

Letter of Transmittal

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JAN 20 1996



Chevron U.S.A. Products Company
6001 Bollinger Canyon Rd. Bldg. L
P. O. Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation Group
Phone (510) 842-9500
Fax (510) 842-8252

January 19, 1996

Mr. Ravi Arulananthum
San Francisco Bay RWQCB - Oakland Office

Subject: Chevron Facility 1001067
Semi-Annual Monitoting Report, dated December 11, 1995
Second Half Sampling Event
Prepared by Gettler-Ryan Inc.

Mr. Arulananthum:

Attached are the results of the most recent groundwater monitoring events at this site. Groundwater conditions remain consistent with those last reported. Please call me if you have any questions. My phone number is (510) 842-9655.

R. J. (Bob) Cochran
Project Manager

rjco: (1001067)
cc: Ms. Susan Hugo - Alameda County Health Agency



GETTLER-RYAN Inc.

December 11, 1995

Job #5161.85

Mr. Robert Cochran
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Former Chevron Asphalt Plant and Terminal #1001067
Powell @ Landregan Street
Emeryville, California

Dear Mr. Cochran:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On November 6, 1995, field personnel were on-site to monitor and sample eight wells (MW-2A, MW-7, MW-10, 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-8, MW-9, MW-11, MW-12, and MW-16 were either not located or inaccessible due to construction activities.


Static groundwater levels were measured on November 6, 1995. 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.

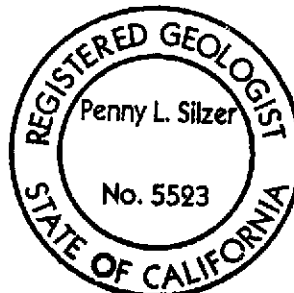
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Quarterly Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by GTEL Environmental Laboratories, Inc. Analytical results are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

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

Sincerely,

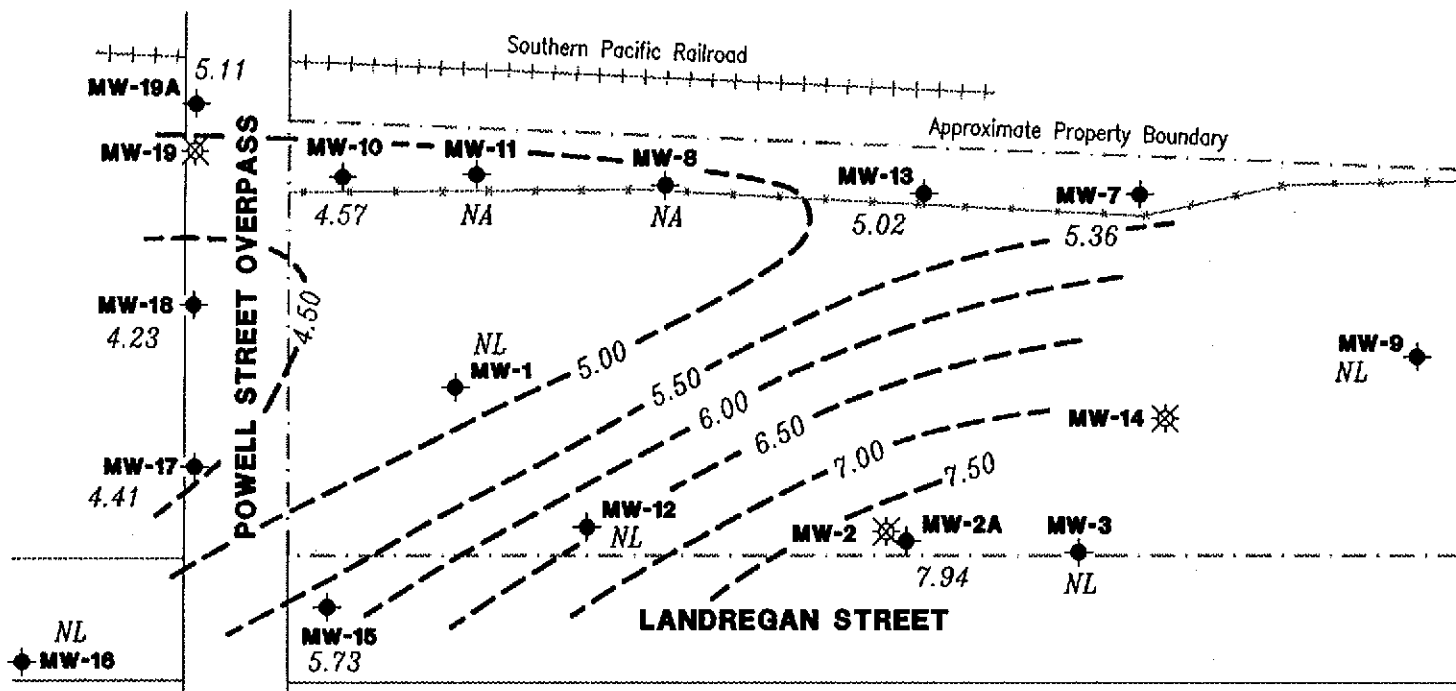

Greg A. Gurss
Project Manager


Penny L. Silzer
Senior Geologist, R.G. No. 5523



GAG/PLS/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 - Quarterly Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



EXPLANATION:

- ◆ Groundwater monitoring well
- ⊗ Abandoned groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- - - 99.99 Groundwater elevation contour, dashed where inferred.
- NL Well not located
- NA Not accesible



Approximate groundwater flow direction at a gradient of 0.02 Ft./Ft.



