TO CO - 065

November 26, 2001 G-R #386498

TPHd exceeds SEPZ Screening levels

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	November 16, 2001	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 8, 2001

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 *December 10, 2001*, 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

November 16, 2001 G-R Job #386498

Mr. Thomas Bauhs Chevron Products Company P.O. Box 6004 San Ramon, CA 94583

RE: Fourth Quarter Event of October 8, 2001

Groundwater Monitoring & Sampling Report

Chevron #206127 (Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue

Alameda, California

Dear Mr. Bauhs:

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.

No. 6882

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

Sincerely, Anamarie Vincan

- Foe -Deanna L. Harding

Project Coordinator

Douglas Lee

Senior Geologist, R.G. No. 6882

Figure 1:

Groundwater Elevation Map

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

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

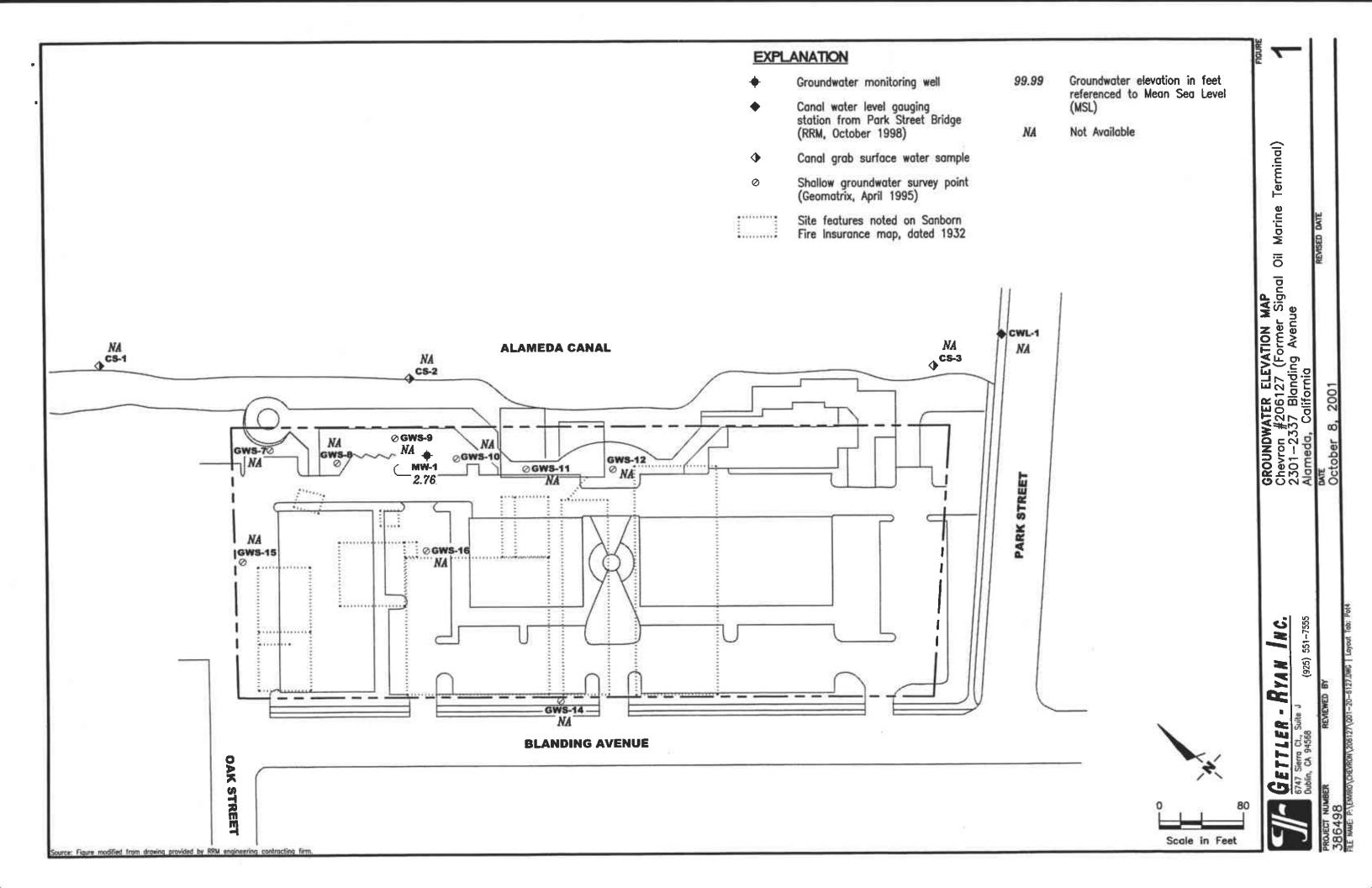


Table 1
Groundwater Monitoring Data and Analytical Results
Chevron #206127 (Former Signal Oil Marine Terminal)

