

# GETTLER-RYAN INC.

## TRANSMITTAL Alameda County

November 6, 2003 G-R #386895

NOV 2 5 2003

TO:

Mr. Robert Foss

Environmental Mackaren Streich

Chevron Products Company

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A

P.O. Box 6004

Emeryville, CA 94608

San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 RE:

**Chevron Service Station** 

#9-3600

2200 Telegraph Avenue Oakland, California

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 6, 2003	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 2, 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 20, 2003*, at which time the final report will be distributed to the following:

Mr. Don Hwang, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Mr. Yichin Hwang (Property Owner) 2200 Telegraph Avenue, Oakland, CA 94612

Enclosures



November 6, 2003 G-R Job #386895

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

RE: Fourth Quarter Event of October 2, 2003

Groundwater Monitoring & Sampling Report

Chevron Service Station #9-3600

2200 Telegraph Avenue Oakland, 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 levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are 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: Potentiometric Map

Table 1: Groundwater Monitoring Data and Analytical Results

Table 2: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

#### **EXPLANATION** Groundwater monitoring well **TELEGRAPH AVENUE** Groundwater elevation in feet 99.99 referenced to Mean Sea Level Groundwater elevation contour, **Driveway Driveway** dashed where inferred Planter Canopy Planter **WEST GRAND AVENUE** Approximate groundwater flow direction at a Dispenser Islands MW-3 **22ND STREET** gradient of 0.006 Ft./Ft. Approximate Location of BART Right of Way Kiosk Underground Planter MW-1 Storage Tanks 4.82 **Approximate Property Boundary** Scale in Feet Source: Figure modified from drawing provided by Morrow Surveying April 17, 2002 FIGURE POTENTIOMETRIC MAP Chevron Service Station #9-3600 2200 Telegraph Avenue 6747 Sierra Ct., Suite J Dublin, CA 9456B (925) 551-7555 Oakland, California

386895 FILE NAME: P:\ENMRO\CHEVRON\9-3600\Q03-9-3600.DWG | Layout Tab: Pot4

PROJECT NUMBER

DATE October 2, 2003

REVISED DATE

REVIEWED BY

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-3600

evron Service Station #9-3600 2200 Telegraph Avenue Oakland, California

WELL ID/	DATE	DTW	GWE	TPH-G	В	I	E	X	MTBE
TOC*(fL)	DALE	(ft.)	(fi.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
1.00 (14)			A. C.						
MW-1			•					0.4	310/370 <sup>2</sup>
17.07	04/05/021	11.68	5.39	2,000	5.0	<1.0	14	8.4	370/420 <sup>2</sup>
	07/01/02	12.01	5.06	2,000	8.9	<1.0	97	31	440/360 <sup>2</sup>
	10/08/02	12.20	4.87	1,400	9.2	<10	75	20	280/270 <sup>2</sup>
	01/11/03	11.13	5.94	1,600	7.1	0.51	53	13	$280/270$ $210/210^2$
	04/01/03	11.53	5.54	1,800	5.2	0.6	25	9.1	
	07/01/03 <sup>3</sup>	11.95	5.12	2,000	. 4	<0.5	31	12	170
	10/02/033	12.25	4.82	480	<5	<5	<5	<5	9,800
			è						
MW-2				•					
16.82	04/05/021	11.17	5.65	<50	< 0.50	<0.50	< 0.50	<1.5	<2.5/<22
10.02	07/01/02	11.36	5.46	<50	< 0.50	0.57	0.52	<1.5	<2.5/<2 <sup>2</sup>
	10/08/02	11.57	5.25	<100	<2.0	<2.0	<2.0	<5.0	<10/<22
	01/11/03	10.94	5.88	<50	< 0.50	< 0.50	<0.50	<1.5	<2.5/<22
	04/01/03	11.03	5.79	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
	07/01/03 <sup>3</sup>	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/02/03 <sup>3</sup>	11.63	5.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
•		•							:
MW-3									
16.52	04/05/02 <sup>1</sup>	11.29	5.23	<50	< 0.50	0.59	<0.50	<1.5	<2.5/<2 <sup>2</sup> .
	07/01/02	11.55	4.97	<50	< 0.50	0.60	< 0.50	<1.5	<2.5/<2 <sup>2</sup>
	10/08/02	11.62	4.90	<100	<2.0	<2.0	<2.0	<5.0	<10/<22
	01/11/03	11.09	5.43	<50	<0.50	<0.50	< 0.50	<1.5	<2.5/<2 <sup>2</sup>
	04/01/03	11.25	5.27	<50	<0.5	< 0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
	07/01/03 <sup>3</sup>	11.42	5.10	<50	<0.5	< 0.5	< 0.5	<0.5	2
	10/02/03 <sup>3</sup>	11.74	4.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5

