

ENVIRONMENTAL
PROTECTION

97 AUG -6 PM 3:22

July 31st, 1997

Mr. Ravi Arulananthum
RWQCB-Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612



Chevron Products Company
6001 Bollinger Canyon Rd, Bldg L
PO Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation
Phone (510) 842-9500
Fax (510) 842-8370

Re: Former Chevron Asphalt Plant 206265
Powell & Landregan Street, Emeryville CA

Dear Mr. Arulananthum,

Please find attached the "Semi-Annual Groundwater Monitoring & Sampling Report" prepared for Chevron by Gettler-Ryan Inc., dated May 28th, 1997. This report documents the sampling event performed April 22nd, 1997.

The groundwater samples collected by Gettler-Ryan were analyzed for the presence of TPHG and BTEX constituents. The results obtained during this sampling event were consistent with historical data seen for this site.

Chevron will continue with the current monitoring schedule for this site. If you have any questions or comments regarding this site, please call. I can be reached by phone at (510) 842-9449 or by fax at (510) 842-8370.

Sincerely,

A handwritten signature in black ink, appearing to read "Tammy L. Hodge", written over a horizontal line.

Tammy L Hodge
Groundwater Coordinator
Site Assessment and Remediation

cc:

- * Ms. Susan Hugo, Alameda County Health
1131 Harbor Bay Parkway, Suite 250, Alameda CA 94502
- * Chevron File #206265



GETTLER-RYAN INC

ENVIRONMENTAL PROTECTION
AUG 5 1997 3:22

May 28, 1997

Job #5161.80

Ms. Tammy Hodge
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Semi-Annual Groundwater Monitoring & Sampling Report
Former Chevron Asphalt Plant and Terminal #1001067
Powell @ Landregan Street
Emeryville, California

Dear Ms. Hodge:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On April 22, 1997, field personnel were on-site to monitor and sample ten wells (MW-2A, MW-7, MW-8, MW-10, MW-11, MW-13, MW-15, MW-17, MW-18, and MW-19A) at the Former Chevron Asphalt Plant and Terminal located at Powell at Landregan Street in Emeryville, California. Wells MW-1, MW-3, MW-9, MW-12, and MW-16, were either not located or inaccessible.

Static groundwater levels were measured on April 22, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A potentiometric map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by NEI/GTEL Environmental Laboratories, Inc. Analytical results are presented in Tables 1 and 2. The chain of custody document and laboratory analytical reports are enclosed.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

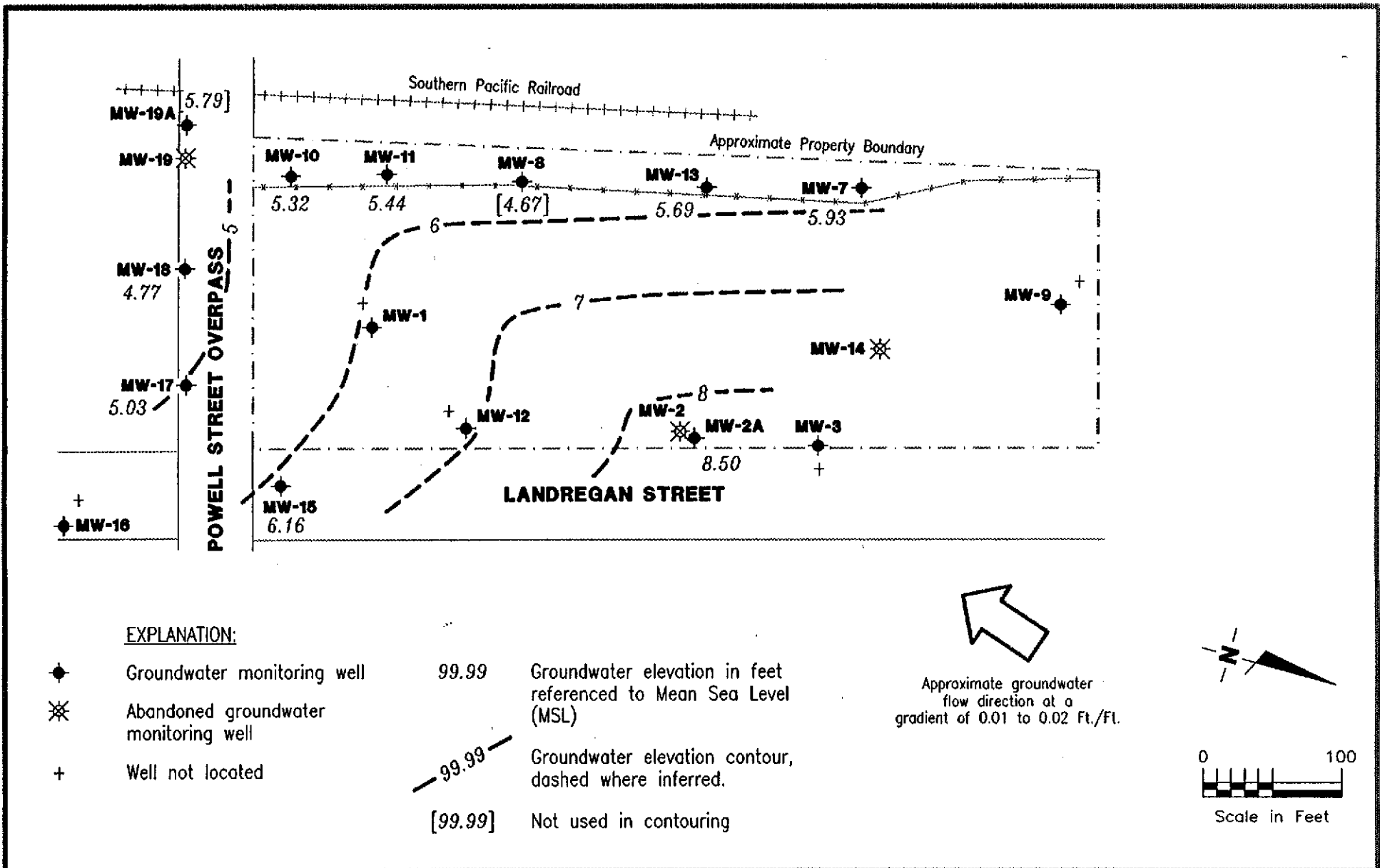
Deanna L. Harding
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Stephen J. Carter
Senior Geologist, R.G. No. 5577



DLH/SJC/dlh
5161.QML

- Figure 1: Potentiometric Map
- Table 1: Water Level Data and Groundwater Analytical Results
- Table 2: Analytical Results for Groundwater - Halogenated Volatile Organic Compounds
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Former Chevron Asphalt Plant
and Terminal No. 1001067
Emeryville, California

FIGURE

1

JOB NUMBER
5161

REVIEWED BY

DATE
April 22, 1997

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	B T E X MTBE				
							<-----ppb----->				
MW-1 10.67	4/26/85	---	---	---	---	---	99	---	---	6.0	---
	9/11/87	---	---	---	---	---	63	---	---	---	---
	7/7/88	---	---	---	---	<100	55	---	---	---	---
	4/13/89	3.72	6.95	---	---	---	---	---	---	---	---
	4/14/89	---	---	---	8260	<5,000	34	<5.0	<5.0	<10	---
	7/31/89	5.72	4.95	0	8260	7,000	57	1.2	<0.2	1.6	---
	12/8/89	4.80	5.87	0	8015/8020	---	26	0.4	0.9	2.0	---
	3/21/90	4.74	5.93	0	8015/8020	3,500	120	9.0	3.0	3.0	---
	6/19/90	4.75	5.92	0	8015/8020	2,700	100	<0.3	<0.3	7.0	---
	9/20/90	5.07	5.60	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	2,200	120	2.0	2.0	0.79	---
	12/28/90	4.91	5.76	0	8015/8020	720	44	2.0	<0.5	9.0	---
	5/10/91	5.30	5.37	0	8015/8020	530	47	2.0	0.5	8.0	---
	8/8/91	5.85	4.82	0	8015/8020	1,400	37	8.3	3.7	12	---
	11/27/91	5.13	5.54	0	8015/8020	840	16	7.1	4.5	11	---
	1/29/92	4.82	5.85	0	8015/8020	350	18	9.3	3.7	7.7	---
	3/26/92	4.32	6.35	0	8015/8020	420 ¹¹	19	2.2	1.2	4.0	---
	7/23/92	5.42	5.25	0	8015/8020	4,000 ¹²	50	82	40	160	---
	10/28/92	5.56	5.11	0	8015/8020	980	36	6.7	3.0	10	---
	5/4/93	6.30	4.37	0	8015/8020	650	9.4	2.4	1.2	4.5	---
	1/5/94 ¹⁰	---	---	---	---	---	---	---	---	---	---
MW-2/ 13.78	4/26/85	---	---	---	---	---	<10	---	---	---	---
	9/11/87	---	---	---	---	---	---	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89	2.62	11.16	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	---
	7/31/89	4.63	9.15	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---
	12/8/89	5.98	7.80	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	5.85	7.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.95	7.83	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.86	6.92	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<1.5	<1.5	<1.5	<4.5	---
	12/28/90	6.34	7.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.96	7.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	7.66	6.12	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	8.04	5.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	6.01	7.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	6.10	7.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	7.39	6.39	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	B T E X MTBE				
							<-----ppb----->				
MW-2	10/28/92	7.51	6.27	0	8015/8020	55	1.3	6.9	1.1	5.1	---
	5/4/93 ⁸	---	---	---	---	---	---	---	---	---	---
	1/5/94 ¹⁰	---	---	---	---	---	---	---	---	---	---
	10/24/94	Dry	---	---	---	---	---	---	---	---	---
	4/19/95	2.51	11.28 ¹⁴	0.01	---	---	---	---	---	---	---
	11/6/95	Abandoned	---	---	---	---	---	---	---	---	---
MW-2A 12.45	11/6/95	4.51	7.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	4.10	8.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	5.32	7.13	0	8015/8020	60 ¹⁷	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	3.95	8.50	0	8015/8020	<50	0.8	<0.5	<0.5	<0.5	<5.0
MW-3/ 11.73	4/26/85	---	---	---	---	---	<10	---	---	---	---
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89	2.34	9.39	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	---
	7/31/89	4.79	6.94	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---
	12/8/89	3.03	8.70	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	2.55	9.18	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	2.76	8.97	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	4.43	7.30	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	3.67	8.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	2.83	8.90	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.09	6.64	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.37	6.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	3.46	8.27	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	2.10	9.63	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	4.60	7.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	5.07	6.66	0	8015/8020	92	1.8	12	2.0	10	---
	5/4/93 ⁸	---	---	---	---	---	---	---	---	---	---
1/5/94 ¹⁰	---	---	---	---	---	---	---	---	---	---	
MW-4	4/26/85	---	---	---	---	3,100	<10	---	---	---	---
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89 ¹	2.12	---	---	---	---	---	---	---	---	---
	4/14/89 ¹⁴	---	---	---	8260	380 ¹³	<0.5	<1.0	<1.0	<1.0	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	←-----ppb----->				
							B	T	E	X	MTBE
MW-5	4/26/85	---	---	---	---	1,600	<100	---	---	---	---
	9/11/87	---	---	---	---	---	<10	---	---	---	
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	
	4/13/89 ³	2.79	---	---	---	---	---	---	---	---	
	4/14/89 ^{4*}	---	---	---	8260	4,300 ¹³	<0.5	<1.0	<1.0	<1.0	---
MW-6	4/26/85	---	---	---	---	580	<100	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---	
	7/7/88	---	---	---	---	8,000	<5.0	---	---	---	
	4/13/89 ³	1.90	---	---	---	---	---	---	---	---	
	4/14/89 ^{4*}	---	---	---	8260	3,300 ¹³	<0.5	<1.0	<1.0	<1.0	
MW-7/ 10.47	4/26/85	---	---	---	---	700	ND	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---	
	7/7/88	---	---	---	---	17,000	<5.0	---	---	---	
	4/13/89	1.90	8.57	---	---	---	---	---	---	---	
	4/14/89 ^{4*}	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	
	7/31/89	4.24	6.23	---	8260	160 ¹³	<0.1	<0.5	<0.1	<0.2	
	7/31/89	---	---	---	8260	100 ¹³	<0.1	<0.5	<0.1	<0.2	
	12/8/89	2.65	7.82	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	
	3/21/90	2.76	7.71	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	
	6/19/90	3.24	7.23	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	
	9/20/90	4.57	5.90	---	---	---	---	---	---	---	
	9/21/90	---	---	---	8015/8020	<50	1.5	<0.3	<0.3	<0.6	
	12/28/90	3.12	7.35	0	8015/8020	<50	0.7	<0.5	<0.5	0.7	
	5/10/91	3.53	6.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	8/8/91	4.64	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	11/27/91	3.66	6.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	1/29/92	3.24	7.23	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	
	3/26/92	2.61	7.86	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	
	7/23/92	4.19	6.28	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	10/28/92	4.39	6.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	5/4/93 ⁸	---	---	---	---	---	---	---	---	---	
1/5/94 ¹⁰	---	---	---	---	---	---	---	---	---		
5/13/94	4.41	6.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
10/24/94	5.03	5.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
4/19/95	4.53	5.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
11/6/95	5.11	5.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
4/26/96	4.40	6.07	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <-----	-----ppb----->					MTBE
							B	T	E	X		
MW-7 (cont)	10/10/96	5.02	5.45	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/22/97	4.54	5.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-8/ 10.46	4/26/85	---	---	---	---	---	ND	---	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---	---	
	7/7/88	---	---	---	---	20,000	<5.0	---	---	---	---	
	4/13/89	2.80	7.66	---	---	---	---	---	---	---	---	
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000	
	7/31/89	5.70	4.76	0	8260	<50	<0.1	<0.5	<0.1	<0.2	---	
	12/8/89	4.13	6.33	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---	
	3/21/90	4.07	6.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	6/19/90	4.25	6.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	9/20/90	4.99	5.47	---	---	---	---	---	---	---	---	
	9/21/90	---	---	---	8015/8020	<50	6.0	<0.3	<0.3	<0.6	---	
	12/28/90	4.39	6.07	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/10/91	4.13	6.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/8/91	5.53	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/27/91	4.59	5.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/92	5.30	5.16	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/26/92	3.59	6.87	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---	
	7/23/92	5.06	5.40	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/28/92 ⁷	---	---	---	---	---	---	---	---	---	---	
	5/4/93 ⁸	---	---	---	---	---	---	---	---	---	---	
	1/5/94 ⁸	---	---	---	---	---	---	---	---	---	---	
	5/13/94	5.59	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/24/94 ⁷	---	---	---	---	---	---	---	---	---	---	
	4/19/95 ⁴	---	---	---	---	---	---	---	---	---	---	
	11/6/95	---	Inaccessible	---	---	---	---	---	---	---	---	
	4/26/96	---	Inaccessible	---	---	---	---	---	---	---	---	
	10/10/96	---	Inaccessible	---	---	---	---	---	---	---	---	
4/22/97	5.79	4.67	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
MW-9	4/26/85	---	---	---	---	---	---	---	---	---		
	9/11/87	---	---	---	---	---	---	---	---	---		
	7/7/88	---	---	---	---	400	---	---	---	---		
	5/10/91 ³	---	---	---	---	---	---	---	---	---		
MW-10/ 10.82	7/7/88	---	---	---	---	---	<5.0	---	---	---		
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0		