Scale in Feet



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
5161.80

REVIEWED BY
Ortiz

DATE
November 6, 1995

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	Analytic Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
				Thickness ² (ft)							
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	---



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 (mal)	Product Thickness ² (ft)	Analytic Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
MW-2 (cont)	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	---
	10/28/92	7.51	6.27	0	8015/8020	55	1.3	6.9	1.1	5.1	---
	5/4/93 ^a	---	---	---	---	---	---	---	---	---	---
	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
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 ^a	---	---	---	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 ^a	---	---	---	---	---	---	---	---	---	---
1/5/94 ¹⁰	---	---	---	---	---	---	---	---	---	---	
MW-4	4/26/85	---	---	---	---	3,100	<10	---	---	---	---
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---
	7/7/88	---	---	---	---	<100	<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)	Analytic Method	TPH(G) <	ppb					MTBE >
							B	T	E	X		
MW-7 (cont)	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	<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 ²	---	---	---	---	---	---	---	---	---	---	
	5/4/93 ³	---	---	---	---	---	---	---	---	---	---	
	1/5/94 ⁴	---	---	---	---	---	---	---	---	---	---	
	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	---	---	---	---	---	---	---	---	---		
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 ¹ (msl)	Product Thickness ² (ft)	Analytic Method	TPH(G) <----->	ppb				
							B	T	E	X	MTBE
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 ^a	---	---	---	---	---	---	---	---	---	---
	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
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	---
	5/4/93 ^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)	Analytic Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
MW-11 (cont)	1/5/94*	—	—	—	—	—	—	—	—	—	—
	5/13/94	5.67	5.71	0	8015/8020	<50	<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	—
	4/19/95	5.69	5.69	0	8015/8020	58 ¹⁵	0.6	<0.5	<0.5	0.5	—
	11/6/95	Inaccessible	—	—	—	—	—	—	—	—	—
MW-12/ 13.03	7/7/88	—	—	—	—	<100	<5.0	—	—	—	—
	4/14/89*	—	—	—	8260	<50	<0.5	<1.0	<1.0	<1.0	—
	7/31/89	—	—	—	8260	<100	<0.1	<0.5	<0.1	<0.2	—
	12/8/89	—	—	—	8015/8020	—	<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	—
	6/19/90	6.62	6.41	0	8015/8020	<50	<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	—
	12/28/90	6.62	6.41	0	8015/8020	<50	<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	—
	8/8/91	8.01	5.02	0	8015/8020	<50	<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	—
	1/29/92	7.68	5.35	0	8015/8020	<50	<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	—
	7/23/92 ⁶	—	—	—	—	—	—	—	—	—	—
MW-13/ 11.15	3/21/90	4.08	7.07	0	8015/8020	480	<0.3	<0.3	1.0	5.0	—
	6/19/90	4.34	6.81	0	8015/8020	180	<0.3	<0.3	0.8	3.0	—
	9/20/90	5.31	5.84	0	8015/8020	150	<0.3	<0.3	<0.3	0.54	—
	12/28/90	4.79	6.36	0	8015/8020	160	<0.5	<0.5	<0.5	1.0	—
	5/10/91	4.20	6.95	0	8015/8020	110	<0.5	<0.5	<0.5	2.0	—
	8/8/91	5.13	6.02	0	8015/8020	220 ⁴	<0.5	<0.5	<0.5	1.8	—
	11/27/91	4.72	6.43	0	8015/8020	70	<0.5	<0.5	<0.5	1.2	—
	1/29/92	4.69	6.46	0	8015/8020	150	<0.5	<0.5	3.1	7.1	—
	3/26/92	4.04	7.11	0	8015/8020	<50	<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	—
	10/28/92	5.30	5.85	0	8015/8020	190	<0.5	<0.5	<0.5	2.0	—
	5/4/93*	—	—	—	—	—	—	—	—	—	—
	1/5/94*	—	—	—	—	—	—	—	—	—	—
	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	—



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)	Analytic Method	TPH(G) <-----ppb----->	B	T	E	X	MTBE
MW-13 (cont)	4/19/95	5.37	5.78	0	8015/8020	140 ¹⁵	<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
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	--	--	--	--	--	--	--	--	--	--
	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 ⁹		--	--	--	--	--	--	--	--	--	--
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	



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)	Analytic Method	TPH(G) ←-----	B	T	E	X	MTBE	ppb	
												-----	----->
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 ¹⁰	---	---	---	---	---	---	---	---	---	---		
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	---		
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	---		



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)	Analytic Method	TPH(G)	←-----ppb----->				
							B	T	E	X	MTBE
MW-18 (cont)	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 ^s	<0.5	<0.5	<0.5	0.8	---
	7/23/92	5.49	4.31	0	8015/8020	50 ^s	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
	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 ^a	<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 ^s	<0.5	<0.5	<0.5	<0.5	---
7/23/92		5.22	3.23	0	8015/8020	70 ^s	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 ¹³	<0.5	<0.5	<0.5	<0.5	---
11/6/95		Abandoned	---	---	---	---	---	---	---	---	---
MW-19A 9.96	11/6/95	4.85	5.11	0	8015/8020	420	<0.5	<0.5	<0.5	<0.5	<5.0
Trip Blank AA	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	---
	7/31/89	---	---	---	8260	<50	<0.1	<0.5	<0.5	<0.2	---



