

#### **RECEIVED**

3:27 pm, Oct 02, 2007

Alameda County
Environmental Health

Satya P. Sinha Project Manager Retall and Terminal Business Unit

Chevron Environmental Management Company 6001 Bollinger Canyon Road, Room K2256 San Ramon, CA 94583 Tel (925) 842-9876 Fax (925) 842-8370 satyasinha@chevron.com

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

RE:

Chevron Service Station # 20-645

Address 300 Center St., Oakland, CA

I have reviewed the attached report dated 10/01/07

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 Cambria Environmental Technology, 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,

Satya P. Sinha

Attachment: Report

5900 Hollis Street, Suite A, Emeryville, California 94608 Telephone: 510·420·0700 Facsimile: 510·420·9170

www.CRAworld.com

October 1, 2007

Ms. Donna Drogos Hazardous Materials Specialist Alameda County Environmental Health Services (ACEHS) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Third Multi-Level Groundwater Monitoring Report

Former Signal Oil Service Station (Chevron Site #20-6145) 800 Center Street Oakland, California Fuel Leak Case No. RO0000454

Dear Ms. Drogos:

Conestoga-Rovers & Associates (CRA) is submitting this 3<sup>nd</sup> Multi-Level Groundwater Monitoring Report on behalf of Chevron Environmental Management Company (Chevron) in response to a February 6, 2007 letter from ACEHS (Attachment A). A site summary, a description of the current monitoring activities and conclusions are summarized below.

#### SITE SUMMARY

Site Description: The site is a former Signal Oil gasoline service station located on the northeastern corner of the intersection of 8th Street and Center Street in Oakland, California. Local topography is relatively flat and the site is approximately 15 feet above mean sea level (Figure 1). The site is currently undeveloped. Both commercial and residential properties are located in the vicinity of the site. The site was first developed as a service station in 1932. Four 1,000-gallon fuel underground storage tanks (USTs) and one used oil UST were installed when the site was built. These USTs were removed in 1973 when the station was closed. The nearest surface water body is Oakland Inner Harbor, located approximately 1 mile south of the site.

#### THIRD EVENT MULTI-LEVEL MONITORING ACTIVITIES

Groundwater Gauging and Sampling: Gettler-Ryan, Inc. (GR) of Dublin, California gauged and sampled groundwater monitoring wells MW-9 through MW-17 on August 17, 2007 (Figure 2). Groundwater samples were submitted for analysis to Lancaster Laboratories in Lancaster, Pennsylvania. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and total petroleum hydrocarbons as diesel (TPHd)

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by modified EPA Method 8015B and benzene, toluene, ethylbenzene and xylenes (BTEX), by EPA Method 8021B.

Analytical Results: The maximum TPHg and TPHd concentrations detected in groundwater were 8,200 micrograms per liter (μg/L) and 640 μg/L, respectively, in well MW-16, screened from 55-60 feet below grade (fbg). Benzene was detected at a maximum concentration of 110 μg/L in well MW-16, screened from 55-60 fbg. Hydrocarbon concentrations decreased during the third sampling event. Table 1 summarizes the analytic results with a comparison to the San Francisco Bay Regional Water Quality Control Board's environmental screening levels (ESLs) for groundwater (where groundwater is not a potential or current source of drinking water) as presented in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, February 2005. Groundwater analytic results are included as Attachment B.

#### CONCLUSIONS

Three groundwater sampling events have been performed on groundwater monitoring wells MW-9 through MW-17. CRA recommends that wells MW-9 through MW-17 be included in the quarterly monitoring and sampling program and recommend for this to begin in the Fourth Quarter 2007. A Feasibility Study/Corrective Action Plan, as requested by ACEHS, will be submitted under separate cover by November 1, 2007.



#### **CLOSING**

If you have any questions or comments, please contact Charlotte Evans at (510) 420-3351 or Satya Sinha of Chevron at (925) 842-9876.