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ² (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <----->	ppb					MTBE
							B	T	E	X		
MW-10 (cont)	7/31/89	---	---	---	8260	<50	<0.1	<0.5	<0.1	<0.2	---	
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---	
	3/21/90	4.60	6.22	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	6/19/90	4.89	5.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	9/20/90	5.77	5.05	---	---	---	---	---	---	---	---	
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	12/28/90	4.99	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/10/91	5.80	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/8/91	5.86	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/27/91	5.39	5.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/92	5.44	5.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/26/92	4.96	5.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/23/92	5.80	5.02	0	8015/8020	<50	<0.5	1.8	0.5	1.9	---	
	10/28/92	6.06	4.76	0	8015/8020	<50	0.6	0.7	<0.5	1.2	---	
	5/4/93 ³	---	---	---	---	---	---	---	---	---	---	
	1/5/94	5.92	4.90	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---	
	5/13/94	5.09	5.73	0	8015/8020	140	<0.5	<0.5	<0.5	1.3	---	
	10/24/94	6.24	4.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/19/95	5.26	5.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/6/95	6.25	4.57	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---		
10/10/96	6.10	4.72	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	34/ND ¹⁶		
4/22/97	5.50	5.32	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
MW-11/ 11.38	7/7/88	---	---	---	---	---	<5.0	---	---	---	---	
	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000	
	7/31/89	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.2	---	
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---	
	3/21/90	4.82	6.56	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	6/19/90	5.14	6.24	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	9/20/90	6.11	5.27	---	---	---	---	---	---	---	---	
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
	12/28/90	5.16	6.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/10/91	7.83	3.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/8/91	6.32	5.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/27/91	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/92	5.83	5.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/26/92	4.09	7.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/23/92	6.19	5.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/28/92	6.51	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	←-----ppb----->					MTBE
							B	T	E	X		
MW-11 (cont)	5/4/93 ^a	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 ^a	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	6.79	4.59	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.69	5.69	0	8015/8020	58 ^b	0.6	<0.5	<0.5	0.5	0.5	---
	11/6/95	Inaccessible	---	---	---	---	---	---	---	---	---	---
	4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---
	10/10/96	Inaccessible	---	---	---	---	---	---	---	---	---	---
	4/22/97	5.94	5.44	0	8015/8020	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	MW-12/ 13.03	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
4/14/89*		---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<1.0	---
7/31/89		---	---	---	8260	<100	<0.1	<0.5	<0.1	<0.2	<0.2	---
12/8/89		---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.3	<0.6	---
3/21/90		6.76	6.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	---
6/19/90		6.62	6.41	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	---
9/20/90		5.00	8.03	---	---	---	---	---	---	---	---	---
9/21/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	---
12/28/90		6.62	6.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
5/10/91		6.48	6.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
8/8/91		8.01	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
11/27/91		7.95	5.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
1/29/92		7.68	5.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	1.0	---
3/26/92		6.60	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
7/23/92 ^c		---	---	---	---	---	---	---	---	---	---	---
MW-13/ 11.15	3/21/90	4.08	7.07	0	8015/8020	480	<0.3	<0.3	1.0	5.0	5.0	---
	6/19/90	4.34	6.81	0	8015/8020	180	<0.3	<0.3	0.8	3.0	3.0	---
	9/20/90	5.31	5.84	0	8015/8020	150	<0.3	<0.3	<0.3	0.54	0.54	---
	12/28/90	4.79	6.36	0	8015/8020	160	<0.5	<0.5	<0.5	1.0	1.0	---
	5/10/91	4.20	6.95	0	8015/8020	110	<0.5	<0.5	<0.5	2.0	2.0	---
	8/8/91	5.13	6.02	0	8015/8020	220 ^d	<0.5	<0.5	<0.5	1.8	1.8	---
	11/27/91	4.72	6.43	0	8015/8020	70	<0.5	<0.5	<0.5	1.2	1.2	---
	1/29/92	4.69	6.46	0	8015/8020	150	<0.5	<0.5	3.1	7.1	7.1	---
	3/26/92	4.04	7.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.12	6.03	0	8015/8020	190	<0.5	<0.5	<0.5	2.1	2.1	---
	10/28/92	5.30	5.85	0	8015/8020	190	<0.5	<0.5	<0.5	2.0	2.0	---
	5/4/93 ^a	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 ^a	---	---	---	---	---	---	---	---	---	---	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	B T E X MTBE				
							<-----ppb----->				
MW-13 (cont)	5/13/94	5.28	5.87	0	8015/8020	220	<0.5	1.2	<0.5	1.7	---
	10/24/94	6.04	5.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.37	5.78	0	8015/8020	140 ⁹	<0.5	<0.5	<0.5	1.2	---
	11/6/95	6.13	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	5.22	5.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	Inaccessible		---	---	---	---	---	---	---	---
	4/22/97	5.46	5.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-14/ 9.78	3/21/90	0.91	8.87	0	8015/8020	170	<0.3	<0.3	<0.4	2.0	---
	6/19/90	1.03	8.75	0	8015/8020	77	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	2.53	7.25	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	1.61	8.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	1.22	8.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	2.45	7.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	2.59	7.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	1.10	8.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	0.74	9.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	2.30	7.48	0	8015/8020	<50	0.6	<0.5	<0.5	0.8	---
	10/28/92	2.76	7.02	0	8015/8020	56	0.7	4.0	0.8	3.8	---
	5/4/93 ⁹	Abandoned		---	---	---	---	---	---	---	---
	MW-15/ 11.01	3/21/90	4.72	6.29	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6
6/19/90		4.78	6.23	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
9/20/90		4.98	6.03	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
12/28/90		4.84	6.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/10/91		4.58	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
8/8/91		5.03	5.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/27/91		5.88	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
1/29/92		4.82	6.19	0	8015/8020	<50	1.9	2.6	0.8	2.6	---
3/26/92		4.35	6.66	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
7/23/92		5.04	5.97	0	8015/8020	<50	<0.5	<0.5	<0.5	0.5	---
10/28/92		5.17	5.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/4/93 ⁸		---	---	---	---	---	---	---	---	---	---
1/5/94 ¹⁰		---	---	---	---	---	---	---	---	---	---
5/13/94		4.50	6.51	0	8015/8020	110	<0.5	0.7	<0.5	2.0	---
10/24/94		5.17	5.84	0	8015/8020	<50	2.3	1.1	<0.5	<0.5	---
4/19/95		4.77	6.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/6/95		5.28	5.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/26/96	4.60	6.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
MW-15 (cont)	10/10/96	5.22	5.79	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	4.85	6.16	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-16/ 11.11	3/21/90	5.84	5.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.90	5.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.36	4.75	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.98	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.89	5.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	6.28	4.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.62	5.49	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.88	5.23	0	8015/8020	65	3.6	6.2	1.9	6.6	---
	3/26/92	5.56	5.55	0	8015/8020	270 ³	21	27	9.5	41	---
	7/23/92	6.29	4.82	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---
	10/28/92	6.29	4.82	0	8015/8020	<50	0.9	1.4	<0.5	1.1	---
	5/4/93	5.75	5.36	0	8015/8020	51	<0.5	1.0	0.6	1.7	---
	1/5/94 ^{4b}	---	---	---	---	---	---	---	---	---	---
	MW-17/ 10.41	3/21/90	5.61	4.80	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6
6/19/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
9/20/90		6.02	4.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
12/28/90		5.73	4.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/10/91		5.65	4.76	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---
8/8/91		5.94	4.47	0	8015/8020	82	1.9	2.5	0.9	5.4	---
11/27/91		6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
1/29/92		5.61	4.80	0	8015/8020	<50	<0.5	0.9	<0.5	0.5	---
3/26/92		5.31	5.10	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
7/23/92		5.97	4.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
10/28/92		5.96	4.45	0	8015/8020	78	1.0	7.1	1.4	6.5	---
5/4/93		7.53	2.88	0	8015/8020	60	0.8	1.7	1.1	3.0	---
1/5/94		5.50	4.91	0	8015/8020	<50	<0.5	0.7	<0.5	<0.5	---
5/13/94		5.17	5.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
10/24/94		6.08	4.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
4/19/95		5.48	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/6/95		6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<5.0	---
4/26/96		5.45	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<5.0	---
10/10/96		5.72	4.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/22/97	5.38	5.03	0	8015/020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
MW-18/ 9.80	3/21/90	5.15	4.65	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.19	4.61	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.54	4.26	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.26	4.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.18	4.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.45	4.35	0	8015/8020	52	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.24	4.56	0	8015/8020	<50	0.6	1.5	0.6	2.1	---
	1/29/92	5.12	4.68	0	8015/8020	67	3.7	5.2	1.5	5.0	---
	3/26/92	4.84	4.96	0	8015/8020	80 ^f	<0.5	<0.5	<0.5	0.8	---
	7/23/92	5.49	4.31	0	8015/8020	50 ^f	1.3	2.1	0.5	3.0	---
	10/28/92	5.47	4.33	0	8015/8020	54	<0.5	1.3	<0.5	1.1	---
	5/4/93	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	5.05	4.75	0	8015/8020	<50	<0.5	0.5	<0.5	0.6	---
	5/13/94	4.76	5.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	5.65	4.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.10	4.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	5.57	4.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96 ¹⁰	---	---	---	---	---	---	---	---	---	---
	4/22/97	5.03	4.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-19/ 8.45	3/21/90	5.00	3.45	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.06	3.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.25	3.20	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.07	3.38	0	8015/8020	66	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.02	3.43	0	8015/8020	60 ^f	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.17	3.28	0	8015/8020	58	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.06	3.39	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	4.93	3.52	0	8015/8020	<50	1.7	2.6	0.7	2.1	---
	3/26/92	4.79	3.66	0	8015/8020	80 ^f	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.22	3.23	0	8015/8020	70 ^f	0.6	0.5	<0.5	1.5	---
	10/28/92	5.16	3.29	0	8015/8020	170	4.3	28	5.1	24	---
	5/4/93	4.93	3.52	0	8015/8020	120	2.0	4.7	2.8	8.1	---
	1/5/94	4.91	3.54	0	8015/8020	<50	2.0	1.4	1.7	2.5	---
	5/13/94	4.18	4.27	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	10/24/94	4.85	3.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	4.20	4.25	0	8015/8020	270 ^u	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	Abandoned	---	---	---	---	---	---	---	---	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	←-----ppb----->					
							B	T	E	X	MTBE	
MW-19A												
9.96	11/6/95	4.85	5.11	0	8015/8020	420	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	4.18	5.78	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	4.56	5.40	0	8015/8020	610 ¹⁷	<0.5	<0.5	<0.5	<0.5	<0.5	21
	4/22/97	4.17	5.79	0	8015/8020	430 ¹⁷	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
Trip Blank	4/14/89	--	--	--	8260	<50	<0.5	<1.0	<1.0	<1.0	<1.0	--
AA	7/31/89	--	--	--	8260	<50	<0.1	<0.5	<0.5	<0.5	<0.2	--
	12/8/89	--	--	--	8015/8020	--	<0.3	<0.3	<0.3	<0.3	<0.6	--
	3/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.6	--
	3/26/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.6	--
	6/19/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.6	--
	9/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.6	--
	12/28/90	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.6	--
	5/10/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	8/8/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	11/27/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	1/29/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	3/26/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
TB-LB	7/23/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/28/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	5/4/93	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
	1/5/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	5/13/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/24/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	4/19/95	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	11/6/95	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G)	←-----ppb----->				MTBE
							B	T	E	X	
Bailer Blank											
BB	5/10/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
DTW = Depth to water
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl-tertiary-butyl ether
O&G = Oil and Grease
ppb = Parts per billion
ppm = Parts per million
--- = Not available/not applicable

