**Environmental Management** Company

6001 Bollinger Canyon Rd, K2256 P.O. Box 6012 San Ramon, CA 94583-2324 Tel 925-842-1589 Fax 925-842-8370

J. Mark Inglis Project Manager R0466

ChevronTexaco

June 8, 2005

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

Re:

Chevron Service Station # 209339

Environmental Health Address: 5940 College Avenue, Oakland, California

I have reviewed the attached routine groundwater monitoring report dated May 24, 2005

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,

Project Manager

Enclosure: Report

May 24, 2005 G-R #386521

TO:

Mr. Bob Foss

Cambria Environmental Technology, Inc.

5900 Hollis Street, Suite A Emeryville, CA 94608 CC: Mr. Mark Inglis

ChevronTexaco Company P.O. Box 6012, Room K2256 San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

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

**Former Chevron Service Station** 

#209339

5940 College Avenue Oakland, California

RO 0000466

## WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 23, 2005	Groundwater Monitoring and Sampling Report First Semi Annual - Event of April 14, 2005

#### COMMENTS:

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to *June 7, 2005*, at which time the final report will be distributed to the following:

cc: Mr. Barney Chan, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Mr. Donald Sweet, San Francisco Property Management Co., 1375 Sutter St., Suite 308, San Francisco, CA 94109

Enclosures



May 23, 2005 G-R Job #386521

Mr. Mark Inglis ChevronTexaco Company P.O. Box 6012, Room K2256 San Ramon, CA 94583

RE: First Semi Annual Event of April 14, 2005

Groundwater Monitoring & Sampling Report Former Chevron Service Station #209339 5940 College Avenue Oakland, California

Dear Mr. Inglis:

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). A joint monitoring event was conducted with Sheaff's Garage located at 5930 College Avenue, Oakland, California.

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

Robert A. Lauritzen/ Senior Geologist, P.G. No. 7504

Figure 1: Potentiometric Map

Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds

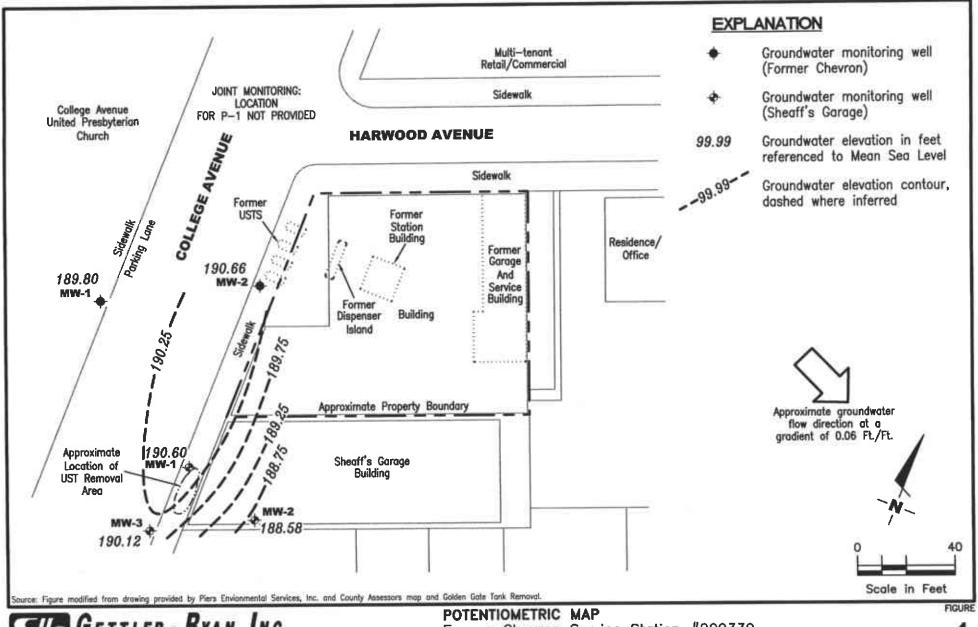
Table 3: Groundwater Analytical Results

Table 4: Field Measurements

Table 5: Joint Groundwater Monitoring Data and Analytical Results Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports





PROJECT NUMBER

386521

Former Chevron Service Station #209339 5940 College Avenue

REVISED DATE

Oakland, California

DATE

April 14, 2005

REVIEWED BY

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #209339

5940 College Avenue Oakland, California

WELL ID/	TOC*	DTW	GWE	TPH-G	<b>B</b>	T	E	X	MTBE
WELL ID! DATE	(fi)	(h)	(mst)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MACHE CONTRACTOR	0.9	<u> </u>		<u>,,,,</u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		······································			
MW-1				1			2.7	7.6	14/<2.0 <sup>3</sup>
01/03/01	196.91	12.75	184.16	930¹	2.9	6.9	2.7	3.3	$5.3/<2.0^3$
04/25/01	196.91	9.23	187.68	2104	2.0	1.5	2.0	0.96	<2.5
07/09/01	196.91	11.86	185.05	290 <sup>5</sup>	1.8	2.0	2.5	<1.5	<2.5
10/08/01	196.91	13.49	183.42	200	<0.50	<0.50	<0.50		<2.5
01/13/02	196.91	7.33	189.58	<50	< 0.50	<0.50	<0.50	<0.50	
04/08/02	196.91	7.45	189.46	670	< 0.50	<2.0	<1.0	5.6	<2.5
10/15/02	196.91	13.68	183.23	260	0.62	0.82	< 0.50	<1.5	
04/15/03	196.91	6.82	190.09	1,700	1.3	<5.0	<2.0	<5.0	
10/31/03	196.91	13.72	183.19	150	<2.0	0.7	<2.0	<5.0	
04/23/04	196.91	9.02	187.89	<50	< 0.5	< 0.5	<0.5	<1.5	
10/22/04	196.91	11.50	185.41	63	<0.5	< 0.5	<0.5	<1.5	
04/14/05	196.91	7.11	189.80	<50	<0.5	<0.5	<0.5	<1.5	
MW-2				2,100 <sup>2</sup>	110	11	63	25	83/2.23
01/03/01	197.35	12.48	184.87	2,100 1,700⁴	150	12	30	15	$150/\leq 2.0^3$
04/25/01	197.35	8.90	188.45		200	21	<b>5</b> 5	26	< 50
07/09/01	. 197.35	11.44	185.91	2,5005		2.8	29	9.8	<2.5
10/08/01	197.35	13.37	183.98	4,200	87	2.9	<2.5	4.4	27/<2.0 <sup>3</sup>
01/13/02	197.35	6.55	190.80	410	20	1.7	17	17	<2.5
04/08/02	197.35	8.37	188.98	4,000	70		16	<6.0	<u></u>
10/15/02	197.35	13.00	184.35	3,100	41	2.2	12	<7.5	
04/15/03	197.35	7.58	189.77	2,400	37	<2.5			
10/31/03	197.35	13.02	184.33	2,300	12	3.4	4.8	<7.5	
04/23/04	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5	==
10/22/04	197.35	11.41	185.94	2,200	24	<2.5	4.1	<10	
04/14/05	197.35	6.69	190.66	640	2.1	<2.0	<2.0	7.5	<del></del>

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #209339

Former Chevron Service Station 5940 College Avenue Oakland, California

WELL ID/ DATE	TOC*	DTW (ft.)	GWE (msl)	TPH-G (ppb)	B (ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TRIP BLANK									
TB-LB									
1/03/01				<50	< 0.50	<0.50	< 0.50	<0.50	<2.5
04/25/01				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
7/09/01				<50	< 0.50	<0.50	< 0.50	< 0.50	<2.5
QA .									
0/08/01			••	<50	<0.50	< 0.50	< 0.50	<1.5	<2.5
1/13/02				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
4/08/02				<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
0/15/02				<50	< 0.50	< 0.50	< 0.50	<1.5	
4/15/03				<50	< 0.5	<0.5	<0.5	<1.5	
0/31/03				<50	< 0.5	<0.5	< 0.5	<1.5	
4/23/04				<50	< 0.5	< 0.5	< 0.5	<1.5	
0/22/04				<50	< 0.5	< 0.5	< 0.5	<1.5	
04/14/05				<50	<0.5	< 0.5	<0.5	<1.5	••