Sincerely,

**Conestoga-Rovers & Associates** 

Charlotte Evans

cc:

Robert Foss, CA. P.G. No. 7445

Figures: 1 – Vicinity Map

2 – Site Plan

Tables: 1 – Analytic Results for Groundwater

Attachments: A – Regulatory Correspondence

B – Groundwater Analytic Data

Mr. Satya Sinha, Chevron Environmental Management Company, P.O. Box 6012, San Ramon,

CA 94583

Mr. Rene Boisvert. 800 Center LLC, 484 Lake Park Avenue #246, Oakland, CA 94610

I:\Chevron\206145 Oakland\GW Data\Deep Wells\206145 3rd event.10.07.doc

Conestoga-Rovers & Associates (CRA) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to CRA from outside sources and/or in the public domain, and partially on information supplied by CRA and its subcontractors. CRA makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by CRA. This document represents the best professional judgment of CRA. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.

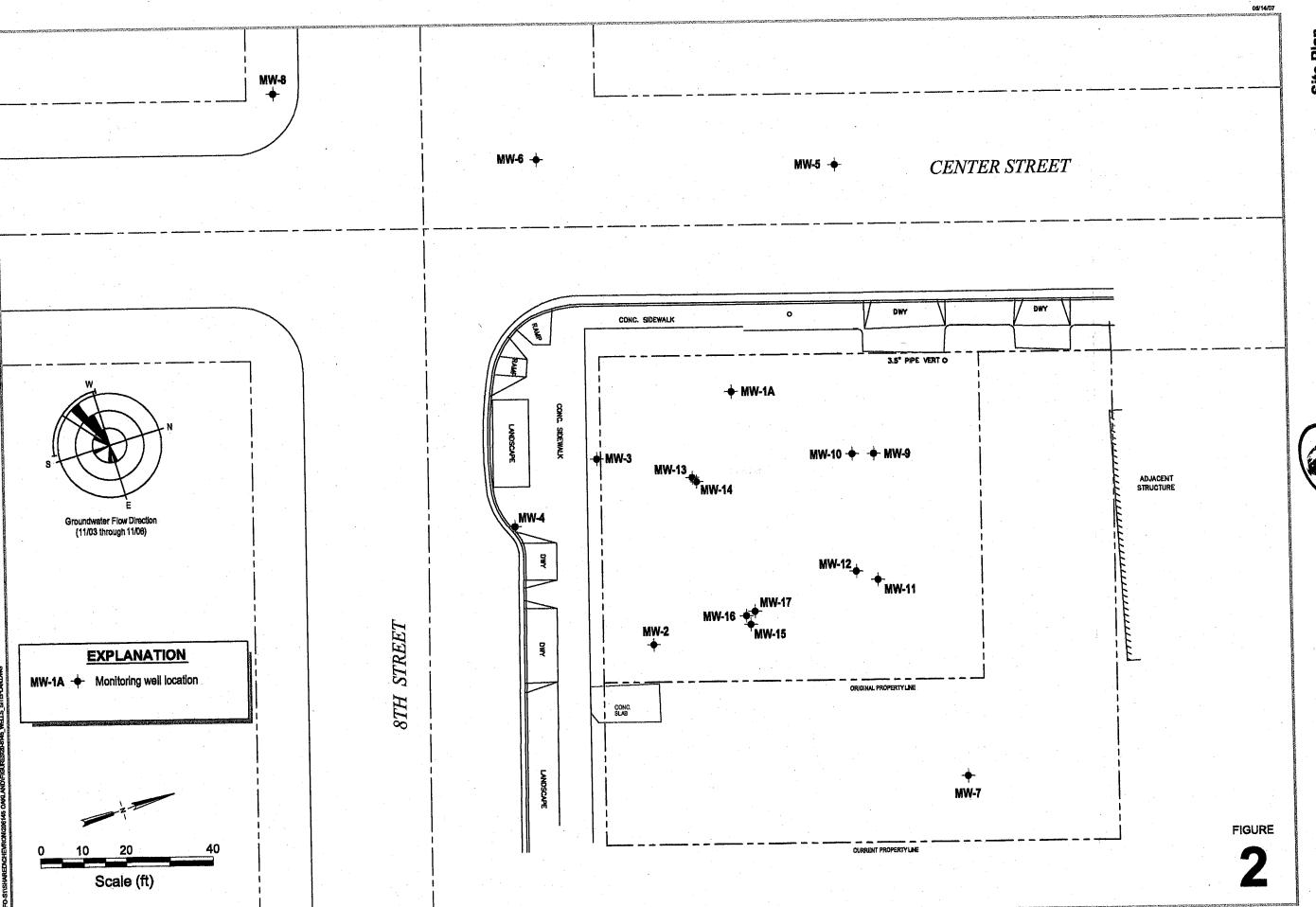
**Chevron Station No. 206145** 

800 Center Street
Oakland, California



SCALE : 1" = 1/4 MILE

**Vicinity Map** 



Site Plan

Former Chevron Station No. 20-6145 800 Center Street Oakland, California

### **CONESTOGA-ROVERS & ASSOCIATES**

Table 1. Analytic Results for Groundwater - Former Signal Oil Service Station 20-6145

Sample	Sample	Interval	TPHd	TPHg	В	T	Е	X
ID	Date	(fbg)		Concentratio	ns reported in	micrograms per	liter (µg/l)	
MW-9	04/20/07	35-40	1,100	4,100	28	6.9	9.2	240
	06/22/07		310	500	4.4	< 0.5	< 0.5	12
	08/17/07		92	<50	< 0.5	<0.5	< 0.5	<1.5
MW-10	04/20/07	55-60	260	1,200	29	31	11	140
	06/22/07		110	<50	1.5	< 0.5	< 0.5	<1.5
	08/17/07		53	<50	< 0.5	<0.5	<0.5	<1.5
MW-11	04/20/07	35-40	350	77	<2.0	4.6	< 0.5	3.2
	06/22/07		140	51	< 0.5	< 0.5	< 0.5	<1.5
	08/17/07		<50	<50	<0.5	< 0.5	< 0.5	<1.5
MW-12	04/20/07	55-60	430	400	2.3	40	14	49
	06/22/07		390	< 50	0.7	1.1	< 0.5	4.3
	08/17/07	·	<50	<50	<0.5	< 0.5	<0.5	<1.5
