ALCO
HAZMAT
93 DEC 10 AM 11:03

Chevron

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

December 9, 1993

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-6607
2340 Otis Drive, Alameda, California

Dear Ms. Shin :

During this sampling event, only monitoring wells MW-1 and MW-3 were below the detection limit for total petroleum hydrocarbon as gasoline, benzene, toluene, ethylbenzene, and xylene. The remaining wells had two or more hydrocarbon constituents with concentrations ranging from 0.9 to 3 ppb.

For additional information, please refer to the enclosed report dated December 3, 1993 from Sierra Environmental Services. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN/MacFile 9-6607R8

cc : Mr. Richard Hiett
RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500
Oakland, CA 94612

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

DEC 07 '93 PWM

SIERRA
Environmental Services

December 3, 1993

Kenneth Kan
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-6607
2340 Otis Drive
Alameda, California
SES Project #1-292-04

Dear Mr. Kan:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-6607, located at 2340 Otis Drive in Alameda, California. Four wells, MW-1 through MW-4, were sampled (Figure 1).

On October 26, 1993, SES personnel visited the site. Water levels were measured in all wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on October 26, 1993 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). All analyses were performed by GTEL of Concord, California. Analytic results for ground water are presented in Table 2. The chain of custody document and laboratory analytic reports are attached. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.

REGISTERED PROFESSIONAL ENGINEER
CHRIS J. BRAMER
C 048846
6/30/96
CIVIL
STATE OF CALIFORNIA

Sincerely,
Sierra Environmental Services

Carol Eaton
Staff Environmental Scientist

Chris J. Bramer
Professional Engineer #C48846

CE/CJB/gb
29204QM.NO3

Attachments: Figure
Tables
SES Standard Operating Procedure
Chain of Custody Document and Laboratory Analytic Reports

