Environmental Management Company 6001 Bollinger Canyon Rd, L4050 P.O. Box 6012 San Ramon, CA 94583-2324 Tel 925-842-1589 Fax 925-842-8370 Karen Streich Project Manager

November 25 , 2003

24

ChevronTexaco

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 SAR.

Re:

Chevron Service Station #_206126

Address: 2301-2337 Blanding Av., Alameda, CA

I have reviewed the attached routine groundwater monitoring report dated November 11, 2003

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Gettler-Ryan, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Karen Streich Project Manager

Karen Start

Enclosure: Report

November 11, 2003 G-R #386498

TO:

Mr. Robert Foss

Cambria Environmental Technology, Inc.

5900 Hollis Street, Suite A Emeryville, CA 94608 CC: Ms. Karen Streich

Chevron Products Company

P.O. Box 6004

San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 RE: Chevron #206127

(Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue

Alameda, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 7, 2003	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 18, 2003

COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to *November 25*, 2003, at which time the final report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Enclosures

trans/206127-ks

November 7, 2003 G-R Job #386498

Ms. Karen Streich Chevron Products Company P.O. Box 6004 San Ramon, CA 94583

RE: Fourth Quarter Event of October 18, 2003

Groundwater Monitoring & Sampling Report Chevron #206127 (Former Signal Oil Marine Terminal) 2301-2337 Blanding Avenue Alameda, California

Dear Ms. Streich:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater level was measured and the well was checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevation, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Groundwater Elevation Map is included as Figure 1.

Groundwater samples were collected from the monitoring well and submitted to a state certified laboratory for analyses. The field data sheet for this event is attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

Deanna L. Harding Project Coordinator

Hagop Kevork P.E. No. C55734

Figure 1: Groundwater Elevation Map

Table 1: Groundwater Monitoring Data and Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