#### Table 1

## Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

#### **EXPLANATIONS:**

TOC = Top of Casing

(ft.) = Feet

B = Benzene

T = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

T = Toluene

GWE = Groundwater Elevation

(msl) = Mean sea level

T = Total Petroleum Hydrocarbons as Gasoline

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

X = Xylenes

- \* TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elev. = 179.075 feet, msl).
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- Laboratory report indicates gasoline C6-C12.
- 3 MTBE by EPA Method 8260.
- <sup>4</sup> Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

Former Chevron Service Station #209339

5940 College Avenue Oakland, California

WELL ID	DATE	``.``,``~`.``~``,``.``,``\`\`.``.``.``.``.``.		[4]4]4]4]4[4]4]4]4]4[4]4]4[4]4[4]4]4[4]4[4]4]	DIPE (ppb)	ETBE		1,2-DCA
		(ppb)	(ppb)	(ppb)	(рро)	(ррь)	(ррв)	(ppb)
MW-1	01/03/01	< 500	<50	<2.0	<2.0	<2.0	<2.0	<2.0
	04/25/01		<20	<2.0	<2.0	<2.0	<2.0	
MW-2	01/03/01	<500	<50	2.2	<2.0	<2.0	<2.0	<2.0
	04/25/01		<20	<2,0	<2.0	<2.0	<2.0	
	01/13/02		<20	<2.0	<2.0	<2.0	<2.0	

#### **EXPLANATIONS:**

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

(ppb) = Parts per billion

-- = Not Analyzed .

## **ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

Table 3
Groundwater Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

WELL ID	DATE	FERROUS IRON (ppm)	TOTAL ALKALINITY (ppm)	SULFATE AS SO <sub>4</sub> (ppm)
MW-1	04/25/01	. 0.15	380	11
141 44 - 1	07/09/01	< 0.050	410	6.8
	10/08/01	1	414	5.4
	01/13/02	< 0.10 <sup>2</sup>	390	10
MW-2	04/25/01	0.093	680	21
1 <b>41 44 -</b> 2	07/09/01	0.44	600	9.3
	10/08/01	1	683	3.8
	01/13/02	$<0.10^2$	630	7.0

## **EXPLANATIONS:**

(ppm) = Parts per million

-- = Not Analyzed

## ANALYTICAL METHODS:

EPA Method SM 3500 Fe for Ferrous Iron EPA Method 310.1 for Total Alkalinity EPA Method 300.0 for Sulfate as  $\mathrm{SO}_4$ 

Analysis was not performed by the Laboratory as requested on the Chain of Custody.

Due to sample transfer by the lab from laboratory to another, the sample was received beyond the EPA recommended holding time.

## Table 4

## Field Measurements

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

WELL ID	DATE	D.O. Before Purging (mg/L)	ORP Before Purging (mV)
MW-1	07/09/01	1.25	111
	10/08/01	1.20	64
	01/13/021		
MW-2	07/09/01	1.89	16
	10/08/01	1.04	58
	01/13/021		

## **EXPLANATIONS:**

D.O. = Dissolved Oxygen Concentration

(mg/L) = Milligrams per liter

ORP = Oxygen Reduction Potential

(mV) = Millivolt

-= Not Measured

 $<sup>^{1}</sup>$  D.O. and ORP meter erratic; measurments not taken.