### Table 1 Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-3600 2200 Telegraph Avenue Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (fl.)	GWE (ft.)	TPH-G (ppb)	В (ppb)	Т (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TRIP BLAN					-0.50	<0.50	<0.50	<1.5	<2.5
QA	04/05/02			<50	<0.50	•	<0.50	<1.5	<2.5
	07/01/02	<b></b> ,		<50	< 0.50	<0.50			<10
	10/08/02	<b></b>		<100	<2.0	<2.0	<2.0	<5.0	
	01/11/03			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
	04/01/03			<50	<0.5	< 0.5	< 0.5	<1.5	<2.5
	04/01/03 07/01/03 <sup>3</sup>			<50	<0.5	< 0.5	<0.5	<0.5	<0.5
	10/02/03 <sup>3</sup>			<50	<0.5	<0.5	<0.5	<0.5	<0.5
					•				

#### Table 1

#### Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-3600 2200 Telegraph Avenue Oakland, California

#### **EXPLANATIONS:**

TOC = Top of Casing

B = Benzene

(ppb) = Parts per billion

(ft.) = Feet

T = Toluene

-- = Not Measured/Not Analyzed

DTW = Depth to Water

E = Ethylbenzene

QA = Quality Assurance/Trip Blank

GWE = Groundwater Elevation

X = Xylenes

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary butyl ether

\* TOC elevations were surveyed on April 17, 2002, by Morrow Surveying. The elevations are based on a City of Oakland Benchmark No. 37JC, (Benchmark Elevation = 17.68 Feet).

- Well development performed.
- MTBE by EPA Method 8260.
- 3 BTEX and MTBE by EPA Method 8260.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

Chevron Service Station #9-3600 2200 Telegraph Avenue Oakland, California

	IN VITE	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME
VELL ID	DATE	ETHANOL (ppb)	(ppb)	(ррб)	(ppb)	(ppb)	(ppb)
<u> </u>		APPO					
/IW-1	04/05/02	<del></del>	200	370	<2	<2	10
· · · · · · · · · · · · · · · · · · ·	07/01/02		190	420	<2	<2	9
	10/08/02		110	360	<2	<2	8
	01/11/03		<100	270	<2	<2	7
	04/01/03		22	210	<0.5	<0.5	5
	07/01/03	<50	26	170	< 0.5	<0.5	5
	10/02/03	<500	2,600	9,800	<5	<5	6
	10/02/03	.500		,			
			<100	<2	<2	<2	<2
(W-2	04/05/02	<del></del>	<100	<2	<2	<2	<2
	07/01/02	<u></u>		<2	< <u>2</u>	<2	<2
	10/08/02	<del></del>	<100		<2	<2	<2
	01/11/03	·	<100	<2	<0.5	<0.5	<0.5
	04/01/03		<5	<0.5		<0.5	<0.5
•	07/01/03	<50	<5	<0.5	<0.5	<0.5	<0.5
-	10/02/03	<50	<5	<0.5	<0.5	<0.5	<b>~0.3</b>
							. ·
MW-3	04/05/02		<100	· <2	<2	<2	<2
	07/01/02	·	<100	<2	<2	<2	<2
	10/08/02		<100	<2	<2	<2	<2
	01/11/03		<100	<2	<2	<2	<2
	04/01/03		<5	<0.5	<0.5	<0.5	<0.5
	07/01/03	<50	<5	2	<0.5	<0.5	<0.5
	10/02/03	<50	<5	<0.5	<0.5	<0.5	<0.5