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)	Analytic Method	TPH(G) <----->	ppb				MTBE	
							B	T	E	X		
Trip Blank (cont)	12/8/89	--	--	--	8015/8020	--	<0.3	<0.3	<0.3	<0.6	--	
	3/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	
	3/26/90	--	--	--	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	--	
	9/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	
	12/28/90	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.6	--	
	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	--	
	TB-LB	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	--	
10/24/94		--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	
4/19/95		--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	
11/6/95	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
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:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Groundwater elevation
mal = 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

ANALYTIC METHODS:

8260 = EPA Method 8260 for TPPH(G) & BTEX
8015 = EPA Method 8015/8030 for TPPH(G)
8020 = EPA Method 8020 for BTEX

NOTES:

Water level elevation data and laboratory analytic 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.



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

Well ID	Date Sampled	Analytic Lab	Analytic 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-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	
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



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

Well ID	Date Sampled	Analytic Lab	Analytic 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	--
	7/31/89	CCAS	8010	<0.1	0.3	--	--	0.3	4.5	<0.1	<0.1	<0.5	<0.1	ND ⁸
(D)	7/31/89	GTEL	8010	<0.1	0.4	--	--	0.2	2.6	<0.1	<0.1	<0.5	<0.1	ND ⁸
	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
	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	--	--	--	--	--	--	--	--	--	--	--	--	--



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

Well ID	Date Sampled	Analytic Lab	Analytic Method	←-----ppb----->										
				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-7 (cont)	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 ²⁹
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁹
	4/19/95	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁶
	11/6/95	GTEL	8010	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND
MW-8	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	---	0.6	1.9	1.7	1.7	0.4	<0.1	<0.5	1.2	ND
	12/8/89	GTEL	8010	<0.2	0.53	---	---	<0.5	0.84	<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	<1.0	---
	6/19/90	GTEL	8010	<0.2	0.59	---	---	<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	2.0	<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
	10/28/92 ²³	---	---	---	---	---	---	---	---	---	---	---	---	ND ¹⁴
	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 ²⁹
	10/24/94 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	4/19/95 ²⁴	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/6/95	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	5/10/91 ⁹	---	---	---	---	---	---	---	---	---	---	---	---	---
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
	11/27/91	SPA	8010	<0.5	---	6.8	100	<0.5	<0.5	8.5	<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

Well ID	Date Sampled	Analytic Lab	Analytic 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-10 (cont)	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
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	--	--	--	--	--	--	--	--	--	--	--	--	
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
	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



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

Well ID	Date Sampled	Analytic Lab	Analytic 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-12 (cont)	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 ²²	--	--	--	--	--	--	--	--	--	--	--	--	--
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 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 ²⁹
10/24/94	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁹	
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	
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
	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 ²⁵	--	--	--	--	--	--	--	--	--	--	--	--	--	
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	--



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

Well ID	Date Sampled	Analytic Lab	Analytic Method	←----- ppb ----->												
				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	Other HVOCs		
MW-15 (cont)	12/28/90	SAL	8010	<0.5	--	<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	<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	<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	<1.0	ND	
	10/28/92	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁴	
	5/4/93 ²⁴	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	ND	
	1/5/94 ²⁴	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--	
	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	<1.0	ND ²⁵
	10/24/94	SPA	8010	<0.5	--	<0.5	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	3.8	<0.5	ND ²⁵	
	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	
	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 ¹³		
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		--	--	--	--	--	--	--	--	--	--	--	--	--		
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		



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

Well ID	Date Sampled	Analytic Lab	Analytic 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 (cont)	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
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	<10	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 ²⁵
11/6/95	GTEL	8010	<1.0	—	<1.0	1.8	<1.0	1.2	45	18	<1.0	<1.0	ND	
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	22	<0.5	1.0	40	44	3.0	<1.0	—
	5/10/91	SAL	8010	<0.5	—	2.0	12	<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 ²⁹



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

Well ID	Date Sampled	Analytic Lab	Analytic 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-19 (cont)	10/24/94 ³⁵	SPA	8010	<50	--	110	54	<50	<50	98	300	<50	<50	ND ^{32,33}
	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
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	<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	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	
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	<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	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:

Analytic 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.



STANDARD OPERATING PROCEDURE QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan 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 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 analytic 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, preservative (if any), and the sample collector's initials. The water samples are placed in cooler maintained at 4 C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery 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 USA Products Company, the purge and decontamination water generated during sampling activities is taken to Chevron's Richmond Refinery for disposal.

