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9:39 am, Apr 22, 2009

Alameda County
Environmental Health

Stacie H. Frerichs Team Lead Marketing Business Unit

Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 842-9655 Fax (925) 842-8370

April 20, 2009 (date)

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

Re: Chevron Facility # 9-6991

Address: 2920 Castro Valley Boulevard, Castro Valley, California

I have reviewed the attached report titled <u>First Quarter 2009 Groundwater Monitoring Report</u> and dated <u>April 20, 2009</u>.

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 Conestoga-Rovers & Associates, 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.

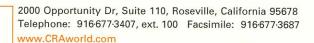
I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Stacie H. Frerichs Project Manager

5H Frencho

Enclosure: Report





April 20, 2009

Reference No. 611633

Mr. Steven Plunkett Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re:

First Quarter 2009 Groundwater Monitoring Report

Chevron Service Station 9-6991 2920 Castro Valley Boulevard Castro Valley, California LOP Case #RO0000475

Dear Mr. Plunkett:

Conestoga-Rovers & Associates (CRA) is submitting the attached *Groundwater Monitoring and Sampling Report* (report) to Alameda County Environmental Health (ACEH) on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above. The report (prepared by Gettler-Ryan Inc. and dated March 31, 2009) presents the results of the monitoring and sampling of wells MW-1, MW-2, MW-4, MW-6, and MW-7 during first quarter 2009. Wells MW-4, MW-6, and MW-7 are sampled on a quarterly basis, well MW-1 is sampled on an annual basis during the first quarter, and well MW-2 is sampled on a semi-annual basis during the first and third quarters. Also attached are Figure 1 (Vicinity Map) showing the site location, and Figure 2 (Concentration Map) presenting the first quarter 2009 analytical results along with a rose diagram.

Please note that CRA requested a reduction of the monitoring frequency of wells MW-4 and MW-6 to annual and semi-annual, respectively, and the elimination of ethanol from the analytical suite (all wells), in our November 14, 2008 Second and Third Quarter 2008 Groundwater Monitoring Report; but did not receive a response from ACEH. We again requested a response to the proposed sampling reductions in our January 28, 2009 Fourth Quarter 2008 Groundwater Monitoring Report and Proposed Sampling Reductions, but again did not receive a response from ACEH. Therefore, we are assuming consent and will implement the above sampling reductions beginning with the second quarter 2009 event.



April 20, 2009

Reference No. 611633

Exp. 9/30/09

-2-

Please contact Mr. James Kiernan at (916) 751-4102 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Benedict

James P. Kiernan, P.E. #C68498

CB/kw/3 Encl.

Figure 1

Vicinity Map

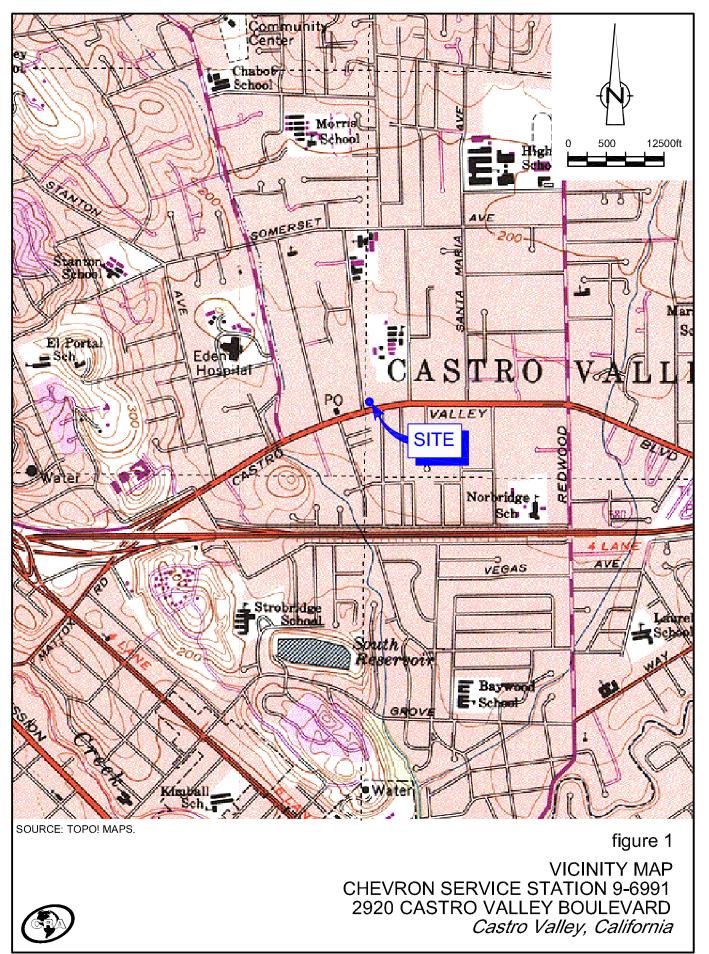
Figure 2

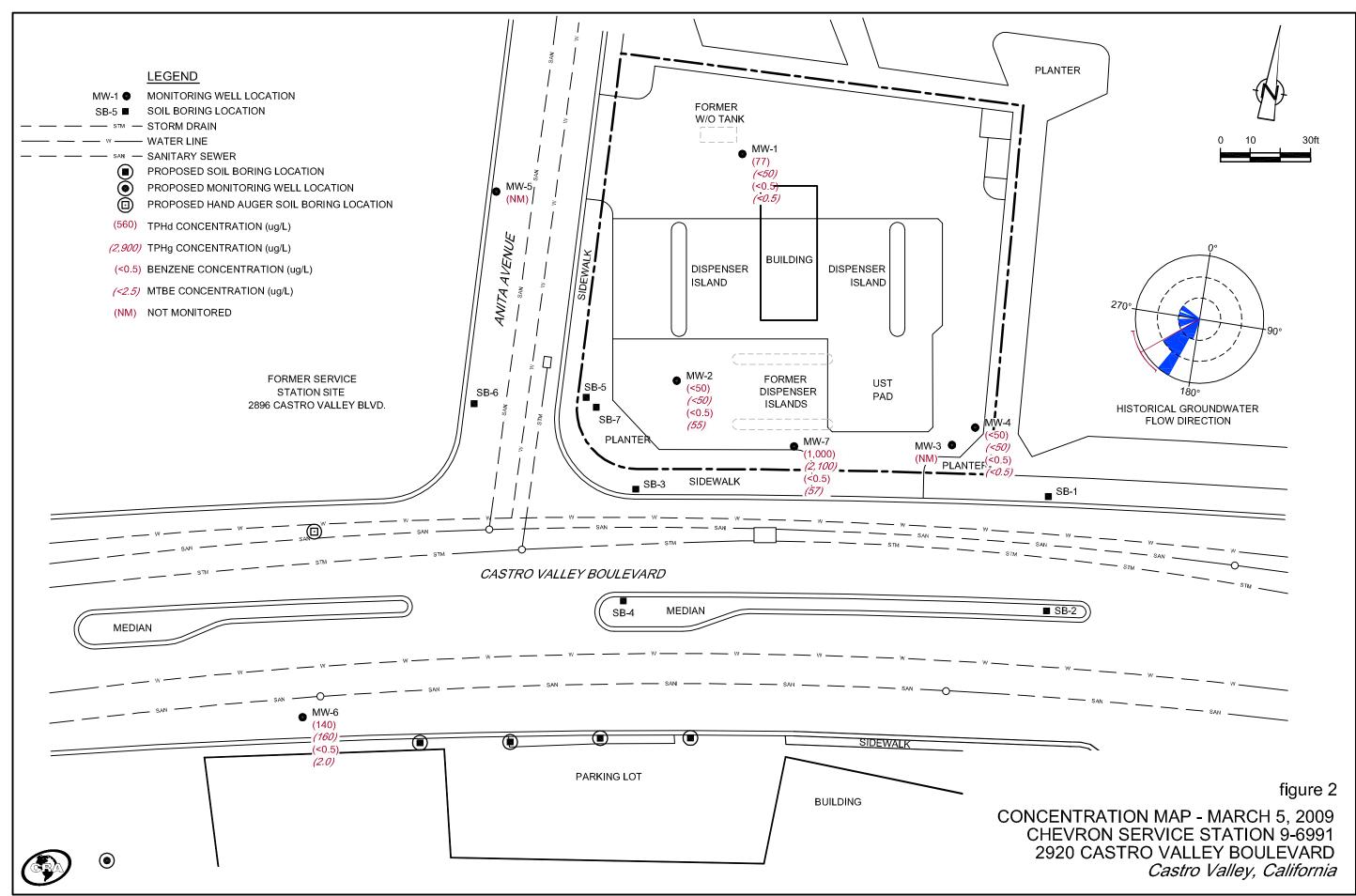
Concentration Map - March 5, 2009

Attachment A

First Quarter 2009 Groundwater Monitoring and Sampling Report

cc: Ms. Stacie Frerichs, Chevron Environmental Management Company Mr. Surinder Goswamy, K&K Petroleum, LLC **FIGURES**





	ATTACHMENT A	
FIRST QUARTER 2009 GROUN	DWATER MONITORIN	G AND SAMPLING REPORT

TRANSMITTAL

23

April 6, 2009 G-R #385296

TO:

Mr. James Kiernan

Conestoga-Rovers & Associates 2000 Opportunity Drive, Suite 110

Roseville, California 95678

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 **RE:** Chevron Service Station

#9-6991 (MTI)

2920 Castro Valley Boulevard Castro Valley, California

RO 0000475

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
3	March 31, 2009	Groundwater Monitoring and Sampling Report First Quarter Event of March 5, 2009

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced items for <u>your use</u> and <u>distribution (including PDF submittal of the entire report to GeoTracker)</u>:

Ms. Stacie H. Frerichs, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, Room 3596, San Ramon, CA 94583

Mr. Chuck Headlee, RWQCB-San Francisco Bay Region, 1515 Clay Street, Oakland, CA 94612 (No Hard Copy)

K & K Petroleum, (Property Owner), 2920 Castro Valley Blvd., Castro Valley, CA 94546

Mr. Steven Plunkett, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577 6577

(No Hard Copy-UPLOAD TO ALAMEDA CO.)

Enclosures

trans/9-6991-SHF



Stacie H. Frerichs Team Lead Marketing Business Unit Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 842-9655 Fax (925) 842-8370

April 6, 2009 (dete)

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

Re: Chevron Facility #_9-6991

Address: 2920 Castro Valley Blvd., Castro Valley, California

I have reviewed the attached routine groundwater monitoring report dated April 6, 2009

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,

Stacie H. Frerichs Project Manager

Enclosure: Report

WELL CONDITION STATUS SHEET

Client/Facility #:	Chevron #9-6991	Job#	385296
Site Address:	2920 Castro Valley Blvd	Event Date:	3/5/09
City:	Castro Valley, CA	Sampler:	

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seai (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
mw-1	ac		1	245	oll			1	1	8" MORRIS-	N
mw2	oK	ok.	\longrightarrow	2×5	Olc		-	, x	~	И	
mw-4	dL						>	n	~	12"Univer	
mw \$7		01						n	1	10	
MWB	oll							1	4	12" emed	
											1
						·					
						·					
						<u> </u>					

Comments	
	



March 31, 2009 G-R Job #385296

Ms. Stacie H. Frerichs Chevron Environmental Management Company 6111 Bollinger Canyon Road, Room 3596 San Ramon, CA 94583

RE: First Quarter Event of March 5, 2009

Groundwater Monitoring & Sampling Report Chevron Service Station #9-6991 2920 Castro Valley Boulevard Castro Valley, California

Dear Ms. H. Frerichs:

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 levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and the laboratory analytical reports are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

