

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

PD 2466

~~20113~~

September 2, 2003

ChevronTexaco

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

Alameda County

SEP 04 2003

Environmental Health

Re: Chevron Service Station # 206127

Address: 2301-2337 Blanding Avenue, Oakland, CA

I have reviewed the attached routine groundwater monitoring report dated August 15, 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

Enclosure: Report



GETTLER-RYAN INC.

TRANSMITTAL

August 15, 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

Alameda County
SEP 04 2003
Environmental Health

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	August 15, 2003	Groundwater Monitoring and Sampling Report Third Quarter - Event of July 16, 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 **August 29, 2003**, at which time the final report will be distributed to the following:

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

Enclosures



GETTLER-RYAN INC.

August 15, 2003
G-R Job #386498

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

RE: Third Quarter Event of July 16, 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.

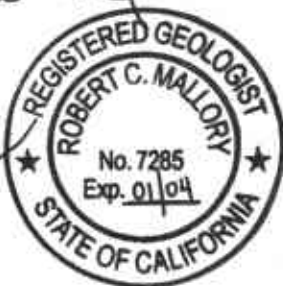
Groundwater samples were collected from the monitoring well and submitted to a state certified laboratory for analyses. The field data sheet for this event is attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also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

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

Sincerely,

Deanna L. Harding
Project Coordinator

Robert C. Mallory
Registered Geologist No. 7285



- 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

EXPLANATION

- ◆ Groundwater monitoring well
 - ◆ Canal water level gauging station from Park Street Bridge (RRM, October 1998)
 - ◇ Canal grab surface water sample
 - ⊙ Shallow groundwater survey point (Geomatrix, April 1995)
 - ⋯ Site features noted on Sanborn Fire Insurance map, dated 1932
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level

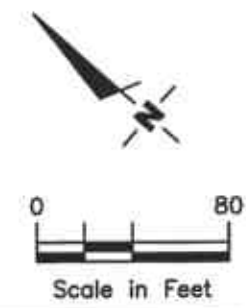
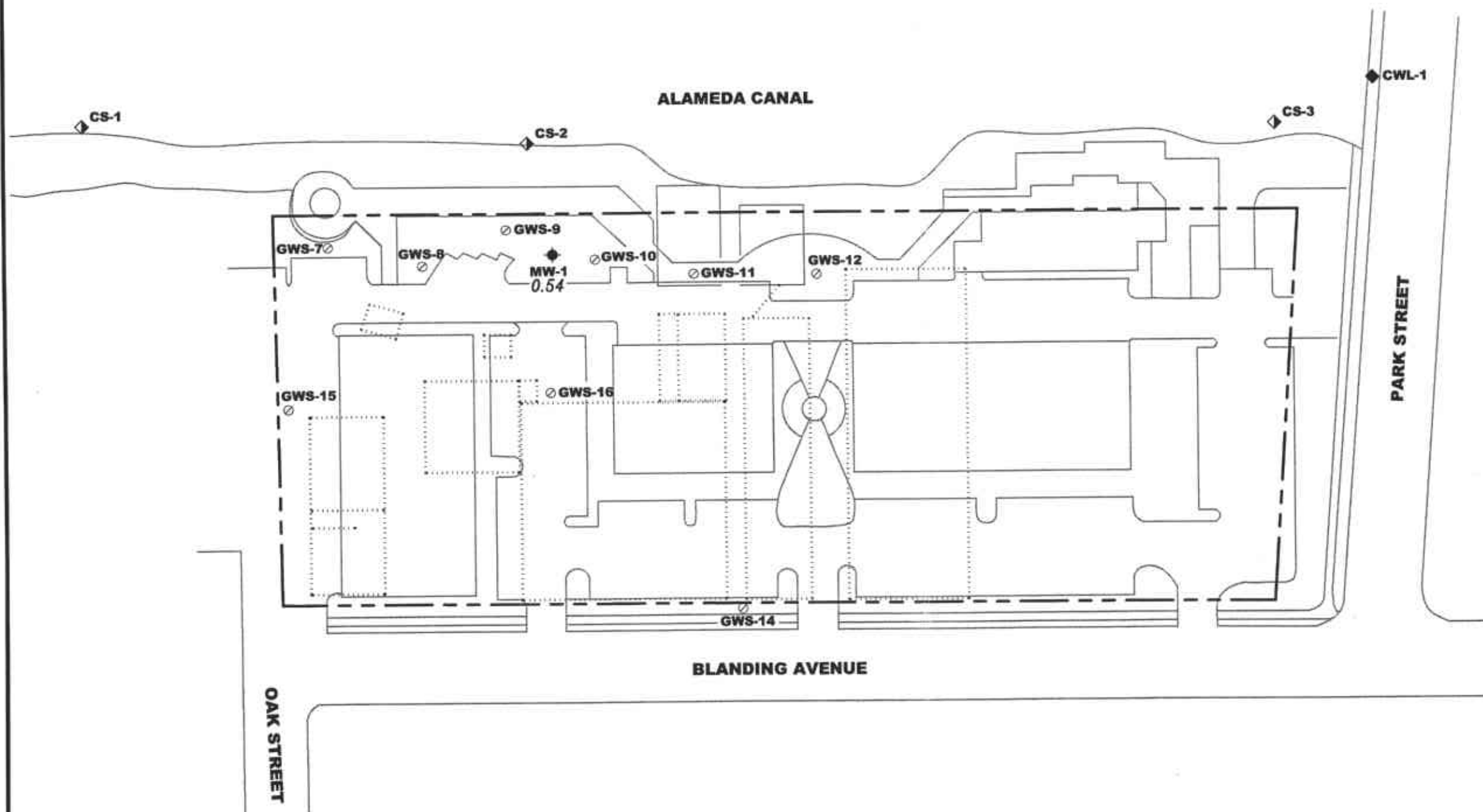