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-2A Well Condition OK
 Well Location Description ~ 30 from parking entrance + ~ 6' from 3rd parking space NE
 Well Diameter 2 in Hydrocarbon Thickness 0

Total Depth 14.9 ft
 Depth to Liquid 4.57 ft

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

of casing Volume 10.39 x .17 x(VF) 1.8 #Estimated 5.3 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Bailor

Did well dewater No If yes, Time _____ Volume _____

Starting Time 1451 Purging Flow Rate 2 gpm.
 Sampling Time 1500

Time	pH	Conductivity	Temperature	Volume
<u>1452</u>	<u>6.9</u>	<u>810</u>	<u>71.2</u>	<u>2</u> gal
<u>1453</u>	<u>6.9</u>	<u>820</u>	<u>70.3</u>	<u>4</u> gal
<u>1454</u>	<u>7.1</u>	<u>820</u>	<u>70.0</u>	<u>5</u> gal
<u>1500</u>	<u>7.1</u>	<u>820</u>	<u>70.0</u>	<u>6</u> gal

Weather Conditions Sunny
 Water Color: clear Odor: none mtd
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-2A</u>	<u>6x40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Gas DTEX + 8010</u>

Comments _____

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-7 Well Condition OK
 Well Location Description ~ 4' from RR tracks on the boarding train area

Well Diameter 3 in Hydrocarbon Thickness

Total Depth 14.0 ft

Depth to Liquid 5.11 ft

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

of casing Volume 8.89 x .38 x(VF) 3.4 #Estimated 10.2 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Bailer

Did well dewater Yes If yes, Time 1114 Volume 4 gal

Starting Time 1110 Purging Flow Rate 2 gpm.

Sampling Time 1205

Time	pH	Conductivity	Temperature	Volume
<u>1112</u>	<u>6.8</u>	<u>580</u>	<u>70.3</u>	<u>4 gal</u>
<u>1114</u>	<u>6.3</u>	<u>530</u>	<u>69.8</u>	<u>8 gal</u>
<u>1205</u>	<u>6.8</u>	<u>550</u>	<u>70.1</u>	<u>9 gal</u>

Weather Conditions Sunny
 Water Color: clear Odor: none
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-7</u>	<u>6X40ml</u>	<u>Y</u>	<u>ML</u>	<u>GTEL</u>	<u>Gas DTEX + Pd10</u>

Comments _____

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-10 Well Condition OK

Well Location Description ~30' from Overpass Stairs & ~10' from storm drain

Well Diameter 4 in Hydrocarbon Thickness 0

Total Depth 20.0 ft

Depth to Liquid 6.25 ft

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

of casing Volume 13.75 x 66 x(VF) 9.1 #Estimated 27.2 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Railer

Did well dewater NO If yes, Time _____ Volume _____

Starting Time 1416 Purging Flow Rate 2 gpm.

Sampling Time 1431

Time	pH	Conductivity	Temperature	Volume
<u>1421</u>	<u>6.9</u>	<u>430</u>	<u>62.6</u>	<u>10 gal</u>
<u>1426</u>	<u>7.0</u>	<u>420</u>	<u>63.7</u>	<u>20 gal</u>
<u>1430</u>	<u>6.9</u>	<u>420</u>	<u>63.4</u>	<u>28</u>
<u>1431</u>	<u>6.9</u>	<u>420</u>	<u>63.4</u>	<u>29</u> ↓

Weather Conditions Sunny
 Water Color: clear Odor: none
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-10</u>	<u>6x40ml</u>	<u>Y</u>	<u>HLR</u>	<u>GTEL</u>	<u>Gas OTEX + 8010</u>

Comments Installed new Chevron lock

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 10-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-13 Well Condition OK
 Well Location Description ~ 6' from the Emeryville S.F. Connection sign

Well Diameter 3 in Hydrocarbon Thickness 0

Total Depth 15.0 ft

Depth to Liquid 6.13 ft

Volume	2" = 0.17	6" = 1.50	12" = 5.80
Factor	3" = 0.38		
(VF)	4" = 0.66		
	<u>.38</u>	x(VF) <u>3.4</u>	#Estimated <u>10.2</u> gal.

of casing Volume 8.87 x .38 x(VF) 3.4 #Estimated 10.2 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Bailer

Did well dewater NO If yes, Time _____ Volume _____

Starting Time 1138 Purging Flow Rate 2 gpm.

Sampling Time 1148

Time	pH	Conductivity	Temperature	Volume
<u>1140</u>	<u>6.8</u>	<u>1010</u>	<u>69.6</u>	<u>4 gal</u>
<u>1142</u>	<u>6.9</u>	<u>1000</u>	<u>70.9</u>	<u>8.5</u>
<u>1143</u>	<u>6.9</u>	<u>1000</u>	<u>70.4</u>	<u>10</u>
<u>1148</u>	<u>6.9</u>	<u>1000</u>	<u>70.4</u>	<u>11</u>

Weather Conditions sunny

Water Color: clear Odor: none

Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-13</u>	<u>6x40ml</u>	<u>Y</u>	<u>HAL</u>	<u>GTEL</u>	<u>Gen OTEX + 8010</u>

Comments Lid does not have bolts to secure the lid - Bolts cannot be installed due to missing base for the bolts.

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-15 Well Condition catcher run off
 Well Location Description On the pedestrian crosswalk ~ 20' from the sidewalk

Well Diameter 4 in
 Total Depth 7.0 ft
 Depth to Liquid 5.28 ft

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

of casing Volume 1.72 x 0.66 x (VF) 1.1 #Estimated 3.4 gal.

