	C		(1) 1/2 L plain			
1	ABF		(3) VOA			
2	SAME	MW6	SAME			
3	↓	MW3	↓	↓	↓	

1/3/97

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

Page ____ of ____

Revision 9/10/96
RCPTLOG1.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: 3C800
Facility Address: 800 Center St @ 8th St Oakland
Consultant Project Number: 320162.18
Consultant Name: Pacific Environmental Group
Address: 2025 Gateway Place #440 San Jose
Project Contact (Name): Ross Finlise
(Phone) 408/441-7500 (Fax Number) 408/441-7539

Chevron Contact (Name): Phil Briss
(Phone)
Laboratory Name: Sequoia
Laboratory Release Number
Samples Collected by (Name): Pedro Nuñez
Collection Date: 1-3-97
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)	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)	Alkalinity	Sulfate	Nitrates	Ferrous Iron	Remarks
MW5	1	6	W	G	12:00	HCl/Ice	Y	X								X	X	X	X	
MW6	2	↓	↓	↓	13:10	↓	↓	↓								↓	↓	↓	↓	
MW7	3	↓	↓	↓	10:15	↓	↓	↓								↓	↓	↓	↓	
									9701091											

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	P.E.G.	1-3-97 1000			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 1/3/97 1600

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

Sequoia Analytical

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

Attention: Ross Tinline

Client Proj. ID: Chevron,Signal SS,320-162.1B

Lab Proj. ID: 9612F16

Sampled: 12/18/96
Received: 12/20/96
Analyzed: see below

Reported: 01/03/97

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9612F16-01 Sample Desc : **SOLID,MW-5,5'**				
Fraction Organic Carbon	%	01/02/97	0.020	0.39
Lab No: 9612F16-02 Sample Desc : **SOLID,MW-5,10'**				
Fraction Organic Carbon	%	01/02/97	0.020	0.051

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 Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-5,5'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-01	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	**0.0050**	**0.016**
Ethyl Benzene	**0.0050**	**0.0083**
Xylenes (Total)	**0.0050**	**0.046**
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
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-5,10'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-02	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-5,15'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-03	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-6,5'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-04	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-6,10'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-05	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	97

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-6,15'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-06	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

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
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-7,5'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-07	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-7,10'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-08	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-7,15'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-09	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	97

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-8,5'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-10	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-8,10'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-11	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	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

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Chevron,Signal SS,320-162.1B	Sampled: 12/18/96
2025 Gateway Place, Suite 440	Sample Descript: MW-8,15'	Received: 12/20/96
San Jose, CA 95110	Matrix: SOLID	Extracted: 12/30/96
	Analysis Method: 8015Mod/8020	Analyzed: 12/30/96
Attention: Ross Tinline	Lab Number: 9612F16-12	Reported: 01/03/97

QC Batch Number: GC123096BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Ross Tinline	Client Proj. ID: Chevron,Signal SS,320-162.1B Lab Proj. ID: 9612F16	Received: 12/20/96 Reported: 01/03/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 10 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

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	Chevron, Signal SS, 320-162.1B	
2025 Gateway Place, Suite 440	Matrix:	Solid	
San Jose, CA 95110			
Attention: Dan Landry	Work Order #:	9612F16 -01, 02	Reported: Jan 3, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC123096BTEXA	GC123096BTEXA	GC123096BTEXA	GC123096BTEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	9612F0903	9612F0903	9612F0903	9612F0903
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/30/96	12/30/96	12/30/96	12/30/96
Analyzed Date:	12/30/96	12/30/96	12/30/96	12/30/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
Result:	0.25	0.27	0.25	0.73
MS % Recovery:	125	135	125	122
Dup. Result:	0.25	0.26	0.25	0.70
MSD % Recov.:	125	130	125	117
RPD:	0.0	3.8	0.0	4.2
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK123096	BLK123096	BLK123096	BLK123096
Prepared Date:	12/30/96	12/30/96	12/30/96	12/30/96
Analyzed Date:	12/30/96	12/30/96	12/30/96	12/30/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
LCS Result:	0.22	0.22	0.23	0.69
LCS % Recov.:	110	110	115	115
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	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