Table 5
Joint Groundwater Monitoring Data and Analytical Results
Sheaff's Garage

Sheaff's Garage 5930 College Avenue Oakland, California

WELL 1D/	DATE	DTW	GWE	TPH-G	В	<b>T</b>	E	X	MTBE
TOC*(ft.)		(fi.)	(msl)	(ppb)	(ppb)	(ppb)	(pph)	(ppb)	(ppb)
1.1,1.1,1.1,1.1,1.1,1.1,1.1,1.1,1.1,1.1		<u>, , , , , , , , , , , , , , , , , , , </u>							
MW-1									
04/25/011	195.90	7.39	188.51				<b>*</b> =		·
07/09/01	195.90	9.72	186.18	79,000	15,000	7,800	3,000	15,000	660
10/08/01	195.90	10.88	185.02	112,000	25,300	11,800	4,280	20,600	374
$01/07/02^3$	195.90	4.34	191.56	96,100	21,100	13,500	4,160	21,900	596/330 <sup>2</sup>
04/08/02	195.90	6.84	189.06	111,000	21,200	13,400	4,230	21,000	814
10/23/02 <sup>3,4</sup>	195.90								
04/15/03 <sup>5</sup>	195.90	**							
10/31/03 <sup>5</sup>	195.90					<b>#</b> =			
04/23/044	195.90								
10/22/04	195.90	10.15	185.75	80,700	13,900	1,670	3,550	15,200	493
04/14/05 <sup>1</sup>	195.90	5.30	190.60						
MW-2		·							
04/25/01	197.28	8.52	188.76						
07/09/01	197.28	11.05	186.23	39,000	6,200	730	2,300	6,100	180
10/08/01	197.28	12.79	184.49	40,700	6,310	399	2,100	5,320	6,460
$01/07/02^3$	197.28	4.92	192.36	59,600	10,300	3,250	4,180	14,400	366/170 <sup>2</sup>
04/08/02	197.28	8.40	188.88	66,700	10,200	2,670	3,840	13,200	583
10/23/02 <sup>3,4</sup>	197.28							<del></del>	
04/15/03 <sup>5</sup>	197.28		<b></b>					<b>**</b>	
10/31/03 <sup>5</sup>	197.28			· <b></b>					
04/23/044	197.28								<b>#</b> =
10/22/04	197.28	10.25	187.03	13,500	1,790	54	892	915	273
04/14/05 <sup>1</sup>	197.28	8.70	188.58				·		
0011102	177120	37,5							
MW-3									
04/25/01	195.22	6.61	188.61						
07/09/01	195.22	8.85	186.37	12,000	39	10	690	1,600	35
10/08/01	195.22	9.75	185.47	4,912.5	107.7	3.9	99.0	132.5	52.2
10/00/01	.,,,			•					

Table 5
Joint Groundwater Monitoring Data and Analytical Results

Sheaff's Garage 5930 College Avenue Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (fi.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (pph)	MTBE (ppb)
MW-3 (cont)								207	91 74 6 72
01/07/02 <sup>3</sup>	195.22	4.25	190.97	7,260	723	138	492	887	81.7/16.7 <sup>2</sup>
04/08/02	195.22	6.33	188.89	11,700	540	108	706	1,710	<0.5
10/23/02 <sup>3,4</sup>	195.22								
04/15/03 <sup>5</sup>	195.22								
10/31/03 <sup>5</sup>	195.22								
04/23/04 <sup>4</sup>	195.22	<b></b> .							
10/22/04	195.22	9.25	185.97	7,420	152	12.8	267	480	96
04/14/05 <sup>1</sup>	195.22	5.10	190.12			-		***	<b></b>
PW-1									
)4/14/05 <sup>1</sup>		6.40	<del></del> .		_				

#### Table 5

## Joint Groundwater Monitoring and Analytical Results

Sheaff's Garage 5930 College Avenue Oakland, California

#### **EXPLANATIONS:**

Joint groundwater monitoring data and laboratory analytical results were provided by Golden Gate Tank Removal, Inc.