MW-13	04/20/07	35-40	140	650	16	23	7.5	61
	06/22/07		400	< 50	0.6	0.9	< 0.5	<1.5
	08/17/07		<50	<50	< 0.5	< 0.5	< 0.5	<1.5
MW-14	04/20/07	55-60	2,000	16,000	550	1,600	620	2,400
	06/22/07		1,300	3,700	190	150	49	580
	08/17/07		780	2,600	74	54	11	220
MW-15	04/20/07	35-40	720	240	1.0	1.3	< 0.5	20
	06/22/07		150	< 50	< 0.5	< 0.5	< 0.5	<1.5
	08/17/07		< 50	<50	<0.5	<0.5	<0.5	<1.5
MW-16	04/20/07	55-60	2,200	15,000	87	1,200	500	2,000
	06/22/07		2,100	10,000	130	1,800	580	1,400
	08/17/07		640	8,200	110	1,400	280	730
MW-17	04/20/07	70-75	1,300	7,400	66	880	300	1,300
	06/22/07		690	2,000	35	27	9.3	360
· · · · · · · · · · · · · · · · · · ·	08/17/07		240	380	6.7	2.3	0.5	15
ESL's			640	500	46	130	290	100

### Abbreviations/Notes:

Total Petroleum Hydrocarbons as diesel (TPHd) by EPA Method 8015M w/ silica gel cleanup

Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B

ESL = Environmental screening level (where groundwater is not a potential or current source of drinking water)

All ESL values taken from the SFB-RWQCB's Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, dated February 2005

Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA Method 8015M

fbg = feet below grade

 $<sup>&</sup>lt;_X$  = Not detected above method detection limit



### **ATTACHMENT A**

**Regulatory Correspondence** 

### ALAMEDA COUNTY **HEALTH CARE SERVICES**







FEB 1 2 2007

短以れONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION 11 Harbor Bay Parkway, Suite 250

DAVID J. KEARS, Agency Director

February 6, 2007

Mr. Satya Sinha Chevron Environmental Management 6001 Bollinger Canyon Rd., Room K2256 San Ramon, CA 94583

Mr. Rene Boisvert **Boulevard Equity Group** 484 Lakepark Ave. #246 Oakland, CA 94610

Dear Messrs. Sinha and Boisvert:

Subject: Fuel Leak Case No. RO0000454, Chevron #20-6145 / SIGNAL SS, 800 Center St., Oakland CA 94607