#### Table 2

#### Groundwater Analytical Results - Oxygenate Compounds

Chevron Service Station #9-3600 2200 Telegraph Avenue Oakland, California

#### **EXPLANATIONS:**

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion

-- = Not Analyzed

#### ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

#### 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.



#### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: C	hevronTexaco	#9-3600	Job Number:	386895	· · · ·
-	200 Telegraph	Avenue	Event Date:	10-2-03	(inclusiv
_	Dakland, CA		Sampler:	0.0.	
Well ID	MW- (	Date Monitor	ed: [0.2	Well Condition:	Ok
Well Diameter  Total Depth	2 in. 20-26 ft.		lume 3/4"= 0.02 ctor (VF) 4"= 0.66	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50	3"= 0.38 12"= 5.80
Depth to Water _	12-35 ft. 8-01 xVF	<u> </u>	36_x3 (case volume) =	Estimated Purge Volume	:gal.
-	<u> </u>		1	Time Started:	(2400 hrs) (2400 hrs)
Purge Equipment: Disposable Bailer	<u> </u>	Sampling Equ Disposable Bai	ler	Time Bailed: Depth to Product: Depth to Water:	
Stainless Steel Bailer Stack Pump		Pressure Bailer Discrete Bailer		Hydrocarbon Thickn Visual Confirmation/	ess:ft Description:
Suction Pump Grundfos Other:		Other:	·	Skimmer / Absorban Amt Removed from Amt Removed from	Skimmer: gal
Start Time (purge)	te: 0546 / lo	Weather Cond .3.03 Water Sediment Desc	Color: Cea	Cher Koegy Odor	<u> (/;</u> 4)
Purging Flow Rat  Did well de-water		If yes, Time:		gal.	
Time (2400 hr.)	Volume (gal.)	pH Conduct	73	D.O. (mg/L)	ORP (mV)
6314	1.5	7.55 46			
0534	<u> </u>	7.47 <u>47</u> 7.44 <u>47</u>			
SAMPLE ID	(#) CONTAINER		RY INFORMATION V. TYPE LABORATO		ALYSES
MW- (	6 x voa vial		CL LANCASTI	TPH-G(8015)/BTE	
COMMENTS:					
AddiDania	ced Lock:		Add/Replace	d Plug:	Size:

### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #:	ChevronTexac	:o #9-36	00	Job Number:	386895		<u></u>
Site Address:	2200 Telegrap	h Avenu	ie .	Event Date:	10.3.03		_(inclusi
City:	Oakland, CA			Sampler:	P.O.		_
Well ID	MW- J	Dat	e Monitored:	10.2	Well Condition:	OK	
Well Diameter	2 in.		Volume	3/4"= 0.02	1"= 0.04 2"= 0.17	3"= 0.38	7
Total Depth	10.13 ft.		Factor (VF		5"= 1.02 6"= 1.50	12 = 5.80	100
Depth to Water	11.63 ft. 8.60 x	vF 17	= 1.46	x3 (case volume) =	Estimated Purge Volume	4,5 gal	
Duran Fanda a anti-				_	Time Started:		2400 hrs)
Purge Equipment: Disposable Bailer	X		mpling Equipment posable Bailer	· ×	Time Bailed: Depth to Product:		(2400 hrs)
Stainless Steel Baile			essure Bailer		Depth to Water:		f
Stack Pump	T - 1 - 1		screte Bailer		Hydrocarbon Thickne		ft
Suction Pump			ner:		Visual Confirmation/0	escription:	1
Grundfos					Skimmer / Absorbant	Sock (circle on	e)
Other:					Amt Removed from \$	Skimmer:	gal
					Amt Removed from \		gal
* *					Product Transferred		
	0.0		<u> </u>	- /	/.		
Start Time (purg	<sub>ie):</sub> 0603	Wea	ther Conditions:	C(tu	-/foggy		<del>.</del>
Sample Time/D	ate: 06/8 / /	09.03	Water Color:	Clear	Odor:	10	_
Purging Flow Ra		Sedim	ent Description:		•	<u> </u>	_
Did well de-wate			ne:	Volume:	gal.		-
					D.O.	ODD	
Time (2400 hr.)	Volume	pН	Conductivity (u mhos/cm)	Temperature ((C/J)	D.O. (mg/L)	ORP (mV)	
(2400 III.)	(gal.)		(a milosicin)	(0)	.\ <i>-</i>	, ()	
0606	1,5	7.85	386	17.9			
0604	_ <del></del>	7.79	395	17.8			<del>-</del>
	$-\frac{A \cdot 2}{3}$	7.72		17.8			_
06/7	<del></del>	7.7~	401	11.8			<del>-</del>
			BORATORY INF		U ANA	LYSES	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATOR			
MW-2	6 x voa vial	YES	HCL	LANCASTER	5 OXYS+ETHANOL(		
				<u> </u>		<u> </u>	
			İ	<u> </u>			
COMMENTS:							
	<del></del>						
Add/Repla	aced Lock:			Add/Replaced F	Plug:Si	ze:	
			•				



