



# GETTLER-RYAN INC.

Ro-2466  
CO-065

## TRANSMITTAL

JUN 17 2002

May 29, 2002  
G-R #386498

**TO:** Mr. James Brownell  
Delta Environmental Consultants, Inc.  
3164 Gold Camp Drive, Suite 200  
Rancho Cordova, California 95670

**CC:** Mr. Thomas Bauhs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, California 94583

**FROM:** Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6747 Sierra Court, Suite J  
Dublin, California 94568

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

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 21, 2002	Groundwater Monitoring and Sampling Report Second Quarter - Event of April 8, 2002

### 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 **June 10, 2002**, at which time the final report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577  
Mr. Greg Gurss, Gettler-Ryan Inc., 3164 Gold Camp Drive, Suite 240, Rancho Cordova, CA 95670

Enclosures

trans/206127-1b



# GETTLER - RYAN INC.

May 21, 2002  
G-R Job #386498

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

**RE: Second Quarter Event of April 8, 2002**  
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

Douglas J. Lee  
Senior Geologist, R.G. No. 6882

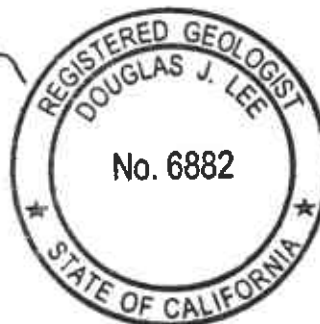
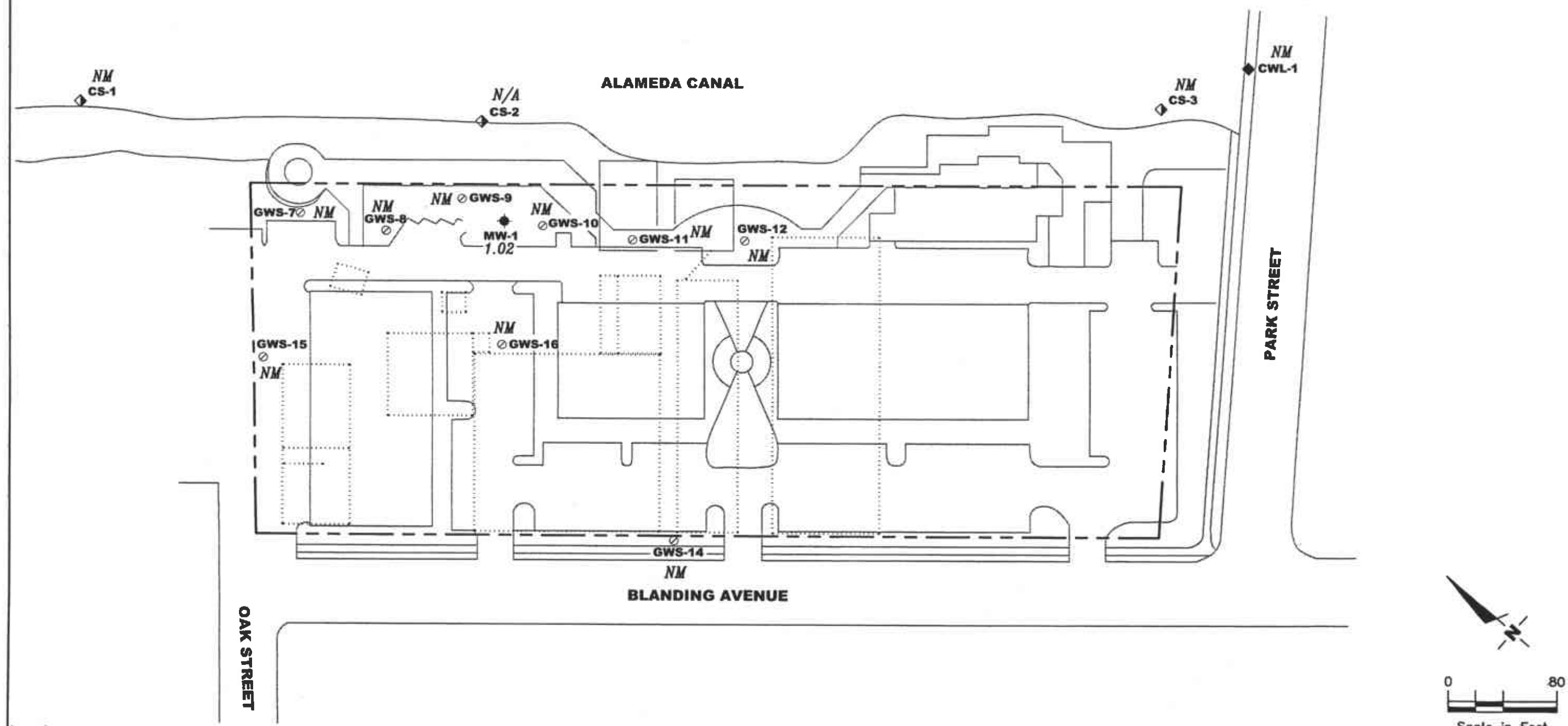