FIGURE 1

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

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

PROJECT NUMBER 386498
 REVIEWED BY
 DATE July 16, 2003
 REVISED DATE

Source: Figure modified from drawing provided by RRM engineering contracting firm.

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron #206127 (Former Signal Oil Marine Terminal)
2301-2337 Blanding Avenue
Alameda, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	01/23/01 ¹	7.16	--	1,100 ^{2,3}	5,210 ⁴	868	<50.0	<50.0	<50.0	<250
10.62	04/09/01	8.12	2.50	1,200 ⁶	3,000 ⁵	920	<20	<20	<20	<100
	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
CS-2	07/30/01	--	--	140 ^{3,5}	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/08/01	--	--	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	--	--	<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
Trip Blank										
TB-LB	01/23/01	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
	04/09/01	--	--	--	<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
QA	10/08/01	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	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

Table 1
Groundwater Monitoring Data and Analytical Results
 Chevron #206127 (Former Signal Oil Marine Terminal)
 2301-2337 Blanding Avenue
 Alameda, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
QA	01/14/03	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
(cont)	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

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
 (ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

CS-2 = Creek Sample

QA = Quality Assurance/Trip Blank

* 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).

¹ Well development performed.

² Laboratory report indicates unidentified hydrocarbons <C16.

³ TPH-D with silica gel cleanup.

⁴ Laboratory report indicates weathered gasoline C6-C12.

⁵ Laboratory report indicates discrete peaks.

⁶ Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.

⁷ Laboratory report indicates gasoline C6-C12.

⁸ Laboratory report indicates unidentified hydrocarbons C9-C24.

⁹ Analysis performed without silica gel cleanup although was requested on the Chain of Custody.

¹⁰ 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

Client/Facility #: ChevronTexaco #206127 Job Number: 386498
 Site Address: 2301-2337 Blanding Avenue Event Date: 7.16.03 (inclusive)
 City: Alameda, CA Sampler: FT

Well ID: MW-1 Date Monitored: 7.16.03 Well Condition: OK
 Well Diameter: 2 in.
 Total Depth: 17.16 ft.
 Depth to Water: 10.08 ft.
7.08 x VF .17 = 1.20 x3 (case volume) = Estimated Purge Volume: 3.61 gal.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 12:35 Weather Conditions: SHINY
 Sample Time/Date: 12:50 / 7.16.03 Water Color: CLOUDY / GREEN Odor: YES / STRONG
 Purging Flow Rate: 1 gpm. Sediment Description: SILTY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>12:38</u>	<u>1.0</u>	<u>8.11</u>	<u>1121</u>	<u>17.5</u>	_____	_____
<u>12:41</u>	<u>2.0</u>	<u>7.88</u>	<u>836</u>	<u>17.0</u>	_____	_____
<u>12:44</u>	<u>3.5</u>	<u>7.75</u>	<u>787</u>	<u>16.6</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)
	<u>2</u> x amber	YES	NP	LANCASTER	TPH-Dw/sg
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #206127 Job Number: 386498
 Site Address: 2301-2337 Blanding Avenue Event Date: 7.16.03 (inclusive)
 City: Alameda, CA Sampler: FT

Well ID: CS - 2 Date Monitored: N/A Well Condition: N/A
 Well Diameter: N/A in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF _____ = _____ x3 (case volume) = Estimated Purge Volume: _____ gal.