2301-2337 Blanding Avenue Alameda, California

WELL ID/	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TOC*		U*-/::	(7180)	(PP-)	<u> </u>	***************************************				
MW-1	01/23/01	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
10.02	07/30/01	9.15	1.47	550 ^{4,8}	2,000 ⁷	730	13	<5.0	<5.0	<25
	10/08/01	7.86	2.76	2,2009	1,200	120	2.4	5.9	6.4	<2.5
,										
CS-2	07/30/01			140 ^{4,5}	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
C5-2	10/08/01			53 ⁹	<50	<0.50	<0.50	<0.50	<1.5	<2.5
Trip Blank										
TB-LB	01/23/01			~ ~	<50.0	<0.500	< 0.500	< 0.500	< 0.500	<2.50
10 00	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

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

DTW = Depth to Water

B = Benzene

QA = Quality Assurance

(ft.) = Feet

T = Toluene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

E = Ethylbenzene

CS-2 = Creek Sample

(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).
- Well development performed.
- Laboratory report indicates unidentified hydrocarbons <C16.</p>
- 3 Laboratory report indicates weathered gasoline C6-C12.
- ⁴ TPH-D with silica gel cleanup.
- 5 Laboratory report indicates discrete peaks.
- Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.
- ⁷ Laboratory report indicates gasoline C6-C12.
- 8 Laboratory report indicates unidentified hydrocarbons C9-C24.
- Analysis performed without silica gel cleanup as requested on the Chain of Custody. (but not done by lab)

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

•	WELL	MONITORI	NGIOAINI		•	
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CHEVRON	•			38649	<u> </u>	
ent/	206 127		Job#:			
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	9.69 x VF	.17 -1.0	X 3 (case volu	me) = Estimated Purge	VOIGHIE:	
	· — 1.01 × W			•		
	(Disposable Bailer)		Sampling	(Disposable Bailer)	
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Equipment:	Stack			Pressure Bailer		
	Suction			Grab Sample		
	Grundfos	•	. 01	her:		
	Other:					 -
				. Sup	<u> </u>	
	3:47	_ Wea	ther Conditions	L ICERES	Odor: 463	
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Sampling Time:		. Sed	iment Description	D14		lost.)
Purging Flow Ra	(t): ————		s; Time:	Volume		
Did well de-wat	er?			·	ODB	Alkalinity
5 .0		Conducth	dity Temper	ature D.O. (mg/L)	ORP (mV)	(bbw)
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					<u> </u>	
COMMENTS:		<u> </u>				
COMMENT						

WELL MONITORING/SAMPLING FIELD DATA SHEET

		FIELD DAT	A SHEET			,
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!!!	206 127		Job#:			
221	-2337 Blandi	na Ave	Date:	10.	8.01	
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ity: Har	neda. O	<i>T</i>	Sampler	í		
<u> </u>						
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Sampling Time:			nent Descripti			
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Time	Volume pH (gal.)	panhos/cm-	41000 F	F (mg/l	.j (mV)	(bbw)
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<u>Cs-2</u>	3 x VDA VIAL	- 	11	ži.	Тры-	•
	2 LT. AMBER					
	 					
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COMMENTS: .	TOOK C	REEK S	AMPLZ	FROM	COLFILOR	- 10 00
HT UO	E MAP.					
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Chevron California Region Analysis Request/Chain of Custody



O91001-001 Acct. #: 10905 | For Lancaster Laboratories use only | Sample #: 370.3285 | Sample

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Consultant Prj. Mgr.:	Deanna L. Harding	Dear	nna@grinc	.com				ខ្ញុ	8		S	l			Ì							8260 comp	ounas
Consultant Phone #:	925-551-7555	Fax #:9;	25 <u>-551-78</u>	99			_	io o	8260	88			ų,	7421		-					8021 MTBE C		260
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ANALYTICAL RESULTS

Prepared for:

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

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 781519. Samples arrived at the laboratory on Wednesday, October 10, 2001. The PO# for this group is 99011184 and the release number is BAUHS.