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary butyl ether

(ft.) = Feet

B = Benzene

(ppb) = Parts per billion

DTW = Depth to Water

T = Toluene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

E = Ethylbenzene

(msl) = Mean sea level

X = Xylenes

- \* TOC elevations were surveyed on April 26, 2001, by Virgil Chavez Land Surveying. The benchmark for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elevation = 179.075 feet, msl).
- Joint monitoring laboratory analytical results were not provided.
- <sup>2</sup> MTBE by EPA Method 8260
- Joint monitoring was conducted on different day than Chevron.
- Joint monitoring data was not provided.
- 5 Joint monitoring and sampling was scheduled but not conducted.

## 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 ChevronTexaco 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

Client/Facility #:	ChevronTexaco	#209339	Job Numbe	r: <b>386521</b>	
Site Address:	5940 College A		Event Date:	4-14-05	(inclusive
City:	Oakland, CA		Sampler:	_ Joe	· · · · · · · · · · · · · · · · · · ·
Well ID	MW-	Date Monito	ored: 4.14.0	Well Condition:	0.1
Well Diameter	2 in.	ī,	Volume 3/4"= 0.	02 1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	20.15 ft.	li di	Factor (VF) 4"= 0.6	05 450	12"= 5.80
Depth to Water	7.11 ft.	ا 1 - 11 - 1	2.72 v3.case volum	e= Estimated Purge Volume:	: 6.5 gal.
	13.04 xV	F=	X3 case volum	Time Started:	(2400 hrs)
ourge Equipment:	/	Sampling Ed	quipment:	Time Completed:	_
Disposable Bailer		Disposable B		Depth to Product: Depth to Water:	
Stainless Steel Baile	r	Pressure Bai		Hydrocarbon Thickne	
Stack Pump		Discrete Bail		Visual Confirmation/C	
Suction Pump		Other:	· · · · · · · · · · · · · · · · · · ·	Skimmer / Absorbant	Sock (circle one)
Grundfos	<del></del>		•	Amt Removed from S	
Other:	· · · · · · · · · · · · · · · · · · ·				Well:gal
				Water Removed: Product Transferred	to:
Start Time (purg	je): 0652	Weather Cor	nditions: Cle	w	
Sample Time/D	ate: 07/8/4.			ear Odor:	none
Purging Flow R		Sediment Des	cription:		
Did well de-water		If yes, Time:		gal.	
Time	Volume	Condu	ctivity Temperatu		ORP
(2400 hr.)		pH (umho		(mg/L)	(mV)
0702		7.29 128	5 63.2		
0706	<del></del>		82 63.1		
0710	, ,	<del>/_/</del>	84 63.	<u> </u>	
		LABORAT	ORY INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG. PRESE	RV. TYPE LABORA	10/11	ALYSES
MW- J	ک x voa vial	YES I	HCL LANCAS	TPH-G(8015)/BTEX	.(8021)
				1	
COMMENTS:					
<u> </u>					
			Add/Paplas	ed Plug:S	Size:
Add/Repl	aced Lock:	<del></del>	Auu/Repiac	Od 1 10g	

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #:	ChevronTexac	o #2093:	39	Job Number:	386521	<u></u>
Site Address:	5940 College A		<del></del>	Event Date:	4-14-05	(inclusive
City:	Oakland, CA			Sampler:	Joe	
Well ID	MW-2	Date	e Monitored:	4-14-05	Well Condition:	oile
Well Diameter	<b>2</b> in.			0.44	1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	20.11 ft.		Volume Factor (VI	3/4"= 0.02 =) 4"= 0.66		12"= 5.80
Depth to Water	6 6 9 ft.		<u> </u>			
Doparto mate.	13.42 x	F 0.17	<u> = 228</u>	x3 case volume=	Estimated Purge Volume:	<u>G·√</u> gal.
			·		Time Started:	(2400 hrs)
Purge Equipment:			npling Equipment	<b>!:</b>	Time Completed: Depth to Product:	
Disposable Bailer			oosable Bailer		Depth to Water:	ft
Stainless Steel Bailer			ssure Bailer		Hydrocarbon Thickness	<i>O</i> tt
Stack Pump			crete Bailer er:		Visual Confirmation/Des	
Suction Pump Grundfos		Out	CI		Skimmer / Absorbant Sc	ock (circle one)
Other:					Amt Removed from Skir	mmer: gal
<u> </u>					Amt Removed from We	
					Water Removed: Product Transferred to:	
					11000011121101011112	
Purging Flow Ra Did well de-wate  Time (2400 hr.)  0625	ate: <u>064014</u> ate: <u>0.5gpm.</u>	- 14-0 √ Sedim		Temperature (C/E) 63.0	Odor:	ORP (mV)
<u>0037</u>		6.69		<u>63.2</u>		
		LA	BORATORY IN			vor.
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP			
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# Chevron California Region Analysis Request/Chain of Custody