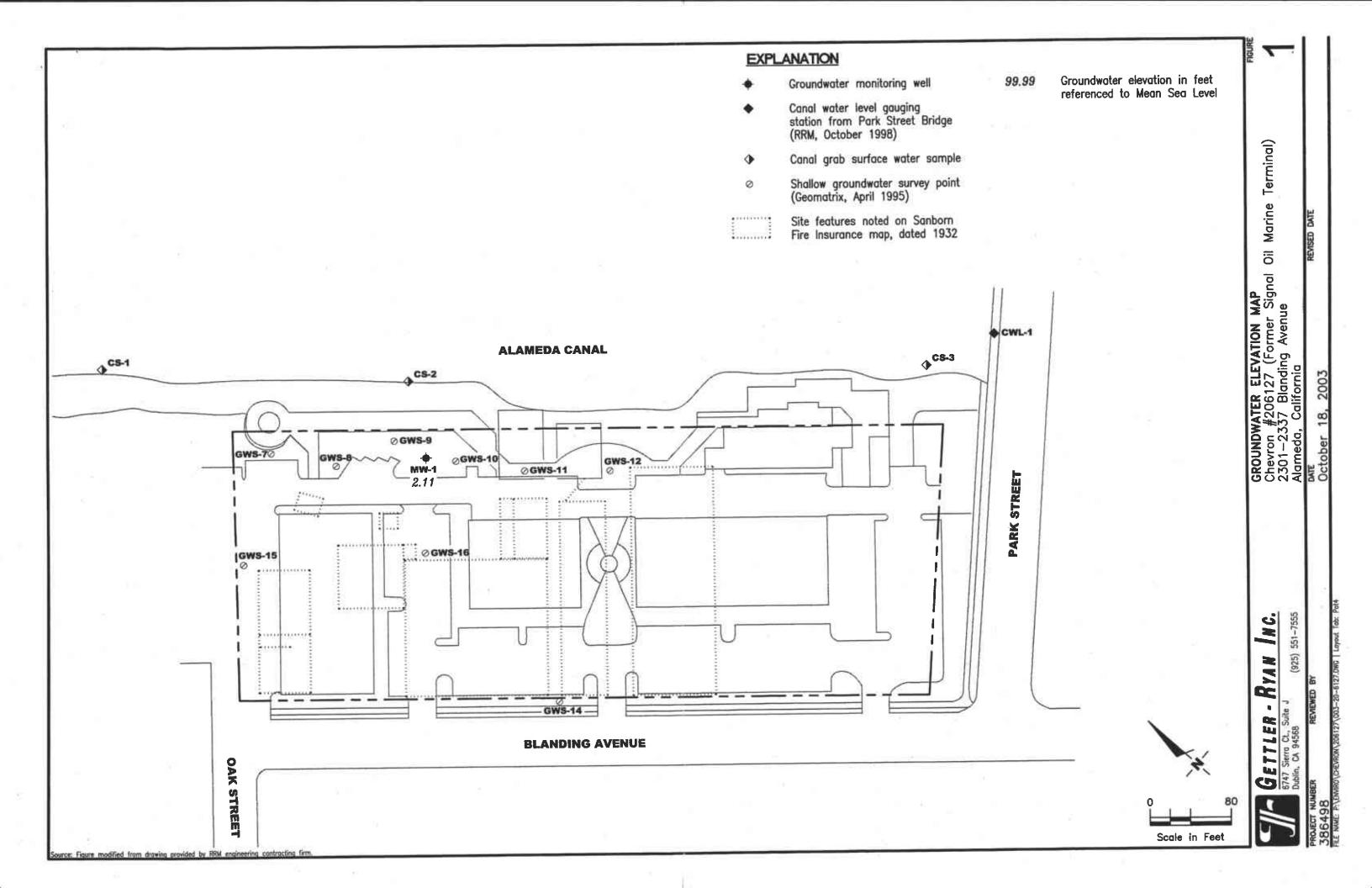


Table 1 Groundwater Monitoring Data and Analytical Results Chevron #206127 (Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue

Alameda, California

					Alameda, Ca					100000000 V () 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
WELL ID/	DATE	DTW	GWE	TPH-D	TPH-G	В	Т.	E	X	MTBE (ppb)
OC*(fi.)		(ft.)	(msl)	(ррв)	<u>(ppb)</u>	(ppb)	(ppb)	(ppb)	(ppb)	(1/10)
1W-1	01/23/01	7.16		1,100 ^{2,3}	5,210 ⁴	868	<50.0	<50.0	<50.0	<250
0.62	04/09/01	8.12	2.50	1,2006	3,0005	920	<20	<20	<20	<100
0.02	07/30/01	9.15	1.47	550 ^{3,8}	2,000 ⁷	730	13	<5.0	<5.0	<25
	10/08/01	7.86	2.76	$2,200^9$	1,200	120	2.4	5.9	6.4	<2.5
	01/13/02	7.02	3.60	$3,300^3$	930	320	0.78	0.87	3.8	<2.5
	04/08/02	9.60	1.02	$1,200^3$	960	50	1.4	2.6	9.0	<2.5
	07/31/02	9.27	1.35	$2,800^3$	930	64	1.4	1.9	11	<5.0
	10/15/02	8.00	2.62	1,000 ³	620	25	0.78	1.4	4.3	<2.5
	01/14/03	7.05	3.57	960 ³	1,600	20	1.3	1.3	<1.5	<2.5
	04/15/03	8.02	2.60	920 ³	870	56	1	1.4	3.1	<2.5
	07/16/03 ¹⁰	10.08	0.54	1,400 ³	780	85	1	0.8	0.7	< 0.5
	10/18/03 ¹⁰	8.51	2.11	1,200 ³	640	42	0.8	<0.5	0.5	<0.5
CS-2	07/30/01			140 ^{3,5}	<50	<0.50	< 0.50	<0.50	< 0.50	<2.5
	10/08/01		e u	53 ⁹	<50	<0.50	< 0.50	< 0.50	<1.5	<2.5
	01/13/02			<50 ³	<50	<0.50	< 0.50	< 0.50	<1.5	<2.5
	04/08/02		-	77 ³	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
•	07/31/02	<u></u> -		<50 ³	<50	< 0.50	<0.50	<0.50	<1.5	<2.5
	10/15/02	-	,	<50 ³	<50	<0.50	< 0.50	< 0.50	<1.5	<2.5
	01/14/03			<50 ³	<50	<0.50	< 0.50	< 0.50	<1.5	<2.5
	04/15/03			<50 ³	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	07/16/03 ¹⁰			<50 ³	< 50	<0.5	0.7	<0.5	0.6	<0.5
	10/18/03 ¹⁰		-	< 50 ³	<50	<0.5	<0.5	<0.5	<0.5	<0.5
				•						
Trip Blank						0.500	.0.500	-0 #00	-0.500	-2.50
TB-LB	01/23/01				<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
	04/09/01	5-			<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/30/01				<50	< 0.50	< 0.50	<0.50	<0.50	<2.5