ANALYTICAL METHODS:

EPA Method 8260 for TPH(G) & BTEX
EPA Method 8015/8030 for TPH(G)
EPA Method 8020 for BTEX * & MTBE

NOTES:

Water level elevation data and laboratory analytical results prior to April 19, 1995, were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.

* Sample was analyzed for O&G (EPA Method 8260) and was <3,000 ppm.

NOTES (continued):

- ¹ Top of casing elevations shown prior to 3/21/90 were surveyed to an arbitrary datum point set at 100 feet. The GWEs shown for dates prior to 3/21/90 were corrected using new TOC elevations which were surveyed to a USGS benchmark (relative to mean sea level) in April 1990.
- ² Product thickness measurements on and after May 10, 1991 were made using an MMC flexi-dip interface probe. Product thickness information prior to May 10, 1991 was not available for inclusion in this report.
- ³ Well construction details for this well is not available for inclusion in this report.
- ⁴ Monitoring well was destroyed during soil excavation in 1989.
- ⁵ Well MW-9 was not measured after 5/10/91 because it could not be located. Previous water level data was not available for inclusion in this report.
- ⁶ Well MW-12 could not be located after building demolition.
- ⁷ Well was obstructed.
- ⁸ Monitoring well obstructed due to on-site construction activities.
- ⁹ Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
- ¹⁰ Well covered with asphalt during construction activities.
- ¹¹ Does not match a typical gasoline pattern.
- ¹² Gasoline range concentration reported. Chromatogram shows only a single peak in the gasoline range.
- ¹³ TPH was reported as Diesel #2.
- ¹⁴ GWE was corrected for the presence of separate-phase hydrocarbons using: $GWE = [(TOC-DTW) + (Prod\ Thickness)(0.8)]$. 0.8 is the assumed specific gravity of separate-phase hydrocarbons.
- ¹⁵ Laboratory report indicates that hydrocarbons were found in the range of gasoline, but do not resemble a gasoline fingerprint.
- ¹⁶ MTBE by EPA Method 8240B was not detected at a detection limit of 5.0 ppb.
- ¹⁷ Laboratory report indicates hydrocarbons in the gasoline range to not match the gasoline standard pattern.



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs	
															←-----ppb----->
MW-1	4/14/89	CCAS	8010	<5.0	—	19	720	<5.0	<5.0	11	<5.0	<20	340	ND ¹	
	7/31/89	CCAS	8010	6.8	—	54	2,600	2.7	7.2	57	<0.2	<1.0	760	ND ²	
	12/8/89	GTEL	8010	4.3	2,700	—	—	1.7	1.4	59	<0.5	<0.5	520	—	
	3/21/90	GTEL	8010	7.1	7,000	—	—	2.1	1.1	130	<0.5	<0.5	1,100	—	
	6/19/90	GTEL	8010	12	6,100	—	—	3.1	<0.5	81	<0.5	<0.5	1,200	—	
	9/21/90	GTEL	8010	1.8	2,400	—	—	2.2	1.7	60	<0.5	<0.5	1,100	ND ³	
	12/28/90	SAL	8010	2.0	—	28	1,500	1.0	0.6	15	<0.5	<0.5	510	ND ⁴	
	5/10/91	SAL	8010	10	—	69	5,500	2.0	<0.5	280	<0.5	<0.5	1,800	ND ⁵	
	8/8/91	SAL	8010	2.9	—	45	2,300	1.5	<0.5	110	<0.5	<0.5	<1.0	ND ⁶	
	11/27/91	SPA	8010	<25	—	<25	5,900	<25	<25	<25	<25	<25	540	ND ²⁰	
	1/29/92	SPA	8010	<25	—	26	1,900	<25	<25	<25	<25	<25	320	ND ²⁰	
	3/26/92	SPA	8010	<50	—	<50	1,500	<50	<50	<50	<50	<50	260	ND ²¹	
	7/23/92	SPA	8010	<50	—	<50	2,300	<50	<50	<50	<50	<50	170	ND ²¹	
	10/28/92	SPA	8010	4.2	—	30	1,600	3.6	<0.5	16	<0.5	<0.5	810	ND	
	5/4/93	SPA	8010	1.0	—	16	670	0.5	<0.5	9.2	<0.5	<0.5	110	ND ¹⁸	
	1/5/94 ²⁴	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/13/94 ²⁷	—	—	—	—	—	—	—	—	—	—	—	—	—	
	MW-2	4/14/89	CCAS	8010	<0.2	<0.2	—	—	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2	—
		7/31/89	CCAS	8010	<0.2	<0.2	—	—	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	—
12/8/89		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	
3/21/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	
6/19/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	
9/21/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	
12/28/90		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	
5/10/91		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
8/8/91		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
11/27/91		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
1/29/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
3/26/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
7/23/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁸	
10/28/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
5/4/93 ²⁴		—	—	—	—	—	—	—	—	—	—	—	—	—	
1/5/94 ²⁴		—	—	—	—	—	—	—	—	—	—	—	—	—	
5/13/94 ²⁸		—	—	—	—	—	—	—	—	—	—	—	—	—	
10/24/94 ³⁰	—	—	—	—	—	—	—	—	—	—	—	—	—		
11/6/95	Abandoned	—	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2A	11/6/95	GTEL	8010	<1.0	—	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND	
	4/26/96	GTEL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND ³⁶	
	10/10/96	GTEL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND	
	4/22/97	GTEL	8010	<2.5	—	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<4.0	ND	



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs
				DCE	DCE	DCE	DCE	DCA	TCA					
←-----ppb----->														
MW-3	4/14/89	CCAS	8010	<0.2	<0.2	---	---	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2	---
	7/31/89	CCAS	8010	<0.2	<0.2	---	---	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	---
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁸
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94 ²⁷	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	4/14/89 ⁷	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-5	4/14/89 ⁷	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-6	4/14/89 ⁷	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-7	4/14/89	CCAS	8010	<1.0	<1.0	---	---	1.0	1.0	<1.0	<1.0	<2.0	<1.0	---
(D)	7/31/89	CCAS	8010	<0.1	0.3	---	---	0.3	4.5	<0.1	<0.1	<0.5	<0.1	ND ⁴
	7/31/89	GTEL	8010	<0.1	0.4	---	---	0.2	2.6	<0.1	<0.1	<0.5	<0.1	ND ⁴
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	1.4	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁸
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁸
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁸



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	←----- ppb ----->										Other HVOCs	
				1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC		
MW-7 (cont)	4/19/95	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	11/6/95	GTEL	8010	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND
	4/26/96	GTEL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND ¹⁶
	10/10/96	GTEL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	4/22/97	GTEL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND
MW-8	4/14/89	CCAS	8010	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	---	0.6	1.9	1.7	1.7	0.4	<0.1	<0.5	<0.5	1.2	ND
	12/8/89	GTEL	8010	<0.2	0.53	---	---	<0.5	0.84	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	0.96	---	---	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	0.59	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁴
	10/28/92 ²³	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/4/93 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁰
	10/24/94 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	4/19/95 ²⁸	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/6/95	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	---
4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	---	
10/10/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	---	
4/22/97	GTEL	8010	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND	
MW-9	5/10/91 ^p	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	4/14/89	CCAS	8010	<1.0	15	---	---	2.0	<1.0	5.0	<1.0	<2.0	<1.0	---	
	7/31/89	CCAS	8010	0.7	---	6.3	27	2.9	<0.1	5.3	<0.1	<0.5	<0.1	ND	
	12/8/89	GTEL	8010	<0.2	24	---	---	3.1	<0.5	4.9	<0.5	0.6	<1.0	---	
	3/21/90	GTEL	8010	0.7	30	---	---	2.5	<0.5	3.5	<0.5	<0.5	<1.0	---	
	6/19/90	GTEL	8010	0.3	33	---	---	2.6	<0.5	6.3	<0.5	<0.5	<1.0	---	
	9/21/90	GTEL	8010	<0.2	32	---	---	5.0	<0.5	5.9	<0.5	<0.5	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	6.0	19	2.0	<0.5	5.0	<0.5	<0.5	<1.0	---	
	5/10/91	SAL	8010	0.6	---	7.0	24	2.0	<0.5	6.0	<0.5	<0.5	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	7.0	33	3.1	<0.5	6.2	<0.5	<0.5	<1.0	ND	