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, P.G. No. 6882

Figure 1: Potentiometric Map

Table 1: Groundwater Monitoring Data and Analytical Results

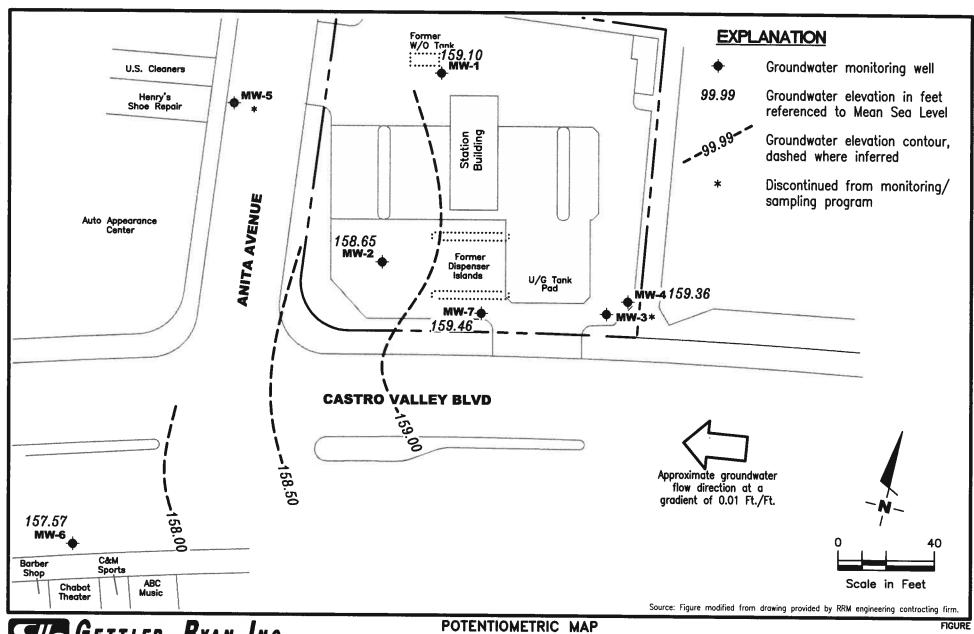
Table 2: Field Measurements and Analytical Results

Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

No. 6882



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

Chevron Service Station #9-6991 2920 Castro Valley Boulevard Castro Valley, California

REVISED DATE

PROJECT NUMBER REVIEWED BY 385296

March 5, 2009

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	TOC	GWE	DTW	TPH-DRO	TPH-GRO	ley, Calitorn B	Ť	E	X	MTBE	TOG	ETHANOL
DATE	(fi.)	(msl)	(fl.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1												
10/08/91	169.30	158.20	11.10		230	45	<0.5	0.9	9.1		-E 000	
11/04/91	169.30	158.27	11.03		340	120	<0.5	<0.5			<5,000	
12/04/91	169.30	158.25	11.05	170	<50	3.9	<0.5		6.1			
06/05/92	169.30	158.26	11.03	<50	100	26		<0.5	<0.5		<5,000	
10/27/92	169.30	158.20	11.10	54	<50	20 11	0.6	0.5	1.0			
12/30/92	169.30			170	<50	24	<0.5	<0.5	<0.5			
01/27/93	169.30	158.67	10.63				<0.5	< 0.5	< 0.5			
03/05/93	169.30			 <50								
03/17/93	169.30	158.59	 10.71	<50	<50	<0.5	<0.5	<0.5	< 0.5			
06/18/93	169.30	158.29										
09/28/93	169.30	157.35	11.01	<50	<50	0.6	<0.5	<0.5	<1.5			
12/30/93	169.30	157.33	11.95 10.96	<50	<50	0.8	<0.5	<0.5	<1.5			
04/07/94	169.30			<50	<50	8.5	<0.5	<0.5	< 0.5			
05/31/94		158.49	10.81	<10	<50	<0.5	< 0.5	< 0.5	< 0.5			
09/23/94	169.30	158.38	10.92	<50	<50	1.0	< 0.5	< 0.5	< 0.5			**
	169.30	158.40	10.90	<50	<50	1.3	< 0.5	< 0.5	< 0.5			
11/30/94	169.30	158.76	10.54	570 ²	<50	8.9	< 0.5	< 0.5	< 0.5			
03/30/95	169.30	158.60	10.70	1101	<50	< 0.5	< 0.5	< 0.5	< 0.5			
06/06/95	169.30	158.38	10.92	570¹	61	15	< 0.5	< 0.5	< 0.5			
09/25/95	169.30	158.30	11.00	550 ¹	<50	4.7	< 0.5	< 0.5	< 0.5			
12/28/95	169.30	158.50	10.80	330 ¹	72	9.1	0.65	< 0.5	< 0.5	6.0		
03/05/96	169.30	159.20	10.10	78 0 ¹	<50	7.8	< 0.5	< 0.5	< 0.5	<2.5		
09/13/96	169.30	158.28	11.02	SAMPLED A	NNUALLY							
12/19/96	169.30	158.08	11.22	 .								
03/20/97	169.30	158.40	10.90	350 ¹	< 50	2.2	< 0.5	< 0.5	< 0.5	<2.5		
06/27/97	169.30	158.27	11.03									
09/19/97	169.30	158.34	10.96									
12/05/97	169.30	158.62	10.68									
03/31/98	169.30	158.67	10.63	760¹	< 50	6.7	< 0.5	< 0.5	< 0.5	<2.5		
06/19/98	169.30	159.62	9.68									
08/13/98	169.30	157.67	11.63									
12/17/98	169.30	158.25	11.05									
03/19/99	169.30	158.35	10.95	890¹	124	14.8	< 0.5	< 0.5	< 0.5	$6.49 < 2.5^{13}$		-
06/23/99	169.30	158.23	11.07									
09/16/99	169.30	158.41	10.89							-		
12/16/99	169.30	158.46	10.84									

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ DATE		TOC	GWE	DTW		1,	range and the contract of						
TO A STORE CONTRACTOR				DIM	TPH-DRO	TPH-GRO	В	:	E	X	MTBE	TOG	ETHANOL
DAIL		(fi.)	(mst)	(ft.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1 (cont)											· · · · · · · · · · · · · · · · · · ·		
03/02/00		169.30	158.83	10.47	2,300¹	155	10.4	< 0.5	<0.5	<0.5	10.3		
06/30/00		169.30	159.04	10.26									
09/30/00	NP	169.30	158.30	11.00									
12/19/00		169.30	158.44	10.86									
03/13/01	NP	169.30	158.45	10.85	14	50.4	4.50	0.553	0.522	2.10	1.65		
06/12/01		169.30	158.28	11.02	SAMPLED A					2.10	1.03		
09/18/01		169.30	158.23	11.07	SAMPLED A								
12/17/01		169.30	158.59	10.71	SAMPLED A								
03/21/02		169.30	158.54	10.76	14	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		77
06/08/02		169.30	158.33	10.97	SAMPLED A	NNUALLY					-2.5		
09/13/02		169.30	158.28	11.02	SAMPLED A								
12/13/02		169.30	158.47	10.83	SAMPLED A	NNUALLY							
03/17/03		169.30	158.60	10.70	250	<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
06/16/03		169.30	158.34	10.96	SAMPLED A			••					
09/15/03		169.30	158.28	11.02	SAMPLED A	NNUALLY							
12/15/03		169.30	158.71	10.59	SAMPLED A	NNUALLY							
03/01/04		169.30	158.78	10.52	NOT SAMPL	ED DUE TO I	NSUFFICIEN	T WATER					
06/28/04		169.30	158.27	11.03	SAMPLED A								
09/13/04		169.30	156.96	12.34	SAMPLED A	NNUALLY							
12/22/04		169.30	158.38	10.92	SAMPLED A	NNUALLY							
03/04/05		169.30	158.81	10.49	NOT SAMPL	ED DUE TO I	SUFFICIEN	T WATER					
06/30/05		169.30	158.54	10.76	SAMPLED A								
09/16/05		169.30	158.33	10.97	SAMPLED A	NNUALLY							
12/21/05		169.30	158.70	10.60									
03/21/06 ¹⁶		169.30	158.93	10.37	1,100	< 50	0.6	< 0.5	< 0.5	< 0.5	1		<50
06/21/06		169.30	158.37	10.93	SAMPLED A	NNUALLY							
09/05/06		169.30	158.32	10.98	SAMPLED A	NNUALLY							
12/28/06		169.30	157.52	11.78	SAMPLED A	NNUALLY							
03/26/07 ¹⁶		169.30	158.39	10.91	730	< 50	0.6	< 0.5	< 0.5	< 0.5	< 0.5		<50
06/26/07		169.30	158.30	11.00	SAMPLED A	NNUALLY							
09/26/07		169.30	158.26	11.04	SAMPLED A								
12/20/07		169.30	158.66	10.64	SAMPLED A	NNUALLY							
02/29/08 ¹⁶	PER	169.30	158.57	10.73	64	87	4	< 0.5	< 0.5	< 0.5	1		<50
05/09/08		169.30	158.38	10.92	SAMPLED AT	NNUALLY							

Table 1
Groundwater Monitoring Data and Analytical Results

25 7,7,7,7,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1							ley, Californ	ia					
WELL ID/		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE		(fi.)	(msl)	(ft.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1 (con	ıt)												
09/19/08		169.30	158.28	11.02	SAMPLED A	NNUALLY	V.		-	71. 7			
12/04/08		169.30	158.28	11.02	SAMPLED A				10.000 h		****		3. 3.
03/05/0916	PER-NP ²³	169.30	159.10	10.20	77	<50	<0.5	<0.5	<0.5	<0.5	<0.5	=	 < 50
MW-2													
10/08/91		169.15	157.20	11.95	9 3	110	5.1	1.1	0.8	26		-	
11/19/91		169.15	157.40	11.75		120	11	1.1	< 0.5	17	-		
12/04/91		169.15	157.35	11.80	130	440	30	2.5	< 0.5	52			
06/05/92		169.15	157.35	11.80	130	80	13	< 0.5	< 0.5	1.0	Y-2-2		
10/27/92		169.15	157.15	12.00	110	54	13	< 0.5	< 0.5	< 0.5			
12/30/92		169.15			92	180	30	< 0.5	< 0.5	1.0			-
01/27/93		169.15	158.24	10.91							-		
03/05/93		169.15			< 50	<50	< 0.5	< 0.5	< 0.5	< 0.5			
03/17/93		169.15	158.26	10.89									1877010 19 44 0-1
06/18/93		169.15	157.41	11.74	< 50	<50	1.4	< 0.5	< 0.5	<1.5			()
09/28/93		169.15	157.97	11.18	<50	<50	0.6	<0.5	<0.5	<1.5			
12/30/93		169.15	158.34	21.00	< 50	< 50	0.9	< 0.5	< 0.5	<0.5			
04/07/94		169.15	158.40	10.75	<10	<50	<0.5	<0.5	<0.5	<0.5		-	1.73% 1.74%
05/31/94		169.15	158.35	10.80	<50	< 50	<0.5	<0.5	<0.5	< 0.5			
09/23/94		169.15	157.50	11.65	120	<50	0.7	< 0.5	<0.5	< 0.5			
11/30/94		169.15	158.41	10.74	570 ⁴	55	2.9	<0.5	1.4	0.94			
03/30/95		169.15	158.25	10.90	430 ¹	91	4.5	<0.5	3.8	<0.5			8.7.8
06/06/95		169.15	157.73	11.42	410 ¹	<50	<0.5	<0.5	<0.5	<0.5			
09/25/95		169.15	157.52	11.63	220 ¹	<50	<0.5	<0.5	<0.5	<0.5			
12/28/95		169.15	157.98	11.17	120¹	<2,000	<20	<20	<20	<20	5,000	**************************************	
03/05/96		169.15	159.09	10.06	860 ¹	<2,000	<20	<20	<20	<20	10,000	7/20	2 5.5 23
09/13/96		169.15	157.37	11.78	1,300	1,100	25	<10	<10	<10	20,000	***	1==
12/19/96		169.15	158.30	10.85	•	EMI-ANNUAL						2007	gEES (
03/20/97		169.15	157.75	11.40	190 ¹	2400	<10	<10	46	<10	 6 200	20,000	==
06/27/97		169.15	157.35	11.80		2400			40 		6,200	55 0	:
09/19/97		169.15	157.43	11.72	60 ¹	<50	<0.5	<0.5	<0.5	 -0.5	200	5-3	
12/08/97		169.15	158.27	10.88		~30 	~U.J			<0.5	280		
03/31/98		169.15	158.46	10.69	220 ¹	110	30	0.74	0.74	0.50	1.000	(1)	1 122
06/19/98		169.15	159.31	9.84						0.59	1,000	1988	177
- 5, 17, 70		107.13	107.31	7.04									