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron #206127 (Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue

Alameda, California

WELL ID/ TOC*(fi.)	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
-	10/09/01				<50	<0.50	<0.50	< 0.50	<1.5	<2.5
QA	10/08/01 01/13/02	~-			<50	<0.50	<0.50	< 0.50	<1.5	<2.5
	04/08/02	 		-	<50	<0.50	< 0.50	<0.50	<1.5	<2.5
	07/31/02				<50	<0.50	< 0.50	<0.50	<1.5	<2.5
	10/15/02				<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
	01/14/03				<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
	04/15/03				<50	<0.5	<0.5	<0.5	<1.5	<2.5
	07/16/03 ¹⁰				<50	< 0.5	< 0.5	<0.5	<0.5	<0.5
	10/18/03 ¹⁰				<50	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron #206127 (Former Signal Oil Marine Terminal) 2301-2337 Blanding Avenue Alameda, California

EXPLANATIONS:

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

(ppb) = Parts per billion

(ft.) = Feet

B = Benzene

-- = Not Measured/Not Analyzed

DTW = Depth to Water

T = Toluene

CS-2 = Creek Sample

GWE = Groundwater Elevation

E = Ethylbenzene

OA = Quality Assurance/Trip Blank

(msl) = Mean sea level

X = Xylenes

MTBE = Methyl tertiary butyl ether

TPH-D = Total Petroleum Hydrocarbons as Diesel

- TOC elevations were surveyed on January 25, 2001, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding, (Benchmark Elevation = 8.236 feet, NGVD 29).
 - Well development performed.
- Laboratory report indicates unidentified hydrocarbons <C16.
- TPH-D with silica gel cleanup.
- Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates discrete peaks.
- Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons < C16.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- Analysis performed without silica gel cleanup although was requested on the Chain of Custody.
- BTEX and MTBE by EPA Method 8260.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick. California.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