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	ppb										Other HVOCs
				1,1-DCE	1,2-DCE	1,1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	
MW-10 (cont)	11/27/91	SPA	8010	<0.5	---	6.8	100	<0.5	<0.5	8.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	9.1	30	2.8	<0.5	7.4	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	0.7	---	9.2	29	2.5	<0.5	6.8	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	6.1	21	1.5	<0.5	4.7	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	---	4.3	16	2.1	<0.5	4.1	<0.5	<0.5	<1.0	ND
	5/4/93 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94	SPA	8010	<0.5	---	1.3	5.2	0.5	1.0	0.8	<0.5	<0.5	<1.0	ND ¹⁸
	5/13/94	SPA	8010	<0.5	---	12	31	2.7	<0.5	4.8	<0.5	<0.5	<0.5	ND ²⁹
	10/24/94 ³³	SPA	8010	<10	---	13	44	<10	<10	<10	<10	<10	<10	ND ^{31,33}
	4/19/95	SPA	8010	0.7	---	14	36	<0.5	<0.5	9.2	<0.5	<0.5	<0.5	ND ¹⁸
	11/6/95	GTEL	8010	1.0	---	19	41	1.4	<1.0	14	<1.0	<1.0	<1.0	ND
	4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---
	10/10/96	GTEL	8010	0.7	---	17	38	0.8	<0.5	14	<0.5	<0.5	<0.8	ND
	4/22/97	GTEL	8010	<0.5	---	12	27	0.5	<0.5	13	<0.5	<0.5	<0.8	ND
	MW-11	4/14/89	CCAS	8010	<1.0	120	---	---	<1.0	<1.0	4.0	<1.0	<2.0	10
7/31/89		CCAS	8010	0.9	---	40	110	2.2	1.4	2.9	<0.2	<0.2	<0.2	ND
12/8/89		GTEL	8010	0.5	120	---	---	2.1	1.2	4.1	<0.5	<0.5	2.4	---
3/21/90		GTEL	8010	1.3	150	---	---	1.2	1.7	3.5	<0.5	<0.5	4.3	ND ¹⁰
6/19/90		GTEL	8010	0.068	140	---	---	1.3	<0.5	5.0	<0.5	<0.5	1.0	---
9/21/90		GTEL	8010	<0.2	100	---	---	1.1	<0.5	3.8	<0.5	<0.5	<1.0	---
12/28/90		SAL	8010	<0.5	---	23	43	0.9	0.7	3.0	<0.5	<0.5	<1.0	---
5/10/91		SAL	8010	0.9	---	44	110	0.5	<0.5	5.0	<0.5	<0.5	<1.0	ND
8/8/91		SAL	8010	<0.5	---	29	77	0.9	<0.5	2.4	<0.5	<0.5	<1.0	ND
11/27/91		SPA	8010	<0.5	---	34	240	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
1/29/92		SPA	8010	<5.0	---	33	91	<5.0	<5.0	<5.0	<5.0	<5.0	<10	ND
3/26/92		SPA	8010	<2.5	---	21	51	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	ND
7/23/92		SPA	8010	<0.5	---	18	46	0.6	<0.5	1.4	<0.5	<0.5	<0.5	ND ¹⁸
10/28/92		SPA	8010	0.5	---	36	80	<0.5	<0.5	4.6	<0.5	<0.5	<1.0	ND
5/4/93 ²⁴		---	---	---	---	---	---	---	---	---	---	---	---	---
1/5/94 ²⁴		---	---	---	---	---	---	---	---	---	---	---	---	---
5/13/94		SPA	8010	<0.5	---	62	82	<0.5	<0.5	7.9	<0.5	<0.5	1.7	ND ²⁹
10/24/94 ³³		SPA	8010	<10	---	28	75	<10	<10	<10	<10	<10	<10	ND ^{31,33}
4/19/95		SPA	8010	<0.5	---	18	39	<0.5	<0.5	6.5	<0.5	1.0	<0.5	ND ³⁴
11/6/95		Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---
4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	
10/10/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	
4/22/97	GTEL	8010	<0.5	---	4.7	12	<0.5	<0.5	3.0	<0.5	<0.5	<0.8	ND	
MW-12	4/14/89	CCAS	8010	<1.0	1.0	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	1.7	---	---	<0.1	<0.1	0.8	<0.1	<0.5	<0.1	ND



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs
				DCE	DCE	DCE	DCE	DCA	TCA					
				←-----ppb----->										
MW-12 (cont)	12/8/89	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	3/21/90	GTEL	8010	<0.2	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	6/19/90	GTEL	8010	<0.2	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	9/21/90	GTEL	8010	<0.2	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	5/10/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92 ²	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-13	3/21/90	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0
6/19/90		GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
9/20/90		GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
12/28/90		SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
5/10/91		SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹¹
8/8/91		SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
11/27/91		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
1/29/92		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
3/26/92		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
7/23/92		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹²
10/28/92		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
5/4/93 ²⁴		--	--	--	--	--	--	--	--	--	--	--	--	--
1/5/94 ²⁴		--	--	--	--	--	--	--	--	--	--	--	--	--
5/13/94		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ²⁰
10/24/94		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ²⁰
4/19/95		SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁸
11/6/95		GTEL	8010	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND
4/26/96	GTEL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND ¹⁶	
10/10/96	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	
4/22/97	GTEL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND
MW-14	3/21/90	GTEL	8010	<2.0	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	6/19/90	GTEL	8010	<2.0	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	9/20/90	GTEL	8010	<2.0	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	5/10/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
MW-14 (cont)	7/23/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 ²⁵	Abandoned	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	3/21/90	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	6/19/90	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	9/20/90	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	5/10/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹²
	8/8/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 ²⁴	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/5/94 ²⁴	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/13/94	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁰
	10/24/94	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	3.8	<0.5	ND ²⁰
	4/19/95	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	11/6/95	GTEL	8010	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND
4/26/96	GTEL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND ¹⁸	
10/10/96	GTEL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND	
4/22/97	GTEL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND	
MW-16	3/21/90	GTEL	8010	<0.2	0.8	--	--	<0.5	<0.5	27	8.0	2.0	<1.0	--
	6/19/90	GTEL	8010	<0.2	<0.5	--	--	<0.5	<0.5	35	7.0	2.0	<1.0	--
	9/20/90	GTEL	8010	<0.2	0.9	--	--	<0.5	<0.5	49	15	4.1	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	29	18	4.0	<1.0	ND ¹⁵
	5/10/91	SAL	8010	<0.5	--	<0.5	0.5	<0.5	<0.5	32	10	4.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	35	13	1.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	1.3	<0.5	<0.5	47	12	1.8	<1.0	ND ¹⁵
	1/29/92	SPA	8010	<0.5	--	<0.5	0.9	<0.5	<0.5	31	11	1.8	<1.0	ND
	3/26/92	SPA	8010	<0.8	--	<0.8	<0.8	<0.8	<0.8	24	8.5	1.7	<1.7	ND ¹⁹
	7/23/92	SPA	8010	<0.5	--	<0.5	0.9	<0.5	<0.5	37	12	1.0	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	--	<0.5	1.7	<0.5	<0.5	39	14	1.1	<1.0	ND
	5/4/93	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	32	10	1.1	<1	ND ¹⁸
	1/5/94 ²⁴	--	--	--	--	--	--	--	--	--	--	--	--	--
5/13/94 ²⁷	--	--	--	--	--	--	--	--	--	--	--	--	--	



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs
				DCE	DCE	DCE	DCE	DCA	TCA					
				←-----ppb----->										
MW-17	3/21/90	GTEL	8010	<0.2	5.2	--	--	0.7	1.3	32	11	1.1	<1.0	--
	6/19/90	GTEL	8010	<0.2	3.1	--	--	<0.5	1.0	38	13	1.2	<1.0	--
	9/20/90	GTEL	8010	<0.2	2.4	--	--	<0.5	1.4	44	16	2.8	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	2.0	<0.5	0.6	34	15	2.0	<1.0	--
	5/10/91	SAL	8010	<0.5	--	<0.5	3.0	<0.5	0.6	37	14	1.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	--	<0.5	2.5	<0.5	<0.5	69	15	0.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	13	<0.5	<0.5	59	14	2.4	<1.0	ND
	1/29/92	SPA	8010	<0.5	--	<0.5	2.9	<0.5	0.8	35	15	1.1	<1.0	ND
	3/26/92	SPA	8010	<0.5	--	<0.5	1.5	<0.5	0.7	41	12	0.6	<1.0	ND
	7/23/92	SPA	8010	<0.5	--	<0.5	1.1	<0.5	<0.5	31	14	0.8	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	--	<0.5	1.6	<0.5	<0.5	42	11	0.8	<1.0	ND
	5/4/93	SPA	8010	<0.5	--	<0.5	1.1	<0.5	<0.5	26	12	0.6	<1.0	ND ¹⁸
	1/5/94	SPA	8010	<0.5	--	<0.5	1.1	<0.5	<0.5	25	13	0.8	<1.0	ND ¹⁸
	5/13/94	SPA	8010	<0.5	--	<0.5	1.0	<0.5	0.6	23	13	<0.5	<0.5	ND ²⁹
	10/24/94	SPA	8010	<0.5	--	<0.5	1.4	<0.5	<0.5	26	13	<0.5	<0.5	ND ²⁹
	4/19/95	SPA	8010	<0.5	--	<0.5	0.9	<0.5	1.1	21	12	1.2	<0.5	ND ¹⁸
	11/6/95	GTEL	8010	<1.0	--	<1.0	1.1	<1.0	<1.0	29	13	<1.0	<1.0	ND
	4/26/96	GTEL	8010	<0.5	--	<0.5	0.8	<0.5	1.2	24	11	0.6	<0.8	ND ³⁶
	10/10/96	GTEL	8010	<0.5	--	<0.5	1.5	<0.5	0.9	31	15	0.6	<0.8	ND
	4/22/97	GTEL	8010	<0.5	--	<0.5	1.2	<0.5	1.7	21	11	<0.5	<0.8	ND
MW-18	3/21/90	GTEL	8010	<0.2	1.7	--	--	<0.5	2.4	33	20	0.9	<1.0	--
	6/19/90	GTEL	8010	<0.2	2.7	--	--	<0.5	0.9	63	20	0.73	<1.0	--
	9/20/90	GTEL	8010	<0.2	3.3	--	--	<0.5	1.6	76	25	1.7	<1.0	--
	12/28/90	SAL	8010	<0.5	--	<0.5	2.0	<0.5	0.8	44	21	1.0	<1.0	--
	5/10/91	SAL	8010	<0.5	--	<0.5	2.0	<0.5	0.7	47	20	2.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	--	<0.5	2.0	<0.5	0.7	32	25	1.0	<1.0	ND
	11/27/91	SPA	8010	<0.5	--	<0.5	3.6	<0.5	0.5	60	18	1.5	<1.0	ND
	1/29/92	SPA	8010	<5.0	--	<5.0	<5.0	<5.0	<5.0	67	17	<5.0	<1.0	ND
	3/26/92	SPA	8010	<1.2	--	<1.2	6.4	<1.2	<1.2	130	19	1.7	<2.5	ND
	7/23/92	SPA	8010	<0.5	--	<0.5	3.0	<0.5	0.5	67	19	0.8	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	--	<0.5	1.1	<0.5	<0.5	52	14	0.8	<1.0	ND
	5/4/93	SPA	8010	<0.5	--	<0.5	1.9	<0.5	0.7	48	18	2.5	<1.0	ND ²⁶
	1/5/94	SPA	8010	<0.5	--	<0.5	4.0	<0.5	0.8	94	17	1.0	<1.0	ND ¹⁸
	5/13/94	SPA	8010	<0.5	--	<0.5	0.8	<0.5	0.8	16	15	0.8	<0.5	ND ²⁹
	10/27/94	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	22	15	1.2	<0.5	ND ²⁹
	4/19/95	SPA	8010	<0.5	--	<0.5	2.2	<0.5	1.3	46	14	1.1	<0.5	ND ³⁵
	11/6/95	GTEL	8010	<1.0	--	<1.0	1.8	<1.0	1.2	45	18	<1.0	<1.0	ND
	4/26/96	GTEL	8010	<0.5	--	0.9	2.8	<0.5	3.0	31	17	0.6	<0.8	ND ³⁶
	10/10/96 ²⁷	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/22/97	GTEL	8010	<0.5	--	<0.5	1.7	<0.5	3.2	26	15	<0.5	<0.8	ND