Purge Equipment:

Disposable Bailer

Stainless Steel Bailer _____

Stack Pump _____

Suction Pump _____

Grundfos _____

Other: _____

Sampling Equipment:

Disposable Bailer

Pressure Bailer _____

Discrete Bailer _____

Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): _____ Weather Conditions: SUNNY
 Sample Time/Date: 12:18 / 7.16.03 Water Color: CLEAR Odor: NO
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
		<u>7.28</u>	<u>2.50</u>	<u>22.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>CS - 2</u>	<u>6</u> x vov vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)
	<u>2</u> x amber	YES	NP	LANCASTER	TPH-Dw/sg

COMMENTS: CREEK SAMPLE

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____

071803-004

Facility #: SS#206127 G-R#386498 Global ID#
 Site Address: 2301-2337 BLANDING AVE., ALAMEDA, CA
 Chevron PM: KS Lead Consultant: CAMBRIA
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, Ca. 94568
 Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
 Sampler: FRANK TERRINONI
 Service Order #: _____ Non SAR: _____

Analyses Requested

Preservation Codes	
B	H
BTEX + MTBE 8260 <input checked="" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GRC
TPH 8015 MOD DRO <input checked="" type="checkbox"/>	8260 full scan
Oxygenates	Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

- J value reporting needed
 Must meet lowest detection limits possible for 8260 compounds
 8021 MTBE Confirmation
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix			Total Number of Containers	Analyses Requested								Comments / Remarks	
					Soil	Water	Air		BTEX + MTBE 8260	TPH 8015 MOD GRC	TPH 8015 MOD DRO	8260 full scan	Oxygenates	Lead 7420	7421			
QA	7.16.03				W			2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
MW-1	↓	1250	X		↓			800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
CS-2	↓	1218	X		↓			800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							

Turnaround Time Requested (TAT) (please circle)
 STD. TAT
 24 hour 72 hour 48 hour
 4 day 4 day 5 day

Relinquished by: [Signature] Date: 7.16.03 Time: _____ Received by: [Signature] Date: 7/16/03 Time: 1200

Data Package Options (please circle if required)
 QC Summary Type I — Full
 Type VI (Raw Data) Coelt Deliverable not needed
 WIP (RWQCB)
 Disk

Relinquished by: [Signature] Date: 7/16/03 Time: 1200 Received by: [Signature] Date: 7/16/03 Time: 1200

Relinquished by: [Signature] Date: 7/16/03 Time: 1600 Received by: [Signature] Date: 7/16/03 Time: _____

Relinquished by Commercial Carrier: [Signature] Received by: [Signature] Date: 7/17/03 Time: 0830

UPS FedEx Other [Signature] Temperature Upon Receipt: 35-75°C Custody Seals Intact? Yes No

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

RECEIVED

GETTLER RYAN INC.
GENERAL CONTRACTOR

SAMPLE GROUP

The sample group for this submittal is 860044. Samples arrived at the laboratory on Saturday, July 19, 2003. The PO# for this group is 99011184 and the release number is STREICH.

Client Description

QA Water Sample
MW-1 Grab Water Sample
CS-2 Grab Water Sample

Lancaster Labs Number

4085401
4085402
4085403

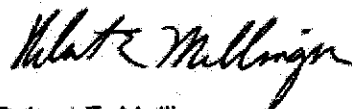
ELECTRONIC Gettler-Ryan
COPY TO
1 COPY TO Cambria C/O Gettler- Ryan

Attn: Cheryl Hansen

Attn: Deanna L. Harding

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

Respectfully Submitted,



Robert E. Mellinger
Senior Chemist, Coordinator

Lancaster Laboratories Sample No. WW 4085401

Collected: 07/16/2003 00:00

Account Number: 10904

Submitted: 07/19/2003 09:30

ChevronTexaco

Reported: 07/31/2003 at 00:54

6001 Bollinger Canyon Rd L4310

Discard: 08/31/2003

San Ramon CA 94583

QA Water Sample

Facility# 206127 Job# 386498

2301-2337 Blanding Ave.; Alameda, CA

BAAQA

CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01728	TPH-GRO - Waters	n.a.	N.D.	Detection Limit 50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
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/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

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT Gasoline	1	07/21/2003 14:38	K. Robert Caulfeild-James	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	07/28/2003 19:08	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/21/2003 14:38	K. Robert Caulfeild-James	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/28/2003 19:08	Susan McMahon-Luu	n.a.