		b #206127		16 10 4	g (inclu
te Address:	2301-2337 Blar	ding Avenue	Event Date:	10.18.0	(11012
ity:	Alameda, CA		Sampler:	<u> </u>	
Vell ID	HW - 1_	Date Monito	ored: 10 - 18.	Well Condition:	015
Vell Diameter	2 in.		Volume 3/4"= 0.02	2 1"= 0.04 2"= 0.17	3*= 0.38
otal Depth	17.16 ft.		Volume 3/4"= 0.02 Factor (VF) 4"= 0.66		12"= 5.80
Depth to Water	0 S fi	L			10
	8.65 ×	r <u>17 </u>	x3 (case volume)	= Estimated Purge Volume:	<u> </u>
				Time Started:	(2400 hrs
urge Equipment:		Sampling E		Time Bailed: Depth to Product:	(2400 hrs
Disposable Bailer		Disposable E		Depth to Water:	
Stainless Steel Baile	er	Pressure Bai		Hydrocarbon Thickne	
Stack Pump		Discrete Bail	er	Visual Confirmation/D	
Suction Pump	w	Other:		Skimmer / Absorbant	Sock (circle one)
Grundfos	W*-			Amt Removed from S	ikimmer: 98
Other:			•	Amt Removed from V	Vell:9
				Product Transferred	0:
Time (2400 hr.)	· '='	_11	uctivity Temperatur ps/cm) (GF)	re D.O. (mg/L)	ORP (mV)
1239 1242 1245	1,5 3.0 4.0	7.51 57 7.49 55	7 17.4		
1242	3.0 4.0	7.51 S7 7.49 SS	TORY INFORMATION ERV. TYPE LABORAT		LYSES
12 42 12 45	3.0 4.0	LABORAT	TORY INFORMATION ERV. TYPE LABORAT HCL LANCAST	TER TPH-G(8015)/BTEX	
1242	3.0 4.0 (#) CONTAINER	LABORAT REFRIG. PRESI	TORY INFORMATION ERV. TYPE LABORAT	TER TPH-G(8015)/BTEX	
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12 42 12 45	3.0 4.0 (#) CONTAINER x voa vial	LABORAT REFRIG. PRESI	TORY INFORMATION ERV. TYPE LABORAT HCL LANCAST	TER TPH-G(8015)/BTEX	
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GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: - Site Address:	0204 0027 Blow					
	2301-2337 Blan	iding Av	enue	Event Date:	10.18.03	(inclus
City:	Alameda, CA		· · · · · · · · · · · · · · · · · · ·	Sampler:	FT	
Well ID	<u>CS - 2</u>	Date	e Monitored:	NIA	Well Condition:	
Well Diameter	NA in.		<u> </u>	3/4"= 0.02	1"= 0.04 2"= 0.17 3"= 0.38	-
Total Depth	ft.		Volume Factor (VF		5"= 1.02 6"= 1.50 12"= 5.80	P
Depth to Water	ft.		<u> </u>	<u>· </u>		o al
	×V ×v	F	=	x3 (case volume) =	Estimated Purge Volume:	gai. (2400 hrs)
Purge Equipment:		San	npling Equipment	: /	Time Staffed:	(2400 hrs
Disposable Bailer		Dis	oosable Bailer		Depth to Product:	ft
Stainless Steel Baile	ır — —	Pre	ssure Bailer		Depth to Water:	
Stack Pump Suction Pump			crete Bailer er:		Hydrocarbon Thickness: Visual Confirmation/Description:	
Grundfos					Skimmer / Absorbant Sock (circle	one)
Other:					Amt Removed from Skimmer:	gal
	•				Amt Removed from Well: Product Transferred to:	
			•		Floudt Transience to:	
Purging Flow Range Did well de-water	ate: gpm. er?		ent Description ne:		gal.	
Time	Volume	рН	Conductivity	Temperature	D.O. ORP (mg/L) (mV)	
(2400 hr.)	(gal.)		(umhos/cm)	. (ØF)	(mg/c) (mv)	
<u>,</u>	<u> </u>	7.45	1012	18.4		
			BORATORY IN		RY ANALYSES	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPI			,
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-	2 x amber	YES	NP _	LANCAGIE		
COMMENTS:			<u></u>			
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Chevron California Region Analysis Request/Chain of Custody



Lancaster Laboratories Where quality is a science.		· · · ·			Ac	ct. #: _	0	90	丛	[*] Samj	For ple #:	Lenc	114 114	r Lab	orate 11 4	orles	18	only	/ S CR# :	F 7143P	•
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3460 Rev. 7/30/01



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

ANALYTICAL RESULTS

Prepared for:

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 871638. Samples arrived at the laboratory on Tuesday, October 21, 2003. The PO# for this group is 99011184 and the release number is STREICH.

Client Description	·		Lancaster Labs Number
OA-T-031018	NA Water		4147916
MW-1-W-031018	Grab Water		4147917
CS-2-W-031018	Grab Water	2.7	4147918

ELECTRONIC

Gettler-Ryan

Attn: Cheryl Hansen

COPY TO 1 COPY TO

Cambria C/O Gettler- Ryan

Attn: Deanna L. Harding



2425 New Holland Pike, PO Rev. 12425, Lancaster, PA 17605-2425 * 717-656-2300 Fax: 717-656-2681 * www.lancasterlabs.com

Questions? Contact your Client Services Representative Teresa L Cunningham at (717) 656-2300.

Respectfully Submitted,

Victoria N. Martell

Chemic



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Lancaster Laboratories Sample No. WW 4147916

QA-T-031018 NA Facility# 206127 Job# 386498

Water

QA

GRD

2301-2337 Blanding Alamed NA Collected:10/18/2003 00:00

Account Number: 10904

. . .