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
MW-19	3/21/90	GTEL	8010	<0.2	10	—	—	<0.5	2.5	41	53	3.2	<1.0	—
	6/19/90	GTEL	8010	<0.2	13	—	—	<0.5	1.5	46	47	2.8	<1.0	—
	9/20/90	GTEL	8010	<0.2	5.8	—	—	<0.5	2.5	39	32	3.1	<1.0	—
	12/28/90	SAL	8010	<0.5	—	0.8	—	<0.5	1.0	40	44	3.0	<1.0	—
	5/10/91	SAL	8010	<0.5	—	2.0	—	<0.5	1.0	47	47	3.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	—	1.1	4.8	<0.5	1.1	41	35	2.8	<1.0	ND
	11/27/91	SPA	8010	<0.5	—	1.9	29	<0.5	0.9	59	31	2.7	<1.0	ND
	1/29/92	SPA	8010	<5.0	—	<5.0	8.9	<5.0	<5.0	51	44	3.0	<10	ND
	3/26/92	SPA	8010	<1.2	—	1.7	23	<1.2	1.5	68	130	1.4	<2.5	ND ¹⁷
	7/23/92	SPA	8010	1.1	—	1.4	5.6	<0.5	1.0	61	38	3.3	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	—	0.9	5.3	<0.5	1.1	46	24	2.2	<1.0	ND
	5/4/93	SPA	8010	<0.5	—	2.5	8.7	0.5	1.1	69	32	3.9	<1.0	ND ¹⁸
	1/5/94	SPA	8010	<0.5	—	1.7	1.7	<0.5	16	49	46	<0.5	<1.0	ND ¹⁸
	5/13/94	SPA	8010	<0.5	—	1.8	22	<0.5	0.7	40	58	<0.5	<0.5	ND ²⁰
	10/24/94 ²¹	SPA	8010	<50	—	110	54	<50	<50	98	300	<50	<50	ND ^{22,23}
	4/19/95	SPA	8010	<0.5	—	<0.5	65	<0.5	<0.5	130	670	<0.5	<0.5	ND ¹⁸
	11/6/95	Abandoned	—	—	—	—	—	—	—	—	—	—	—	—
MW-19A	11/6/95	GTEL	8010	1.0	—	<1.0	110	<1.0	<1.0	160	1,500	<1.0	<1.0	ND
	4/26/96	GTEL	8010	<5.0	—	<5.0	140	<5.0	<5.0	200	990	<5.0	<8.0	ND ¹⁷
	10/10/96	GTEL	8010	<10	—	<10	110	<10	<10	150	1,500	<10	<16	ND
	4/22/97	GTEL	8010	<5.0	—	7.1	85	9.1	<5.0	150	830	<5.0	<8.0	ND
Trip Blank AA	4/14/89	CCAS	8010	<1.0	<0.5	—	—	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	—
	7/31/89	CCAS	8010	<0.1	<0.5	—	—	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	—
	12/8/89	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	3/21/90	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	3/26/90	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	6/19/90	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	9/21/90	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	12/28/90	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—
	5/10/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁴
	11/27/91	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁶
	1/29/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND ¹⁸
	11/6/95	GTEL	8010	<1.0	—	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
←-----ppb----->														
Bailer Blank														
BB	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁶
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND ¹⁸



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

1,1-DCE = 1,1-Dichloroethene
1,2-DCE = 1,2-Dichloroethene
t-1,2-DCE = trans-1,2-Dichloroethene
c-1,2-DCE = cis-1,2-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
1,1,1-TCA = 1,1,1-Trichloroethane
TCE = Trichloroethene
PCE = Tetrachloroethene
CF = Chloroform
VC = Vinyl Chloride
Other HVOCs = Other Halogenated Volatile Organic Compounds
ppb = Parts per billion
--- = Not analyzed/not applicable
ND = Not detected at detection limits of 0.5 to 1 ppb
D = Duplicate analysis

ANALYTICAL METHOD:

VOC = EPA Method 8010 for Volatile Organic Compounds

ANALYTICAL LABORATORIES:

CCAS = Coast to Coast Analytical Services of San Luis Obispo, California
GTEL = Groundwater Technologies Environmental Laboratory of Concord, California
SAL = Superior Analytical Laboratory of Martinez and San Francisco, California
SPA = Superior Precision Analytical, Inc. of Martinez and San Francisco, California

NOTES:

Analytical results prior to April 19, 1995, were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.

- ¹ 6 ppb 1,2-dichloropropane detected; other HVOCs not detected.
- ² 0.6 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- ³ 63 ppb chloromethane and 0.6 ppb methylene chloride detected; other HVOCs not detected; sample contained 1,250 ppb total dissolved solids.

NOTES: (continued)

- ⁴ 0.9 ppb trans-1,3-dichloropropane detected; other HVOCs not detected; sample contained 810 ppb total dissolved solids.
- ⁵ 0.9 ppb trichlorofluoromethane and 1 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
- ⁶ 11 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
- ⁷ Monitoring well was destroyed during excavation in 1989.
- ⁸ 0.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- ⁹ Well MW-9 was not sampled after 5/10/91 because it could not be located. Previous analytic data were not available for inclusion in this report.
- ¹⁰ 1.8 ppb 1,2-dichloroethane detected; other HVOCs not detected
- ¹¹ 3 ppb 1,1,2,2-tetrachloroethane detected; other HVOCs not detected.
- ¹² 0.9 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- ¹³ 0.5 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- ¹⁴ 3.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- ¹⁵ 0.9 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- ¹⁶ Trace concentrations of trihalomethane compounds detected in bailer blank.
- ¹⁷ 1,1,2,2-Tetrachloroethane detected at 1.8 ppb; other HVOCs not detected at detection limits of 1.2 to 2.5 ppb.
- ¹⁸ Other HVOCs not detected at detection limit of 0.5 ppb.
- ¹⁹ Other HVOCs not detected at detection limits ranging from 0.8 to 1.7 ppb.
- ²⁰ Other HVOCs not detected at detection limits of 25 ppb.
- ²¹ Other HVOCs not detected at detection limits of 50 ppb.
- ²² Well MW-12 could not be located after building demolition.
- ²³ Well MW-8 was obstructed, therefore ground water samples could not be taken.
- ²⁴ Monitoring well obstructed due to on-site construction activities.
- ²⁵ Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
- ²⁶ Dichloromethane detected at 6.2 ppb; other HVOCs not detected at detection limits of 0.5 ppb.
- ²⁷ Well paved over as a result of on-site construction activities.
- ²⁸ Well obstructed.
- ²⁹ Other HVOCs not detected at detection limits of 0.5 to 1.0 ppb.
- ³⁰ Well was dry.
- ³¹ Other HVOCs not detected at detection limits of 10 to 20 ppb.
- ³² Other HVOCs not detected at detection limits of 50 to 100 ppb.
- ³³ Detection limits raised due to sample dilution.
- ³⁴ Chloromethane was detected at 2.4 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.
- ³⁵ Chloromethane was detected at 0.6 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.
- ³⁶ Other HVOC's not detected at detection limits of 0.5 to 5.0.
- ³⁷ Other HVOC's not detected at detection limits of to 5.0 to 50.



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 a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Cadantive DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-2A Well Condition OK

Well Location Description _____

Well Diameter 2 in Hydrocarbon Thickness _____
 Total Depth 12 ft
 Depth to Liquid 3.95 ft

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

of casing Volume 8.05 x .17 x (VF) 3 #Estimated purge Volume 41 gal.

Purge Equipment disp bailer Sampling Equipment disp bailer

Did well dewater No If yes, Time _____ Volume _____

Starting Time 12:29 Purging Flow Rate <1 gpm.
 Sampling Time 12:45

Time	pH	Conductivity	Temperature	Volume
<u>12:31</u>	<u>6.68</u>	<u>1113</u>	<u>19.6</u>	<u>1</u>
<u>12:33</u>	<u>6.71</u>	<u>1125</u>	<u>19.3</u>	<u>2.5</u>
<u>12:37</u>	<u>6.78</u>	<u>1126</u>	<u>18.7</u>	<u>4.5</u>
<u>12:45</u>	<u>6.78</u>	<u>1131</u>	<u>18.5</u>	<u>Sample</u>

Weather Conditions overcast, breezy
 Water Color: yellow Odor: ?
 Sediment Description _____

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-2A</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SO10</u>

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Galantine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-7 Well Condition OK
 Well Location Description _____

Well Diameter 3 in Hydrocarbon Thickness _____
 Total Depth 14 ft
 Depth to Liquid 4.54 ft
 # of casing Volume 9.46 x 0.38 x (VF) 3 #Estimated 10.8 gal.
 Volume 2" = 0.17 6" = 1.50 12" = 5.80
 Factor 3" = 0.38
 (VF) 4" = 0.66
 Volume

Purge Equipment stack pump Sampling Equipment disp header
 Did well dewater Yes If yes, Time 10:07 Volume 5

Starting Time 10:06 Purging Flow Rate < 2.5 gpm.
 Sampling Time 10:20

Time	pH	Conductivity	Temperature	Volume
<u>10:06</u>	<u>6.55</u>	<u>545</u>	<u>18.9</u>	<u>2</u>
<u>10:07</u>	<u>6.61</u>	<u>554</u>	<u>19.4</u>	<u>4</u>
<u>10:20</u>	<u>6.69</u>	<u>585</u>	<u>18.9</u>	<u>3 Sample</u>
_____	_____	_____	_____	<u>13</u>

Weather Conditions overcast, breezy
 Water Color: brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-7</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SO10</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Colautine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-8 Well Condition Box OK → well casing bent @ ~ 15° angle - TOC may be off
 Well Location Description

Well Diameter 3 in. Hydrocarbon Thickness
 Total Depth 16.15 ft
 Depth to Liquid 5.79 ft

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

of casing Volume 10.36 x .38 x(VF) 3.9 #Estimated purge Volume 11.8 gal.
 Purge Equipment stack pump Sampling Equipment disp boiler
 Did well dewater Yes If yes, Time 10:30 Volume 10

Starting Time 10:27 Purging Flow Rate 2.5 gpm.
 Sampling Time 10:48

Time	pH	Conductivity	Temperature	Volume
<u>10:28</u>	<u>6.82</u>	<u>534</u>	<u>18.7</u>	<u>2</u>
<u>10:29</u>	<u>6.84</u>	<u>537</u>	<u>18.8</u>	<u>4</u>
<u>10:33</u>	<u>6.82</u>	<u>552</u>	<u>18.7</u>	<u>8</u>
<u>10:48</u>	<u>6.95</u>	<u>546</u>	<u>18.5</u>	<u>Sample</u>

Weather Conditions overcast, breezy
 Water Color: brown Odor: —
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-8</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SO10</u>

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Goddard DATE 4/22/97
ADDRESS Powell @ Landregan JOB # 5161.85
CITY Emeryville, CA SS# 1001067

Well ID MW-10 Well Condition OK

Well Location Description _____

Well Diameter 4 in Hydrocarbon Thickness _____

Total Depth 20 ft

Depth to Liquid 5.50 ft

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

of casing Volume 14.50 x 0.66 x (VF) 9.5 #Estimated 28.7 gal. purge Volume

Purge Equipment stack pump Sampling Equipment disp. bucket

Did well dewater No If yes, Time _____ Volume _____

Starting Time 11:51 Purging Flow Rate 22.5 gpm.