Alameda County Environmental Health (ACEH) staff has recently reviewed the case file for the subject site and has determined that additional work is necessary to progress the site towards closure. After our 11/9/06 meeting with both of you and Brown & Caldwell, it appeared that the proposed excavation of the site was not proceeding, however, it was unclear what direction the site investigation would be moving towards. We discussed verification sampling to confirm the original vertical contaminant profile. No other specific remediation was proposed at that time. The alternative of taking soil vapor samples and installing a vapor barrier were also discussed, however, given the residual contamination at this site, this alternative is not acceptable if residential housing is proposed. Please address the following technical comments and submit the technical reports requested below.

### TECHNICAL COMMENTS

1. Assuming that confirmation sampling is still intended to verify the vertical extent of contamination, please submit a work plan to take current depth discrete soil and groundwater samples. Please include a table and figure indicating the previous data and the locations of the confirmation samples.

2. If the previously approved dewatering and excavation is not going to be done, please explain specifically the reasons why. Please keep in mind that Fund reimbursement is not an acceptable reason. Please submit a new Feasibility Study/Corrective Action Plan. The FS/CAP should be able to meet clean-up goals consistent with the future property use in a timely manner.

### TECHNICAL REPORT REQUEST

Please submit the following technical reports according to the following schedule:

- March 6, 2007 Work Plan for Re-sampling Site
- March 6, 2007- FS/CAP

Messrs. Inglis and Boisvert February 6, 2007 Page 2

#### **ELECTRONIC SUBMITTAL OF REPORTS**

Effective January 31, 2006, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at barney.chan@acgov.org.

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

Messrs. Inglis and Boisvert February 6, 2007 Page 3

### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6765.

Sincerely,

Barney M. Chan

Sangy M Che

Hazardous Materials Specialist

cc: files, D. Drogos

Ms. Charlotte Evans, Cambria Environmental, 5900 Hollis St., Suite A, Emeryville,

CA 94608

Mr. Hollis Rodgers, 215 W. MacArthur Blvd., Apt. #434, Oakland, CA 94611

2 6\_07 800Center St



### **ATTACHMENT B**

**Groundwater Analytic Results** 

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

#### ANALYTICAL RESULTS

Prepared for:

Chevron 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 1052181. Samples arrived at the laboratory on Saturday, August 18, 2007. The PO# for this group is 0015014975 and the release number is SINHA.

Client Description		<u>.</u>	<u>Lancaster Labs Number</u>
MW-9-W-070817	Grab	Water	5132233
MW-10-W-070817	Grab	Water	5132234
MW-11-W-070817	Grab	Water	5132235
MW-12-W-070817	Grab	Water	5132236
MW-13-W-070817	Grab	Water	5132237
MW-14-W-070817	Grab	Water	5132238
MW-15-W-070817	Grab	Water	5132239
MW-16-W-070817	Grab	Water	5132240
MW-17-W-070817	Grab	Water	5132241

ELECTRONIC COPY TO

CRA c/o Gettler-Ryan

Attn: Cheryl Hansen



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-658-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative Angela M Miller at (717) 656-2300

Respectfully Submitted,

Martha L. Scidel
Martha L. Scidel
Senior Chemist



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Lancaster Laboratories Sample No. 5132233

MW-9-W-070817

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-9 Collected: 08/17/2007 11:00

by AC

Account Number: 10904

Submitted: 08/18/2007 09:45

Reported: 09/04/2007 at 15:16

Discard: 10/05/2007

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CSO09 I 5E w

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	92.	50.	ug/l	1
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 of (n-hexane) TPH-0	50. r other GRO range	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	1	08/31/2007 05:26	Diane V Do	. 1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	08/21/2007 01:33	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1.	08/21/2007 01:33	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	. 1.	08/21/2007 01:33	Martha L Seidel	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. 5132234

MW-10-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-10 Collected: 08/17/2007 11:35

Account Number: 10904

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16 Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Discard: 10/05/2007

CSO10 I 5E w

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	53.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.	n.a. PH-GRO does no rior to the C6	N.D. t include MTBE o (n-hexane) TPH-	50. or other GRO range	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	1	08/31/2007 05:48	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B	1	08/21/2007 02:06	Martha L Seidel	1.
05879	BTEX	SW-846 8021B	· . 1	08/21/2007 02:06	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/21/2007 02:06	Martha L Seidel	1
02376	Extraction - Fuel/TPH	SW-846 3510C	. 1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. 5132235