61P # 939587
For Lancaster Laboratories use only
Sample #: 4504106-08 SCR#:

		,									,	lnah	/505	Rec	west	ed						
Facility #: SS#209339-OML G-R#386521	Global ID:				Matri	K				_		res	ervat	ion	Code	8				Preser	vative Code	\$
Site Address 5940 COLLEGE AVENUE, OAK	LAND, CA						,	H	I	Cleanup				_	$-\dagger$		+	+		ICI INO₃ I2SO₄	T = Thios B = NaOl O = Othe	4 ``
Chevron PM:MI Lead Co	nsultant:CA	MBRIARF		ŀ			ξ.		•	2							1				orting needed	<u> </u>
Consultant/Office: G-R, Inc., 6747 Sierra Court	, Suite J, D	Oublin, Ca.	9456	3	ig C	İΙ	ajne	Z.		8 R	]		-	ļ				1	☐ Mu	st meet	lowest detecti	on limits
Consultant Prj. Mgr. Deanna L. Harding (deal	nna@grind	.com)			☐ Potable ☐ NPDES		Sont	☐ 8021 🜠									1		p06	sible for	8260 compo	unds
Consultant Phone #:925-551-7555	Fax #: <u>925</u> -	551-7899				}	of (	1	ည္ဆ	2	ן ו		7421					•			onfirmation	
Sampler: JOE ATEM	AN				1	후	nbe	I	8	8	5								1 -		hest hit by 82 hits by 8260	60
	SAR:	·					Ž	Ţ	<u>₹</u>	HSTC	\$2 **	Oxygenates	\$		- 1			1			xy s on highe	st hit
Sample Identification	Date Collected	Time Collected	Grab	Soil	Water	등	Total Number of Containers	BTEX +	TPH 8015 MOD	TPH 8015 MOD DRO	8260 full scan		Lead 7420 🗆	Ì		1			1		xy s on all hit	1
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STD. TAT 72 hour 48 hour 24 hour 4 day 5 day		Relinqui	nel	h	1	m	44	1_		1	Dete	13/	Time 1540	4	Receir	4Z					Date 4/14/05	Time
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Hent.

2425 New Holland Piks, 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 939587. Samples arrived at the laboratory on Friday, April 15, 2005. The PO# for this group is 99011184 and the release number is INGLIS.

Client Description		<u>Lancaster Labs Number</u>
OA-T-050414	NA Water	4504106
MW-1-W-050414	Grab Water	4504107
MW-2-W-050414	Grab Water	4504108

1 COPY TO **ELECTRONIC** COPY TO

Cambria C/O Gettler- Ryan

Gettler-Ryan

Attn: Deanna L. Harding Attn: Cheryl Hansen



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Questions? Contact your Client Services Representative Megan A Moeller at (717) 656-2300.

Respectfully Submitted,

Michele M. Turner

Michele M. Turner

Manager



Collected: 04/14/2005

Discard: 05/29/2005

# Analysis Report

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4504106 Lancaster Laboratories Sample No.