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Pacific Environmental Group	Client Project ID:	Chevron, Signal SS, 320-162.1B	
2025 Gateway Place, Suite 440	Matrix:	Solid	
San Jose, CA 95110			
Attention: Dan Landry	Work Order #:	9612F16-01, 02	Reported: Jan 3, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Fractional Organic Carbon
QC Batch:	IN010297WALK00A
Analy. Method:	Walkley-Black
Prep Method:	N/A

Analyst:	C. Hirotsu
Duplicate Sample #:	9612F1602
Prepared Date:	1/2/97
Analyzed Date:	1/2/97
Instrument I.D.#:	MANUAL
Sample Concentration:	0.051
Dup. Sample Concentration:	0.055
RPD:	7.5
RPD Limit:	0-20

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

** RPD = Relative % Difference

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): Zach Herling
WORKORDER: 9612F96
DATE OF LOG-IN: 12/20/96

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: 12/20/96
12. Time Rec. at Lab: 1741
13. Temp Rec. at Lab: 17°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A	MW-5, 5'	CORE	Soil	12/18/96	
2	1	" 10'	"	"	"	
		" 5.5	"	"	"	
		" 10.5	"	"	"	
3	A	" 15	"	"	"	
		MW-6-20	"	"	"	
4	A	" -5	"	"	"	
5	1	" -10	"	"	"	
6	1	" -15	"	"	"	
		" -20	"	"	"	
7	A	MW-7, 5	"	"	"	
8	1	" 10	"	"	"	
9	1	" 15	"	"	"	
		" 20	"	"	"	
10	A	MW-8 5	"	"	"	
11	1	" 10	"	"	"	
		" 10.5	"	"	"	
12	A	" 15	"	"	"	
		" 15.5	"	"	"	
		" 20	"	"	"	
		MW-5-15.5	"	"	"	

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

Revision 0/10/96
RCPTLOG1.XLS

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12/20/96

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: FORMER SIGNAL SS 0800
Facility Address: 800 CENTER ST., OAKLAND, CA
Consultant Project Number: 320-162.1B
Consultant Name: PACIFIC ENVIRONMENTAL GROUP
Address: 2025 GATEWAY PL, 440, SAN JOSE 95110
Project Contact (Name): RISS TINLINE
(Phone) 408/441-7500 (Fax Number) 408/441-7539

Chevron Contact (Name):
(Phone):
Laboratory Name: SEQUOIA ANALYTICAL
Laboratory Release Number: 9013563
Samples Collected by (Name): MARK KINKE
Collection Date: 12-18-96
Signature: [signature]

Analyses To Be Performed

NOTE: DO NOT BILL TB-LB SAMPLE

page 1 of 2

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)	FOC / Walkley-Black					Remarks
MW-5,5'	1	1	S	G		<4°C	Y	X								X					
MW-5,10'	2	1	S	G		<4°C	Y	X								X					
MW-5,5.5'		1	S	G		<4°C	Y														
MW-5,10.5'		1	S	G		<4°C	Y														
MW-5,15'	3	1	S	G		<4°C	Y	X													
MW-5,20'		1	S	G		<4°C	Y														
MW-6,5'	4	1	S	G		<4°C	Y	X													
MW-6,10'	5	1	S	G		<4°C	Y	X													
MW-6,15'	6	1	S	G		<4°C	Y	X													
~~MW-6,15'~~		~~1~~	~~S~~	~~G~~		~~<4°C~~	~~Y~~	e: MAK													
MW-6,20'		1	S	G		<4°C	Y														
MW-7,5'	7	1	S	G		<4°C	Y	X													
MW-7,10'	8	1	S	G		<4°C	Y	X													
MW-7,15'	9	1	S	G		<4°C	Y	X													

9612F16

541

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	PEG	12-20-96 0:90	D. Alarcon	PEG	12/20/96 09:00
D. Alarcon	PEG	12/20/96	[signature]	SEQ	12/20/96 3:15
[signature]	SEQ	12/20/96	Received For Laboratory By (Signature): [signature]	12/20/96	1741