Figure 1: Groundwater Elevation Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

**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 |
| N/A   | Not Available  |
| NM    | Not Monitored  |

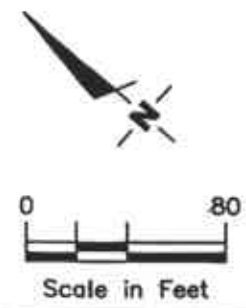


**GROUNDWATER ELEVATION MAP**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

DATE: April 8, 2002  
 REVISED DATE:

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

PROJECT NUMBER: 386498  
 REVIEWED BY:  
 FILE NAME: P:\Environ\Chevron\206127\002-20-6127.dwg | Layout Tab: Plot2



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 <sup>1</sup>	7.16	--	1,100 <sup>2,3</sup>	5,210 <sup>4</sup>	868	<50.0	<50.0	<50.0	<250
10.62	04/09/01	8.12	2.50	1,200 <sup>6</sup>	3,000 <sup>5</sup>	920	<20	<20	<20	<100
	07/30/01	9.15	1.47	550 <sup>4,8</sup>	2,000 <sup>7</sup>	730	13	<5.0	<5.0	<25
	10/08/01	7.86	2.76	2,200 <sup>9</sup>	1,200	120	2.4	5.9	6.4	<2.5
	01/13/02	7.02	3.60	3,300 <sup>4</sup>	930	320	0.78	0.87	3.8	<2.5
	04/08/02	9.60	1.02	1,200 <sup>4</sup>	960	50	1.4	2.6	9.0	<2.5
CS-2	07/30/01	--	--	140 <sup>4,5</sup>	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/08/01	--	--	53 <sup>9</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	01/13/02	--	--	<50 <sup>4</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	04/08/02	--	--	77 <sup>4</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
<b>Trip Blank</b>										
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

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

**EXPLANATIONS:**

TOC = Top of Casing	TPH-G = Total Petroleum Hydrocarbons as Gasoline	(ppb) = Parts per billion
(ft.) = Feet	B = Benzene	-- = Not Measured/Not Analyzed
DTW = Depth to Water	T = Toluene	CS-2 = Creek Sample
GWE = Groundwater Elevation	E = Ethylbenzene	QA = Quality Assurance
(msl) = Mean sea level	X = Xylenes	
TPH-D = Total Petroleum Hydrocarbons as Diesel	MTBE = Methyl tertiary butyl ether	

\* 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 Laboratory report indicates weathered gasoline C6-C12.
- 4 TPH-D with silica gel cleanup.
- 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.

## 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, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride 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 Chevron-designated 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.**

CHEVRON  
Facility# 206127  
Address: 2301-2337 Blundling Ave.  
City: Alameda, CA

Job#: 386498  
Date: 4.8.02  
Sampler: FT

Well ID: MW-1  
Well Diameter: 2" in.  
Total Depth: 17.40 ft.  
Depth to Water: 9.60 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0 (feet) Amount Bailed (Gallons)  
Volume Factor (VF):  
2" = 0.17      3" = 0.38      4" = 0.66  
6" = 1.50      12" = 5.80

7.80 x VF 17 = 1.32 x 3 (case volume) = Estimated Purge Volume: 3.97 (gal.)