QA-T-050414 Facility# 209339 Job# 386521 5940 College Ave-Oakland 209339

Submitted: 04/15/2005 10:05

Reported: 04/28/2005 at 11:01

Water

GRD

QA

Account Number: 10904

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CAOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TR gasoline constituents eluting pr start time.	n.a. PH-GRO does not rior to the C6	N.D. include MTBE or (n-hexane) TPH-G	50. other RO range	ug/l	1
05879	BTEX					
02161 02164 02166 02171	Benzene Toluene Ethylbenzene Total Xylenes	71-43-2 108-88-3 100-41-4 1330-20-7	N.D. N.D. N.D. N.D.	0.5 0.5 0.5 1.5	ug/l ug/l ug/l ug/l	1 1 1

State of California Lab Certification No. 2116

		Laboratory	Chro	nicle Analysis		Dilution
CAT No. 01729	Analysis Name TPH-GRO - Waters	Method N. CA LUFT Gasoline	Trial# 1	Date and Time 04/27/2005 01:21	Analyst Deborah S Garrison	Factor 1
05879 01146	BTEX GC VOA Water Prep	Method SW-846 8021B SW-846 5030B	1	04/27/2005 01:21 ·04/27/2005 01:21	Deborah S Garrison Deborah S Garrison	1



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4504107 Lancaster Laboratories Sample No.

MW-1-W-050414

Grab

Facility# 209339 Job# 386521

5940 College Ave-Oakland 209339

MW-1

GRD

Collected: 04/14/2005 07:18

by JA

Submitted: 04/15/2005 10:05

Reported: 04/28/2005 at 11:01 Discard: 05/29/2005

ChevronTexaco 6001 Bollinger Canyon Rd L4310

Account Number: 10904

San Ramon CA 94583

CA001

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of Tigasoline constituents eluting postart time.	n.a. PH-GRO does not rior to the C6	N.D. include MTBE of (n-hexane) TPH-	50. r other GRO range	ug/l	1
05879	BTEX					
02161 02164 02166 02171	Benzene Toluene Ethylbenzene Total Xylenes	71-43-2 108-88-3 100-41-4 1330-20-7	N.D. N.D. N.D. N.D.	0.5 0.5 0.5 1.5	ug/l ug/l ug/l ug/l	1 1 1

State of California Lab Certification No. 2116

		Laboratory	Chro	nicle Analysis		Dilution
CAT No. 01729	Analysis Name TPH-GRO - Waters	Method N. CA LUFT Gasoline	Trial# 1	Date and Time 04/20/2005 20:02	<b>Analyst</b> Deborah S Garrison	Factor 1
05879 01146	BTEX GC VOA Water Prep	Method SW-846 8021B SW-846 5030B	-	04/20/2005 20:02 04/20/2005 20:02	Deborah S Garrison Deborah S Garrison	1 1



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by JA

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4504108 Lancaster Laboratories Sample No.

MW-2-W-050414

Facility# 209339 Job# 386521

5940 College Ave-Oakland 209339

GRD

Collected: 04/14/2005 06:40

MW-2

Account Number: 10904

Submitted: 04/15/2005 10:05

Reported: 04/28/2005 at 11:01

Discard: 05/29/2005

ChevronTexaco

6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### CA002

CHOOL						
				As Received Method		Dilution
CAT			As Received		Units	Factor
No.	Analysis Name	CAS Number	Result	Detection Limit	Onica	24000
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	640.	50.	ug/l	1
01730	The reported concentration of T gasoline constituents eluting p start time.	PH-GRO does not rior to the C6	t include MTBE or (n-hexane) TPH-G	other RO range		
05879	BTEX					
00161	Benzene	71-43-2	2.1	0.5	ug/l	1
02161		108-88-3	N.D.	2.0	ug/1	1
02164	Toluene	100-41-4	N.D.	2.0	ug/l	1
02166	Ethylbenzene	1330-20-7	7.5	1.5	ug/l	1
02171	Total Xylenes  Due to the presence of interfer reporting limits were not attai presence or concentration of th reporting limits due to the pre toluene ethylbenzene	ents near thei ined for the co nese compounds	r retention time, mpounds listed be cannot be determi	TOM. THE		