Table 1
Groundwater Monitoring Data and Analytical Results

P-1						Castro Valle	ey, Californ	ia					
WELL ID/		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE		(fL)	(msl)	(fl.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-2 (cont)													
08/31/98		169.15	157.43	11.72	380^{1}	<100	3.4	<1.0	<1.0	<1.0	980		
12/17/98		169.15	157.60	11.55							480		
03/19/99		169.15	158.63	10.52	107 ⁴	<250	12.7	<2.5	<2.5	<2.5	1,040/819 ¹³		
06/23/99		169.15	159.61	9.54									
09/16/99		169.15	157.54	11.61	84.9	<100	<1.0	<1.0	<1.0	<1.0	216		
12/16/99		169.15	157.86	11.29									
03/02/00		169.15	158.70	10.45	<50	84.8	21.5	< 0.5	<0.5	0.636	413		
06/30/00		169.15	159.08	10.07						0.030	413		
09/30/00	NP	169.15	157.54	11.61	10011	<50	< 0.50	0.57	< 0.50	1.0	2,800		
12/19/00		169.15	158.04	11.11									
03/13/01	NP	169.15	158.22	10.93	14	179	11.6	2.01	0.856	3.66	1,290		
06/12/01		169.15	157.52	11.63				2.01	0.050	3.00 	1,290		
09/18/01	NP	169.15	157.37	11.78	100	<50	< 0.50	< 0.50	< 0.50	<1.5	670		
12/17/01		169.15	158.29	10.86		EMI-ANNUAL							
09/13/02		169.15	157.50	11.65	200	<50	< 0.50	< 0.50	< 0.50	<1.5	260		
12/13/02		169.15	158.07	11.08		EMI-ANNUAL		-0.50					
03/17/03		169.15	158.38	10.77		ED DUE TO IN		IT WATER					
06/16/03		169.15	157.77	11.38		EMI-ANNUAL							
09/15/03 16,17		169.15	157.55	11.60	110	<50	<0.5	<0.5	<0.5	0.6	400		
12/15/03		169.15	158.40	10.75		EMI-ANNUAL				U.U	400		
03/01/04		169.15	158.49	10.66		ED DUE TO IN							
06/28/04		169.15	157.63	11.52		EMI-ANNUAL							
09/13/04		169.15	156.27	12.88		ED DUE TO IN							
12/22/04		169.15	157.93	11.22		EMI-ANNUAL							
03/04/05		169.15	158.58	10.57		ED DUE TO IN							
06/30/05		169.15	158.08	11.07		EMI-ANNUAL							
09/16/05 ¹⁶	NP	169.15	156.64	12.51	130	<50	<0.5	< 0.5	<0.5	<0.5	140		< 50
12/21/05		169.15	158.41	10.74		EMI-ANNUAL							
03/21/0616		169.15	158.74	10.41	72	<50	<0.5	< 0.5	< 0.5	<0.5	530		<50
06/21/06		169.15	157.64	11.51		EMI-ANNUAL				~0.5 - -	330 		
09/05/0616		169.15	157.51	11.64	620	<50	<0.5	<0.5	<0.5	<0.5	150		
12/28/06		169.15	158.19	10.96		EMI-ANNUAL			~0.5 	~0.5 			<50
03/26/07 ¹⁶		169.15	157.74	11.41	86	<50	<0.5	<0.5	< 0.5	<0.5	160		 -50
06/26/07		169.15	157.60	11.55		EMI-ANNUAL			~0.3	~0.3 			<50
09/26/07 ¹⁶		169.15	157.52	11.63	140	<50	<0.5	<0.5	< 0.5	<0.5	 69		
				11.05	110	-50	\U.J	~0.5	~0.5	\0.3	09		<50

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE		(fi.)	(msl)	(ft.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-2 (con	ıt)											(48.2)	(#g/L)
12/20/07	,	169.15	158.50	10.65	SAMPLED SI	EMI-ANNUAL	ΙV						
02/29/0816	PER	169.15	158.18	10.97	73	<50	<0.5	<0.5	<0.5	<0.5	54		
05/09/08		169.15	157.74	11.41		EMI-ANNUAL			~0.5 	~0.3 			<50
09/19/08	PER	169.15	157.48	11.67	120	<50	<0.5	<0.5	<0.5	<0.5			
12/04/08		169.15	157.67	11.48		EMI-ANNUAL		~0.J	~0.5 		12		<50
03/05/0916	PER-NP ²³	169.15	158.65	10.50	<50	<50	<0.5	<0.5	<0.5	<0.5	55		 <50
									-0.5	-0.5	33		\30
MW-4													
10/27/92		169.18	157.79	11.39	<50	< 50	< 0.5	0.6	0.5	4.3			
12/30/92		169.18	159.05	10.13	<50	<50	<0.5	<0.5	<0.5	<0.5			
01/27/93		169.18	160.09	9.09									
03/05/93		169.18			<50	<50	< 0.5	< 0.5	< 0.5	< 0.5			
03/17/93		169.18	159.28	9.90									
06/18/93		169.18	158.50	10.68	<50	<50	< 0.5	< 0.5	< 0.5	<1.5			
09/28/93		169.18	159.82	9.36	<50	<50	< 0.5	<0.5	< 0.5	<1.5			
12/30/93		169.18	159.91	9.27	<50	<50	<0.5	<0.5	<0.5	<0.5			
04/07/94		169.18	160.37	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5			
05/31/94		169.18	160.27	8.91	<50	<50	<0.5	<0.5	<0.5	<0.5			
09/23/94		169.18	158.79	10.39	<50	<50	<0.5	< 0.5	<0.5	<0.5			
11/30/94		169.18	160.08	9.10	58 ²	<50	<0.5	<0.5	<0.5	<0.5			
03/30/95		169.18	160.66	8.52	61 ¹	<50	<0.5	<0.5	<0.5	<0.5			
06/06/95		169.18	158.70	10.48	<50	<50	<0.5	<0.5	< 0.5	<0.5			
09/25/95		169.18	158.38	10.80	<50	<50	<0.5	< 0.5	<0.5	<0.5			
12/28/95		169.18	159.23	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5	9.9	 	
$12/21/05^{16}$		169.18	159.65	9.53	76 ¹⁸	<50	<0.5	<0.5	<0.5	<0.5	0.7	 	< 50
03/21/06 ¹⁶		169.18	160.35	8.83	<50	<50	<0.5	<0.5	< 0.5	<0.5	0.5		<50
06/21/06 ¹⁶		169.18	158.55	10.63	< 50	<50	<0.5	< 0.5	<0.5	<0.5	0.8		<50
09/05/06 ¹⁶		169.18	158.24	10.94	170	<50	<0.5	< 0.5	<0.5	<0.5	1		<50
12/28/06 ¹⁶		169.18	159.06	10.12	120	<50	<0.5	<0.5	<0.5	<0.5	<0.5		<50
03/26/07 ¹⁶		169.18	158.73	10.45	290	<50	<0.5	< 0.5	<0.5	<0.5	<0.5		<50
06/26/07 ¹⁶		169.18	158.22	10.96	<50	<50	<0.5	<0.5	<0.5	<0.5	1		<50
09/26/07 ¹⁶		169.18	157.98	11.20	< 50	<50	< 0.5	<0.5	<0.5	<0.5	0.8		<50
12/20/07 ¹⁶		169.18	159.01	10.17	62	<50	<0.5	<0.5	<0.5	<0.5	0.5		<50
02/29/08 ¹⁶		169.18	159.32	9.86	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5		<50
05/09/08 ¹⁶		169.18	158.41	10.77	80	<50	<0.5	<0.5	<0.5	<0.5	0.6		<50

Table 1
Groundwater Monitoring Data and Analytical Results

					Castro Vall	ey, Califorr	nia					
WELL ID/	TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E.	X	MTBE	TOG	ETHANOL
DATE	(fl.)	(msl)	(fi.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-4 (cont)				15					· · · · · · · · · · · · · · · · · · ·			
09/19/08 ¹⁶	169.18	157.97	11.21	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		<50
12/04/0816	169.18	158.20	10.98	58	<50	<0.5	<0.5	<0.5	<0.5	0.8		<50
03/05/0916	169.18	159.36	9.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	_	< 50
MW-6												
10/27/92	166.46	153.92	12.54	<50	600	22	22	24	130			
12/30/92	166.46	156.26	10.20	470	1,700	170	16	46	160	20		55
01/27/93	166.46	156.44	10.02								1570 1 4- 0	
03/05/93	166.46			150	480	76	0.9	3.1	7.1			
03/17/93	166.46	155.79	10.67									-
06/18/93	166.46	154.63	11.83	51	240	37	3.4	2.9	18			
09/28/93	166.46	154.90	11.56	120	150	11	1.2	1.3	4.3		-1760/6 0 16	
12/30/93	166.46	154.81	11.65	290	680	77	5.1	5.5	13			
04/07/94	166.46	155.34	11.12	<10	190	24	2.9	1.9	8.0		(2 <u>276</u>)"	
05/31/94	166.46									2_	98080	
09/23/94	166.46	155.05	11.41									
11/30/94	166.46	156.58	9.88	150^2	320	49	0.58	1.4	1.2			
12/15/03 ¹⁶	166.46	156.60	9.86	71	210	0.5	0.9	0.7	2	14		<50
03/01/04 ^{16,21}	166.46	157.16	9.30	<250	150	< 0.5	4	3	18	10	==	<50
06/28/04 ^{16,21}	166.46	155.13	11.33	66	100	< 0.5	< 0.5	< 0.5	< 0.5	18		
09/13/04 ^{16,21}	166.46	154.88	11.58	< 50	<50	< 0.5	< 0.5	< 0.5	< 0.5	17		<50
12/22/04 ^{16,21}	166.46	155.75	10.71	300	440	1	1	2	3	10		<50
03/04/05 ^{16,21}	166.46	157.25	9.21	75	65	< 0.5	< 0.5	< 0.5	1	8		<50
06/30/05 ^{16,21}	166.46	155.49	10.97	73	<50	< 0.5	< 0.5	< 0.5	< 0.5	7		<50
09/16/05 ^{16,21}	166.46	155.02	11.44	58 ¹⁷	<50	< 0.5	< 0.5	< 0.5	< 0.5	13		<50
12/21/05 ^{16,21}	166.46	156.66	9.80	120 ¹⁹	140	< 0.5	< 0.5	< 0.5	1	8		<50
03/21/06 ^{16,21}	166.46	157.54	8.92	75	52	< 0.5	< 0.5	0.9	3	8		<50
06/21/06 ^{16,21}	166.46	155.38	11.08	56	92	< 0.5	< 0.5	0.5	2	10		<50
09/05/06 ^{16,21}	166.46	155.07	11.39	67	62	< 0.5	< 0.5	< 0.5	< 0.5	9		<50
12/28/06 16,21	166.46	156.32	10.14	300	260	< 0.5	0.5	< 0.5	1	3		<50
03/26/07 ²¹	166.46	INACCESSIE	BLE - VEHIC	CLE PARKED	OVER WELL							
06/26/07 ¹⁶	166.46	155.32	11.14	67	<50	< 0.5	< 0.5	< 0.5	< 0.5	8		<50
09/26/07 ¹⁶	166.46	155.02	11.44	84	180	< 0.5	0.5	3	5	6		
12/20/07 ¹⁶	166.46	156.41	10.05	220	530	< 0.5	0.7	1	7	2		22
02/29/08 ¹⁶	166.46	156.49	9.97	110	110	< 0.5	< 0.5	1	4	4		<50