Purge Equipment: (Disposable Bailer)  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: (Disposable Bailer)  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 3:28  
Sampling Time: 3:50  
Purging Flow Rate: NA gpm.  
Did well de-water? NO

Weather Conditions: SUNNY  
Water Color: CLOUDY/GREY Odor: YES  
Sediment Description: SILTY  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm $\times 100$	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>3:33</u>	<u>1.5</u>	<u>6.94</u>	<u>610</u>	<u>60.3</u>			
<u>3:37</u>	<u>3.0</u>	<u>6.87</u>	<u>663</u>	<u>59.9</u>			
<u>3:40</u>	<u>4.0</u>	<u>6.82</u>	<u>583</u>	<u>60.0</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#): CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA LAB.</u>	<u>TPH(G)/btex/mtbe</u>
	<u>2+ AMBIS</u>	<u>u</u>	<u>NP</u>	<u>u</u>	<u>TPH-D w/ S.C.</u>

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET.**

CHEVRON  
Facility# 206127  
Address: 2301-2337 Blundell Ave.  
City: Alameda, CA

Job#: 326498  
Date: 4.8.02  
Sampler: FT

Well ID CS-2

Well Condition: CRESIL SAMPLE

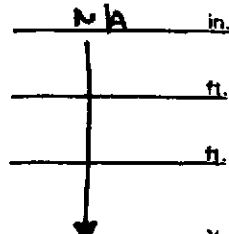
Well Diameter NA in.

Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth \_\_\_\_\_ ft.

Depth to Water \_\_\_\_\_ ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

 X VF \_\_\_\_\_ = \_\_\_\_\_ X 3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: (Disposable Bailer)  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: \_\_\_\_\_  
Sampling Time: 3:14  
Purging Flow Rate: \_\_\_\_\_ gpm.  
Did well de-water? \_\_\_\_\_

Weather Conditions: SUNNY  
Water Color: CLEAR Odor: YES  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ hos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

**LABORATORY INFORMATION**

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>CS-2</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA LAB.</u>	<u>TPH(G)/btex/mtbe</u>
	<u>2x AMPALS</u>	<u>"</u>	<u>NP</u>	<u>"</u>	<u>TPH-D w/ S.G.</u>

COMMENTS: TOOK SAMPLE AT DESIGNATED AREA AS SHOWN ON MAP.



# Chevron California Region Analysis Request/Chain of Custody



041002-008

For Lancaster Laboratories use only  
 Acct. #: 10905 Sample #: 3804291-3 SCR#: \_\_\_\_\_

Facility #: <u>206127</u> Job #: <u>386498</u> Global ID# <u>NA</u> Site Address: <u>2301-2337 BLANDING AVE., ALAMEDA, CA</u> Chevron PM: <u>Tom Bauhs</u> Lead Consultant: <u>Delta/G-R</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Dublin, Ca 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (Deanna@grinc.com)</u> Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>FRANK TERRINONI</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____			<b>Matrix</b> <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		<b>Analyses Requested</b>										<b>Preservative Codes</b> H = HCl    T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits								
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	8021A	TPH 8015 MOD	GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420	7421	Comments / Remarks	
QA			4.8.02				W				2	X	X										
MW-1			↓	1530	X		↓				5	X	X	X									
CS-2			↓	1514	X		↓				3	X	X	X									
Turnaround Time Requested (TAT) (please circle) STD. TAT    72 hour    48 hour 24 hour    4 day    5 day			Relinquished by: <u>Frank Terini</u> Date: <u>4.8.02</u> Time: _____ Received by: <u>Deanna Vanne</u> Date: <u>4/10/02</u> Time: <u>1520</u>		Relinquished by: <u>Deanna Vanne</u> Date: <u>4/10/02</u> Time: <u>1520</u> Received by: <u>Wayne Auber</u> Date: <u>4/11/02</u> Time: _____		Relinquished by: <u>Andrew Demage</u> Date: <u>4/10/02</u> Time: <u>1530</u> Received by: <u>Airborne</u> Date: <u>4-11-02</u> Time: _____		Relinquished by Commercial Carrier: UPS    FedEx    Other: <u>Airborne</u>		Received by: <u>Danny Blair</u> Date: <u>4/11/02</u> Time: <u>2045</u>		Temperature Upon Receipt: <u>25-35°C</u>		Custody Seals Intact?    Yes    No								