# GETTLER-RYAN INC.

#### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: C	hevronTexaco	#9-3600		Job Number:	386895		_
• •	2200 Telegraph Avenue			Event Date:	10.1.03		_(inclusiv
	akland, CA			Sampler:	0.0.		
Vell ID	<b>MW-</b> 3	Date Me	onitored:	10.2	Well Condition:	Ok	
Vell Diameter	2 in.			3/4"= 0.02	1"= 0.04 2"= 0.17	3"= 0.38	7
otal Depth	20./9 ft.		Volume Factor (VF		5"= 1.02 6"= 1.50	12"= 5.80	_
Depth to Water _	11.74 ft.	.17:			Estimated Purge Volume	· Υ gal	
· · · -	<u> </u>				Time Started:	(	2400 hrs)
urge Equipment:	,	Samplir	ng Equipment	:	Time Bailed:		2400 hrs)
Disposable Bailer		Disposa	ble Bailer		Depth to Product:		ft
Stainless Steel Bailer		Pressur			Depth to Water:		
	·	Discrete	Bailer		Hydrocarbon Thickne	ess:	"
Stack Pump		Other:_			Visual Confirmation/	Description:	1
Suction Pump		Other			Skimmer / Absorban	t Sock (circle on	e)
Grundfos		•			Amt Removed from	Skimmer:	gal
Other:	<del></del>				Amt Removed from	Well:	gal
•				4.4	Product Transferred	to:	
Sample Time/Date Purging Flow Rate Did well de-water	e:gpm.		Nater Color Description	volume:	gal.	ORP	_
Time (2400 hr.)	Volume (gal.)	<b>⊸</b> L1	conductivity umhos/cm)	Temperature	D.O. (mg/L)	(mV)	_
0634	1.5	7.69	357	18.0			_
0647		7.61	362	18.0			_
0644	<u> </u>	7.57	364	18.1		· · · · · · · · · · · · · · · · · · ·	<del>-</del>
				FORMATION E LABORATO	RY AN	ALYSES	
SAMPLE ID	(#) CONTAINER		RESERV. TYP	LANCASTE		(+MTBE(8260)/	
MW- 3	6 x voa vial	YES	HCL	LANCASTE	5 OXYS+ETHANOL		· ·
COMMENTS:							
Add/Repla	ced Lock:			Add/Replaced	! Plug: \$	Size:	

### Chevron California Region Analysis Request/Chain of Custody

412	Lancaster Where quality is a	Labo	ratories
A.	Where quality is a	science.	

100303-006 Acct. #: 10904 For Lancaster Laboratories use only Sample #: 4136966-69