Table 1
Groundwater Monitoring Data and Analytical Results

						Castro Vall	ey, Californ	ia					
WELL ID/		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	Ť	E	X	MTBE	TOG	ETHANOL
DATE		(fi.)	(msl)	(ft.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-6 (cont)													***************************************
05/09/08 ¹⁶		166.46	155.19	11.27	100	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5		<50
09/19/0816		166.46	154.85	11.61	<50	<50	<0.5	<0.5	<0.5	<0.5	5		<50
12/04/0816		166.46	155.08	11.38	<50	<50	< 0.5	<0.5	<0.5	<0.5	5	-	< 50
03/05/0916		166.46	157.57	8.89	140	160	<0.5	<0.5	1	7	2		< 50
						100	-0.5	-0.5	•	3"	2		<50
MW-7													
09/25/95		168.80	157.20	11.60	1,400 ¹	220	0.79	< 0.5	0.67	< 0.5			
12/28/95		168.80	158.14	10.66	590¹	<50	<0.5	<0.5	<0.5	<0.5	<2.5		7.F3
03/05/96		168.80	159.74	9.06	320 ¹	1,400	<10	<10	47	<10	5,300		(==) L = 100
06/27/96		168.80	157.27	11.53	630 ¹	<2,500	<25	<25	<25	<25	14,000		1. 2. 1
09/13/96		168.80	156.88	11.92	1,400	1,100	26	<10	24	<10	20,000		
12/19/96		168.80	158.29	10.51	1,100 ³	<5,000	<50	<50	<50	<50	12,000	5 	(Care)
03/20/97		168.80	157.84	10.96	1,600 ³	<1,000	<10	<10	<10	<10	$2,100/2,000^{13}$		
06/27/97		168.80	157.02	11.78	1,600 ¹	2,000	<20	<20	<20	<20	11,000		
09/19/97		168.80	156.87	11.93	1,900 ¹	<1,000	35	<10	<10	<10	13,000	-	
12/05/97		168.80	158.40	10.40	1,100 ¹	2,100	47	2.7	28	<2.5	15,000	: 	P1 55 3
03/31/98		168.80	158.89	9.91	780 ¹	410	4.0	0.61	2.2	<0.5	<2.5		794
06/19/98		168.80	159.09	9.71	480 ¹	1,100	16	<10	17	<10	12,000		
08/31/98		168.80	157.11	11.69	580 ¹	<500	350	22	<5.0	<5.0	47,000		N OS 2
12/17/98		168.80	157.70	11.10	970	1,800	<10	<10	24	<10	13,000/14,000 ¹¹	. 	: :
03/19/99		168.80	158.51	10.29	615 ¹	1,280	<5.0	5.0	16.3	<5.0	2,240/2,910 ¹³		F-0
06/23/99		168.80	157.25	11.55	1,240 ¹	<5,000	<50	<50	<50	<50	18,000		
09/16/99		168.80	157.31	11.49	2,230	<5,000	<50	<50	<50	<50	13,700	855	0.7.7
12/16/99		168.80	158.27	10.53	973 ¹	1,330	<1.0	6.44	14	5.17	10,800		0=-0
03/02/00		168.80	159.25	9.55	880 ¹	1,980	7.22	<5.0	6.11	<5.0	4,230	7 <u>000</u>	10 1
06/30/00		168.80	157.68	11.12	620 ⁷	$2,500^6$	6.0	8.5	16	72	6,900		
09/30/00	NP	168.80	157.23	11.57	1,600	1,700 ¹⁰	750	<5.0	<5.0	<5.0	7,300	73	
12/19/00		168.80	158.26	10.54	1,100 ¹²	1,80010	<10	<10	<10	<10	4,900		9000
03/13/01		168.80	158.74	10.06	1,500 ¹²	1,470	9.34	5.09	6.08	2.69			71 44 7
06/12/01		168.80	157.45	11.35	910 ¹⁵	920 ¹⁰	260	4.2	9.7		2,920		
09/18/01		168.80	156.87	11.93	3,000	2,000	< 0.50	<0.50	<0.50	2.8	4,500		() ==)
12/17/01		168.80	157.99	10.81	7,000	1,700	<5.0	<0.50		<1.5	5,300		0000
03/21/02		168.80	158.56	10.81	13,000	3,200	<5.0 <5.0	< 0.50	7.1	<1.5	4,100	4545	19 <u>22</u> 19
06/08/02		168.80	157.32	11.48	3,500	1,500			24	<1.5	980		-
00/00/02		100.00	137.32	11.40	3,300	1,500	3.6	< 0.50	8.5	<1.5	2,800		

Table 1
Groundwater Monitoring Data and Analytical Results

Castro Valley, California												
WELL ID/	TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE	(fi.)	(msl)	(fi.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-7 (cont)											Marie	G. W.
09/13/02	168.80	157.02	11.78	2,400	1,200	1.8	<1.0	2.8	<1.5	3,300		
12/13/02	168.80	157.97	10.83	3,400	1,100	2.4	< 0.50	2.3	<1.5	2,000		
03/17/03	168.80	158.71	10.09	3,700	1,600	<10	< 0.50	5.1	<1.5	1,000		
06/16/0316	168.80	157.81	10.99	4,400	2,500	1	0.5	14		•		
09/15/03 ¹⁶	168.80	157.38	11.42	4,700	1,700	1	<0.5		<0.5	260		
12/15/03 ¹⁶	168.80	158.58	10.22	3,200	610	<0.5	<0.5	6	0.5	790		<50
03/01/04 ¹⁶	168.80	159.19	9.61	2,200	1,500	<0.5		1	<0.5	780		<50
06/28/04 ¹⁶	168.80	157.38	11.42	3,700	2,500		<0.5	4	<0.5	16		<50
09/13/04 ¹⁶	168.80	156.78	12.02	2,000		2	<0.5	8	<0.5	300		
12/22/04 ¹⁶	168.80	158.39	10.41		2,000	1	<1	4	<1	700		<100
03/04/05 ¹⁶	168.80	159.12		1,300	970	0.8	<0.5	5	< 0.5	370		<50
06/30/05 ¹⁶	168.80		9.68	890	790	<0.5	<0.5	1	< 0.5	5		<50
09/16/05 ¹⁶		157.63	11.17	2,600	1,300	< 0.5	< 0.5	3	< 0.5	68		< 50
12/21/05 ¹⁶	168.80	157.29	11.51	1,300	1,200	< 0.5	< 0.5	1	< 0.5	380		< 50
03/21/06 ¹⁶	168.80	158.74	10.06	1,600 ²⁰	1,300	< 0.5	< 0.5	2	< 0.5	170		< 50
	168.80	159.28	9.52	2,800	810	< 0.5	< 0.5	< 0.5	< 0.5	200		<50
06/21/06 ¹⁶	168.80	157.35	11.45	1,100	1,800	0.5	< 0.5	2	< 0.5	260		< 50
09/05/06 ¹⁶	168.80	157.01	11.79	2,100	910	< 0.5	< 0.5	< 0.5	< 0.5	370		< 50
12/28/06 ¹⁶	168.80	158.34	10.46	7,200	2,700	0.5	< 0.5	3	< 0.5	140		< 50
03/26/07 ¹⁶	168.80	157.46	11.34	6,500	1,300	< 0.5	< 0.5	1	< 0.5	150		< 50
06/26/07 ¹⁶	168.80	157.15	11.65	2,100	1,900	0.6	< 0.5	2	< 0.5	170		< 50
09/26/07 ¹⁶	168.80	156.98	11.82	2,200	670	< 0.5	< 0.5	< 0.5	< 0.5	420		<50
12/20/07 ¹⁶	168.80	158.23	10.57	4,300	2,600	0.8	< 0.5	4	< 0.5	130		<50
02/29/08 ¹⁶	168.80	158.56	10.24	2,400	1,400	< 0.5	< 0.5	2	< 0.5	35		<50
05/09/08 ¹⁶	168.80	157.27	11.53	1,700	2,200	0.6	0.6	2	< 0.5	76		<50
09/19/08 ¹⁶	168.80	156.86	11.94	10,000	610	< 0.5	< 0.5	< 0.5	< 0.5	430		<50
12/04/08 ¹⁶	168.80	157.16	11.64	3,000	1,100	< 0.5	< 0.5	< 0.5	< 0.5	440		<50
03/05/09 ¹⁶	168.80	159.46	9.34	1,000	2,100	< 0.5	<0.5	3	<0.5	57		<50
								-		ν,		450
MW-3												
10/08/91	169.11	160.84	8.27		81	1.9	0.7	0.8	2.4			
11/04/91	169.11	158.26	10.85		60	<0.5	<0.5	<0.5	<0.5			
12/04/91	169.11	158.06	11.05	< 50	<50	<0.5	<0.5	<0.5	<0.5			
06/05/92	169.11	157.96	11.15	170	<50	<0.5	<0.5	<0.5	<0.5			
10/27/92	169.11	157.51	11.60	120	<50	<0.5	<0.5	<0.5				
· ···-	107.11	107.01	11.00	120	\JU	~∪.⊅	\0.3	<0.5	< 0.5			

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/		on the control of the		in a significant of the		Castro Vall							
DATE		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE		(fi.)	(msl)	(ft.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-3 (cont	t)												
12/30/92		169.11			170	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
01/27/93		169.11	160.00	9.11									
03/05/93		169.11											
03/17/93		169.11	159.16	9.95									
06/18/93		169.11	158.22	10.89	< 50	<50	< 0.5	< 0.5	< 0.5	<1.5			
09/28/93		169.11	159.49	9.62	< 50	<50	< 0.5	< 0.5	< 0.5	<1.5			
12/30/93		169.11	159.80	9.31	<50	<50	< 0.5	< 0.5	<0.5	< 0.5			
04/07/94		169.11	160.30	8.81	<10	<50	< 0.5	<0.5	<0.5	<0.5			
05/31/94		169.11	160.21	8.90	< 50	<50	< 0.5	<0.5	<0.5	<0.5			
09/23/94		169.11	158.48	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5			
11/30/94		169.11	160.19	8.92									
03/30/95		169.11	160.01	9.10	290¹	<50	< 0.5	< 0.5	< 0.5	<0.5			
06/06/95		169.11	158.79	10.32	150 ¹	<50	<0.5	<0.5	<0.5	<0.5			
09/25/95		169.11	158.11	11.00	260 ¹	<50	<0.5	<0.5	<0.5	<0.5			
12/28/95		169.11	158.96	10.15	200¹	<250	<2.5	<2.5	<2.5	<2.5	1,400		
12/17/98		169.11	158.86	10.25	130 ¹	<250	<2.5	<2.5	<2.5	<2.5	62,000		
03/19/99		169.11	159.37	9.74	139 ¹	<1,000	<10	<10	<10	<10	5,650/5,850 ¹³		
06/23/99		169.11	158.40	10.71	61.61	<2,000	<20	<20	<20	<20	6,700		
09/16/99		169.11	157.44	11.67	122	<1,000	<10	<10	<10	<10	1,910		
12/16/99		169.11	158.79	10.32							5,850		
12/20/00		169.11	158.91	10.20	96.8 ¹	65.2	< 0.5	< 0.5	<0.5	<0.5	1,790		
03/02/00		169.11	160.26	8.85	<50	<50	<0.5	<0.5	<0.5	<0.5	5,600		
06/30/00		169.11	158.81	10.30	<50	360 ⁵	< 0.50	< 0.50	<0.50	< 0.50	1,300		
09/30/00	NP	169.11	158.07	11.04		150°	75	<1.3	<1.3	<1.3	8,200		
12/19/00	NP	169.11	159.06	10.05	14	<1,000	<10	<10	<1.5	<10	4,600		
03/13/01	NP	169.11	159.76	9.35	14	284	0.601	1.00	< 0.500	1.27	3,670		
06/12/01	NP	169.11	158.08	11.03	<50	140°	67	< 0.50	<0.50	< 0.50	2,600		
09/18/01	NP	169.11	157.96	11.15	100	240	< 0.50	< 0.50	<0.50	<1.5	3,200		
12/17/01		169.11	159.22	9.89	270	55	< 0.50	< 0.50	<0.50	<1.5	930		
03/21/02		169.11	159.38	9.73	290	190	< 0.50	< 0.50	<0.50				
06/08/02		169.11	158.21	10.90	110	110	<0.50	< 0.50	<0.50	<1.5	2,600		
09/13/02		169.11	158.26	10.85	<50	<50	<0.50	< 0.50	<0.50 <0.50	<1.5	2,200		
12/13/02		169.11	159.11	10.00	120	<50	< 0.50	< 0.50		<1.5	650		
03/17/03		169.11	159.66	9.45	370	80	< 0.50	< 0.50	<0.50 <0.50	<1.5	450		
06/16/03		169.11	158.98	10.13		ED DUE TO IN				<1.5	1,600		
		107.11	130.70	10.13	NOT SHIVIPL	じんりつじょうじょ	いうしててししほり	II WAIEK					