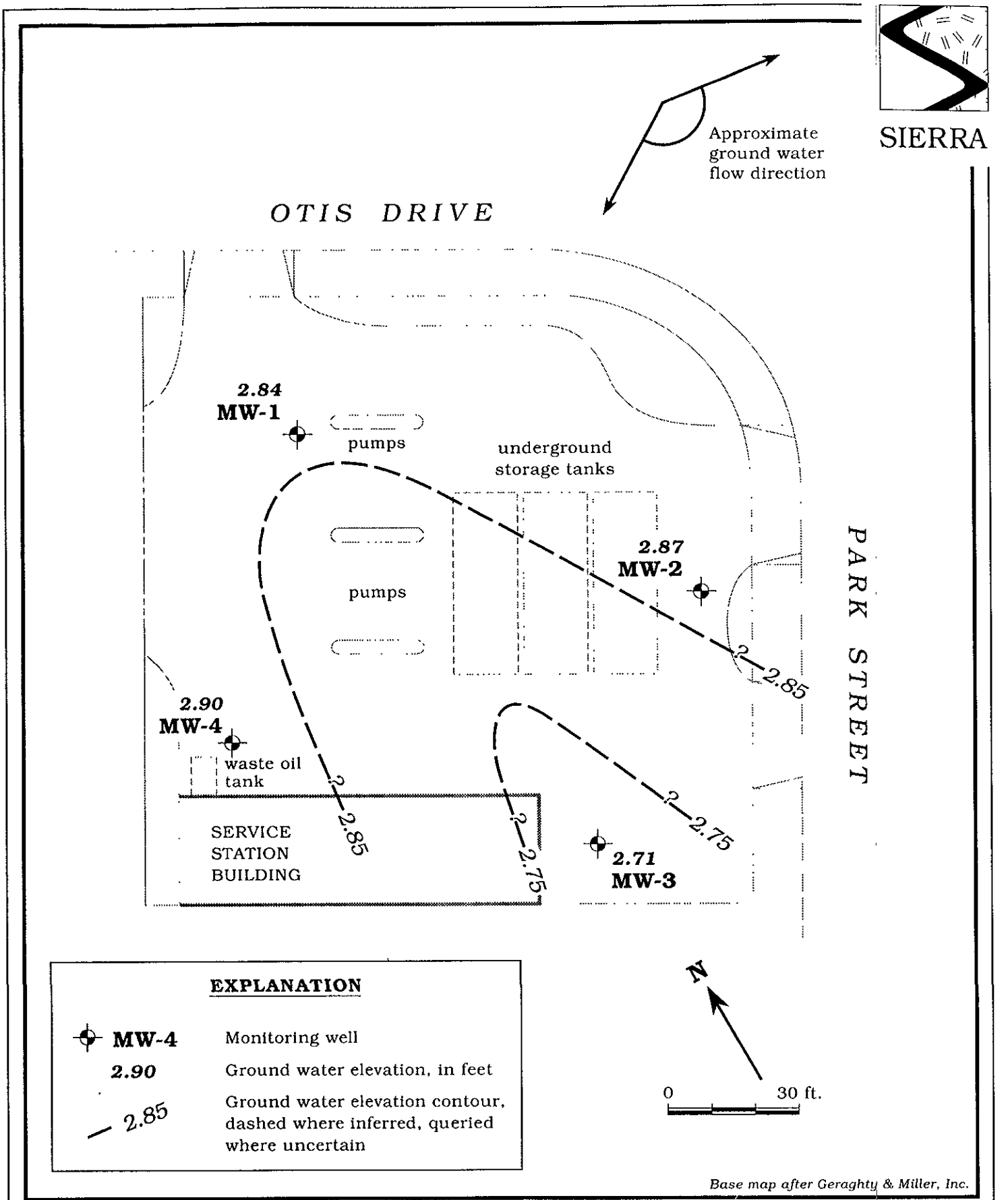

Figure 1. Monitoring Well Location and Ground Water Elevation Contour Map – October 26, 1993 – Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California

SIERRA

Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------feet below grade---------->		
MW-1	8/21/91	6.10	7.12	1.02	0	3 - 24.5	2 - 24.5	1 - 2
	1/9/92	3.96		3.16	0			
	4/20/92	3.90		3.22	0			
	7/25/92	4.18		2.94	0			
	11/24/92	4.72		2.40	0			
	1/21/93	3.18		3.94	0			
	4/13/93	3.70		3.42	0			
	7/14/93	4.21		2.91	0			
	10/26/93	**4.28**		**2.84**	**0**			
MW-2	8/21/91	6.40	7.43	1.03	0	3 - 24.5	2 - 24.5	1 - 2
	1/9/92	4.23		3.20	0			
	4/20/92	4.17		3.26	0			
	7/25/92	4.47		2.96	0			
	11/24/92	5.82		1.61	0			
	1/21/93	3.35		4.08	0			
	4/13/93	4.02		3.41	0			
	7/14/93	4.49		2.94	0			
	10/26/93	**4.56**		**2.87**	**0**			
MW-3	8/21/91	7.10	8.07	0.97	0	3 - 24.5	2 - 24.5	1 - 2
	1/9/92	5.03		3.04	0			
	4/20/92	4.91		3.16	0			
	7/25/92	5.34		2.73	0			
	11/24/92	5.00		3.07	0			
	1/21/93	4.34		3.73	0			
	4/13/93	4.84		3.23	0			
	7/14/93	5.29		2.78	0			
	10/26/93	**5.36**		**2.71**	**0**			
MW-4	8/21/91	6.85	7.85	1.00	0	1.5 - 21	2 - 21	1 - 1.5
	1/9/92	4.70		3.15	0			
	4/20/92	4.64		3.21	0			
	7/25/92	4.95		2.90	0			
	11/24/92	5.42		2.43	0			
	1/21/93	4.07		3.78	0			
	4/13/93	4.45		3.40	0			
	7/14/93	4.90		2.95	0			
	10/26/93	**4.95**		**2.90**	**0**			

SIERRA

Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
--- = Not available/not applicable

NOTES:

Top of casing elevations and well construction details were compiled from boring logs prepared for Chevron by Geraghty & Miller, Inc., Auugst 6 & 7, 1991.

Top of casing elevations were compiled from the Quarterly Ground Water Monitoring Report prepared for Chevron by Geraghty & Miller, Inc., December 29, 1992.

* Product thickness was measured with an MMC flexi-dip interface probe on and after January 21, 1993.