	•						Γ			_	Analy	ses F	geupe	ted			1.				
TO THE COMP OF THE	h-1 ID#1505		÷٦	N	latrix	Т					_	ervati	on Co	les						tive Code	
Facility #: SS#9-3600 G-R#386895 Glo			-					H H	-		1		1			-		= HCl		T = Thiosi	-
Site Address: 2200 TELEGRAPH AVENUE,		·	- 1			_			day		(O)(2)							= HNO; = H <sub>2</sub> SO		B = NaOl- O = Other	
	Consultant: <u>CA</u>		-		ا ي ه		g	_ [	충				1			ļ		J value r	eporti	ng needed	
Consultant/Office: G-R, Inc., 6747 Sierra Con	urt, Suite J, E	Dublin, Ca. 94	568 		Potable		Total Number of Containers	]	Silica Gel Cleanup		Ethanol						×	Must me	et low	est detection	on limits Inde
Consultant Prj. Mgr.: Deanna L. Harding (de	enna@grino	com)	_				ទី 🚡		3		金				- 1		1 '	• .			
Consultant Phone #:925-551-7555	_ Fax #: <u>925</u> -	551-7899	}	F	==	1	ة   إ	8 8	2		-	7421	1	.						firmation st hit by 82	60
Sampler:			<u>o</u>		,,	다. 참			Ş	 	enate					1				s by 8260	
Service Order #: No	on SAR:		8			₹ :	Ž	015 N	015 }	3	Oxygenates									s on highe	st hit
Sample Identification	Date Collected	Time & Collected &	Composite	Soil	Water		Total Numb	TPH 8015 MOD	TPH 8015 MOD DRO	8260 full scan	5	Lead 7420						Run	_ оху	a on all hit	В.
AA A	10.3.0)	·			S	_	_	7	_								C	men	ts / R	lemarks	
١-٧٨		074 ×			X		6	5 4			ጽ						_				
,ς- ψ <sub>Λ</sub>		06/8 X			グ		6	<u>* }</u>	<u> </u>		*				_		4	•			
	4	0621 4		$\bot$	7	$\perp$	6 h	<u> </u>	4_	<del> </del>	×		_	$\sqcup$	_		-			•	
			<u> </u>			4		_	-	4	_	-	<del> </del> -	$\vdash$	-+	+	-		•		
			<b>├</b> ─	$\vdash$	<del>- ;</del>				+-	+-	╄			$\vdash$		╬	-				
-			+	$\vdash$	3	$\dashv$			╁	-	-	┝╌┼╴	+		$\dashv$		┪				
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			†						1	1							1				
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Turnaround Time Requested (TAT) (please circ	:le)	Relinquishe	d by:			OH.	J,			Date (O)	9 *0}	Oto Oto	Rec	elved I	by:				مدار	Date ///	Time
TD. TAP 72 hour 48 hour	•	Relinquishe	d by:				T	7		Dat		Time		eived	by:	1		January Contract		Date	Time
24 hour 4 day 5 day				·				Jen			<b>2/</b> 2	بحري		هم	-	L.	11.	-		193/07	1240
Data Package Options (please circle if required)		Relinquishe		1/	أسرا			<del>ب</del>		,63		Time	Rec	elved 'rb'	by:	٠. م				Date (G/3/6)	Time
QC Summary Type I — Full		Relinquishe		Comm	nerrial	Corr	io			/-/	ej /	330		eived		سرے ا			<del></del>	/ <i>G 3/e</i>	Time
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Disk		Temperatur	e Upo	n Re	ceipt		$\overline{FI}$	C°		-			_		Seale	Intact	<u>, 77</u> ?	Yes	No	1	
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#### 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 869564. Samples arrived at the laboratory on Saturday, October 04, 2003. The PO# for this group is 99011184 and the release number is STREICH.