Table 1
Groundwater Monitoring Data and Analytical Results

1551245 27 22 27 27	********				********	Castro Vall							
WELL ID/		TOC	GWE	DTW	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG	ETHANOL
DATE		(fi.)	(msl)	(fl.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-3 (cont))										· · · · · · · · · · · · · · · · · · ·		
09/15/03		169.11	157.85	11.26	NOT SAMPL	ED DUE TO I	NSUFFICIE	NT WATER					
12/15/03 ¹⁶		169.11	159.78	9.33	14	<50	<0.5	3	0.6	4	220		<50
03/01/04		169.11	159.22	9.89	NOT SAMPL	ED DUE TO IN							~50
06/28/0416		169.11	158.26	10.85	95	<50	< 0.5	< 0.5	< 0.5	<0.5	980		
09/13/04		169.11	DRY AT 12.9										
12/22/0416	NP	169.11	159.14	9.97	14	53	< 0.5	< 0.5	< 0.5	<0.5	110		<50
03/04/0516	NP	169.11	159.68	9.43	<50	<50	< 0.5	<0.5	<0.5	<0.5	460		<50
06/30/0516	NP	169.11	158.66	10.45	58 ¹⁷	<50	< 0.5	<0.5	<0.5	<0.5	600		<50
09/16/05 ¹⁶	NP	169.11	158.26	10.85	14	<50	< 0.5	<0.5	<0.5	<0.5	530		<50
NOT MONIT	TORED/SA						0.0	10.5	10.5	\0. 5	330		<30
MW-5													
10/27/92		167.41	157.46	9.95	<50	74	< 0.5	<0.5	0.6	7.1			
12/30/92		167.41	158.21	9.20	<50	<50	<0.5	<0.5	<0.5	<0.5			
01/27/93		167.41	157.80	9.61					~0.5 				
03/05/93		167.41			<50	<50	<0.5	<0.5	<0.5	<0.5			
03/17/93		167.41	157.90	9.51					~0.5 				
06/18/93		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5			
09/28/93		167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<1.5			
12/30/93		167.41	157.08	10.33	<50	<50	<0.5	<0.5	<0.5	<0.5			
04/07/94		167.41	157.69	9.72	<10	<50	<0.5	<0.5	<0.5	<0.5			
05/31/94		167.41	157.68	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5			
09/23/94		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5			
11/30/94		167.41	157.73	9.68	79 ²	<50	<0.5	<0.5	<0.5	<0.5			
03/30/95		167.41	157.79	9.62	<50	<50	<0.5	<0.5	<0.5	<0.5			
06/06/95		167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<0.5			
09/25/95		167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5			
12/28/95		167.41	157.67	9.74	<50	<50	<0.5	<0.5	<0.5	<0.5			
NOT MONIT	ORED/SAI		157.07	2.74	\ 30	\30	~0.3	~0.3	<0.5	<0.5	<2.5		
TRIP BLAN	ĸ												
10/08/91						<50	∠0. 5	ZO 5	-0.5	-O =			
11/04/91							<0.5	<0.5	<0.5	<0.5			
12/04/91					<50	<50	<0.5	<0.5	<0.5	<0.5			
06/05/92						<50	<0.5	<0.5	<0.5	<0.5			
00/03/72						< 50	< 0.5	< 0.5	< 0.5	< 0.5			

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Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	TOC	GWE	DTW	TPH-DRO	Castro Vall	В	T	E	X	MTBE	TOG	ETHANOL
DATE	(fl.)	(msl)	(fi.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	4 * * * * * * * * * * * * * * * * * * *
TRIP BLANK (cont)					3		(=8,=9,		146/11/	(ug/L)	(ug/L)	(ug/L)
12/30/92					-50	.0. #			_			
01/27/93					<50	<0.5	< 0.5	< 0.5	< 0.5			
03/05/93		••		<50					2045			
03/03/93					<50	<0.5	<0.5	< 0.5	< 0.5			
06/18/93												
09/28/93					<50	<0.5	<0.5	< 0.5	<1.5			
12/30/93					<50	<0.5	< 0.5	< 0.5	< 0.5			
04/07/94					<50	<0.5	< 0.5	< 0.5	< 0.5			
05/31/94					<50	< 0.5	< 0.5	< 0.5	<0.5			
09/23/94					<50	< 0.5	< 0.5	< 0.5	<0.5			
11/30/94					<50	< 0.5	< 0.5	< 0.5	< 0.5			
					<50	< 0.5	< 0.5	< 0.5	< 0.5			
03/30/95					<50	< 0.5	< 0.5	< 0.5	< 0.5			
06/06/95					<50	< 0.5	< 0.5	< 0.5	< 0.5			
09/25/95					<50	< 0.5	< 0.5	< 0.5	< 0.5			
12/28/95					<50	< 0.5	< 0.5	< 0.5	< 0.5			
03/05/96					<50	< 0.5	< 0.5	< 0.5	< 0.5			
06/27/96					<50	< 0.5	< 0.5	< 0.5	< 0.5			
09/13/96					< 50	< 0.5	< 0.5	< 0.5	< 0.5			
12/19/96					<50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
03/20/97					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
06/27/97					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
09/19/97					<50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
12/05/97					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
03/31/98					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
06/19/98					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
08/31/98					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
03/19/99					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.0		
09/16/99					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5		
12/16/99					< 50	< 0.5	< 0.5	< 0.5	<0.5	<2.5		
12/20/99					< 50	< 0.5	< 0.5	< 0.5	<0.5	<2.5		
03/02/00					<50	< 0.5	< 0.5	<0.5	<0.5	<2.5		
06/30/00 ⁸					< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
09/30/00					< 50	< 0.50	< 0.50	< 0.50	<0.50	<2.5		
12/19/00					< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	Castro Valley, California TOC GWE DTW TPH-DRO TPH-GRO B T E X MTBE TO										· · · · · · · · · · · · · · · · · · ·	
DATE	(fl.)					В	T	E	X	MTBE	TOG	ETHANOL
	(JL)	(msl)	(fl.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
TRIP BLANK (cont)												
03/13/01					<50.0	< 0.500	0.534	< 0.500	1.25	< 0.500		
06/12/01					< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
09/18/01				(4	< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
QA												
12/17/01					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
03/21/02					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
06/08/02					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
09/13/02					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
12/13/02					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
03/17/03					< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5		
06/16/03 ¹⁶					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5		
09/15/03 ¹⁶					<50	< 0.5	< 0.5	< 0.5	<0.5	<0.5		
12/15/03 ¹⁶					<50	< 0.5	< 0.5	<0.5	<0.5	<0.5		
$03/01/04^{16}$					< 50	< 0.5	< 0.5	< 0.5	<0.5	<0.5		
06/28/04 ¹⁶					<50	< 0.5	< 0.5	<0.5	<0.5	<0.5		
09/13/04 ¹⁶					< 50	< 0.5	< 0.5	<0.5	<0.5	<0.5		
12/22/04 ¹⁶					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5		
03/04/05 ¹⁶					<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5		
06/30/05 ¹⁶					<50	< 0.5	<0.5	<0.5	< 0.5	<0.5		
09/16/05 ¹⁶					<50	<0.5	< 0.5	<0.5	<0.5	<0.5		
12/21/05 ¹⁶					<50	<0.5	<0.5	< 0.5	<0.5	<0.5		
$03/21/06^{16}$					<50	<0.5	< 0.5	< 0.5	<0.5	<0.5		
$06/21/06^{16}$					<50	<0.5	<0.5	<0.5	<0.5	<0.5		
09/05/06 ¹⁶					<50	< 0.5	<0.5	< 0.5	<0.5	<0.5		
12/28/06 ¹⁶					< 50	<0.5	< 0.5	<0.5	<0.5	<0.5		
03/26/07 ¹⁶					< 50	<0.5	< 0.5	<0.5	<0.5	<0.5		
06/26/07 ¹⁶					<50	<0.5	< 0.5	< 0.5	<0.5	<0.5		
09/26/0716					<50	<0.5	<0.5	< 0.5	<0.5	<0.5		
12/20/07 ¹⁶					<50	< 0.5	<0.5	<0.5	<0.5	<0.5		
02/29/08 ¹⁶					<50	<0.5	<0.5	<0.5	<0.5	<0.5		
05/09/08 ¹⁶					<50	<0.5	<0.5	<0.5	<0.5	<0.5		
09/19/08 ¹⁶					<50	<0.5	<0.5	<0.5	<0.5	<0.5		
12/04/08 ¹⁶					<50	<0.5	<0.5	<0.5	<0.5	<0.5		
03/05/0916					<50	<0.5	<0.5	<0.5	< 0.5	<0.5		

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-6991 2920 Castro Valley Boulevard Castro Valley, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to June 30, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of CasingGRO = Gasoline Range Organics TOG = Total Oil and Grease (ft.) = FeetTPH-D = Total Petroleum Hydrocarbons as Diesel $(\mu g/L)$ = Micrograms per liter GWE = Groundwater Elevation B = Benzene-- = Not Measured/Not Analyzed (msl) = Mean sea level T = TolueneNP = No PurgeDTW = Depth to Water E = EthylbenzenePER = Peristaltic Pump TPH = Total Petroleum Hydrocarbons X = XylenesQA = Quality Assurance/Trip Blank DRO = Diesel Range Organics MTBE = Methyl Tertiary Butyl Ether

- Chromatogram pattern indicates an unidentified hydrocarbon.
- ² Chromatogram pattern indicates a non-diesel mix.
- Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.
- Chromatogram pattern indicates a non-diesel mix + discrete peaks.
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.
- Laboratory report indicates discrete peaks.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates unidentified hydrocarbons >C16.
- Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.
- ¹³ Confirmation run.
- ¹⁴ Insufficient water to obtain sample for TPH-D.
- Laboratory report indicates unidentified hydrocarbons C9-C17.
- ¹⁶ BTEX and MTBE by EPA Method 8260.
- Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. The reported result is due to individual peak(s) eluting in the DRO range.
- Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel and contains individual peaks eluting in the DRO range.
- Laboratory report indicates the observed sample pattern includes #2 fuel/diesel, an additional pattern which elutes later in the DRO range, and individual peaks eluting in the DRO range.
- Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and additional patterns which elute earlier and later in the DRO range.
- Incorrect TOC elevation (168.80) was used in past reports. Correct TOC and GWE are shown.
- Analysis inadvertently missed in the field.
- No Purge due to insufficient water.