Sampling Time 12:12

Time	pH	Conductivity	Temperature	Volume
<u>11:52</u>	<u>7.11</u>	<u>647</u>	<u>16.0</u>	<u>3</u>
<u>11:55</u>	<u>7.03</u>	<u>646</u>	<u>15.8</u>	<u>10</u>
<u>11:59</u>	<u>7.00</u>	<u>640</u>	<u>15.9</u>	<u>20</u>
<u>12:02</u>	<u>6.98</u>	<u>633</u>	<u>15.9</u>	<u>29</u>
<u>12:12</u>	<u>6.91</u>	<u>639</u>	<u>16.1</u>	<u>Sample</u>

Weather Conditions overcast

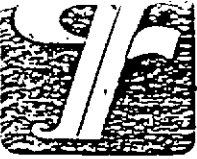
Water Color: brown Odor: _____

Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-10</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTSE, SOLO</u>

Comments _____



7

WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Colautive DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-11 Well Condition Lid ok - well cap
 Well Location Description pushed into sleeve

Well Diameter 4" in
 Total Depth 18 ft
 Depth to Liquid 5.94 ft

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

of casing Volume 12.06 x 0.66 x(VF) 7.9 #Estimated 23.9 gal.
 Volume

Purge Equipment Stack pump Sampling Equipment disp header
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 10:56 Purging Flow Rate <2.5 gpm.
 Sampling Time 11:13

Time	pH	Conductivity	Temperature	Volume
<u>10:56</u>	<u>7.18</u>	<u>662</u>	<u>18.1</u>	<u>2</u>
<u>10:59</u>	<u>7.23</u>	<u>667</u>	<u>17.9</u>	<u>8</u>
<u>11:02</u>	<u>7.23</u>	<u>655</u>	<u>17.8</u>	<u>16</u>
<u>11:05</u>	<u>7.26</u>	<u>656</u>	<u>17.9</u>	<u>24</u>
<u>11:13</u>	<u>7.20</u>	<u>696</u>	<u>18.6</u>	

Weather Conditions overcast
 Water Color: brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-11</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX</u> <u>MTBE, SOLO</u>

Comments new 4" well plug



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Colautine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-13 Well Condition OK - bolts broke
 Well Location Description on ~ 18" lid

Well Diameter 3 in
 Total Depth 15 ft
 Depth to Liquid 5.46 ft

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

of casing Volume 9.54 x .38 x (VF) 3.6 # Estimated 10.9 gal. purge Volume

Purge Equipment stack pump Sampling Equipment disp header
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 11:25 Purging Flow Rate < 2.5 gpm.
 Sampling Time 11:39

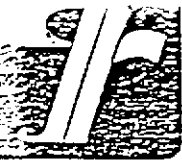
Time	pH	Conductivity	Temperature	Volume
<u>11:25</u>	<u>6.95</u>	<u>1139</u>	<u>18.1</u>	<u>2</u>
<u>11:26</u>	<u>6.95</u>	<u>1145</u>	<u>18.0</u>	<u>4</u>
<u>11:28</u>	<u>6.91</u>	<u>1137</u>	<u>17.8</u>	<u>8</u>
<u>11:29</u>	<u>6.91</u>	<u>1154</u>	<u>18.0</u> 18.0	<u>11</u>
<u>11:39</u>	<u>7.18</u>	<u>1149</u>	<u>17.6</u>	

Weather Conditions overcast
 Water Color: brown Odor: _____
 Sediment Description soft

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-13</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SOLO</u>

Comments Almost dewatered



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Galantine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-15 Well Condition Well cap off completely -
 Well Location Description Rain H₂O may have entered well

Well Diameter 4 in Hydrocarbon Thickness
 Total Depth 7 ft
 Depth to Liquid 4.85 ft

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

 # of casing Volume 2:15 x 0.66 x (VF) 1.31 #Estimated purge Volume 4.3 gal.

Purge Equipment disp bailer / stake pump Sampling Equipment disp bailer
 Did well dewater Yes If yes, Time 8:25 Volume 2

Starting Time 8:17 Purging Flow Rate <1 gpm.
 Sampling Time 9:30

Time	pH	Conductivity	Temperature	Volume
<u>8:20</u>	<u>6.79</u> <u>6.79</u>	<u>256</u>	<u>18.3</u>	<u>1</u>
<u>8:24</u>	<u>7.01</u>	<u>247</u>	<u>18.0</u>	<u>2</u>
<u>9:30</u>	<u>6.72</u>	<u>298</u>	<u>17.9</u>	<u>Sample</u>

Weather Conditions overcast
 Water Color: gray Odor: -
 Sediment Description silt, mud

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-15</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX</u> <u>MTBE, 8010</u>

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Colautine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-17 Well Condition OK - 1 bott broke
 Well Location Description on 12" Emco lid

Well Diameter 2 in
 Total Depth 12 ft
 Depth to Liquid 538 ft

Hydrocarbon Thickness

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

of casing Volume 6.62 x 0.17 x(VF) 1.12 #Estimated 3.4 gal.
 Purge Equipment disp bailer Sampling Equipment disp bailer
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 8:39 Purging Flow Rate 4 gpm.
 Sampling Time 8:52

Time	pH	Conductivity	Temperature	Volume
<u>8:40</u>	<u>6.22</u>	<u>363</u>	<u>18.2</u>	<u>1</u>
<u>8:42</u>	<u>6.16</u>	<u>361</u>	<u>18.2</u>	<u>2</u>
<u>8:46</u>	<u>6.16</u>	<u>357</u>	<u>18.1</u>	<u>3.5</u>
<u>8:52</u>	<u>6.19</u>	<u>360</u>	<u>18.1</u>	<u>Sample</u>

Weather Conditions overcast
 Water Color: brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-17</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX</u> <u>MTBE, SO10</u>

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Godauntine DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-18 Well Condition OK - valve broke
 Well Location Description on 12" Emco lid

Well Diameter 2 in Hydrocarbon Thickness
 Total Depth 11 ft
 Depth to Liquid 5.03 ft

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

of casing Volume 5.97 x .17 x(VF) 6.0 #Estimated 3 gal.
 Purge Equipment disp bailer Sampling Equipment disp bailer
 Did well dewater No If yes, Time _____ Volume _____

Starting Time 9:05 Purging Flow Rate <1 gpm.
 Sampling Time 9:18

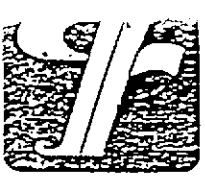
Time	pH	Conductivity	Temperature	Volume
<u>9:07</u>	<u>6.30</u>	<u>568</u>	<u>18.1</u>	<u>1</u>
<u>9:09</u>	<u>6.28</u>	<u>372</u>	<u>18.1</u>	<u>2</u>
<u>9:11</u>	<u>6.28</u>	<u>372</u>	<u>18.2</u>	<u>3</u>
<u>9:18</u>	<u>6.27</u>	<u>373</u>	<u>18.1</u>	<u>Sample</u>

Weather Conditions overcast
 Water Color: brown Odor: _____
 Sediment Description silt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-18</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SO10</u>

Comments _____



WELL SAMPLING FIELD DATA SHEET

SAMPLER Clyde Edantive DATE 4/22/97
 ADDRESS Powell @ Landregan JOB # 5161.85
 CITY Emeryville, CA SS# 1001067

Well ID MW-19A Well Condition OK

Well Location Description _____

Well Diameter 2 in Hydrocarbon Thickness _____
 Total Depth 15 ft
 Depth to Liquid 4.17 ft

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

of casing Volume 10.83 x 0.17 x (VF) 3.8 # Estimated 5.5 gal. purge Volume

Purge Equipment stack pump Sampling Equipment disp barrel

Did well dewater No If yes, Time _____ Volume _____

Starting Time 12:55 Purging Flow Rate <2.5 gpm.
 Sampling Time 13:10

Time	pH	Conductivity	Temperature	Volume
<u>12:53</u>	<u>7.12</u>	<u>342</u>	<u>17.0</u>	<u>1</u>
<u>12:54</u>	<u>7.09</u>	<u>319</u>	<u>16.6</u>	<u>3</u>
<u>12:55</u>	<u>6.99</u>	<u>329</u>	<u>16.2</u>	<u>6</u>
<u>13:10</u>	<u>6.96</u>	<u>318</u>	<u>16.6</u>	<u>Sample</u>

Weather Conditions overcast
 Water Color: lt brown Odor: _____
 Sediment Description sc lt

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-19A</u>	<u>Voas</u>	<u>X</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE, SOLO</u>

Comments _____

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number Former Chevron Facility #1001067
Facility Address Powell & Landregan, Emeryville, CA
Consultant Project Number 5161
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) Ms. Tammy Hodge
(Phone) (510) 842-9449
Laboratory Name NEI/GTEL Service Code: ZZ02790
Laboratory Service Order # 9038352
Samples Collected by (Name) Clyde Galantini
Collection Date 4/22/97
Signature Clyde Galantini

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Corecut	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Leak (Yes or No)	Analytes To Be Performed																
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)									
MW-15	01	5	W	G	9:30			X				X												
MW-17	02	5			8:52			X				X												
MW-18	03	5			9:18			X				X												
MW-7	04	4			10:20			X				X												
MW-8	05	4			10:48			X				X												
MW-11	06	5			11:13			X				X												
MW-13	07	5			11:39			X				X												
MW-10	04	5			12:12			X				X												
MW-2A	09	5			12:45			X				X												
MW-19A	10	5			13:10			X				X												
TBLB	11	2	↓				↓	X																

DO NOT BILL
TB-LB ANALYSIS
Confirm highest
hit of (8020)-
MTBE by 8260.