Client Description			Lancaster Labs Number
OA-T-031002	NA V	Vater	4136966
MW-1-W-031002	Grab	Water	4136967
MW-2-W-031002	Grab	Water	4136968
MW-3-W-031002	Grab	Water	4136969

ELECTRONIC

Gettler-Ryan

COPY TO

COPY TO Cambria C/O Gettler- Ryan

Attn: Cheryl Hansen

Attn: Deanna L. Harding



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

Respectfully Submitted,

*Ustavial (1)* Viciona N. Man<del>ia</del>l



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4136966 Lancaster Laboratories Sample No. WW

NA QA-T-031002 Facility# 93600 Job# 386895

GRD

QA

2200 Telegraph-Oakland

Collected:10/02/2003 00:00

Account Number: 10904

Submitted: 10/04/2003 09:50 Reported: 10/14/2003 at 23:56 Discard: 11/14/2003

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

#### TAOQA

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

		Laboratory	Chro	nicle Analysis		Dilution
CAT No. 01728	Analysis Name TPH-GRO - Waters	Method N. CA LUFT Gasoline	Trial# 1	Date and Time 10/09/2003 11:57	Analyst Todd T Smythe	Factor 1
06054 01146	BTEX+MTBE by 8260B GC VOA Water Prep	Method SW-846 8260B SW-846 5030B SW-846 5030B	1 1 1	10/10/2003 19:35 10/09/2003 11:57 10/10/2003 19:35	Blizabeth M Taylor Todd T Smythe Elizabeth M Taylor	1 n.a. n.a.



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Lancaster Laboratories Sample No. 4136967

MW-1-W-031002

Grab

Facility# 93600 Job# 386895 2200 Telegraph-Oakland

GRD

MW-1

Collected:10/02/2003 05:46

Account Number: 10904

Submitted: 10/04/2003 09:50

Reported: 10/14/2003 at 23:56

Discard: 11/14/2003

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

TA001

				As Received		
CAT		,	As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	<b>Factor</b>
01728	TPH-GRO - Waters	n.a.	480.	50.	ug/l	1
	The reported concentration of gasoline constituents eluting start time.	prior to the C6	(n-hexane) TPH-	GRO range		
	A site-specific MSD sample was					
	was performed to demonstrate p	recision and ac	curacy at a bate	h level.		
06059	BTEX+5 Oxygenates+ETOH	-				
01587	Ethanol	64-17-5	N.D.	500.	ug/l	10
02010	Methyl Tertiary Butyl Ether	1634-04-4	9,800.	50.	ug/l	100
02011	di-Isopropyl ether	108-20-3	N.D.	5	ug/l	10
02013	Ethyl t-butyl ether	637-92-3	N.D.	5.	ug/l	10
02014	t-Amyl methyl ether	994-05-8	6.	5.	ug/l	10
02015	t-Butyl alcohol	75-65-0	2,600.	50.	ug/l	10
05401	Benzene	71-43-2	N.D.	5.	ug/l	10
05407	Toluene	108-88-3	N.D.	5	ug/l	10
05415	Ethylbenzene	100-41-4	N.D.	5.	ug/l	10
06310	Xylene (Total)	1330-20-7	N.D.	5.	ug/l	10
	The reporting limits for the G	C/MS volatile o	ompounds were ra	ised		
	because sample dilution was ne					
	calibration range of the syste	m.	<del>-</del>			

		Laboratory	Cnro	nicie	· · ·	
CAT		_		Analysis	4	Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/09/2003 20:37	Todd T Smythe	· 1
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 19:52	Elizabeth M Taylor	10
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 20:18	Elizabeth M Taylor	100
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 20:37	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/09/2003 19:52	Elizabeth M Taylor	n.a.



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4136968 Lancaster Laboratories Sample No.

MW-2-W-031002 Facility# 93600 Job# 386895

2200 Telegraph-Oakland 15050

Collected:10/02/2003 06:18

Submitted: 10/04/2003 09:50 Reported: 10/14/2003 at 23:56

Discard: 11/14/2003

GRD

MW-2

Account Number: 10904

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

TA002

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters  The reported concentration of gasoline constituents eluting patent time.  A site-specific MSD sample was was performed to demonstrate patents.	not submitted	for the project.	A LCS/LCSD	ug/±	• • • • • • • • • • • • • • • • • • •
06059	BTEX+5 Oxygenates+ETOH				•	
	The bound of	64-17-5	N.D.	50.	ug/l	1
01587	Ethanol	1634-04-4	N.D.	0.5	ug/l	. 1
02010	Methyl Tertiary Butyl Ether	108-20-3	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether Ethyl t-butyl ether	637-92-3	N.D.	. 0 . 5	ug/l	1
02013	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02014	t-Butyl alcohol	75-65-0	N.D.	5.	ug/l	1
02015	Benzene	71-43-2	N.D.	0.5	ug/l	1
05401	Toluene	108-88-3	N.D.	0.5	ug/l	1
05407	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1 .
05415 06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