Table 2
Field Measurements and Analytical Results

WELL ID	DATE	D.O.	ORP	Castro Valley, Ca	SULFATE	NITRATE as NITROGEN	FERROUS IRON
		(mg/L)	(mV)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1	12/21/05	3.7	151	581,000	184,000		
	03/21/06	4.7	32	546,000		6,400	29
	06/21/06	SAMPLED ANNU			147,000	5,800	600
	09/05/06	SAMPLED ANNU					(**)
	12/28/06	SAMPLED ANNU					
	03/26/07	3.4	47	844,000 ³		-	0250
	02/29/08	2.6			112,000	3,600	22,400
	02/29/08	2.0	153	¹ <460/584,000 ²	158,000	4,500	730
MW-4	12/21/05	1.4	89	396,000	137,000	2,300	<8.0
	03/21/06	3.0	82	407,000	139,000	2,200	<8.0
	06/21/06	0.3	86	¹ 710/403,000 ²	136,000	2,700	12
	09/05/06	2.1	106	1 <460/412,000 2	147,000	2,700	210
	12/28/06	1.1	114	¹ <460/396,000 ²	175,000	2,500	<8.0
	03/26/07	1.2	188	393,000 ³	151,000	1,800	190
	06/26/07	1.9	31	392,000	179,000	2,900	<8.0
	09/26/07	2.3	110	1 <460/412,000 2	182,000	1,600	<8.0
	12/20/07	2.1	76	¹ <460/402,000 ²	169,000	1,400	<8.0
	02/29/08	1.6	88	¹ <460/396,000 ²	193,000	1,500	15
	05/09/08	1.1	77	¹ <460/399,000 ²	165,000	1,500	23
	09/19/08	1.7	43	¹ <460/420,000 ²	167,000	2,500	<8.0
MW-7	12/21/05	1.4	53	475,000	2.700		
142 44 - 7	03/21/06	2.5	12	473,000	2,700	<400	820
	06/21/06	0.1	-62	¹ 1,400/480,000 ²	3,800	<400	3,800
	09/05/06	1.2	-02 -23	¹ <460/419,000 ²	1,600	<250	5,000
	12/28/06	0.80	-23 -36	1<460/498,000 ²	1,700	<250	3,500
	03/26/07	1.1	-36 -24	490,000 ³	2,100	<250	1,000
	06/26/07	1.0	-24 -72	426,000	2,000	<250	2,200
	09/26/07	.90	26	¹ <460/423,000 ²	1,800	<250	4,700
	12/20/07	1.3	-8	1<460/539,000 ²	2,400	<250	3,800
	02/29/08	1.2	-o 80	¹ <460/510,000 ²	3,200	<250	910
	05/09/08	1.0	65	¹ <460/157,000 ²	8,100	<250	690
	09/19/08	1.7	25	1<460/403,000 ²	2,700	<250	1,800
	07/17/00	1./	23	~400/403,000	8,100	<250	8,000

Table 2

Field Measurements and Analytical Results

Chevron Service Station #9-6991 2920 Castro Valley Boulevard Castro Valley, California

EXPLANATIONS:

D.O. = Dissolved Oxygen (mg/L) = milligrams per liter ORP = Oxidation Reduction Potential (mV) = millivolts -- = Not Analyzed

 $(\mu g/L) = Micrograms per liter$

ANALYTICAL METHODS:

Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 8.3 Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 4.5 Sulfate by EPA Method 300.0 Nitrate as Nitrogen by EPA Method 300.00 Ferrous Iron by EPA Method SM20 3500-Fe B

¹ pH 8.3.

² pH 4.5.

Laboratory report indicates this sample was analyzed past the 14-day hold time.

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 Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.

Standard Operating Procedure, Low-Flow Purging and Sampling

This procedure is designed to assist the user in taking representative groundwater samples from groundwater monitoring wells. Samples will be collected using low-flow (minimal drawdown) purging and sampling methods as discussed in <u>U.S. EPA</u>, <u>Ground Water Issue</u>, <u>Publication Number EPA/540/S-95/504</u>, <u>April 1996</u> by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures."

The field sampler's objective is to purge and sample the well so that the water that is discharged from the pump, and subsequently collected, is representative of the formation water from the aquifer's identified zone of interest.

The wells to be sampled are equipped with QED Well Wizard™ bladder (squeeze-type) pumps or Peristaltic Pumps Each bladder pump or the suction inlet tubing of the peristaltic pump is positioned with its inlet located within the screened interval of the well. The down well equipment includes a bladder pump or Teflon-lined PE (polyethylene) tubing.

Initial Pump Flow Test Procedures

If possible, the optimum flow rate for each well will be established during well development or redevelopment, or in advance of the actual sampling event. The monitoring well must be gauged for Static Water Level (SWL) prior to the installation of the pump and before pumping of any water from the well. The measurement will be documented on a Low Flow Ground Water Sample Collection Record, or field data sheet.

After pump installation, and confirmation that the SWL has returned to its original level (as determined prior to pump installation), the bladder pump or peristaltic pump should be started at a discharge rate between 100 ml to 300 ml per minute without any in-line flow cell connected. The water level in the well casing must be monitored continuously for any change from the original measurement. If significant drawdown is observed, the pump's flow rate should be incrementally reduced until the SWL drawdown ceases and stabilizes. Total drawdown from the initial (static) water level should not exceed 25% of the distance between pump inlet location and the top of the well screen. (For example, if a well has a 10-foot screen zone and the pump inlet is located mid-screen; the maximum drawdown should be 1.25 feet.) In any case, the water level in the well should not be lowered below the top of the screen/intake zone of the well.

Once the specific well's optimum discharge rate, without an in-line flow cell connected, has been determined and documented, the in-line flow cell system to be used is connected to the well discharge and the control settings required to achieve the well's optimum discharge rate are determined with the in-line flow cell connected. (Due to the system's back-pressure, the discharge rate will be decreased by 10-20%). All control settings are to be documented on the gauging and sampling sheet as specific to that particular well's ID and will be utilized for its subsequent purging and sampling events.

Purge and Sampling Events

Prior to the initiation of purging a well, the SWL will be measured and documented. The pump will be started utilizing its documented control settings and its discharge rate will be confirmed by volumetric discharge measurement with the in-line flow cell connected. If necessary, any minor modifications to the control settings to achieve the well's optimum discharge rate will be documented on the gauging sheet. When the optimum pump flow rate has been established, the SWL draw down has stabilized within the required range and at least one pump system volume (bladder volume + discharge tubing volume) has been purged, begin taking field measurements for pH, temperature (T), conductivity (Ec), oxygen reduction potential (ORP) and dissolved oxygen (DO) using a "QED" Model MP-20 in-line flow cell, or other multi-parameter meter. All water chemistry field measurements will be documented on the field data sheet. Measurements should be taken every three to five minutes until stabilization has been achieved. Stabilization is achieved after all parameters have stabilized for three consecutive readings. In lieu of measuring all five parameters, a minimum subset would include pH, conductivity and dissolved oxygen. Three consecutive measurements indicating stability should be within:

Temperature $\pm 10\%$ pH ± 0.1 units Conductance ± 03

When water quality parameters have stabilized, and there has been no change in the stabilized SWL (ie. No continuous draw down), sample collection may begin.

Equipment List

The following equipment is needed to conduct low flow purging and sampling:

- ➤ Bladder pump installed within the well's screened interval
- > Pump controller and air source set to operate at the specific well's documented optimum discharge rate
- > In-line flow cell and meter(s) with connection fittings and tubing to measure water quality
- > Water level probe or installed dedicated water level measurement system
- > Sample containers appropriate for the analytical requirements
- ➤ Low Flow Ground Water Sample Collection Record, or field data sheets
- > 300-500 milliliter graduated cylinder or measuring cup
- > 5 gallon bucket(s) for collecting purge water
- > Wristwatch with second hand or stopwatch
- > Sufficient cleaning and decontamination supplies if portable water level probe is utilized
- > Peristaltic pump & tubing, in place of bladder pump, if applicable
- Multi-parameter meter, in place of in-line flow cell, if applicable

Procedure QED Bladder Pumps

- 1. Calibrate all field instruments at the start of each day's deployment per the instrument manufacturer's instructions. Record calibration data on the "Field Instruments Calibration Documentation Form."
- Drive to the first well scheduled to be sampled (typically the least contaminated). Make notes in the field logbook, describing the well condition and activity in the vicinity of the well.
 Decontaminate the portable water gauging probe by washing with phosphate-free detergent, rinsing with potable water.
- 3. Measure the depth to water from the surveyed reference mark on the wellhead and record the measurement on the gauging and sampling sheet. Lock the water level meter in place so that the level can be monitored during purging and sampling. When placing the probe in the well, take precautions to not disturb or agitate the water.
- 4. Connect the compressed air source's airline to the pump controller's "AIR IN" connection (If utilizing a gas-engine operated compressor, locate the compressor at least 25 feet, down wind from the wellhead).
- 5. Connect the pump controller "AIR OUT" air-line to the bladder pump's air supply fitting at the wellhead.
- 6. Connect the pump discharge line to the in-line flow cell's "IN" fitting.
- 7. Connect the flow cell's "OUT" line and secure to drain the purge water into the purge water collection container.
- 8. Start the air supply to the pump. Set the pump controller settings to the documented settings for the specific well. Confirm the flow rate is equal to the well's established optimum flow rate. Modify as necessary (documenting any required modifications).
- 9. Monitor the water level and confirm that the SWL draw down has stabilized within the well's allowable limits.
- 10. After a single pump-system's volume (bladder volume + discharge tubing volume) has been adequately purged, read and record water quality field measurements every three to five minutes until all parameters have stabilized within their allowable ranges for at least three consecutive measurements. When stabilization has been achieved, sample collection may begin.
- 11. Disconnect the flow cell, and it's tubing, from the pump discharge line before collecting samples. Decrease the pump rate to 100 milliliters per minute or less by lowering the controller's air pressure setting prior to collecting samples for volatiles. Utilize the QED Model 400 Controller's 'MANUAL SAMPLE' button to ensure minimized sample exposure to the ambient air. Refer to

- the task instructions for the correct order and procedures for filling sample containers. Place the samples in a cooler with enough ice to keep them at 4 degrees Centigrade.
- 12. Once samples for volatiles have been collected, re-establish pump flow rate to the original purge flow rate by inputting the documented controller settings for the well without the in-line flow cell connected and collect remaining samples.
- 13. When all sample containers have been filled, make a final measurement of the well's SWL and record the measurement on the gauging and sampling sheet. If the well has a "QED" dedicated bottom sounder, measure the well's total depth and record the measurement, as well.
- 14. Measure and record total purge volume collected. Consolidate generated purge water.
- 15. Remove and decontaminate the portable water level probe with phosphate-free detergent, rinsing with potable water.
- 16. Disconnect the controller air supply to the pump.
- 17. Secure the pump's discharge line/discharge adapter in the wellhead.
- 18. Secure the wellhead cover and secure with its lock. Move equipment to next well to be sampled.
- 19. At the end of each day, post calibrate all field instruments and record the measurements on the "Field Calibration Documentation Form".
- Clean and decontaminate the in-line flow cell with phosphate-free detergent, rinsing with potable water.

Procedure Peristaltic Pump

- 1. Record all depth to water readings on field data sheets
- 2. Calibrate all field instruments according to manufacturer's directions.
- 3. Setup pump and install silicone tubing in the roller head.
- 4. Place suction tubing at desired intake level in well, (mid screen) and attach to pump silicone tubing.
- 5. Attach tubing at discharge side of pump head and place in collection container.
- 6. Start pump and adjust flow rate to achieve flow without depressing water level more than necessary (approx. 0.30').
- 7. Record parameter readings after parameters have stabilized (3 consecutive readings that fall within the acceptance criteria).
- 8. Decrease the flow rate of the pump to achieve approximately 100ml/min. when collecting samples.
- 9. Change all tubing between wells and repeat procedure.