Client Descri	ription		Lancaster Labs Number
QA	NA	Water	3703285
ĈS-2	Grab	Water	3703286
MW-1	Grab	Water	3703287

METHODOLOGY

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

I 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,

Service Sr., Chemist



Page 1 of 1

Lancaster Laboratories Sample No. WW 3703285

Collected:10/08/2001 00:00

Account Number: 10905

Submitted: 10/10/2001 09:30 Reported: 10/18/2001 at 07:46

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004

Discard: 11/18/2001

QA

NA Water

San Ramon CA 94583-0904

Facility# 206127 J

Job# 386498

GRD

2301-2337 Blanding Alamed NA

QΑ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO N. California (waters)					
01730	TPH-GRO N. California (waters) The reported concentration of T gasoline constituents eluting p start time. A site-specific MSD sample was was performed to demonstrate p	PPH-GRO does no prior to the C6 not submitted	for the project.	-GRO range . A LCS/LCSD	ug/l	1
08214	BTEX, MTBE (8021)					
00776 00777 00778 00779 00780	Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether A site-specific MSD sample was was performed to demonstrate p	71-43-2 108-88-3 100-41-4 1330-20-7 1634-04-4 not submitted recision and a	N.D. N.D. N.D. N.D. N.D. for the project	0.50 0.50 0.50 1.5 2.5 . A LCS/LCSD ch level.	ug/1 ug/1 ug/1 ug/1 ug/1	1 1 1 1

State of California Lab Certification No. 2116

		Laborator	y Chro	nicle		
CAT No. 01729	Analysis Name TPH-GRO N. California	Method N. CALIF. LUFT	Trial#	Analysis Date and Time 10/11/2001 23:54	Analyst Melissa Mann	Dilution Factor 1
	(waters) BTEX, MTBE (8021) GC VOA Water Prep	Gasoline Method SW-846 8021B SW-846 5030B	1	10/11/2001 23:54 10/11/2001 23:54	Melissa Mann Melissa Mann	1 n.a.



Page 1 of 2

Lancaster Laboratories Sample No. WW 3703286

Collected: 10/08/2001 15:30 by FT

Submitted: 10/10/2001 09:30 Reported: 10/18/2001 at 07:46

Discard: 11/18/2001

CS-2

Grab Water Account Number: 10905

Chevron Products Company 6001 Bollinger Canyon Road

Building L PO Box 6004

San Ramon CA 94583-0904

As Received

Facility# 206127 Job# 386498

GRD

2301-2337 Blanding Alamed NA

NΑ

BACS2

				No Mecaryed		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
05553	TPH - DRO CA LUFT (Waters)	n.a.	53. J	50.	ug/l	1
	According to the California LUFT	Protocol, the	quantitation for	r Diesel		
	Range Organics was performed by					
	to that of our #2 fuel oil refer hydrocarbons).	rence standard	(between C10 and	C28 normal		
	Sufficient sample volume was not	available to	perform a MS/MSD	for this		
	analysis. Therefore, a LCS/LCSD	was performed	to demonstrate p	recision and		
	accuracy at a batch level.					
01729	TPH-GRO N. California (waters)					-
	man can we get the work a test of the					_
01730	TPH-GRO N. California (waters)		N.D.	50.	ug/l	1
	The reported concentration of TR gasoline constituents eluting pr					
	start time.	.ror to the ta	(II-Hexalle) IFE-G	no range		
	A site-specific MSD sample was r	ot submitted f	or the project.)	1.05/1.05h		
	was performed to demonstrate pre		•			
			aracy ac a water	20702.		
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 n	ot submitted f	or the project. A	A LCS/LCSD		

State of California Lab Certification No. 2116

was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle



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

Analysis Report



Page 2 of 2

Lancaster Laboratories Sample No. 3703286

Collected:10/08/2001 15:30 by FT Account Number: 10905

Submitted: 10/10/2001 09:30 Reported: 10/18/2001 at 07:46 Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004

Discard: 11/18/2001

Grab CS-2

San Ramon CA 94583-0904

Job# 386498 Facility# 206127

GRD

2301-2337 Blanding Alamed NA

NA

Water

BACS2 CAT No. 05553	Analysis Name TPH - DRO CA LUFT (Waters)	Method CA LUFT Diesel Range Organics	Trial#	Analysis Date and Time 10/12/2001 19:42	Analyst Devin M. Lahr	Dilution Factor
01729	TPH-GRO N. California	N. CALIF. LUFT	1	10/11/2001 18:01	Melissa Mann	1
08214 01146 02176	(waters) BTEX, MTBE (8021) GC VOA Water Prep Silica Quick Gel Cleanup	Gasoline Method SW-846 8021B SW-846 5030B FL-PRO, 11/95	1 1 1	10/11/2001 18:01 10/11/2001 18:01 10/11/2001 17:00	Melissa Mann Melissa Mann Elia R. Botrous	1 n.a. 1