SIERRA

Table 2. Analytic Results for Ground Water - Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	TPH(D)	O&G	B	T	E	X
				<----------ppb---------->						
MW-1	8/21/91	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	1/9/92	SPA	8015/8020/503E	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5
	4/20/92	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/25/92	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	11/24/92	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	1/21/93	GTEL	8015/8020	<50	---	---	<0.5	0.7	<0.5	1.0
	4/13/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	1.0
	7/14/93	GTEL	8015/8020	<50[2]	---	---	<0.5	<0.5	<0.5	<0.5
	10/26/93	**GTEL**	**8015/8020**	**<50**	---	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-2	8/21/91	SPA	8015/8020	430	---	---	170.0	0.9	1.0	3.6
	1/9/92	SPA	8015/8020/503E	58[1]	---	<5,000	16.0	<0.5	<0.5	<0.5
	4/20/92	SPA	8015/8020	180	---	---	9.6	<0.5	0.8	<0.5
	7/25/92	SPA	8015/8020	220	---	---	8.0	0.7	4.0	8.6
	11/24/92	SPA	8015/8020	72	---	---	3.2	<0.5	0.5	0.6
	1/21/93	GTEL	8015/8020	<50	---	---	0.8	<0.5	<0.5	<0.5
	4/13/93	GTEL	8015/8020	78	---	---	<0.5	<0.5	<0.5	0.6
	7/14/93	GTEL	8015/8020	<50[2]	---	---	<0.5	<0.5	<0.5	<0.5
	10/26/93	**GTEL**	**8015/8020**	**<50[2]**	---	---	**<0.5**	**0.9**	**<0.5**	**0.6**
MW-3	8/21/91	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	1/9/92	SPA	8015/8020/503E	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5
	4/20/92	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/25/92	SPA	8015/8020	<50	---	---	1.0	1.0	1.0	3.4
	11/24/92	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	1/21/93	GTEL	8025/8020	<50	---	---	<0.5	0.5	<0.5	1.0
	4/13/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	0.6
	7/14/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	2
	10/26/93	**GTEL**	**8015/8020**	**<50**	---	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-4	8/21/91	SPA	8015/8020/503E	<50	---	<5,000	0.6	<0.5	<0.5	<0.5
	1/9/92	SPA	8015/8020/503E	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5
	4/20/92	SPA	8015/8020/503E	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5
	7/25/92	SPA	8015/8020	<50	78	---	0.5	1.1	<0.5	0.8
	11/24/92	SPA	8015/8020/503E	<50	---	<5,000	<0.5	<0.5	<0.5	1.0
	1/21/93	GTEL	8015/8020	<50	<10	---	<0.5	0.5	<0.5	0.7
	4/13/93	GTEL	8015/8020	<50	<10	---	<0.5	<0.5	<0.5	1.0
	7/14/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	10/26/93	**GTEL**	**8015/8020**	**<50[2]**	---	---	**2**	**3**	**2**	**3**
Trip/Lab Blank										
TB-LB	1/21/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	4/13/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/14/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	10/26/93	**GTEL**	**8015/8020**	**<50**	---	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**

SIERRA

Table 2. Analytic Results for Ground Water - Chevron Service Station #9-6607, 2340 Otis Drive, Alameda, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	TPH(D)	O&G	B	T	E	X
				<----------ppb---------->						
Bailer Blank										
BB	1/21/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	4/13/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/14/93	GTEL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	10/26/93	**GTEL**	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
O&G = Oil and Grease
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTIC LABORATORIES:

SPA = Superior Precision Analytical, Inc. of Martinez, California
GTEL = Groundwater Technology Environmental Laboratory of Concord, California

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8015 = Modified EPA Method 8015/3510 for TPH(D)
8020 = EPA Method 8020 for BTEX
503E = Standard Methods Method 503E for O&G

NOTES:

Analytic data prior to January 2, 1993 compiled from the Quarterly Ground Water Monitoring Report prepared for Chevron by Geraghty & Miller, Inc., December 29, 1992.

[1] Chromatogram reported as having a single peak in the gasoline range.
[2] Uncategorized compound is not included in gasoline hydrocarbon total.