MW-11-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-11

Collected:08/17/2007 12:40

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16 Chevron 6001 Bollinger Canyon Rd L4310

Discard: 10/05/2007

San Ramon CA 94583

Account Number: 10904

CS011

1 JH W				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.	n.a. PH-GRO does not rior to the C6	N.D. include MTBE o (n-hexane) TPH-	50. r other GRO range	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/1	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

		Laboracory	CIII O	IIICIE		
CAT		_		Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	1	08/31/2007 06:11	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1.	08/21/2007 02:39	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	08/21/2007 02:39	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/21/2007 02:39	Martha L Seidel	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. 5132236

MW-12-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-12

Collected:08/17/2007 11:45

Account Number: 10904

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16

Discard: 10/05/2007

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CS012 I 5E w

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.				ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT			2		Analysis		Dilution
No.	Analysis Name	Method		Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B		1	08/31/2007 06:33	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 mod	8015B	1	08/21/2007 03:12	Martha L Seidel	1
05879	BTEX	SW-846 8021B		1	08/21/2007 03:12	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B		1	08/21/2007 03:12	Martha L Seidel	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C		1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. 5132237

MW-13-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-13

Collected: 08/17/2007 13:10

Account Number: 10904

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16

Discard: 10/05/2007

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CSO13 I 5E w

I 5E W				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
01729	TPH-GRO - Waters	÷ .				
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.				ug/1	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/1	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	1	08/31/2007 06:57	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	08/21/2007 23:12	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	08/21/2007 23:12	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/21/2007 23:12	Martha L Seidel	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. 5132238

MW-14-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-14 Collected:08/17/2007 12:40

Account Number: 10904

Submitted: 08/18/2007 09:45

Chevron

Reported: 09/04/2007 at 15:16

6001 Bollinger Canyon Rd L4310

Discard: 10/05/2007

San Ramon CA 94583

CSO14 I 5E w

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	780.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.				ug/l	· <b>1</b>
05879	BTEX					
02161	Benzene	71-43-2	74.	0.5	ug/l	1
02164	Toluene	108-88-3	54.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	11.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	220.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	. 1	08/31/2007 17:31	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	08/21/2007 23:45	Martha L Seidel	1.
05879	BTEX	SW-846 8021B	1	08/21/2007 23:45	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/21/2007 23:45	Martha L Seidel	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	. 1



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Lancaster Laboratories Sample No. 5132239

MW-15-W-070817

Grab

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-15 Collected: 08/17/2007 10:50

by AC

Account Number: 10904

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16

Discard: 10/05/2007

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

CSO15 I 5E w

T DE M				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	N.D.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of TP 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/1	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	1.	08/31/2007 07:42	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B	1	08/22/2007 00:18	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	08/22/2007 00:18	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/22/2007 00:18	Martha L Seidel	1
02376	Extraction - Fuel/TPH	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	.1



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Lancaster Laboratories Sample No. 5132240

MW-16-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-16

Account Number: 10904

Collected: 08/17/2007 11:00

by AC

Chevron

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16

6001 Bollinger Canyon Rd L4310

Discard: 10/05/2007

San Ramon CA 94583

CS016 I 5E w

1 32 "				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	640.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.	n.a. PH-GRO does not rior to the C6	8,200. include MTBE o (n-hexane) TPH-	500. r other GRO range	ug/l	10
05879	BTEX					
02161	Benzene	71-43-2	110.	5.0	ug/l	10
02164	Toluene	108-88-3	1,400.	5.0	ug/l	1.0
02166	Ethylbenzene	100-41-4	280.	5.0	ug/l	10
02171	Total Xylenes	1330-20-7	730.	15.	ug/l	10

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Chronicle

CAT			Dilution			
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	. 1	08/31/2007 08:05	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	. 1	08/22/2007 07:59	Martha L Seidel	10
05879	BTEX	SW-846 8021B	1	08/22/2007 07:59	Martha L Seidel	10
01146	GC VOA Water Prep	SW-846 5030B	. 1	08/22/2007 07:59	Martha L Seidel	10
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	1