ChevronTexaco

Submitted: 10/21/2003 10:00 Reported: 11/03/2003 at 15:10

6001 Bollinger Canyon Rd L4310

Discard: 12/04/2003

San Ramon CA 94583

BLAQA

CAT			As Received	As Received Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of Tigasoline constituents eluting postart time. A site-specific MSD sample was a was performed to demonstrate pro-	rior to the C6 not submitted f	(n-hexane) TPH-C for the project.	RO:range A LCS/LCSD		
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/1	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

CAT		Laboratory	Chro	nicle Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/23/2003 14:02	K. Robert Caulfeild- James	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	10/24/2003 17:17	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2003 14:02	K. Robert Caulfeild- James	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/24/2003 17:17	Elizabeth M Taylor	n.a.



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4147917 Lancaster Laboratories Sample No.

MW-1-W-031018

Water

GRD

Facility# 206127 Job# 386498 2301-2337 Blanding Alamed NA

NA

Collected:10/18/2003 12:52

Account Number: 10904

La Roceived

Submitted: 10/21/2003 10:00

ChevronTexaco

Reported: 11/03/2003 at 15:10

6001 Bollinger Canyon Rd L4310

Discard: 12/04/2003

San Ramon CA 94583

BLAN1

				We Kecelaen		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection	Units	Factor
	- .		640	Limit 50.	ug/1	1
01728	TPH-GRO - Waters	n.a.	640.	•	-3, -	
	The reported concentration of gasoline constituents eluting start time. A site-specific MSD sample was	prior to the Co not submitted	for the project.	. A LCS/LCSD		
	was performed to demonstrate p	recision and a	curacy at a bate	ch level.	-	
02202	TPH-DRO CALUFT(Water) w/Si Gel		1,200.	50.	ug/l	1
	According to the California LU Range Organics was performed be to that of our #2 fuel oil ref hydrocarbons). Site-specific MS/MSD samples w was performed to demonstrate p	FT Protocol, the protocol of t	mparison of the s i (between C10 as ted for the proje	nd C28 normal		
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
	<u>-</u>	71-43-2	42.	0.5	ug/1	1
05401	Benzene	108-88-3	0.8	0.5	ug/l	1
05407	Toluene		N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4		0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	0.5	n'ra	-3/ -	_

State of California Lab Certification No. 2116

CAT		Laboratory	Chro	nicle Analysis		Dilution
No. 01728	Analysis Name TPH-GRO - Waters	Method N. CA LUFT Gasoline Method	Trial# 1	Date and Time 10/23/2003 14:33	Analyst K. Robert Caulfeild- James	Factor 1
02202	TPH-DRO CALUFT(Water) w/Si	CALUFT-DRO/8015B, Modified	1	10/25/2003 13:25	Devin M Hetrick	1
06054 01146	Gel BTEX+MTBE by 8260B GC VOA Water Prep	SW-846 8260B SW-846 5030B	1 1	10/24/2003 17:44 10/23/2003 14:33	Elizabeth M Taylor K. Robert Caulfeild-	1 n.a.
01146 01163 02135	GC/MS VOA Water Prep Extraction - DRO Water Special	SW-846 5030B TPH by CA LUFT	1 1	10/24/2003 17:44 10/23/2003 09:30	James Elizabeth M Taylor Amanda W Herr	n.a. 1



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4147918 Lancaster Laboratories Sample No.