## ANALYTICAL RESULTS

Prepared for:

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904  
925-842-8582

Prepared by:

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

DELTA C/O GETTLER-RYAN  
GENERAL CONTRACTOR

## SAMPLE GROUP

The sample group for this submittal is 803754. Samples arrived at the laboratory on Friday, April 12, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

### Client Description

QA-T-020408	NA	Water
MW-1-W-020408	Grab	Water
CS-2-W-020408	Grab	Water

### Lancaster Labs Number

3804291
3804292
3804293

## METHODOLOGY

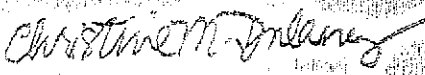
The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Delta C/O Gettler-Ryan

Attn: Deanna L. Harding

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

Respectfully Submitted,

  
Christine M. Dufaney  
Sr. Chemist



Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. **WW 3804291**

Collected: 04/08/2002 00:00

Account Number: 10905

Submitted: 04/12/2002 09:45  
 Reported: 04/22/2002 at 13:17  
 Discard: 05/23/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

QA-T-020408                      NA                      Water

Facility# 206127 Job# 386498                      GRD  
 2301-2337 BLANDING-ALAMED NA                      QA

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	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.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	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.					

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/13/2002 15:04	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	04/13/2002 15:04	John B Kiser	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/13/2002 15:04	John B Kiser	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit  
 N.D.=Not detected or above the Reporting Limit



Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. **WW 3804292**

Collected: 04/08/2002 15:50 by FT Account Number: 10905

Submitted: 04/12/2002 09:45  
 Reported: 04/22/2002 at 13:17  
 Discard: 05/23/2002  
 MW-1-W-020408 Grab Water  
 Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

Facility# 206127 Job# 386498 GRD  
 2301-2337 BLANDING-ALAMED NA NA

M1498

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	1,200.	100.	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.  Due to interferences from the sample matrix (high sediment content), the reporting limit was increased.						
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	960.	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.  Due to the nature of the sample matrix, the surrogate standard recovery is above the range of specifications.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	50.	0.50	ug/l	1
00777	Toluene	108-88-3	1.4	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	2.6	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	9.0	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
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.						

State of California Lab Certification No. 2116

#=Laboratory Method Detection Limit exceeded target detection limit  
 N.D.=Not detected above the Reporting Limit



Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. **WW 3804292**

Collected: 04/08/2002 15:50 by FT

Account Number: 10905

Submitted: 04/12/2002 09:45  
Reported: 04/22/2002 at 13:17  
Discard: 05/23/2002

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

MW-1-W-020408 Grab Water

Facility# 206127 Job# 386498 GRD  
2301-2337 BLANDING-ALAMED NA NA

M1498

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
02202	TPH-DRO CALUFT (Water) w/Si Gel	CA LUFT Diesel Range Organics	1	04/16/2002 16:02		Tracy A Cole	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2002 05:02		John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	04/14/2002 05:02		John B Kiser	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2002 05:02		John B Kiser	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	04/16/2002 05:30		JoElla L Rice	1

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected or above the Reporting Limit



2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories Sample No. WW 3804293

Collected: 04/08/2002 15:14 by FT

Account Number: 10905

Submitted: 04/12/2002 09:45  
Reported: 04/22/2002 at 13:17  
Discard: 05/23/2002

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

CS-2-W-020408 Grab Water

Facility# 206127 Job# 386498 GRD  
2301-2337 BLANDING-ALAMED NA NA

C2498

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	77.	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.						
01729	TPH-GRO - Waters					
01730	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.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
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.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
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#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected above the Reporting Limit



Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 1242  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



# Lancaster Laboratories

Where quality is a science.