Page 1 of 2

Lancaster Laboratories Sample No. 3703287

Collected:10/08/2001 16:06

by FT

Account Number: 10905

Submitted: 10/10/2001 09:30

Reported: 10/18/2001 at 07:46

Discard: 11/18/2001

MW-1

Grab

Water

Chevron Products Company 6001 Bollinger Canyon Road

Building L PO Box 6004

San Ramon CA 94583-0904

Facility# 206127

GRD

2301-2337 Blanding Alamed NA

Job# 386498

NА

BAMW1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection	Units	Dilution Factor
05553	TPH - DRO CA LUFT (Waters) According to the California LUFT Range Organics was performed by to that of our #2 fuel oil refer hydrocarbons). Sufficient sample volume was not analysis. Therefore, a LCS/LCSD accuracy at a batch level.	peak area comprence standard to	parison of the same (between ClO and perform a MS/MSD	mple pattern C28 normal for this	ug/l	1
01729	TPH-GRO N. California (waters)					
01730	TPH-GRO N. California (waters) The reported concentration of TR gasoline constituents eluting pr start time. A site-specific MSD sample was r was performed to demonstrate pre	cior to the C6	(n-hexane) TPH-G for the project.	RO range A LCS/LCSD	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	120.	0.50	ug/l	1
00777	Toluene	108-88-3	2.4	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	5.9	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	6.4	1.5	ug/l	1
00780	Methyl tert-Butyl Ether A site-specific MSD sample was r was performed to demonstrate pre				ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle



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



Page 2 of 2

Lancaster Laboratories Sample No. 3703287

Collected:10/08/2001 16:06

by FT

Account Number: 10905

Submitted: 10/10/2001 09:30

Reported: 10/18/2001 at 07:46

Discard: 11/18/2001

MW-1

Grab

Water

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004

San Ramon CA 94583-0904

Job# 386498 Facility# 206127

GRD

2301-2337 Blanding Alamed NA

NΑ

BAMW1 CAT No. 05553	Analysis Name TPH - DRO CA LUFT (Waters)	Method CA LUFT Diesel Range	Trial# 1	Analysis Date and Time 10/12/2001 20:10	Analyst Devin M. Lahr	Dilution Factor 1
01729	TPH-GRO N. California	Organics N. CALIF. LUFT Gasoline Method	1	10/11/2001 18:36	Melissa Mann	1
08214 01146 02176	(waters) BTEX, MTBE (8021) GC VOA Water Prep Silica Quick Gel Cleanup	SW-846 8021B SW-846 5030B FL-PRO, 11/95	1 1 1	10/11/2001 18:36 10/11/2001 18:36 10/11/2001 17:00	Melissa Mann Melissa Mann Elia R. Botrous	1 n.a. 1

Analysis Report



Page 1 of 2

Client Name: Chevron Products Company

Group Number: 781519

Reported: 10/18/01 at 07:46 AM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 012840002A TPH - DRO CA LUFT (Waters)	Sample n	umber(s):	3703286-37 ug/l	03287 99	79	54-120	23*	20
Batch number: 01284A56 Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether TPH-GRO N. California (waters)	Sample n N.D. N.D. N.D. N.D. N.D.	o.5 0.5 0.5 0.5 1.5 2.5 50.	3703285-37 ug/l ug/l ug/l ug/l ug/l ug/l	03287 106 106 108 108 103 106	108 108 110 110 108 109	80-118 82-119 81-119 82-120 79-127 76-119	2 1 2 2 4 3	30 30 30 30 30 30

Sample Matrix Quality Control

	MS	MSD	MS/MSD	•	RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	Limits	RPD	XAM	Conc	Conc	RPD	Max
Batch number: 01284A56 Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether TPH-GRO N. California (waters)	Sample 116 117 119 118 140 112	number	(s): 370324 66-140 72-138 71-138 69-140 60-145 74-132	85-37032	287				

Surrogate Quality Control

Analysis Name: TPH - DRO CA LUFT (Waters)

Batch number: 012840002A Orthoterphenyl

_	
3703286	86
3703287	87
Blank	85
LCS	125
LCSD	102

Limits: 59-157

Analysis Name: TPH-GRO N. California (waters)

Batch number: 01284A56 Trifluorotoluene-F Trifluorotoluene-P

3703285	102	97
3703286	100	99
3703287	128	115

*- 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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Analysis Report



Page 2 of 2

Client Name: Chevron Products Company

Group Number: 781519

Reported: 10/18/01 at 07:46 AM

Surrogate Quality Control

		0.5
Blank	102	96
Dramv	=	97
LCS	113	٥.
LCSD	114	97
TC2D	==:	98
MS	120	30

72-134 65-137 Limits:

*- 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.