		Laboratory	Chro	nicle Analysis		Dilution
CAT No. 01728	Analysis Name TPH-GRO - Waters	Method N. CA LUFT Gasoline	Trial# 1	Date and Time 10/09/2003 13:02	Analyst Todd T Smythe	Factor 1
06059 01146	BTEX+5 Oxygenates+ETOH GC VOA Water Prep GC/MS VOA Water Prep	Method SW-846 8260B SW-846 5030B SW-846 5030B	1	10/09/2003 18:58 10/09/2003 13:02 10/09/2003 18:58	Elizabeth M Taylor Todd T Smythe Elizabeth M Taylor	n.a. n.a.



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Lancaster Laboratories Sample No. 4136969

MW-3-W-031002

Grab

Facility# 93600 Job# 386895 2200 Telegraph-Oakland

15050

GRD

MW-3

Collected:10/02/2003 06:51

ChevronTexaco

Account Number: 10904

Submitted: 10/04/2003 09:50

Reported: 10/14/2003 at 23:56

Discard: 11/14/2003

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

TA003

	•			As Received		
CAT	•		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 gasoline constituents eluting start time. A site-specific MSD sample was	prior to the Co not submitted	on-hexane) TPH- for the project.	-GRO range . A LCS/LCSD		
	was performed to demonstrate p	recision and ac	curacy at a bate	ch level.		•
06059	BTEX+5 Oxygenates+ETOH		•			÷
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/1	1
02015	t-Butyl alcohol	75-65-0	N.D.	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/l	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

	· ·	Laboratory	Chro	nicle		1.0
CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/09/2003 13:35	Todd T Smythe	1
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 19:25	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 13:35	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/09/2003 19:25	Elizabeth M Taylor	n.a.



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#### Quality Control Summary

Client Name: ChevronTexaco

Group Number: 869564

Reported: 10/14/03 at 11:56 PM

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS <u>%REC</u>	LCSD <u>%REC</u>	LCS/LCSD Limits	RPD	RPD Max
Batch number: 03282A07B	Sample	number(s):	4136966,43	L36968-413	36969		16	30
TPH-GRO - Waters	N.D.	50.	ug/l	97	114	70-130	10	30
Batch number: 03282A07C	Sample	number(s):	4136967				16	30
TPH-GRO - Waters	N.D.	50.	ug/l	97	114	70-130	το .	30
Batch number: P032821AA	Sample	number(s):	4136967-43	136969				
Ethanol	N.D.	50.	uq/l	91		46-145		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	93		77-127		
	N.D.	0.5	ug/l	95		74-125		
di-Isopropyl ether	N.D.	0.5	ug/1	97		74-120		
Ethyl t-butyl ether	N.D.	0.5	ug/l	94		79-113		
t-Amyl methyl ether	N.D.	5.	ug/l	90		53-147		
t-Butyl alcohol	N.D.	0.5	ug/l	97		85-117		
Benzene		0.5	ug/l	99		85-115		
Toluene	n.D.	0.5	ug/l	98		82-119		
Ethylbenzene Xylene (Total)	N.D. N.D.	0.5	ug/l	99		84-120		
-	01	number(s):	4136966					
Batch number: P032832AA		unimer(s):	ug/1	105		77-127		
Methyl Tertiary Butyl Ether	N.D.	0.5		111		85 <b>-117</b>		
Benzene	N.D.	0.5	ug/1	107		85-115		
Toluene	N.D.	0.5	ug/1	106		82-119		
Ethylbenzene	N.D.	0.5	ug/1	107		84-120		
Xylene (Total)	N.D.	0.5	ug/l	107				