CS-2-W-031018

Facility# 206127 Job# 386498

GRD

2301-2337 Blanding Alamed NA

NA

Water

Collected:10/18/2003 12:24

Account Number: 10904

Submitted: 10/21/2003 10:00

ChevronTexaco

Reported: 11/03/2003 at 15:10

6001 Bollinger Canyon Rd L4310

Discard: 12/04/2003

San Ramon CA 94583

BLAC2

	·			As Recei	.veđ			
CAT	•		As Received	Method			Dilut	.ion
No.	Analysis Name	CAS Number	Result	Detection Limit	on.	Units	Pacto	r
01728	TPH-GRO - Waters	n.a.	N.D.	50.		ug/l	1	
	The reported concentration of gasoline constituents eluting start time. A site-specific MSD sample was	prior to the Ce	(n-hexane) TPH-	-GRO range	ם ס			
	was performed to demonstrate p							
02202	TPH-DRO CALUFT(Water) w/Si Gel		N.D.	50.		ug/l	1	
	According to the California LU Range Organics was performed b to that of our #2 fuel oil ref hydrocarbons). Site-specific MS/MSD samples w	y peak area com erence standard ere not submitt	mparison of the s i (between C10 and ted for the project	sample patte nd C28 norma ect. A LCS/	at			
	was performed to demonstrate p	recision and a	curacy at a bat	ch level.		* - P		
06054	BTEX+MTBE by 8260B							
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5		ug/l	1	•
05401	Benzene	71-43-2	N.D.	0.5		ug/1 .	. 1	
05407	Toluene	108-88-3	N.D.	0.5		ug/l	1	
05415	Ethylbenzene	100-41-4	N.D.	0.5	•	ug/l	. 1	

State of California Lab Certification No. 2116

CAT		Laboratory	Chro	nicle Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/23/2003 15:04	K. Robert Caulfeild- James	1
02202	TPH-DRO CALUFT(Water) w/Si Gel	CALUFT-DRO/8015B, Modified	1	10/25/2003 14:31	Devin M Hetrick	, 1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	10/24/2003 18:10	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2003 15:04	K. Robert Caulfeild- James	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/24/2003 18:10	Elizabeth M Taylor	n.a.
02135	Extraction - DRO Water	TPH by CA LUFT	1	10/23/2003 09:30	Amanda W Herr	1



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Quality Control Summary

Client Name: ChevronTexaco

Group Number: 871638

Reported: 11/03/03 at 03:10 PM

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 032950016A TPH-DRO CALUFT(Water) w/Si Gel	Sample N.D.	number(s): 50.	4147917-41 ug/l	47918 74	100	61-126	30*	20
Batch number: 03296A16A TPH-GRO - Waters	Sample N.D.	number(s):	4147916-41 ug/l	47918 102	110	70-130	7	30
Batch number: P032972AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample N.D. N.D. N.D. N.D. N.D.	number(s): 0.5 0.5 0.5 0.5	4147916-41 ug/l ug/l ug/l ug/l ug/l	47918 96 99 101 99		77-127 85-117 85-115 82-119 84-120		

Sample Matrix Quality Control

	MS	MSD	ms/msd		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	<u>Limits</u>	RPD	<u>max</u>	Conc	Conc	RPD	<u>Max</u>
Batch number: 03296A16A TPH-GRO - Waters	Sample	number	(s): 41479 63-154	16-4147	918	•			
Batch number: P032972AA	Sample	number	(s): 414 79	16-4147	918				
Methyl Tertiary Butyl Ether	105	105	69-134	0 .	30				
Benzene	109	110	83-128	O	30				
Toluene	113	114	83-127	1	30				·
Ethylbenzene	113	113	82-129	0	30				
Xylene (Total)	114	113	82-130	1	.30				

Surrogate Quality Control

Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel

Batch number: 032950016A Orthoterphenyl

4147917 69 4147918 95 Blank 97 LCS 85 LCSD 111

Limits: 59-139

Analysis Name: TPH-GRO - Waters Batch number: 03296A16A Trifluorotoluene-F

4147916	110
4147917	146
4147918	114

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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Quality Control Summary

Client Name: ChevronTexaco

Group Number: 871638

Reported: 11/03/03 at 03:10 PM

Surrogate Quality Control

Blank 111 LCS 108 LCSD 115 MS 118

Limits: 57-146

Analysis Name: BTEX+MTBE by 8260B

Batch number: P032972AA Dibromofluoromethane		1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4147916 4147917 4147918 Blank LCS MS	95 96 96 95 95 96 96	96 95 96 95 94 95	97 97 96 97 96 96	92 93 92 92 93 91 91
MSD Limits:	81-120	82-112	85-112	83-113

*- Outside of specification

(2) The background result was more than four times the spike added.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

		•	· · · · · · · · · · · · · · · ·
N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F.	degrees Fahrenheit
meg	milliequivalents	ib.	pound(s)
9	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
mi	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)

- less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result falls within the Method Detection Limit (MDL) and Limit of Quantitation (LOQ).
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- ppb parts per billion
- Dry weight basis

 Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

	Data Quamicro.		
	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥ldl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
Č	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
Ď	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ē	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and	W	Post digestion spike out of control limits
•	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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