Lancaster Laboratories Sample No. WW 4085402

Collected: 07/16/2003 12:50 by FT

Account Number: 10904

Submitted: 07/19/2003 09:30

ChevronTexaco

Reported: 07/31/2003 at 00:54

6001 Bollinger Canyon Rd L4310

Discard: 08/31/2003

San Ramon CA 94583

MW-1 Grab Water Sample

Facility# 206127 Job# 386498

2301-2337 Blanding Ave.; Alameda, CA

BAAM1

CAT No.	Analysis Name	CAS Number	As Received		Units	Dilution Factor
			As Received Result	Method Detection Limit		
01728	TPH-GRO - Waters	n.a.	780.	250.	ug/l	5
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	1,400.	50.	ug/l	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	85.	0.5	ug/l	1
05407	Toluene	108-88-3	1.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	0.8	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	0.7	0.5	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/22/2003 16:21	Steven A Skiles	5
02202	TPH-DRO CALUFT(Water) w/Si Gel	CALUFT-DRO/8015B, Modified	1	07/24/2003 13:13	Tracy A Cole	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	07/28/2003 19:31	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/22/2003 16:21	Steven A Skiles	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/28/2003 19:31	Susan McMahon-Luu	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	07/22/2003 01:10	David V Hershey Jr	1

Lancaster Laboratories Sample No. WW 4085403

Collected: 07/16/2003 12:18 by FT

Account Number: 10904

Submitted: 07/19/2003 09:30

Reported: 07/31/2003 at 00:54

Discard: 08/31/2003

CS-2 Grab Water Sample

Facility# 206127 Job# 386498

2301-2337 Blanding Ave.; Alameda, CA

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

BAAC2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH					
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	0.7	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	0.6	0.5	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	07/22/2003 04:02	K. Robert Caulfeild-James	1
02202	TPH-DRO CALUFT(Water) w/Si Gel	CALUFT-DRO/8015B, Modified	1	07/24/2003 15:29	Tracy A Cole	1
01594	BTEX+5 Oxygenates+EDC+EDB+ETOH	SW-846 8260B	1	07/28/2003 19:54	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	07/22/2003 04:02	K. Robert Caulfeild-James	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	07/28/2003 19:54	Susan McMahon-Luu	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	07/22/2003 01:10	David V Hershey Jr	1

Quality Control Summary

 Client Name: ChevronTexaco
 Reported: 07/31/03 at 12:54 AM

Group Number: 860044

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 032020028A TPH-DRO CALUFT(Water) w/Si Gel	N.D.	50.	Sample number(s): 4085402-4085403 ug/l	79	76	61-126	3	20
Batch number: 03202A16A TPH-GRO - Waters	N.D.	50.	Sample number(s): 4085401,4085403 ug/l	97	94	70-130	3	30
Batch number: 03203A16A TPH-GRO - Waters	N.D.	50.	Sample number(s): 4085402 ug/l	107	106	70-130	2	30
Batch number: W032091AA Methyl Tertiary Butyl Ether	N.D.	0.5	Sample number(s): 4085401-4085403 ug/l	94		77-127		
Benzene	N.D.	0.5	ug/l	93		85-117		
Toluene	N.D.	0.5	ug/l	90		85-115		
Ethylbenzene	N.D.	0.5	ug/l	89		82-119		
Xylene (Total)	N.D.	0.5	ug/l	89		84-120		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 03202A16A TPH-GRO - Waters			Sample number(s): 4085401,4085403 120 70-130					
Batch number: 03203A16A TPH-GRO - Waters			Sample number(s): 4085402 111 70-130					
Batch number: W032091AA Methyl Tertiary Butyl Ether			Sample number(s): 4085401-4085403 (2) (2) 69-134	3	30			
Benzene	103	101	83-128	2	30			
Toluene	100	99	83-127	1	30			
Ethylbenzene	97	96	82-134	1	30			
Xylene (Total)	98	95	82-130	3	30			

Surrogate Quality Control

 Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel
 Batch number: 032020028A
 Orthoterphenyl

4085402	82
4085403	107
Blank	99
LCS	104
LCSD	93

Limits: 59-139

Analysis Name: TPH-GRO - Waters

*- 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.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 07/31/03 at 12:54 AM

Group Number: 860044

Surrogate Quality Control

Batch number: 03202A16A
Trifluorotoluene-F

4085401	110
4085403	108
Blank	110
LCS	112
LCSD	115
MS	115

Limits: 57-146

Analysis Name: TPH-GRO - Waters
Batch number: 03203A16A
Trifluorotoluene-F

4085402	116
Blank	107
LCS	115
LCSD	117
MS	113

Limits: 57-146

Analysis Name: BTEX+5 Oxygenates+EDC+EDB+ETOH
Batch number: W032091AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4085401	86	92	94	88
4085402	88	91	95	91
4085403	87	90	94	89
Blank	88	90	94	87
LCS	88	90	93	89
MS	89	91	93	88
MSD	89	88	94	88
Limits:	81-120	82-112	85-112	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

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
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	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:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is <CRDL, but ≥IDL
B	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
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	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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