#### Sample Matrix Quality Control

		Samp.	le matri	x Que	arruy	COME	-		
	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: 03282A07B TPH-GRO - Waters	Sample 112	number	(s): 4136966 63-154	,413696	68-4136	969			
Batch number: 03282A07C TPH-GRO - Waters	Sample	number	(s): 4136967 63-154	7					
	Cample	number	(s): 4136967	7-413696	69				
Batch number: P032821AA Ethanol	88 8	97	38-149	9	30		•	•	
Methyl Tertiary Butyl Ether	96	96	69-134	0	30				
di-Isopropyl ether	98	97	75-130	0	30				
Ethyl t-butyl ether	98	98	78-119	0	30				
t-Amyl methyl ether	97	98	77-117	0	30				
t-Butyl alcohol	98	98	44-150	0	30				
Benzene	104	102	83-128	2	30				
Toluene	105	103	83-127	2	30		•		
Ethylbenzene	105	104	82-129	0	30				
Xylene (Total)	105	104	82-130	1	30				
Batch number: P032832AA	Sample	number	(s): 413696	6					
Methyl Tertiary Butyl Ether	111	111	69-134	0	30				
Benzene	121	121	83-126	0	30				
Toluene	116	114	83-127	2	30				
Ethylbenzene	115	113	82-129	1	30				

\*- 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: 869564

Reported: 10/14/03 at 11:56 PM

Sample Matrix Quality Control

·.	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name Xylene (Total)	%REC	<u>%REC</u>	<u>Limits</u> 82-130	RPD	<u>MAX</u> 30	Conc	Conc	RPD	Max

#### Surrogate Quality Control

	•	parrogace go	.uzzoj oomio	<del></del>
Analysis N	ame: TPH-GRO - Waters			
Maryore N	er: 03282A07B			
ACOIL HUMB	Trifluorotoluene-F			
	11111dolocoldene-r			
136966	79			
136968	79			•
136969	83			
Blank	78	· ·		
CS	104			
CSD	104			
is	117			
15	117		•	•
imits:	57-146			
analveie N	lame: TPH-GRO - Waters			
Batch numb	per: 03282A07C			
	Trifluorotoluene-F			
1136967	95			
Blank	82			•
LCS	104			
		·		
CSD	108			
MS	117	•		
Limits:	57-146			
	IAMA DERVIS A			
Analysis r	Name: BTEX+5 Oxygenates+ET0 Der: P032821AA	OH		
DACCII IIUUM	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzer
	DIDIOMOTITOTOMECHANE	1,2-Dichiolocchane 04	101dene do	
4136967	97	94	100	97
4136968	96	93	100	98
4136969	97	95	100	98
Blank	97	95	100	97
LCS	96	94	100	99
MS	97	93	99	98
MSD	97	94	99	. 98
Limits:	81-120	82-112	85-112	83-113
DIMILES:	81-120	62-112	07-115	:
Analysis 1	Name: BTEX+MTBE by 8260B			
Batch numl	ber: P032832AA			. m
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzer
4136966	92	93	90	90
Blank			89	88
	97	9(1		
	91 90	90		
LCS MS	91 90 93	90 90 92	89 90	90 89

#### \*- 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

MSD

Group Number: 869564

Reported: 10/14/03 at 11:56 PM

Surrogate Quality Control

89

Limits: 81-120 82-112 85-112

92

83-113

\*- 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.



### **Explanation of Symbols and Abbreviations**

Inorganic Qualifiers

Correlation coefficient for MSA < 0.995

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

N.D. TNTC IU	none detected Too Numerous To Count International Units	BMQL MPN CP Units	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
·C	degrees Celsius	· F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
mĪ	milliliter(s)	, <u>į</u>	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:

U

X,Y,Z

	0.92		
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
Ν	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Ρ	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits

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.

Compound was not detected

Defined in case narrative

Organic Qualifiers

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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