Purge Equipment Bailer ~~Stack Pump~~ Sampling Equipment Disposable Bailer
 Did well dewater Yes If yes, Time 1220 Volume 1.5 gal

Starting Time 1216 Purging Flow Rate _____ gpm.
 Sampling Time ~~1218~~ 1238

Time	pH	Conductivity	Temperature	Volume
<u>1218</u>	<u>7.4</u>	<u>380</u>	<u>66.4</u>	<u>1 gal</u>
<u>1220</u>	<u>7.2</u>	<u>370</u>	<u>66.0</u>	<u>1.5 gal</u>
<u>1238</u>	<u>7.1</u>	<u>370</u>	<u>65.8</u>	<u>2.0 gal</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Weather Conditions Sunny
 Water Color: brown Odor: none
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-15</u>	<u>6X40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Crus DTEX + 8010</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments Bolts cannot be installed to secure the lid due to missing base for the bolts

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-17 Well Condition OK
 Well Location Description ~ 8' from APEX Bldg. & under the overpass

Well Diameter 2 in Hydrocarbon Thickness 0

Total Depth 12.0 ft

Depth to Liquid 6.00 ft

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

of casing Volume 6.00 x 1.17 x(VF) 1.0 #Estimated 3.0 gal. purge Volume

Purge Equipment Stack Pump Sampling Equipment Disposable Bailor

Did well dewater No If yes, Time _____ Volume _____

Starting Time 1305 Purging Flow Rate _____ gpm.

Sampling Time 1312

Time	pH	Conductivity	Temperature	Volume
<u>1307</u>	<u>6.7</u>	<u>310</u>	<u>65.3</u>	<u>1 gal</u>
<u>1309</u>	<u>6.4</u>	<u>300</u>	<u>65.5</u>	<u>2 gal</u>
<u>1312</u>	<u>6.4</u>	<u>300</u>	<u>65.6</u>	<u>3 gal</u>

Weather Conditions Sunny

Water Color: brown Odor: none

Sediment Description clay

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-17</u>	<u>6X40ml</u>	<u>Y</u>	<u>MLL</u>	<u>GTEL</u>	<u>Crude OTEX + 8010</u>

Comments Emco Lid - Lid needs to be re-tapped to secure the lid

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-18 Well Condition OK
 Well Location Description ~8' from the well & ~10' from the column

Well Diameter 2 in Hydrocarbon Thickness 0

Total Depth 11.0 ft
 Depth to Liquid 5.57 ft

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

of casing Volume 5.43 x 0.17 x (VF) 0.9 #Estimated 2.7 gal.

Purge Equipment Bailer ~~Stack Pump~~ Sampling Equipment Disposable Bailer

Did well dewater No If yes, Time _____ Volume _____

Starting Time 1330 Purging Flow Rate _____ gpm.
 Sampling Time 1337

Time	pH	Conductivity	Temperature	Volume
<u>1332</u>	<u>6.4</u>	<u>300</u>	<u>63.8</u>	<u>1 gal</u>
<u>1334</u>	<u>6.4</u>	<u>290</u>	<u>63.2</u>	<u>2</u>
<u>1337</u>	<u>6.4</u>	<u>290</u>	<u>63.1</u>	<u>3 ↓</u>

Weather Conditions Sunny
 Water Color: brown Odor: none
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-18</u>	<u>6X40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Gas DTEX + 8010</u>

Comments Well lid is broken - only 1-bolts holds the lid.
Replaced lock with a Chevron Lock.

WELL SAMPLING FIELD DATA SHEET

SAMPLER Guadalupe Sanchez DATE 11-6-95
 ADDRESS Powell @ Landgren JOB # 5161.85
 CITY Emeryville SS# 1001067

Well ID MW-19A Well Condition OK
 Well Location Description ~ 6' from overpass column + ~ 30' from RR tracks

Well Diameter 2 in. Hydrocarbon Thickness 0

Total Depth 14.9 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 10.05 x 1.7 x(VF) 1.7 #Estimated 5.1 gal.

Purge Equipment Stack Pump Sampling Equipment Disposable Bailor

Did well dewater No If yes, Time _____ Volume _____

Starting Time 1349 Purging Flow Rate 2 gpm.

Sampling Time 1357

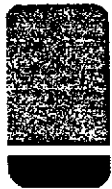
Time	pH	Conductivity	Temperature	Volume
<u>1350</u>	<u>6.7</u>	<u>430</u>	<u>65.3</u>	<u>2</u> gal
<u>1351</u>	<u>6.9</u>	<u>250</u>	<u>67.1</u>	<u>4</u>
<u>1352</u>	<u>6.9</u>	<u>280</u>	<u>67.6</u>	<u>6</u>
<u>1357</u>	<u>6.9</u>	<u>280</u>	<u>67.7</u>	<u>7</u>

Weather Conditions Sunny
 Water Color: brown Odor: none
 Sediment Description none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>MW-19A</u>	<u>6X40ml</u>	<u>Y</u>	<u>MLL</u>	<u>GTEL</u>	<u>Gas OTEX + 8010</u>

Comments _____



GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
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Wichita, KS 67209
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(800) 633-7936
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November 15, 1995

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

RE: GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067//POWELL @ LANDGREN/EMERYVILLE/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 11/08/95.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by 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.

GTEL is certified by the Department of Health Service under Certification Number 1845.

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

Sincerely,
GTEL Environmental Laboratories, Inc.