Lancaster Laboratories Sample No. **WW 3804293**

Collected: 04/08/2002 15:14 by FT

Account Number: 10905

Submitted: 04/12/2002 09:45  
Reported: 04/22/2002 at 13:17  
Discard: 05/23/2002  
CS-2-W-020408

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

Grab Water

Facility# 206127 Job# 386498 GRD  
2301-2337 BLANDING-ALAMED NA NA

Sample ID	Method	Target	Result	Date	Time	Analyst	Count
C2498							
02202	TPH-DRO CALUFT(Water) w/Si Gel	CA LUFT Diesel Range Organics	1	04/16/2002	16:47	Tracy A Cole	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2002	05:35	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	04/14/2002	05:35	John B Kiser	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2002	05:35	John B Kiser	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	04/16/2002	05:30	JoElla L Rice	1

#=Laboratory Method Detection Limit exceeded target detection limit  
N.D.=Not detected at or above the Reporting Limit



Lancaster, PA 17605-2425  
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Client Name: Chevron Products Company  
 Reported: 04/22/02 at 01:17 PM

Group Number: 803754

#### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 021030003A      Sample number(s): 3804292-3804293								
TPH-DRO CALUFT(Water) w/Si Gel	N.D.	50.	ug/l	95	94	54-120	1	20
Batch number: 02103A16A      Sample number(s): 3804291								
Benzene	N.D.	0.5	ug/l	112	111	80-118	1	30
Toluene	N.D.	0.5	ug/l	114	112	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	110	108	81-119	2	30
Total Xylenes	N.D.	1.5	ug/l	111	110	82-120	2	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	97	95	79-127	3	30
TPH-GRO - Waters	N.D.	50.	ug/l	104	107	76-126	3	30
Batch number: 02103A16B      Sample number(s): 3804292-3804293								
Benzene	N.D.	0.5	ug/l	112	111	80-118	1	30
Toluene	N.D.	0.5	ug/l	114	112	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	110	108	81-119	2	30
Total Xylenes	N.D.	1.5	ug/l	111	110	82-120	2	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	97	95	79-127	3	30
TPH-GRO - Waters	N.D.	50.	ug/l	104	107	76-126	3	30

#### Sample Matrix Quality Control

Analysis Name	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup
	%REC	%REC	Limits	RPD	MAX	Conc	RPD	RPD
Batch number: 02103A16A      Sample number(s): 3804291								
Benzene	117		77-131					
Toluene	117		80-128					
Ethylbenzene	112		76-132					
Total Xylenes	112		76-132					
Methyl tert-Butyl Ether	100		61-144					
TPH-GRO - Waters	105		74-132					
Batch number: 02103A16B      Sample number(s): 3804292-3804293								
Benzene	117		77-131					
Toluene	117		80-128					
Ethylbenzene	112		76-132					
Total Xylenes	112		76-132					
Methyl tert-Butyl Ether	100		61-144					
TPH-GRO - Waters	105		74-132					

#### Surrogate Quality Control

Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel  
 Batch number: 021030003A  
 Orthoterphenyl

\*- 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.







## Lancaster Laboratories

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### Quality Control Summary

Client Name: Chevron Products Company  
Reported: 04/22/02 at 01:17 PM

Group Number: 803754

### Surrogate Quality Control

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3804292	82
3804293	100
Blank	100
LCS	97
LCSD	96

---

Limits: 59-157

Analysis Name: TPH-GRO - Waters

Batch number: 02103A16A

	Trifluorotoluene-F	Trifluorotoluene-P
3804291	75	99
Blank	79	99
LCS	105	98
LCSD	100	98
MS	124	97

---

Limits: 67-135 71-130

Analysis Name: TPH-GRO - Waters

Batch number: 02103A16B

	Trifluorotoluene-F	Trifluorotoluene-P
3804292	156*	102
3804293	79	98
Blank	77	98
LCS	105	98
LCSD	100	98
MS	124	97

---

Limits: 67-135 71-130

\*- 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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