State of California Lab Certification No. 2116

		Laboratory	Chro	nicle Analysis		Dilution
CAT No. 01729	Analysis Name TPH-GRO - Waters	Method N. CA LUPT Gasoline	Trial# 1	Date and Time 04/27/2005 02:25	<b>Analyst</b> Linda C Pape	Factor 1
05879	BTEX GC VOA Water Prep	Method SW-846 8021B SW-846 5030B		04/27/2005 02:25 04/27/2005 02:25	Linda C Pape Linda C Pape	1



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## Quality Control Summary

Client Name: ChevronTexaco

Reported: 04/28/05 at 11:02 AM

Group Number: 939587

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

## Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS <u>%RBC</u>	LCSD <u>%REC</u>	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 05109A53B TPH-GRO - Waters Benzene Toluene Ethylbenzene Total Xylenes	Sample n N.D. N.D. N.D. N.D. N.D.	umber(s): 50. 0.5 0.5 0.5	4504107 ug/l ug/l ug/l ug/l ug/l	94 107 109 108 109	96 107 109 108 109	70-130 86-119 82-119 81-119 82-120	2 0 0 0	30 30 30 30
Batch number: 05116A53A TPH-GRO - Waters Benzene Toluene Ethylbenzene Toral Xvlenes	Sample n N.D. N.D. N.D. N.D. N.D.	number(s): 50. 0.5 0.5 0.5 1.5	4504106,49 ug/l ug/l ug/l ug/l ug/l	96 96 106 110 109	96 102 105 105 106	70-130 86-119 82-119 81-119 82-120	0 4 4 4	30 30 30 30 30

## Sample Matrix Quality Control

Analysis Name	MS %REC	msd %rec	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP RPD	Dup RPD
Batch number: 05109A53B TPH-GRO - Waters Benzene Toluene Ethylbenzene Total Xylenes	Sample 103 113 116 115 116	number	(s): 450410 63-154 78-131 78-129 75-133 86-132	17			•	÷	
Batch number: 05116A53A TPH-GRO - Waters Benzene Toluene Ethylbenzene Total Xylenes	Sample 100 105 109 110 111	e number	(s): 450410 63-154 78-131 78-129 75-133 86-132	06,4504	108				·

## Surrogate Quality Control

Analysis Name: BTEX Batch number: 05109A53B

Trifluorotoluene-F

Trifluorotoluene-P

\*- Outside of specification

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

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



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## Quality Control Summary

Client Nam	me: ChevronTexaco	Group Number: 939587
Reported:	04/28/05 at 11:02 F	M Surrogate Quality Control
4504107 Blank LCS LCSD MS	84 84 85 86 84	98 98 98 98 98
Limits:	70-142	69-137
Analysis Nam Batch number	me: BTEX r: 05116A53A Trifluorotoluene-F	Trifluorotoluene-P
4504106	85	96
4504100	88	88
Blank	86	96
LCS	86	97
LCSD	85	98
MS	86	95

\*- 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

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

N.D. TNTC IU umhos/cm C meq g ug ml m3	none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s) milliliter(s) cubic meter(s)	BMQL MPN CP Units NTU F Ib. kg mg I ul	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units degrees Fahrenheit pound(s) kilogram(s) milligram(s) liter(s) 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 is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).</p>
- 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:

## **Organic Qualifiers**

	Oldanio daminero		
A B C D E	TIC is a possible aldol-condensation product Analyte was also detected in the blank Pesticide result confirmed by GC/MS Compound quantitated on a diluted sample Concentration exceeds the calibration range of the instrument	B E M N S	Value is <crdl, (msa)="" additions="" but="" calculation<="" control="" due="" duplicate="" estimated="" for="" injection="" interference="" limits="" met="" method="" not="" of="" precision="" sample="" spike="" standard="" th="" to="" used="" within="" ≥idl=""></crdl,>
N P U X.Y.Z	Presumptive evidence of a compound (TICs only) Concentration difference between primary and confirmation columns >25% Compound was not detected Defined in case narrative	₩ *	Compound was not detected Post digestion spike out of control limits Duplicate analysis not within control limits Correlation coefficient for MSA <0.995

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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