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

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8020
 Matrix: Aqueous

GTEL Sample Number	W5110155-01	W5110155-02	W5110155-03	W5110155-04
Client ID	TB-LB	MW-7	MW-13	MW-15
Date Sampled		11/06/95	11/06/95	11/06/95
Date Analyzed	11/11/95	11/11/95	11/11/95	11/12/95
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 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8020
 Matrix: Aqueous

GTEL Sample Number	W5110155-05	W5110155-06	W5110155-07	W5110155-08
Client ID	MW-17	MW-18	MW-19A	MW-10
Date Sampled	11/06/95	11/06/95	11/06/95	11/06/95
Date Analyzed	11/12/95	11/12/95	11/12/95	11/12/95
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	420	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08

Login Number: W5110155

Project ID (number): 5161.85

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

Method: EPA 8020

Matrix: Aqueous

GTEL Sample Number	W5110155-09	--	--	--
Client ID	MW-2A	--	--	--
Date Sampled	11/06/95	--	--	--
Date Analyzed	11/12/95	--	--	--
Dilution Factor	1.00	--	--	--

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

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020 Acceptability Limits:			43-136%
111195GC10-1	CV1111952010	Calibration Verifi	69.9
111195GC10-2	BW11119510	Method Blank Water	70.8
111195GC10-3	DP11015507	Duplicate	77.5
111195GC10-4	CM1111952010	Calibration Verifi	76.5
111195GC10-5	DP11014802	Duplicate	77.1
111195GC10-6	MS11014805	Matrix Spike	76.0
111195GC10-8	LW1111952010	Laboratory Control	80.2
--	11015501	TB-LB	75.8
--	11015502	MW-7	79.8
--	11015503	MW-13	86.1
--	11015504	MW-15	77.2
--	11015505	MW-17	78.0
--	11015506	MW-18	76.5
--	11015507	MW-19A	78.3
--	11015508	MW-10	77.1
--	11015509	MW-2A	80.6

Notes:

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

Project ID (Number): 5161.85
Project ID (Name): Chevron SS #1001067
Powell @ Landgren
Emeryville, CA
Work Order Number: W5-11-0155
Date Reported: 11-14-95

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020

Date of Analysis: 11-Nov-95 QC Batch No: 111195GC10-2

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

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8020
 Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-1		
Benzene	20.0	19.7	98.5	77-123%
Toluene	20.0	20.8	104.	77.5-122.5%
Ethylbenzene	20.0	19.3	96.5	63-137%
Xylenes (Total)	40.0	40.1	100.	85-115%
TPH as Gasoline	500.	597.	119.	80-120%

Notes:

QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Continuing Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-4		
Benzene	20.0	19.8	99.0	85-115%
Toluene	20.0	20.8	104.	85-115%
Ethylbenzene	20.0	19.7	98.5	85-115%
Xylenes (Total)	40.0	40.2	101.	85-115%

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-8		
Benzene	20.0	16.5	82.5	39-150%
Toluene	20.0	16.5	82.5	46-148%
Ethylbenzene	20.0	13.7	68.5	32-160%
Xylenes (Total)	60.0	47.5	79.2	51-145%

Notes:

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8020
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8020	Units: ug/L	QC Batch: 111195GC10-5	GTEL Sample ID: W5110148-02	Client ID: Batch QC
MTBE	< 500	< 500	NA	20
Benzene	361.	353.	2.24	23.9
Toluene	12300	12000	2.47	27.2
Ethylbenzene	5270	5130	2.69	21.6
Xylenes (Total)	30700	30100	1.97	22.0
TPH as Gasoline	99900	97300	2.64	20
EPA 8020	Units: ug/L	QC Batch: 111195GC10-3	GTEL Sample ID: W5110155-07	Client ID: MW-19A
MTBE	< 10.0	< 10.0	NA	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	424.	457.	7.49	20

Notes:

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

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8020
 Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W5110148-05		MS ID:MS11014805			
Analysis Date: 12-NOV-95		12-NOV-95			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.5 (0.000)	20.0	18.7	93.5	67-110
Toluene	< 0.5 (0.000)	20.0	18.8	94.0	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	16.1	80.5	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	54.1	90.2	62-119

Notes:

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

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
 Matrix: Aqueous

GTEL Sample Number	W5110155-01	W5110155-02	W5110155-03	W5110155-04
Client ID	TB-LB	MW-7	MW-13	MW-15
Date Sampled		11/06/95	11/06/95	11/06/95
Date Analyzed	11/09/95	11/09/95	11/09/95	11/09/95
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	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
 Matrix: Aqueous

GTEL Sample Number	W5110155-05	W5110155-06	W5110155-07	W5110155-08
Client ID	MW-17	MW-18	MW-19A	MW-10
Date Sampled	11/06/95	11/06/95	11/06/95	11/06/95
Date Analyzed	11/10/95	11/10/95	11/10/95	11/10/95
Dilution Factor	1.00	1.00	25.0	1.00

Analyte	Reporting		Concentration:			
	Limit	Units	W5110155-05	W5110155-06	W5110155-07	W5110155-08
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 120	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 25.	1.0
Methylene Chloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 25.	19.
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	1.4
cis-1,2-Dichloroethene	1.0	ug/L	1.1	1.8	110	41.
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	1.2	< 25.	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Trichloroethene	1.0	ug/L	29.	45.	160	14.
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Tetrachloroethene	1.0	ug/L	13.	18.	1500	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
 Login Number: W5110155
 Project ID (number): 5161.85
 Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
 Matrix: Aqueous

GTEL Sample Number	W5110155-09	--	--	--
Client ID	MW-2A	--	--	--
Date Sampled	11/06/95	--	--	--
Date Analyzed	11/09/95	--	--	--
Dilution Factor	1.00	--	--	--