Remarks

* Two wells
that have been
inaccessible &
located this
We were sho
2 wells - (MW
MW-8) - Plea
try to perform
all analytical
requested w
the 4 wells
provided.
Thank you
DJA

27-04-0361

COC-3.DWG/03 91/7CH

Relinquished By (Signature) <u>Clyde Galantini</u>	Organization <u>G-R Inc.</u>	Date/Time <u>4/22/97 14:45</u>	Received By (Signature) <u>D Harding</u>	Organization <u>G-R Inc.</u>	Date/Time <u>4/22/97</u>
Relinquished By (Signature) <u>D Harding</u>	Organization <u>G-R Inc.</u>	Date/Time <u>4/23/97 12:15</u>	Received By (Signature) <u>D Harding</u>	Organization <u>NEI/GTEL</u>	Date/Time <u>4/23/97</u>
Relinquished By (Signature) <u>D Harding</u>	Organization <u>NEI/GTEL</u>	Date/Time <u>4/23/97</u>	Received For Laboratory By (Signature) <u>Tammy Hillen</u>	Organization <u>NEI/GTEL</u>	Date/Time <u>4/24/97</u>

15 min Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted



NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

May 2, 1997

Deanna Harding
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: NEI/GTEL Client ID:	GTR01CHV08
Login Number:	W7040361
Project ID (number):	5161
Project ID (name):	CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 04/24/97.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
NEI/GTEL Environmental Laboratories, Inc.

Justin Loucks, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7040361

Project ID (number): 5161

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8020A

Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-01	W7040361-02	W7040361-03	W7040361-04
Client ID	MW-15	MW-17	MW-18	MW-7
Date Sampled	04/22/97	04/22/97	04/22/97	04/22/97
Date Analyzed	04/28/97	04/28/97	04/28/97	04/28/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	< 50	< 50	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7040361

Project ID (number): 5161

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8020A

Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-05	W7040361-06	W7040361-07	W7040361-08
Client ID	MW-8	MW-11	MW-13	MW-10
Date Sampled	04/22/97	04/22/97	04/22/97	04/22/97
Date Analyzed	04/28/97	04/28/97	04/28/97	04/28/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	< 50	< 50	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7040361

Project ID (number): 5161

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8020A

Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-09	W7040361-10	W7040361-11	--
Client ID	MW-2A	MW-19A	TBLB	--
Date Sampled	04/22/97	04/22/97		--
Date Analyzed	04/28/97	04/28/97	04/28/97	--
Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	--
Benzene	0.5	ug/L	0.8	< 0.5	< 0.5	--
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	--
BTEX (total)	--	ug/L	0.8	--	--	--
TPH as Gasoline	50	ug/L	< 50	430	< 50	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W7040361-10:

Hydrocarbons in the gasoline range do not match the gasoline standard pattern.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08
 Login Number: W7040361
 Project ID (number): 5161
 Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8010B
 Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-01	W7040361-02	W7040361-03	W7040361-04
Client ID	MW-15	MW-17	MW-18	MW-7
Date Sampled	04/22/97	04/22/97	04/22/97	04/22/97
Date Analyzed	05/01/97	05/01/97	05/01/97	05/01/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl chloride	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
Bromomethane	1.2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2
Chloroethane	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	1.2	1.7	< 0.5
Chloroform	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	1.7	3.2	< 0.5
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	ug/L	< 0.5	21.	26.	< 0.5
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	ug/L	< 0.5	11.	15.	< 0.5
Dibromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	1.2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
1,4-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010B:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7040361

Project ID (number): 5161

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8010B

Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-05	W7040361-06	W7040361-07	W7040361-08
Client ID	MW-8	MW-11	MW-13	MW-10
Date Sampled	04/22/97	04/22/97	04/22/97	04/22/97
Date Analyzed	05/01/97	05/01/97	05/01/97	05/01/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl chloride	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
Bromomethane	1.2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2
Chloroethane	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
Trichlorofluoromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
trans-1,2-Dichloroethene	0.5	ug/L	< 0.5	4.7	< 0.5	12.
1,1-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	0.5
cis-1,2-Dichloroethene	0.5	ug/L	< 0.5	12.	< 0.5	27.
Chloroform	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	ug/L	< 0.5	3.0	< 0.5	13.
1,2-Dichloropropane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	1.2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
1,4-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8
1,2-Dichlorobenzene	0.8	ug/L	< 0.8	< 0.8	< 0.8	< 0.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

NEI/GTEL Client ID: GTR01CHV08

Login Number: W7040361

Project ID (number): 5161

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Method: EPA 8010B

Matrix: Aqueous

NEI/GTEL Sample Number	W7040361-09	W7040361-10	--	--
Client ID	MW-2A	MW-19A	--	--
Date Sampled	04/22/97	04/22/97	--	--
Date Analyzed	05/02/97	05/01/97	--	--
Dilution Factor	5.00	10.0	--	--

Analyte	Reporting		Concentration:			
	Limit	Units	< 25.	< 50.	--	--
Dichlorodifluoromethane	5.0	ug/L	< 25.	< 50.	--	--
Chloromethane	2.0	ug/L	< 10.	< 20.	--	--
Vinyl chloride	0.8	ug/L	< 4.0	< 8.0	--	--
Bromomethane	1.2	ug/L	< 6.0	< 12.	--	--
Chloroethane	0.8	ug/L	< 4.0	< 8.0	--	--
Trichlorofluoromethane	0.5	ug/L	< 2.5	< 5.0	--	--
1,1-Dichloroethene	0.5	ug/L	< 2.5	< 5.0	--	--
Methylene chloride	0.8	ug/L	< 4.0	< 8.0	--	--
trans-1,2-Dichloroethene	0.5	ug/L	< 2.5	7.1	--	--
1,1-Dichloroethane	0.5	ug/L	< 2.5	9.1	--	--
cis-1,2-Dichloroethene	0.5	ug/L	< 2.5	85.	--	--
Chloroform	0.5	ug/L	< 2.5	< 5.0	--	--
1,1,1-Trichloroethane	0.5	ug/L	< 2.5	< 5.0	--	--
Carbon tetrachloride	0.5	ug/L	< 2.5	< 5.0	--	--
1,2-Dichloroethane	0.5	ug/L	< 2.5	< 5.0	--	--
Trichloroethene	0.5	ug/L	< 2.5	150	--	--
1,2-Dichloropropane	0.5	ug/L	< 2.5	< 5.0	--	--
Bromodichloromethane	0.5	ug/L	< 2.5	< 5.0	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 5.0	< 10.	--	--
cis-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 5.0	--	--
trans-1,3-Dichloropropene	0.5	ug/L	< 2.5	< 5.0	--	--
1,1,2-Trichloroethane	0.5	ug/L	< 2.5	< 5.0	--	--
Tetrachloroethene	0.5	ug/L	< 2.5	830	--	--
Dibromochloromethane	0.5	ug/L	< 2.5	< 5.0	--	--
Chlorobenzene	0.5	ug/L	< 2.5	< 5.0	--	--
Bromoform	1.2	ug/L	< 6.0	< 12.	--	--
1,1,2,2-Tetrachloroethane	0.5	ug/L	< 2.5	< 5.0	--	--
1,3-Dichlorobenzene	0.8	ug/L	< 4.0	< 8.0	--	--
1,4-Dichlorobenzene	0.8	ug/L	< 4.0	< 8.0	--	--
1,2-Dichlorobenzene	0.8	ug/L	< 4.0	< 8.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W7040361-09:

The sample was diluted due to foaming.

NEI/GTEL Wichita, KS

W7040361

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A Acceptability Limits:			43-136%
042897GC5-1	CV042897205	Calibration Verifi	97.6
042897GC5-2	BW0428975	Method Blank Water	74.6
042897GC5-3	MS04036101	Matrix Spike	100
042897GC5-4	DP04036106	Duplicate	98.8
042897GC5-5	DP04036402	Duplicate	102
042897GC5-6	CM0428975	Calibration Verifi	99.6
042897GC5-7	LW0428975	Laboratory Control	98.8
042897GC5-8	LWD0428975	LCS Water Duplicat	99.1
--	04036101	MW-15	95.0
--	04036102	MW-17	109.
--	04036103	MW-18	118
--	04036104	MW-7	98.3
--	04036105	MW-8	97.0
--	04036106	MW-11	98.2
--	04036107	MW-13	92.0
--	04036109	MW-2A	98.3
--	04036110	MW-19A	73.7
--	04036111	TBLB	93.8

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 5161
Project ID (Name): Chevron SS #1001067
Powell @ Landregan
Emeryville, CA
Work Order Number: W7-04-0361
Date Reported: 04-29-97

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020A

Date of Analysis: 28-APR-97 QC Batch No: 042897GC5-2

Analyte	Concentration, ug/L
MTBE	<5.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A	Units:ug/L	QC Batch:042897GC5-1		
Benzene	20.0	17.3	86.5	77-123%
Toluene	20.0	17.4	87.0	77.5-122.5%
Ethylbenzene	20.0	17.2	86.0	63-137%
Xylenes (Total)	60.0	53.3	88.8	85-115%
TPH as Gasoline	500	543	109	80-120%

Notes:

QC check source: Supelco #LA12389

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Continuing Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A	Units:ug/L	QC Batch:042897GC5-6		
Benzene	20.0	17.7	88.5	77-123%
Toluene	20.0	17.7	88.5	77.5-122.5%
Ethylbenzene	20.0	16.5	82.5	63-137%
Xylenes (Total)	60.0	52.3	87.2	85-115%

Notes:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8020A	Units: ug/L	QC Batch: 042897GC5-4	GTEL Sample ID: W7040361-06	Client ID: MW-11
MTBE	15.9	17.7	10.7	20
Benzene	< 0.500	< 0.500	NA	23.9
Toluene	< 1.00	< 1.00	NA	27.2
Ethylbenzene	< 1.00	< 1.00	NA	21.6
Xylenes (Total)	< 2.00	< 2.00	NA	22.0
TPH as Gasoline	< 100.	< 100.	NA	20
EPA 8020A	Units: ug/L	QC Batch: 042897GC5-5	GTEL Sample ID: W7040364-02	Client ID: Batch QC
MTBE	16.5	17.4	5.31	20
Benzene	1.27	1.39	9.02	23.9
Toluene	< 1.00	< 1.00	NA	27.2
Ethylbenzene	< 1.00	< 1.00	NA	21.6
Xylenes (Total)	< 2.00	< 2.00	NA	22.0
TPH as Gasoline	176.	191.	8.17	20

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: GTR01CHV08
Login Number: W7040361
Project ID (number): 5161
Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040361-01		MS ID:MS04036101			
Analysis Date: 28-APR-97		28-APR-97			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.5 (0.000)	20.0	17.7	88.5	67-110
Toluene	< 0.5 (0.310)	20.0	17.4	85.5	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	16.3	81.5	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	50.1	83.5	62-119

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits	
							RPD, %	Recovery, %
EPA 8020A	Units: ug/L	QC Batch:042897GC5-8						
Benzene	20.0	16.4	82.0	16.3	81.5	0.612	20	39-150%
Toluene	20.0	16.8	84.0	16.6	83.0	1.20	20	46-148%
Ethylbenzene	20.0	16.0	80.0	16.0	80.0	0.00	20	32-160%
Xylenes (Total)	60.0	51.5	85.8	51.4	85.7	0.117	20	51-145%

Notes:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8020A

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8010B

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 80108

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 80108			Acceptability Limits: 52.8-144% 77.3-129%	
050197GC11-1	CV0501972011	Calibration Verifi	89.6	107.
050197GC11-2	BW05019711	Method Blank Water	86.8	106.
050197GC11-3	DP04036110	Duplicate	90.3	103.
050197GC11-5	MS04043401	Matrix Spike	92.5	107.
050197GC11-6	LW0501972011	Laboratory Control	88.4	106.
--	04036101	MW-15	91.1	105.
--	04036102	MW-17	87.3	102.
--	04036103	MW-18	89.9	103.
--	04036104	MW-7	99.6	107.
--	04036105	MW-8	101.	106.
--	04036106	MW-11	93.3	116.
--	04036107	MW-13	98.2	103.
--	04036108	MW-10	85.6	103.
--	04036109	MW-2A	92.3	104.
--	04036110	MW-19A	88.0	103.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8010B