SIERRA

SES STANDARD OPERATING PROCEDURE
GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with steam-cleaned Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

Client Number: SIE01CHV08
Consultant Project Number: 1-292.04
Project ID: 2340 Otis Drive
Alameda, CA
Work Order Number: C3-10-0532
Date Reissued: 11-16-93

November 16, 1993

Ed Morales
Sierra Environmental Services
P.O. Box 2546
Martinez, CA 94553

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 10/27/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by 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.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Ron Martinez

SVOA Group Manager for

Eileen F. Bullen
Laboratory Director

Client Number: SIE01CHV08
Consultant Project Number: 1-292.04
Project ID: 2340 Otis Drive
Alameda, CA
Work Order Number: C3-10-0532
Date Reissued: 11-16-93

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and
Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-LB	BB	MW-1	MW-2
Date Sampled		10/26/93	10/26/93	10/26/93	10/26/93
Date Analyzed		11/02/93	11/02/93	10/30/93	11/02/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	0.9
Ethylbenzene	0.5	<0.5	<0.5	<0.5	<0.5
Xylene, total	0.5	<0.5	<0.5	<0.5	0.6
BTEX, total	--	--	--	--	2
TPH as Gasoline	50	<50	<50	<50	<50[b]
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		91.0	98.7	105	94.2

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

b. Uncategorized compound is not included in gasoline hydrocarbon concentration.

GTEL ENVIRONMENTAL LABORATORIES, INC

Client Number: SIE01CHV08
Consultant Project Number: 1-292.04
Project ID: 2340 Otis Drive
Alameda, CA
Work Order Number. C3-10-0532
Date Reissued: 11-16-93

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and
Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		05	06	E110293	
Client Identification		MW-3	MW-4	METHOD BLANK	
Date Sampled		10/26/93	10/26/93	--	
Date Analyzed		10/30/93	11/02/93	11/02/93	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	2	<0.5	
Toluene	0.5	<0.5	3	<0.5	
Ethylbenzene	0.5	<0.5	2	<0.5	
Xylene, total	0.5	<0.5	3	<0.5	
BTEX, total	--	--	10	--	
TPH as Gasoline	50	<50	<50[b]	<50	
Detection Limit Multiplier		1	1	1	
BFB surrogate, % recovery		108	91.3	94.2	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

b. Uncategorized compound is not included in gasoline hydrocarbon concentration.

GTEL ENVIRONMENTAL LABORATORIES, INC

Client Number. SIE01CHV08
Consultant Project Number: 1-292.04
Project ID: 2340 Otis Drive
Alameda, CA
Work Order Number: C3-10-0532
Date Reissued: 11-16-93

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C3100523-4	20	ug/L	104	122	15.9	55 - 129
Toluene	C3100523-4	20	ug/L	94.0	113	18.3	72 - 149
Ethylbenzene	C3100523-4	20	ug/L	96.5	117	19.2	75 - 138
Xylene, total	C3100523-4	60	ug/L	97.3	115	8.3	74 - 147

GTEL ENVIRONMENTAL LABORATORIES, INC

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 9-6607
Facility Address 2340 OTIS DRIVE, Alameda
Consultant Project Number 1-297-04
Consultant Name SIERRA ENVIRONMENTAL SERVICES
Address PO BOX 2546, MARTINEZ, CA 94553
Project Contact (Name) ~~RICK HILTON~~/ED MORALES
(Phone) 510-370-1280 (Fax Number) 510-370-7959

Chevron Contact (Name) MR. Kenneth KAN
(Phone) 842-8752
Laboratory Name GTEL
Laboratory Release Number 8017811
Samples Collected by (Name) RICK HILTON
Collection Date 10/26/93
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)	DO NOT BILL CHEVRON FOR TB-LB SAMPLES Remarks
TB-LB	01	3	W	G	1047	HCl	Y	X								Analyze as Shown
SB	02	↓	↓	↓	1058	↓	↓	X								
MW-1	03				1236	NONE*		X								
MW-2	04				1141	HCl		X								
MW-3	05				1110	NONE*		X								
MW-4	06	↓	↓	↓	1206	HCl	↓	X								↓

* No HCl due to Sample effervescence. KEN

seals intact
C3100532
5°C

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	SES	10/27/93 1800	John Weber	GTEL	10-27-93 8:00
Relinquished By (Signature) John Weber	Organization GTEL	Date/Time 10/27/93 8:05	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Joanne Bolsterli		Date/Time 8:05

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted
10/26/93