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-6991		_ Job Number:	385296	
Site Address:	2920 Castro	Valley E	Blvd	Event Date:	3/5/09	(inclusive)
City:	Castro Valle	y, CA		_ Sampler:	34	
Well ID Well Diameter Total Depth	17.70 ft		Fac	Date Monitored: ume 3/4"= 0.0 ttor (VF) 4"= 0.6	02 1"= 0.04 2"= 0.17 66 5"= 1.02 6"= 1.50	3"= 0.38 12"= 5.80
Depth to Water Depth to Water	7.5 w/ 80% Recharge	xVF .02	= .15	mn is less then 0.5 x3 case volume =) + DTW]: 11.78	Estimated Purge Volume:	
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	X	0 P D P	Sampling Equipmen Disposable Bailer Pressure Bailer Discrete Bailer Peristaltic Pump RED Bladder Pump Other:	nt:	Depth to Product: Depth to Water: Hydrocarbon Thicknet Visual Confirmation/D Skimmer / Absorbant Amt Removed from Si	(2400 hrs)ftftft ss:ft escription: Sock (circle one) kimmer: gal /ell: gal
Start Time (purge Sample Time/Dat Approx. Flow Rat Did well de-water Time (2400 hr.)	te: 1135 / ; re:	gpm. yes, Time:	Sediment [Description:		71.62 PRP nV)
			ABORATORY I	NEODMATION		
SAMPLE ID MW-	(#) CONTAINER x voa vial	REFRIG. YES	PRESERV. TYPE HCL		ANALYS TPH-G(8015)/BTEX+MTBE(ETHANOL (8260)	
COMMENTS:	N/P somele	taleu	- INSUM10	r water -		
Add/Replaced Lo	ock:	Add/f	Replaced Plug: _		Add/Replaced Bolt:	



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-6997		Job Number	r: 385296 ,	
Site Address:	2920 Castro	Valley I	Blvd	Event Date:	3/5/09	(inclusive)
City:	Castro Valle	y, CA		Sampler:	JA	
Well ID	MW- 2			Date Monitored	1: 3/5/09	
Well Diameter	8/4)/ 2 ii	n.	[X	/olume 3/4"= 0		0.17 2"- 0.00
Total Depth	14.70 ft	-		factor (VF) 4"= 0		
Depth to Water	10.50 ft		ـــا Check if water co	olumn is less then 0.		
•	4.20		52 = .0	Y3 case volume	= Estimated Purge Volur	mo: .25 mal
Depth to Water		= (Height of	Water Column v 0	.20) + DTW]: 11.34	/ Latinated Furge Voids	nie. gar.
•	3	- (throught or		.20) · D · V · J ·	Time Started:	(2400 hrs)
Purge Equipment:			Sampling Equipm	ent:	Time Completed	d:(2400 hrs)
Disposable Bailer		[Disposable Bailer		Depth to Produc	ot:ft
Stainless Steel Baile	r	F	Pressure Bailer		Hydrocarbon Th	ft ickness:ft
Stack Pump		Ε	Discrete Bailer			tion/Description:
Suction Pump			Peristaltic Pump		China mana / Alica	
Grundfos			QED Bladder Pump		Amt Removed fr	rbant Sock (circle one) rom Skimmer: gal
Peristaltic Pump QED Bladder Pump	_×	C	Other:		Amt Removed fr	om Well:gal
Other:					Water Removed	i:
					Product Transfer	rred to:
Sample Time/Da Approx. Flow Rat Did well de-water Time (2400 hr.)	te:	gpm. yes, Time	Sediment	Temperature	gal. DTW @ Samp	ORP (mV)
				INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TY			ALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+M ETHANOL (8260)	ITBE(8260)/
	<u> </u>		 		4- (0200)	
	2				1000	
					70	
					<u> </u>	
COMMENTS:						
Add/Replaced Lo	ock:	Add/l	Replaced Plug:		Add/Replaced Bolt	:



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-6991		Job	Number:	385296	385296				
Site Address:	2920 Castro	Valley	Blvd	Eve	ent Date:	315	109	— (inclusive)			
City:	Castro Valle	ey, CA		—— Sar	npler:	3	4	()			
								_			
Well ID	MW- 🎉	4		Date N	fonitored:	3/5	-109				
Well Diameter	3/4 / (2) ii	n.		Volume	3/4"= 0.02		2"= 0.17 3"= 0.	=			
Total Depth	19.73 ff	t.		Factor (VF)	4"= 0.66		6"= 1.50 12"= 5.8	· · ·			
Depth to Water	9.82 ff		Check if water	column is le	ss then 0.50	ft.					
	9.91	_xVF	7_= 1.6	8 x3 ca	ise volume =	Estimated Purge	Volume: 5.05	gal.			
Depth to Water v	v/ 80% Recharge										
						Time Star	ted:	(2400 hrs)			
Purge Equipment:	. .		Sampling Equip	ment:		Depth to F	pleted: Product:	(2400 hrs)			
Disposable Bailer			Disposable Baile	r	<u> </u>	Depth to V	Vater:	n			
Stainless Steel Bailer			Pressure Bailer			Hydrocarb	on Thickness:	ft			
Stack Pump			Discrete Bailer			Visual Cor	firmation/Description	n:			
Suction Pump Grundfos			Peristaltic Pump			Skimmer /	Absorbant Sock (cir	olo ono)			
Peristaltic Pump			QED Bladder Pur			Amt Remo	ved from Skimmer:	de one) dal			
QED Bladder Pump		,	Other:			Amt Remo	ved from Well:	gal			
Other:						Water Ren					
Other						Product Ir	ansferred to:				
04-47:/	101						7				
Start Time (purge)		-1-/		er Condition	<i>,</i> , —	Clou					
Sample Time/Dat			Water (Color:C	100	Odor: Y					
Approx. Flow Rate	e:	_gpm.	Sedime	ent Descripti	ion:	1.5/					
Did well de-water	? <u>w</u> If	yes, Time	ə:	Volume:	9	al. DTW @ S	Sampling:	. 61			
Time			Conductivit	v Tem	perature	D.O.	000	•			
(2400 hr.)	Volume (gal.)	pН	(µmhos/cm -		/ F)	(mg/L)	ORP (mV)				
1019	1.5	7.61	743		15-8	,	(,				
1023	3.0	7 60	(-10)	$-\frac{i}{2}$							
1038	-3:0	7.53	215	<u> </u>							
					-7 -	·					
								•			
			LABORATO	RY INFORM	IATION						
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. 1	TYPE LAB	DRATORY		ANALYSES				
MW- 9	6 x voa vial	YES	HCL	LAN		TPH-G(8015)/BT ETHANOL (8260	EX+MTBE(8260)/				
•	2		 			LAVI)				
			+			(1) // // // // // // // // // // // // //					
			-								
			<u></u>								
COMMENTS:			**								
					·		· ,				
Add/Replaced Lo	ock.	Δdd	Replaced Plu	ı.		\dd/Danland	Polt				
. Iddr. Cpidoca LC	· · · · · · · · · · · · · · · · · · ·	Auu	vehiacea Lin	y	/	Add/Replaced	DOIL.				



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-6991		Job Number:	385296	
Site Address:	2920 Castro	Valley I	Blvd	Event Date:	3/5/09	(inclusive)
City:	Castro Valle	еу, СА		Sampler:	314	(**************************************
				- <u> </u>		
Well ID	MW-6			Date Monitored:	315/09	
Well Diameter		<u>n.</u>	Volu	me 3/4"= 0.	02 1"= 0.04 2"= 0	.17 3"= 0.38
Total Depth		<u>t.</u>	Facto	or (VF) 4"= 0.		
Depth to Water	8.89 f	<u>t.</u>	Check if water colur	nn is less then 0.5	O ft.	70/
	14.48	xVF1	7 = 2.46	x3 case volume :	= Estimated Purge Volun	ne:/,38gal.
Depth to Water v	v/ 80% Recharg	e [(Height of	Water Column x 0.20)	+ DTWJ: 11-78		
					Time Started: Time Completed	(2400 hrs)
Purge Equipment:			Sampling Equipment			:(2400 hrs) ::ft
Disposable Bailer			Disposable Bailer	<u>×</u>	Depth to Water:	ft
Stainless Steel Bailer Stack Pump	·		Pressure Bailer		Hydrocarbon Thi	ckness:ft
Suction Pump			Discrete Bailer Peristaltic Pump		Visual Confirmat	on/Description:
Grundfos			QED Bladder Pump		Skimmer / Absor	bant Sock (circle one)
Peristaltic Pump			Other:		Amt Removed fro	om Skimmer: gal
QED Bladder Pump					Amt Removed fro Water Removed:	om Well:gal
Other:						red to:
Start Time (purge)	: 1230		Weather Co	nditions:	Cloub	
Sample Time/Dat		3/10/08	Water Color	, , –	Odor: Y /	
Approx. Flow Rat		gpm.	Sediment De		- 440.1	
Did well de-water		-		· -	gal. DTW @ Samp	11/
Dia Woir do Water		yes, mine	· voiu		gai. Divv@Samp	ling: //·(_)
Time	Volume (gal.)	рΗ	Conductivity	Temperature	D.O.	ORP
(2400 hr.)		·	(µmhos/cm - (S)	Ø / F)	(mg/L)	(mV)
1238	2.5	7.24	466	16.7		
1246	5.0	7.07	471	16.2		
1254	7.6	7.02	479	16.0		
						· · · · · · · · · · · · · · · · · · ·
			LABORATORY IN	IFORMATION .		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ALYSES
MW- 6	6 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+M	TBE(8260)/
	2		<u> </u>		ETHANOL (8260)	
					THY 1	
					N	
	<u> </u>		L			
COMMENTS:		-				
				·····		
Add/Replaced Lo	ock:	Add/	Replaced Plug:		Add/Replaced Bolt:	



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-6991		Job Number	∵ 385296 ,	
Site Address:	2920 Castro	Valley	Blvd	Event Date:	3/5/09	(inclusive)
City:	Castro Valle	ey, CA		Sampler:	314	()
V4/ 11/15	N. 7	<u>_</u>				
Well ID	MW- 7	_		Date Monitored	3/5/69	·
Well Diameter		<u>n.</u>		/olume 3/4"= 0	.02 1"= 0.04 2"=	= 0.17 3"= 0.38
Total Depth	19.72 f	<u>t.</u>	Į F	Factor (VF) 4"= 0	.66 5"= 1.02 6"=	1.50 12"= 5.80
Depth to Water	<u>9.34</u> f	<u>t.</u>	Check if water co	olumn is less then 0.5	50 ft.	
	0.38	xVF	<u> 17 = 1.76</u>	x3 case volume	= Estimated Purge Vol	ume: 5-29 gal.
Depth to Water	w/ 80% Recharg	e [(Height of	Water Column x 0.	.20) + DTWJ: 11.41		
					Time Started:	
Purge Equipment:			Sampling Equipm	_	Depth to Produ	red:(2400 hrs) uct:ft
Disposable Bailer	<u>×</u>		Disposable Bailer	X	Depth to Wate	oct
Stainless Steel Baile	r		Pressure Bailer		Hydrocarbon 1	
Stack Pump			Discrete Bailer		Visual Confirm	nation/Description:
Suction Pump			Peristaltic Pump		Skimmer / Abo	sorbant Sock (circle one)
Grundfos Peristaltic Pump			QED Bladder Pump		Amt Removed	from Skimmer:gal
QED Bladder Pump		,	Other:		Amt Removed	from Well:gal
Other:					Water Remove	
<u> </u>					Froduct Transi	ferred to:
Start Time (purge Sample Time/Da Approx. Flow Rat Did well de-water (2400 hr.)	te: 0910 /	315/01 gpm. yes, Time pH 7.4(7.37 7.32	Water Co	Temperature	gal. DTW @ San	ORP (mV)
	***************************************		LABORATORY	INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TY	PE LABORATORY		NALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+ ETHANOL (8260)	MTBE(8260)/
	7.		 		ETHANUL (8260)	
	- L		 		 7121/ - 1) -	
					1	
			ļ			
COMMENTS:						
Add/Replaced Lo	ock:	Add/	Replaced Plug:		Add/Replaced Bo	olt:

Chevron California Region Analysis Request/Chain of Custody Lancaster Laboratories 63669-66 Acct. # 18099 For Lancaster Laboratories Use only