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Method Blank Results

QC Batch No: 050197GC11-2
Date Analyzed: 01-MAY-97

Analyte	Method:EPA 8010B	Concentration: ug/L
Dichlorodifluoromethane	< 5.00	
Chloromethane	< 2.00	
Vinyl chloride	< 1.00	
Bromomethane	< 2.00	
Chloroethane	< 1.00	
Trichlorofluoromethane	< 1.00	
1,1-Dichloroethene	< 1.00	
Methylene chloride	< 1.00	
trans-1,2-Dichloroethene	< 1.00	
1,1-Dichloroethane	< 1.00	
cis-1,2-Dichloroethene	< 1.00	
Chloroform	< 1.00	
1,1,1-Trichloroethane	< 1.00	
Carbon tetrachloride	< 1.00	
1,2-Dichloroethane	< 1.00	
Trichloroethene	< 1.00	
1,2-Dichloropropane	< 1.00	
Bromodichloromethane	< 1.00	
2-Chloroethyl vinyl ether	< 1.00	
cis-1,3-Dichloropropene	< 1.00	
trans-1,3-Dichloropropene	< 1.00	
1,1,2-Trichloroethane	< 1.00	
Tetrachloroethene	< 1.00	
Dibromochloromethane	< 1.00	
Chlorobenzene	< 1.00	
Bromoform	< 2.00	
1,1,2,2-Tetrachloroethane	< 1.00	
1,3-Dichlorobenzene	< 1.00	
1,4-Dichlorobenzene	< 1.00	
1,2-Dichlorobenzene	< 1.00	

Notes:

NEI/GTEL Client ID: GTR01CHV08
 Login Number: W7040361
 Project ID (number): 5161
 Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010B
 Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010B	Units:ug/L	QC Batch:050197GC11-1		
Dichlorodifluoromethane	20.0	20.7	104	40-160%
Chloromethane	20.0	16.4	82.0	59.5-140.5%
Vinyl chloride	20.0	16.5	82.5	68.5-131.5%
Bromomethane	20.0	15.4	77.0	58.5-141.5%
Chloroethane	20.0	16.4	82.0	77-123%
Trichlorofluoromethane	20.0	14.6	73.0	66.5-133.5%
1,1-Dichloroethene	20.0	19.4	97.0	63-137%
Methylene chloride	20.0	18.5	92.5	77.5-122.5%
trans-1,2-Dichloroethene	20.0	18.5	92.5	64-136%
1,1-Dichloroethane	20.0	18.4	92.0	71.5-116%
cis-1,2-Dichloroethene	20.0	18.5	92.5	64-116%
Chloroform	20.0	19.0	95.0	75-125%
1,1,1-Trichloroethane	20.0	18.7	93.5	71-129%
Carbon tetrachloride	20.0	18.8	94.0	68.5-131.5%
1,2-Dichloroethane	20.0	19.1	95.5	71.5-128.5%
Trichloroethene	20.0	19.1	95.5	77-123%
1,2-Dichloropropane	20.0	18.7	93.5	74-126%
Bromodichloromethane	20.0	18.0	90.0	76-124%
2-Chloroethyl vinyl ether	20.0	17.2	86.0	60-140%
cis-1,3-Dichloropropene	20.0	18.9	94.5	64-136%
trans-1,3-Dichloropropene	20.0	18.8	94.0	64-136%
1,1,2-Trichloroethane	20.0	18.5	92.5	78.5-121.5%
Tetrachloroethene	20.0	18.2	91.0	70-130%
Dibromochloromethane	20.0	19.7	98.5	65.5-134.5%
Chlorobenzene	20.0	18.3	91.5	72-128%
Bromoform	20.0	17.5	87.5	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	16.8	84.0	49-151%
1,3-Dichlorobenzene	20.0	17.5	87.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	19.7	98.5	69.5-130.5%
1,2-Dichlorobenzene	20.0	18.7	93.5	70-130%

Notes:

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8010B

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010B	Units:ug/L	QC Batch:050197GC11-6		
Dichlorodifluoromethane	20.0	22.1	111.	40-160%
Chloromethane	20.0	14.5	72.5	10-193%
Vinyl chloride	20.0	17.9	89.5	28-163%
Bromomethane	20.0	16.5	82.5	10-144%
Chloroethane	20.0	15.0	75.0	46-137%
Trichlorofluoromethane	20.0	15.1	75.5	21-156%
1,1-Dichloroethene	20.0	23.7	119.	28-167%
Methylene chloride	20.0	20.6	103.	25-162%
trans-1,2-Dichloroethene	20.0	21.2	106.	38-155%
1,1-Dichloroethane	20.0	21.7	109.	47-132%
cis-1,2-Dichloroethene	20.0	19.8	99.0	38-155%
Chloroform	20.0	20.9	105.	49-133%
1,1,1-Trichloroethane	20.0	21.0	105.	41-138%
Carbon tetrachloride	20.0	20.7	104.	43-143%
1,2-Dichloroethane	20.0	21.6	108.	51-147%
Trichloroethene	20.0	25.5	128.	35-146%
1,2-Dichloropropane	20.0	20.8	104.	44-156%
Bromodichloromethane	20.0	18.9	94.5	42-172%
2-Chloroethyl vinyl ether	20.0	19.7	98.5	14-186%
cis-1,3-Dichloropropene	20.0	19.1	95.5	22-178%
trans-1,3-Dichloropropene	20.0	17.6	88.0	22-178%
1,1,2-Trichloroethane	20.0	20.4	102.	39-136%
Tetrachloroethene	20.0	21.2	106.	26-162%
Dibromochloromethane	20.0	19.0	95.0	24-191%
Chlorobenzene	20.0	17.9	89.5	38-150%
Bromoform	20.0	16.7	83.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	12.9	64.5	10-184%
1,3-Dichlorobenzene	20.0	18.4	92.0	10-187%
1,4-Dichlorobenzene	20.0	20.8	104.	42-143%
1,2-Dichlorobenzene	20.0	20.1	101.	10-208%

Notes:NEI/GTEL Wichita, KS
W7040361:5

NEI/GTEL Client ID: GTR01CHV08
 Login Number: W7040361
 Project ID (number): 5161
 Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010B
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010B Units: ug/L	QC Batch: 050197GC11-3		GTEL Sample ID: W7040361-10	
			Client ID: MW-19A	
Dichlorodifluoromethane	< 50.0	< 50.0	NA	35.4
Chloromethane	< 20.0	< 20.0	NA	24.2
Vinyl chloride	< 10.0	< 10.0	NA	18.6
Bromomethane	< 20.0	< 20.0	NA	24.8
Chloroethane	< 10.0	< 10.0	NA	14.4
Trichlorofluoromethane	< 10.0	< 10.0	NA	19.6
1,1-Dichloroethene	< 10.0	< 10.0	NA	21.6
Methylene chloride	< 10.0	< 10.0	NA	13.1
trans-1,2-Dichloroethene	< 10.0	< 10.0	NA	20.9
1,1-Dichloroethane	< 10.0	< 10.0	NA	10.5
cis-1,2-Dichloroethene	85.0	86.9	2.21	20.9
Chloroform	< 10.0	< 10.0	NA	14.7
1,1,1-Trichloroethane	< 10.0	< 10.0	NA	16
Carbon tetrachloride	< 10.0	< 10.0	NA	18.3
1,2-Dichloroethane	< 10.0	< 10.0	NA	17
Trichloroethene	150	156	3.92	13.7
1,2-Dichloropropane	< 10.0	< 10.0	NA	17
Bromodichloromethane	< 10.0	< 10.0	NA	13.1
2-Chloroethyl vinyl ether	< 10.0	< 10.0	NA	27.1
cis-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8
trans-1,3-Dichloropropene	< 10.0	< 10.0	NA	23.8
1,1,2-Trichloroethane	< 10.0	< 10.0	NA	12.8
Tetrachloroethene	834	849	1.78	17.7
Dibromochloromethane	< 10.0	< 10.0	NA	20.6
Chlorobenzene	< 10.0	< 10.0	NA	16.4
Bromoform	< 20.0	< 20.0	NA	15.4
1,1,2,2-Tetrachloroethane	< 10.0	< 10.0	NA	30
1,3-Dichlorobenzene	< 10.0	< 10.0	NA	29.7
1,4-Dichlorobenzene	< 10.0	< 10.0	NA	18
1,2-Dichlorobenzene	< 10.0	< 10.0	NA	18

Notes:

NA - The concentration of the analyte is less than the reporting limit.

NEI/GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W7040361

Volatile Organics

Project ID (number): 5161

Method: EPA 8010B

Project ID (name): CHEVRON/1001067/POWELL @ LANDREGAN/EMERYVILLE/CA

Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W7040434-01 Analysis Date: 01-MAY-97		MS ID:MS04043401 01-MAY-97			Acceptability Limits
Units: ug/L Analyte	Sample Conc.	Spike Added	MS Conc.	MS % Rec.	%Rec.
Dichlorodifluoromethane	< 5.0 (0.000)	20.0	22.6	113	40-160
Chloromethane	< 2.0 (0.000)	20.0	14.8	74.0	10-193
Vinyl chloride	< 0.80(0.000)	20.0	18.3	91.5	28-163
Bromomethane	< 1.2 (0.000)	20.0	16.5	82.5	10-144
Chloroethane	< 0.80(0.000)	20.0	14.3	71.5	46-137
Trichlorofluoromethane	< 0.50(0.000)	20.0	14.5	72.5	21-156
1,1-Dichloroethene	< 0.50(0.000)	20.0	25.6	128	28-167
Methylene chloride	< 0.80(0.000)	20.0	21.1	106	25-162
trans-1,2-Dichloroethene	< 0.50(0.000)	20.0	21.6	108	38-155
1,1-Dichloroethane	< 0.50(0.000)	20.0	21.8	109	47-132
cis-1,2-Dichloroethene	< 0.50(0.000)	20.0	19.9	99.5	38-155
Chloroform	< 0.50(0.000)	20.0	21.0	105	49-133
1,1,1-Trichloroethane	< 0.50(0.000)	20.0	21.2	106	41-138
Carbon tetrachloride	< 0.50(0.000)	20.0	21.0	105	43-143
1,2-Dichloroethane	< 0.50(0.000)	20.0	21.0	105	51-147
Trichloroethene	< 0.50(0.000)	20.0	20.2	101	35-146
1,2-Dichloropropane	< 0.50(0.000)	20.0	20.6	103	44-156
Bromodichloromethane	< 0.50(0.000)	20.0	18.3	91.5	42-172
2-Chloroethyl vinyl ether	< 1.0 (0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 0.50(0.000)	20.0	19.4	97.0	22-178
trans-1,3-Dichloropropene	< 0.50(0.000)	20.0	18.6	93.0	22-178
1,1,2-Trichloroethane	< 0.50(0.000)	20.0	20.5	103	39-136
Tetrachloroethene	< 0.50(0.000)	20.0	24.2	121	26-162
Dibromochloromethane	< 0.50(0.000)	20.0	19.0	95.0	24-191
Chlorobenzene	< 0.50(0.000)	20.0	18.0	90.0	38-150
Bromoform	< 1.2 (0.000)	20.0	16.5	82.5	13-159
1,1,2,2-Tetrachloroethane	< 0.50(0.000)	20.0	18.8	94.0	10-184
1,3-Dichlorobenzene	< 0.80(0.000)	20.0	18.1	90.5	10-187
1,4-Dichlorobenzene	< 0.80(0.000)	20.0	18.1	90.5	42-143
1,2-Dichlorobenzene	< 0.80(0.000)	20.0	20.9	105	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

050197GC11-5: 2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).