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Lancaster Laboratories Sample No. WW 5132241

MW-17-W-070817

Grab

Water

Facility# 206145 Job# 386492

GRD

800 Center Street-Oakland T0600102230 MW-17

Account Number: 10904

Collected: 08/17/2007 09:15 by AC

Chevron

Submitted: 08/18/2007 09:45 Reported: 09/04/2007 at 15:16

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Discard: 10/05/2007

CSO17 I 5E w

I 5E W				As Received		
CAT No.	Analysis Name	CAS Number	As Received Result	Method Detection Limit	Units	Dilution Factor
06610	TPH-DRO (Water) w/Si Gel	n.a.	240.	50.	ug/l	1
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters The reported concentration of T gasoline constituents eluting p start time.	n.a. PH-GRO does no rior to the C6	380. t include MTBE o (n-hexane) TPH-	50. r other GRO range	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	6.7	0.5	ug/l	1
02164	Toluene	108-88-3	2.3	0.5	ug/l	1
02166	Ethylbenzene	1.00-41-4	0.5	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	15.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Chronicle
TIGDOT G LOT A	

CAT			Dilution			
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
06610	TPH-DRO (Water) w/Si Gel	SW-846 8015B	. 1	08/31/2007 08:27	Diane V Do	1
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	08/22/2007 00:50	Martha L Seidel	1
05879	BTEX	SW-846 8021B	. 1	08/22/2007 00:50	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/22/2007 00:50	Martha L Seidel	1
02376	Extraction - Fuel/TPH	SW-846 3510C	1	08/21/2007 11:00	Jessica Agosto	1



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### Quality Control Summary

Client Name: Chevron

Group Number: 1052181

Reported: 09/04/07 at 03:16 PM

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 <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 07231A51B	Sample nu	mber(s):	5132233-51	32236				
TPH-GRO - Waters	N.D.	50.	ug/1 .	114	123	75-135	7	30
Benzene	N.D.	0.5	ug/l	99	101	86-119	2	30
Toluene	N.D.	0.5	ug/l	99	97	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	99	97	81-119	2	30
Total Xylenes	N.D.	1.5	ug/l	100	97	82-120	3	30
Batch number: 072320019A	Sample nu	mber(s):	5132233-51	32241				
TPH-DRO (Water) w/Si Gel	N.D.	29.	ug/l	106	109	63-119	2	20
Batch number: 07233A51A	Sample nu	mber(s):	5132237-51	32241				
TPH-GRO - Waters	N.D.	50.	ug/l	107	113	75-135	6	30
Benzene	N.D.	0.5	ug/l	96	101	86-119	5	30
Toluene	N.D.	0.5	ug/l	96	97	82-119	1	30
Ethylbenzene	N.D.	0.5	ug/l	97	98	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	97	99	82-120	2	30

#### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS MSD %REC %REC	MS/MSD Limits RPD	RPD MAX	BKG Conc	DUP Conc	DUP <u>RPD</u>	Dup RPD Max
Batch number: 07231A51B TPH-GRO - Waters Benzene Toluene Ethylbenzene Total Xylenes	Sample number 137 104 110 106 108	(s): 5132233-51322 63-154 78-131 78-129 75-133 84-131	36 UNSPI	K: P132189,	P132190		
Batch number: 07233A51A TPH-GRO - Waters Benzene Toluene Ethylbenzene Total Xylenes	Sample number 140 106 100 99	(s): 5132237-51322 63-154 78-131 78-129 75-133 84-131	41 UNSPI	K: P132245,	P132246		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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### Quality Control Summary

Client Name: Chevron

Group Number: 1052181

Reported: 09/04/07 at 03:16 PM

Surrogate Quality Control

Analysis Name: TPH-GRO - Waters

Batch number: 07231A51B Trifluorotoluene-F

Daten nama	Trifluorotoluene-F	Trifluorotoluene-P
5132233	118	116
5132234	117	117
5132235	118	116
5132236	118	117
Blank	120	115
LCS	116	116
LCSD	117	115
MS	120	116
Limits:	63-135	69-129

Analysis Name: TPH-DRO (Water) w/Si Gel Batch number: 072320019A Orthoterphenyl

5132233	110
5132234	108
5132235	103
5132236	107
5132237	104
5132238	70
5132239	99
5132240	111
5132241	131
Blank	108
LCS	127

59-131 Limits:

LCSD

Analysis Name: TPH-GRO - Waters Batch number: 07233A51A

135\*

	Trifluorotoluene-F	Trifluorotoluene-P
5132237	117	116
5132238	136*	122
5132239	118	113
5132240	119	11.5
5132241	123	116
Blank	118	115
LCS	119	116
LCSD	119	115
MS	117	114
Limits:	63-135	69-129

\*- Outside of specification

(2) The unspiked 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.