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

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
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:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010			Acceptability Limits: 68-133% 82-117%	
110995GC15-1	CV1109952015	Calibration Verifi	101	94.6
110995GC15-2	BW11099515	Method Blank Water	100	95.7
110995GC15-3	MS11015509	Matrix Spike	99.5	98.7
110995GC15-4	DP11015507	Duplicate	98.9	98.2
110995GC15-5	LW1109952015	Laboratory Control	102	96.7
--	11015501	TB-LB	100	94.6
--	11015502	MW-7	99.1	96.8
--	11015503	MW-13	101	97.4
--	11015504	MW-15	100	97.1
--	11015505	MW-17	97.4	98.1
--	11015506	MW-18	98.1	97.3
--	11015507	MW-19A	100	98.1
--	11015508	MW-10	101	98.2
--	11015509	MW-2A	100	99.6

Notes:

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

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Method Blank Results

QC Batch No: 110995GC15-2
Date Analyzed: 09-NOV-95

Analyte	Method: EPA 8010	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:

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QUALITY CONTROL RESULTS

Volatile Organics
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Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010	Units:ug/L	QC Batch:110995GC15-1		
Dichlorodifluoromethane	20.0	29.5	148	40-160%
Chloromethane	20.0	20.4	102	59.5-140.5%
Vinyl chloride	20.0	19.5	97.5	68.5-131.5%
Bromomethane	20.0	21.2	106	58.5-141.5%
Chloroethane	20.0	23.1	116	77-123%
Trichlorofluoromethane	20.0	20.1	101	66.5-133.5%
1,1-Dichloroethene	20.0	23.2	116	63-137%
Methylene chloride	20.0	23.5	118	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.5	108	64-136%
1,1-Dichloroethane	20.0	20.7	104	71.5-116%
cis-1,2-Dichloroethene	20.0	19.8	99.0	64-116%
Chloroform	20.0	19.6	98.0	75-125%
1,1,1-Trichloroethane	20.0	22.1	111	71-129%
Carbon tetrachloride	20.0	21.6	108	68.5-131.5%
1,2-Dichloroethane	20.0	22.7	114	71.5-128.5%
Trichloroethene	20.0	21.5	108	77-123%
1,2-Dichloropropane	20.0	21.9	110	74-126%
Bromodichloromethane	20.0	20.6	103	76-124%
2-Chloroethyl vinyl ether	20.0	24.4	122	60-140%
cis-1,3-Dichloropropene	20.0	20.0	100	64-136%
trans-1,3-Dichloropropene	20.0	21.2	106	64-136%
1,1,2-Trichloroethane	20.0	21.6	108	78.5-121.5%
Tetrachloroethene	20.0	21.7	109	70-130%
Dibromochloromethane	20.0	20.4	102	65.5-134.5%
Chlorobenzene	20.0	21.7	109	72-128%
Bromoform	20.0	17.0	85.0	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	22.8	114	49-151%
1,3-Dichlorobenzene	20.0	19.5	97.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	20.4	102	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

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QUALITY CONTROL RESULTS

Volatile Organics
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Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010	Units:ug/L	QC Batch:110995GC15-5		
Dichlorodifluoromethane	20.0	30.2	151	40-160%
Chloromethane	20.0	21.0	105	10-193%
Vinyl chloride	20.0	16.3	81.5	28-163%
Bromomethane	20.0	15.9	79.5	10-144%
Chloroethane	20.0	23.0	115	46-137%
Trichlorofluoromethane	20.0	17.8	89.0	21-156%
1,1-Dichloroethene	20.0	22.0	110	28-167%
Methylene chloride	20.0	24.9	125	25-162%
trans-1,2-Dichloroethene	20.0	22.9	115	38-155%
1,1-Dichloroethane	20.0	20.6	103	47-132%
cis-1,2-Dichloroethene	20.0	19.3	96.5	38-155%
Chloroform	20.0	19.8	99.0	49-133%
1,1,1-Trichloroethane	20.0	22.7	114	41-138%
Carbon tetrachloride	20.0	22.2	111	43-143%
1,2-Dichloroethane	20.0	22.5	113	51-147%
Trichloroethene	20.0	22.8	114	35-146%
1,2-Dichloropropane	20.0	22.5	113	44-156%
Bromodichloromethane	20.0	21.1	106	42-172%
2-Chloroethyl vinyl ether	20.0	6.03	30.2	14-186%
cis-1,3-Dichloropropene	20.0	20.4	102	22-178%
trans-1,3-Dichloropropene	20.0	20.5	103	22-178%
1,1,2-Trichloroethane	20.0	22.4	112	39-136%
Tetrachloroethene	20.0	22.5	113	25-162%
Dibromochloromethane	20.0	19.8	99.0	24-191%
Chlorobenzene	20.0	22.6	113	38-150%
Bromoform	20.0	16.3	81.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	22.1	111	10-184%
1,3-Dichlorobenzene	20.0	19.4	97.0	10-187%
1,4-Dichlorobenzene	20.0	19.5	97.5	42-143%
1,2-Dichlorobenzene	20.0	19.0	95.0	10-208%

Notes:

GTEL Client ID: GTR01CHV08
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QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010
 Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8010 Units: ug/L	QC Batch: 110995GC15-4		GTEL Sample ID: W5110155-07	
			Client ID: MW-19A	
Dichlorodifluoromethane	< 125	< 125	NA	35.4
Chloromethane	< 50.0	< 50.0	NA	24.2
Vinyl chloride	< 25.0	< 25.0	NA	18.6
Bromomethane	< 50.0	< 50.0	NA	24.8
Chloroethane	< 25.0	< 25.0	NA	14.4
Trichlorofluoromethane	< 25.0	< 25.0	NA	19.6
1,1-Dichloroethene	< 25.0	< 25.0	NA	21.6
Methylene chloride	< 25.0	< 25.0	NA	13.1
trans-1,2-Dichloroethene	< 25.0	< 25.0	NA	20.9
1,1-Dichloroethane	< 25.0	< 25.0	NA	10.5
cis-1,2-Dichloroethene	114	111	2.67	20.9
Chloroform	< 25.0	< 25.0	NA	14.7
1,1,1-Trichloroethane	< 25.0	< 25.0	NA	16
Carbon tetrachloride	< 25.0	< 25.0	NA	18.3
1,2-Dichloroethane	< 25.0	< 25.0	NA	17
Trichloroethene	156	149	4.59	13.7
1,2-Dichloropropane	< 25.0	< 25.0	NA	17
Bromodichloromethane	< 25.0	< 25.0	NA	13.1
2-Chloroethyl vinyl ether	< 25.0	< 25.0	NA	27.1
cis-1,3-Dichloropropene	< 25.0	< 25.0	NA	23.8
trans-1,3-Dichloropropene	< 25.0	< 25.0	NA	23.8
1,1,2-Trichloroethane	< 25.0	< 25.0	NA	12.8
Tetrachloroethene	1480	1420	4.14	17.7
Dibromochloromethane	< 25.0	< 25.0	NA	20.6
Chlorobenzene	< 25.0	< 25.0	NA	16.4
Bromoform	< 50.0	< 50.0	NA	15.4
1,1,2,2-Tetrachloroethane	< 25.0	< 25.0	NA	30
1,3-Dichlorobenzene	< 25.0	< 25.0	NA	29.7
1,4-Dichlorobenzene	< 25.0	< 25.0	NA	18
1,2-Dichlorobenzene	< 25.0	< 25.0	NA	18

Notes:

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

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QUALITY CONTROL RESULTS

Volatile Organics
 Method: EPA 8010
 Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W5110155-09 Analysis Date: 09-NOV-95			MS ID:MS11015509 10-NOV-95		
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Dichlorodifluoromethane	< 5.00(0.000)	23.0	45.6	198 *	40-160
Chloromethane	< 2.00(0.000)	23.0	29.8	130.	10-193
Vinyl chloride	< 1.00(0.000)	23.0	23.0	100.	28-163
Bromomethane	< 2.00(0.000)	23.0	22.9	99.6	10-144
Chloroethane	< 1.00(0.000)	23.0	32.9	143 *	46-137
Trichlorofluoromethane	< 1.00(0.000)	23.0	25.7	112.	21-156
1,1-Dichloroethene	< 1.00(0.000)	20.0	22.6	113.	28-167
Methylene chloride	< 1.00(0.0900)	20.0	23.6	118.	25-162
trans-1,2-Dichloroethene	< 1.00(0.000)	20.0	23.2	116.	38-155
1,1-Dichloroethane	< 1.00(0.000)	20.0	20.7	104.	47-132
cis-1,2-Dichloroethene	< 1.00(0.000)	20.0	19.0	95.0	38-155
Chloroform	< 1.00(0.000)	20.0	19.4	97.0	49-133
1,1,1-Trichloroethane	< 1.00(0.000)	20.0	22.4	112.	41-138
Carbon tetrachloride	< 1.00(0.000)	20.0	21.8	109.	43-143
1,2-Dichloroethane	< 1.00(0.000)	20.0	22.1	111.	51-147
Trichloroethene	< 1.00(0.000)	20.0	21.6	108.	35-146
1,2-Dichloropropane	< 1.00(0.000)	20.0	21.8	109.	44-156
Bromodichloromethane	< 1.00(0.000)	20.0	20.2	101.	42-172
2-Chloroethyl vinyl ether	< 1.00(0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.00(0.000)	20.0	19.5	97.5	22-178
trans-1,3-Dichloropropene	< 1.00(0.000)	20.0	20.0	100.	22-178
1,1,2-Trichloroethane	< 1.00(0.000)	20.0	21.8	109.	39-136
Tetrachloroethene	< 1.00(0.000)	20.0	21.4	107.	25-162
Dibromochloromethane	< 1.00(0.000)	20.0	19.2	96.0	24-191
Chlorobenzene	< 1.00(0.000)	20.0	21.9	110.	38-150
Bromoform	< 2.00(0.000)	20.0	15.6	78.0	13-159
1,1,2,2-Tetrachloroethane	< 1.00(0.000)	20.0	22.4	112.	10-184
1,3-Dichlorobenzene	< 1.00(0.000)	20.0	18.7	93.5	10-187
1,4-Dichlorobenzene	< 1.00(0.000)	20.0	18.6	93.0	42-143
1,2-Dichlorobenzene	< 1.00(0.150)	20.0	18.5	91.8	10-208

Notes:

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

1109956C15-3: Matrix spike results were outside the acceptability limits for Dichlorodifluoromethane and Chloroethane. As these analytes were not present in any of the analyzed samples, the reported data is valid.

1109956C15-3: :2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).