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

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

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Chevron Facility Number: FORMER SIGNAL SS 0800
Facility Address: 800 CENTER ST, OAKLAND, CA
Consultant Project Number: 320-162.18
Consultant Name: PACIFIC ENVIRONMENTAL GROUP
Address: 2025 GATEWAY PL., 440 SAN JOSE 95110
Project Contact (Name): ROSS TINKHAM
(Phone) 408/441-7500 (Fax Number) 408/441-7539

Chevron Contact (Name):
(Phone):
Laboratory Name: SEQUOIA ANALYTICAL
Laboratory Release Number: 901 3363
Samples Collected by (Name): MARK KUNCIR
Collection Date: 12-18-96
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)	Remarks
~~MW-7, 15.5'~~		1	S	G		4°C	Y									
5 MW-7, 20'		1	S	G		4°C	Y								9601FP6	
6 MW-8, 5'	10	1	S	G		4°C	Y	X								
7 MW-8, 10'	11	1	S	G		4°C	Y	X								
8 MW-8, 10.5'		1	S	G		4°C	Y									
9 MW-8, 15'	12	1	S	G		4°C	Y	X								
10 MW-8, 15.5'		1	S	G		4°C	Y									
11 MW-8, 20'		1	S	G		4°C	Y									
12 MW-5, 15.5'		1	S	G		4°C	X									

NOTE:
DO NOT BILL
TB-LB SAMPLE

page 2 of 2

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	12-20-96 09:00	D. Marcum	PEG	12/20/96 09:00
D. Marcum	PEG	12/20/96		SEQ	12/20/96 3:15
	SEQ	12/20/96	Received For Laboratory By (Signature)	12/20/96	1741

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

DEC 22 5 40

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: Ross Tineline

DATE: December 30, 1996

PROJECT: 320-162.1B

CTL#: 049-022

ENCLOSED: Laboratory test data.

REMARKS:

COOPER TESTING LABS, INC.

BY: David R Coy

Specific Gravity
ASTM D-854

Cooper Testing Lab

Job#: 049-022 Date: 12/24/96
Client: Pacific Environmental By: DC
Project: 320-162.1B

Boring:	MW-7	MW-7				
Sample:						
Depth, ft.:	5.5	15.5				
Soil Classification: (visual)	brown clayey SAND	brown clayey SAND				
Wt. of Pycnometer Soil & Water, gm:	343.26	314.5				
Temp. centigrade:	19	19				
Wt. of Pycnometer & Water, gm:	302.31	274.61				
Wt. Dry Soil, gm:	64.49	63.28				
Temp. Correction Factor:	1	1				
Specific Gravity:	2.74	2.71	ERR	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 #	049-022				
Client	Pacific Environmental				
Project/Location	320-162.1B				
Date	12/24/96				
Boring #	MW-7	MW-7			
Depth (ft)	5.5	15.5			
Soil Type	brown clayey SAND	brown clayey SAND			
Specific Gravity	2.74	2.71			
Volume Total cc	233.588	290.633			
Volume of Solids	155.156	194.509			
Volume of Voids	78.432	96.124			
Void Ratio	0.506	0.494			
Porosity %	33.6%	33.1%			
Saturation %	98.6%	98.7%			
Moisture %	18.2%	18.0%			
Dry Density (pcf)	113.6	113.2			

Remarks

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

Chain-of-Custody-Record

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P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: FORMER SIGNAL 53 0800
Facility Address: 800 GEORGE ST., OAKLAND
Consultant Project Number: 320-162.15
Consultant Name: PACIFIC ENVIRON. GROUP
Address: 2025 GATEWAY PL. #440, SAN JOSE 95110
Project Contact (Name): ROSS STEINER
(Phone) 408/441-7500 (Fax Number) 408/441-7539

Chevron Contact (Name):
(Phone):
Laboratory Name: Cooper
Laboratory Release Number: PO # 33363
Samples Collected by (Name): MARK KEMPER
Collection Date: 12/18/96
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)	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)	Bulk Density	Porosity	Moisture Content			Remarks
MW-7, 5.5'		1	S	G		<4°C	Y									X	X	X			
MW-7, 18.5'		1	S	G		<4°C	Y									X	X	X			

NOTE:
DO NOT BILL
TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	12-19-96			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

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