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

For Lancaster Laboratories use only

4	Lancaster Laboratories
<b>18</b> ?	Lauvialviles

Lancaster Laboratories	081707	7-02 1020	_	Ac	ct. #: <u>/</u>	09	04		F Sampl	or Lan	icast 113	96 96	borat 33	ories )-4	use o	only Group #:	002	69 <b>8</b>
W. Laboratories		10 W	8 2			Г		<u>·</u>	Ana	alyses	Re	ques	sted			10th 1050		
Facility #: SS#206145-OML G-R#38649 Site Address 800 CENTER STREET, OAK	LAND, CA			Matrix		#	It	dnu	Pre	eserva	tion	Coc	des			N = HNO <sub>3</sub>	T = Thio: B = NaO	sulfate H
Chevron PM: S Lead Consultant: CRACE  Consultant/Office: Deanna L. Harding (deanna@grinc.com)  Consultant Prj. Mgr.: Pax #:925-551-7899  Sampler: Date Time Collected				☐ Potable ☐ NPDES	Oil L. Air Total Number of Containers	8	TPH 8015 MOD GRO	TPH 8015 MOD DRO K Silica Gel Cleanup	ll scan	Oxygenates and Method	Dissolved Lead Method					☐ J value reporti ☐ Must meet low possible for 82 8021 MTBE Con ☐ Confirm highe ☐ Confirm all hits	vest detect 260 composition firmation st hit by 8 s by 8260	d tion limits ounds 260
Sample Identification		Time &		×	otal O	BTEX			8260 full scan	Total Lead	Dissolve					☐ Run oxy	's on all hi	
MW-9 MW-10 MW-11 MW-13 MW-13 MW-14 MW-15 MW-15		100 x 135 x 140 x 145 x 140 x 140 x 100 x		x	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	X	X X	X XX XX XX								Comments/R		)F
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Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data) □ Coelt Deliverable not nee WIP (RWQCB) Disk		Relinquished by UPS Temperature U	FedEx		Othe		5-0	/Dal	te	Time	Re	eceive VV	ed by: Uh y Sea	1	A act?	LYGS NO	Date Date	Time Time

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

4804.01 (north) Rev. 10/12/06

## Lancaster Laboratories 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
С	degrees Celsius	F	degrees Fahrenheit
Cal	(diet) calories	lb.	pound(s)
meg	milliequivalents	kg	kilogram(s)
9	gram(s)	mg	milligram(s)
ug	microgram(s)	Ĭ	liter(s)
ml	milliliter(s)	· ul	microliter(s)
m3	cubic meter(s)	fib >5 um/ml	fibers greater than 5 microns in length per r

- < 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
- 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**Besults 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.

U.S. EPA data qualifiers:

Α

Ε

#### **Organic Qualifiers**

Analyte was also detected in the blank

Pesticide result confirmed by GC/MS

TIC is a possible aldol-condensation product

# Value is <CRDL, but ≥IDL Estimated due to interference Duplicate injection precision not met

**Inorganic Qualifiers** 

ml

Compound quatitated on a diluted sample
Concentration exceeds the calibration range of the instrument

N Spike amount not within control limits
Method of standard additions (MSA) used for calculation

В

Ε

М

Estimated value

U
Compound was not detected
Presumptive evidence of a compound (TICs only)
W
Post digestion spike out of control limits

N Presumptive evidence of a compound (TICs only)
P Concentration difference between primary and confirmation columns >25%

P Post digestion spike out of control limits

Duplicate analysis not within control limits

Correlation coefficient for MSA <0.995

U Compound was not detected

X,Y,Z Defined in case narrative

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

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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