	CRA M	ITI Proj	ect#:	61H-1	63			Ar	alyse	s Rec	uest	ed		76	# 113	3507	7
Facility #: SS#9-6991 G-R#385296 Global ID#T0600			Mat	rix	F			Pı	eserv	ation	Code	98			Preserv	ative Co	lea
Site Address: 2920 CASTRO VALLEY BLVD, CASTRO V	ALLEY, C	A		1	ŀ	1		-+		+	 	_		H=1	HCI	T = Thic	sulfate
Chevron PM: Lead Consultant: Lead Consultant: CRA CONSULTANT:	AKJ		 	\neg	- [eeun								HNO3 H2SO4	B = Na(O = Oth	
Consultant/Office: G-IN, INC., 6747 Sierra Court, Suite J, Di		94568	岩	<u>က</u>	e l	l	포			-	ব		1 1			ting needs	
Deanna L. Harding (deanna@grinc.	com)		Potable		Containers	8021	Silica Gel Cleanup				3			Mu	st meet k	west deter	tion limits
Consultant Phone #.925-551-7555 Fax #: 925-5	551-7899			믜네		X		-	8	8	3					3260 comp	ounds
Sampler: J. Hezza	_				٥	09 Sec	8		Method	ead Method	9		11			nfirmation	
J. Tekka		site		₩	Total Number	BIEX + MIBE 8260 TPH 8015 MOD GRO	TPH 8015 MOD DRO	5	E E	lead lead	1	ł	1 1			est hit by 6 its by 8260	
Date	Time	Grab Composite	_ ±		ᇹ	X + M	8015	8260 full scan	Total Lead	Seg.	Z			Ru	νο οχ	y's on high	est hit
Sample Identification Collected	Collected	Grab	Soil Water	्रा हिं	ğ		Œ	8260	層	Disso	2					y's on all h	
QA 315/04	11000	X	>	41:	<u></u>	7								Com	ments /	Remarks	
	1135	X .	 	111		Y	X	_		1	4]			
	1210	X X	1	1	1	メメ	X	_			4			_			
	1315	X			8		1	_			1		-	_			
	0910	X	-		_	नर		_	-	-	7	-		4			
				+	╁	, -		_	+		4	+	\vdash				
				11	1	1		+	_		+	+-	-	-{			
											1			-			
					_	\perp		\bot						_			
			_		+		-	4	4	\Box	\bot						
		-		++-	╁	-	-	+	+		_	 	\vdash	_			
Turnaround Time Requested (TAT) (please circle)	Refinquis	shed by:					I D	eto	Time		ceived	4 80					
STD. TAT 72 hour 48 hour			1/10	-			3/5	14	Time /345	- 9	Her		W	St	> p3	Date Date	Time
24 hour 4 day 5 day	Relinquis	shed by	267	11/	2	n2.	l na	ate	Time	Re	ceived	ייעל ו	11			Date	Time
Data Package Options (please circle if required)	Relinquis	shed by:	a v r			03-	l D₁	ate i	Time	Re	ceived	<u>Ke</u>	ange	er_	120	PAROL	1165
QC Summary Type I - Full CC - Hold						del	AR	H	1634	17	2V		X			Date	Time
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RECEIVED

MAR 1 8 2000

GETTLER-RYAN INC.
GENERAL CONTRACTORS

ANALYTICAL RESULTS

Prepared for:

Chevron c/o CRA Suite 110 2000 Opportunity Drive Roseville CA 95678

916-677-3407

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 1135077. Samples arrived at the laboratory on Saturday, March 07, 2009. The PO# for this group is 96991 and the release number is MTI.

Client Description	Lancaster Labs Number
QA-T-090305 NA Water	5616398
MW-1-W-090305 Grab Water	5616399
MW-2-W-090305 Grab Water	5616400
MW-4-W-090305 Grab Water	5616401
MW-6-W-090305 Grab Water	5616402
MW-7-W-090305 Grab Water	5616403

ELECTRONIC COPY TO

Gettler-Ryan, Inc.

Attn: Cheryl Hansen



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Questions? Contact your Client Services Representative Jill M Parker at (717) 656-2300

Respectfully Submitted,

Sarah Snyder Specialist



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Lancaster Laboratories Sample No. WW5616398

Group No. 1135077

QA-T-090305 NA Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 QA

Collected: 03/05/2009

Account Number: 12099

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Chevron c/o CRA Suite 110

2000 Opportunity Drive Roseville CA 95678

Discard: 04/18/2009

CVCQA

CAT			As Received	As Received Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06054	BTEX+MTBE by 8260B					
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	uq/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	uq/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	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
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/16/2009 15:11	Katrina T Longenecke	
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	03/14/2009 04:25	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/16/2009 15:11	Katrina T Longenecke	r 1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/14/2009 04:25	Michael A Ziegler	1



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Lancaster Laboratories Sample No. WW5616399

Group No. 1135077

MW-1-W-090305 Grab Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 MW-1

Collected: 03/05/2009 11:35 by JH

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Discard: 04/18/2009

CVC01

Account Number: 12099

Chevron c/o CRA

Suite 110

2000 Opportunity Drive Roseville CA 95678

CAT				As Received		
			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06609	TPH-DRO CA C10-C28	n.a.	77	50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
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

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
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	03/10/2009 17:10	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/16/2009 16:51	Katrina T Longenecker	· 1
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/13/2009 21:11	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/16/2009 16:51	Katrina T Longenecker	. 1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/13/2009 21:11	Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/10/2009 02:00	Tracy L Schickel	1



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Lancaster Laboratories Sample No. WW5616400

Group No. 1135077

MW-2-W-090305 Grab Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 MW-2 Collected:03/05/2009 12:10 by JH

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Discard: 04/18/2009

CVC02

Account Number: 12099

Chevron c/o CRA

Suite 110

2000 Opportunity Drive Roseville CA 95678

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06609	TPH-DRO CA C10-C28	n.a.	N.D.	50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	55	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

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
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	03/10/2009 17:30	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/16/2009 17:15	Katrina T Longenecker	1
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/13/2009 22:26	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/16/2009 17:15	Katrina T Longenecker	. 1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/13/2009 22:26	Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/10/2009 02:00	Tracy L Schickel	1



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Lancaster Laboratories Sample No. WW5616401

Group No. 1135077

MW-4-W-090305 Grab Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 MW-4 by JH

Collected: 03/05/2009 10:50

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Discard: 04/18/2009

Account Number: 12099

Chevron c/o CRA

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CI	7CC	۱4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06609	TPH-DRO CA C10-C28	n.a.	N.D.	50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
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

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
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	03/10/2009 17:50	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	03/16/2009 17:40	Katrina T Longenecker	- 1
06067	BTEX, MTBE, ETOH	SW-846 8260B	1	03/13/2009 22:51	Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/16/2009 17:40	Katrina T Longenecker	. 1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/13/2009 22:51	Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	03/10/2009 02:00	Tracy L Schickel	1



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Lancaster Laboratories Sample No. WW5616402

Group No. 1135077

MW-6-W-090305 Grab Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 MW-6 Collected:03/05/2009 13:15

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Discard: 04/18/2009

Chevron c/o CRA

Account Number: 12099

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CVC06

CAT			As Received	As Received Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
06609	TPH-DRO CA C10-C28	n.a.	140	50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	160	50	ug/l	1
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	2	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	1	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	7	0.5	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
1	No.	Analysis Name	Method	Trial# Date and Time Analyst	Factor
(06609	TPH-DRO CA C10-C28	SW-846 8015B	1 03/10/2009 18:11 Diane V Do	1
(01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1 03/16/2009 18:04 Katrina T Longeneo	ker 1
C	06067	BTEX, MTBE, ETOH	SW-846 8260B	1 03/13/2009 23:16 Michael A Ziegler	1
(01146	GC VOA Water Prep	SW-846 5030B	1 03/16/2009 18:04 Katrina T Longened	ker 1
C	01163	GC/MS VOA Water Prep	SW-846 5030B	1 03/13/2009 23:16 Michael A Ziegler	1
C	02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1 03/10/2009 02:00 Tracy L Schickel	1



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Lancaster Laboratories Sample No. WW5616403

Group No. 1135077

MW-7-W-090305 Grab Water Facility# 96991 Job# 385296 MTI# 61H-1633 GRD 2920 Castro Valley-Castro T0600100324 MW-7

Collected: 03/05/2009 09:10 by JH

Submitted: 03/07/2009 10:00 Reported: 03/18/2009 at 10:24

Discard: 04/18/2009

CVC07

Account Number: 12099

Chevron c/o CRA

Suite 110

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06609	TPH-DRO CA C10-C28	n.a.	1,000	50	ug/l	1
01728	TPH-GRO N. CA water C6-C12	n.a.	2,100	250	ug/l	5
06067	BTEX, MTBE, ETOH					
01587	Ethanol	64-17-5	N.D.	50	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	57	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	3	0.5	uq/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	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 Ti	me	Analyst	Factor
06609	TPH-DRO CA C10-C28	SW-846 8015	5B 1	03/10/2009 1	8:31	Diane V Do	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015	B 1	03/16/2009 1	8:28	Katrina T Longenecker	5
06067	BTEX, MTBE, ETOH	SW-846 8260	B 1	03/13/2009 2		Michael A Ziegler	1
01146	GC VOA Water Prep	SW-846 5030	B 1	03/16/2009 1		Katrina T Longenecker	5
01163	GC/MS VOA Water Prep	SW-846 5030		03/13/2009 2		Michael A Ziegler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510	C 1	03/10/2009 0	2:00	Tracy L Schickel	1



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Quality Control Summary

Client Name: Chevron c/o CRA Reported: 03/18/09 at 10:24 AM Group Number: 1135077

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 090680030A TPH-DRO CA C10-C28	Sample nu N.D.	mber(s):	5616399-56 ug/l	16403 100	99	56-122	1	20
Batch number: 09075A07A TPH-GRO N. CA water C6-C12	Sample nu	mber(s): 50.	5616398-563 ug/l	16403 109	118	75-135	8	30
Batch number: Z090723AA Ethanol Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample num N.D. N.D. N.D. N.D. N.D. N.D. N.D.	mber(s): 50. 0.5 0.5 0.5 0.5 0.5	5616399-563 ug/l ug/l ug/l ug/l ug/l ug/l ug/l	16403 135 102 99 108 104	74	40-158 78-117 80-116 80-115 80-113 81-114		
Batch number: Z090724AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample num N.D. N.D. N.D. N.D. N.D. N.D.	nber(s): 0.5 0.5 0.5 0.5 0.5	5616398 ug/l ug/l ug/l ug/l ug/l	96 97 105 102		78-117 80-116 80-115 80-113 81-114		

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 %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 09075A07A TPH-GRO N. CA water C6-C12	Sample 127	number(s)	: 5616398 63-154	-561640	3 UNSPI	K: P616419			
Batch number: Z090723AA	Sample	number(s)	: 5616399	-561640	3 UNSPI	K: 5616399			
Ethanol	119	133	37-164	11	30				
Methyl Tertiary Butyl Ether	104	109	72-126	5	30				
Benzene	104	109	80-126	4	30				
Toluene	113	118	80-125	5	30				
Ethylbenzene	111	117	77-125	5	30				
Xylene (Total)	111	117	79-125	5	30				
Batch number: Z090724AA	Sample	number(s)	: 5616398	UNSPK:	P61664	16			
Methyl Tertiary Butyl Ether	102	103	72-126	0	30	. •			
Benzene	105	106	80-126	Ö	30				
Toluene	113	113	80-125	Ö	30				

*- 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 c/o CRA

Group Number: 1135077

Reported: 03/18/09 at 10:24 AM

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

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Ethylbenzene	112	112	77-125	0	30		-		
Xylene (Total)	111	110	79-125	0	30				

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.

Analysis Name: TPH-DRO CA C10-C28 Batch number: 090680030A Orthoterphenyl

Limits:	59-131	 	 	 	
LCSD	117				
LCS	120				
Blank	103				
5616403	110				
5616402	96				
5616401	100				
5616400	82				
5616399	93		 	 	

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 09075A07A

Trifluorotoluene-F

Limits:	63-135	 	v4.4vv	 	 	
MS	110					
LCSD	113					
LCS	112					
Blank	99					
5616403	110					
5616402	98					
5616401	98					
5616400	97					
5616399	99					
5616398	98			 	 	

Analysis Name: BTEX, MTBE, ETOH Batch number: Z090723AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5616399	89	90	98	86
5616400	88	90	98	85
5616401	88	89	97	86
5616402	88	88	98	89
5616403	84	86	98	93
Blank	88	90	98	86

*- 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 1	Name: Chevron c/o CRA	\	Group Number: 1135077					
Reported	d: 03/18/09 at 10:24	AM						
		Surrogate Q	uality Control					
LCS	86	89	98	90				
MS	86	90	98	90				
MSD	86	90	98	91				
Limits:	80-116	77-113	80-113	78-113				
Analysis I Batch numb	Name: BTEX+MTBE by 8260B ber: Z090724AA Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene				
5616398	94	94	107	92				
Blank	92	94	108	93				
LCS	91	95	108	98				
MS	93	94	109	97				
MSD	92	94	109	97				
Limits:	80-116	77-113	80-113	78-113				

^{*-} 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.

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	ib.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	Ī	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib >5 um/ml	fibers greater than 5 microns in length per ml

- 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.

Inorganic Qualifiers

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.

U.S. EPA data qualifiers:

Organic Qualifiers

Defined in case narrative

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

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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