

STC 459
RE

ENVIRONMENTAL
PROTECTION



Chevron

98 MAY 15 PM 3:13

May 14, 1998

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 6004
San Ramon, CA 94583-0904

Marketing - Sales West
Phone 510 842-9500

Mr. Thomas Peacock
Manager, Environmental Protection Division
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, California**

Dear Mr. Peacock:

Enclosed is the First Quarter (Semi-Annual) Groundwater Monitoring Report for 1998 prepared by our consultant Gettler-Ryan, Inc. for the above noted facility. Ground water samples were analyzed for TPH-g, BTEX, and MtBE. As previously agreed, sampling for monitoring wells B-2 and B-4 have been suspended.

Monitoring wells B-10 and B-11 were below method detection limits for all constituents while well B-8 was below method detection limits for the TPH-g and BTEX constituents. The benzene constituent declined in well B-5 from the previous sampling event while increasing in wells B-1, B-3, B-6, B-7 and B-9. Well B-12 showed benzene at a concentration of 1.2 ppb.

Depth to ground water varied from 2.14 feet to 10.18 feet below grade with a variable direction of flow northwesterly and southwesterly.


For your information the station was closed in February and the tanks and lines were removed in March. Demolition of the building and canopies are on hold pending approval of the demolition permit by the City Of Oakland.

Chevron's consultant is finalizing the report on the removal of the tanks and lines and I expect to have the report to your office in two weeks. The increase of benzene in several of the wells may be attributed to the removal of the tanks and lines and it would be expected that the concentrations would decline in the next sampling event.

May 14, 1998
Mr. Thomas Peacock
Chevron Service Station #9-2506
Page 2

The next sampling event will be conducted as noted above. If you have any questions or comments, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY



Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Bill Scudder, Chevron



GETTLER-RYAN INC.

May 8, 1998

Job #5203.80

Mr. Phil Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Semi-Annual Groundwater Monitoring & Sampling Report
Chevron Service Station #9-2506
2630 Broadway
Oakland, California

Dear Mr. Briggs:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On April 2, 1998, field personnel were on-site to monitor and sample ten wells (B-1, B-3, and B-5 through B-12) at the above mentioned site.

Static groundwater levels were measured and 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.

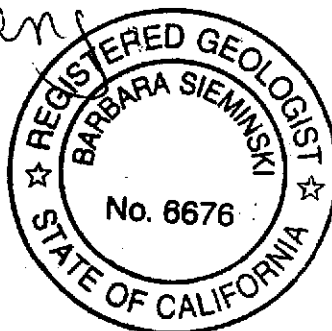
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain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

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,

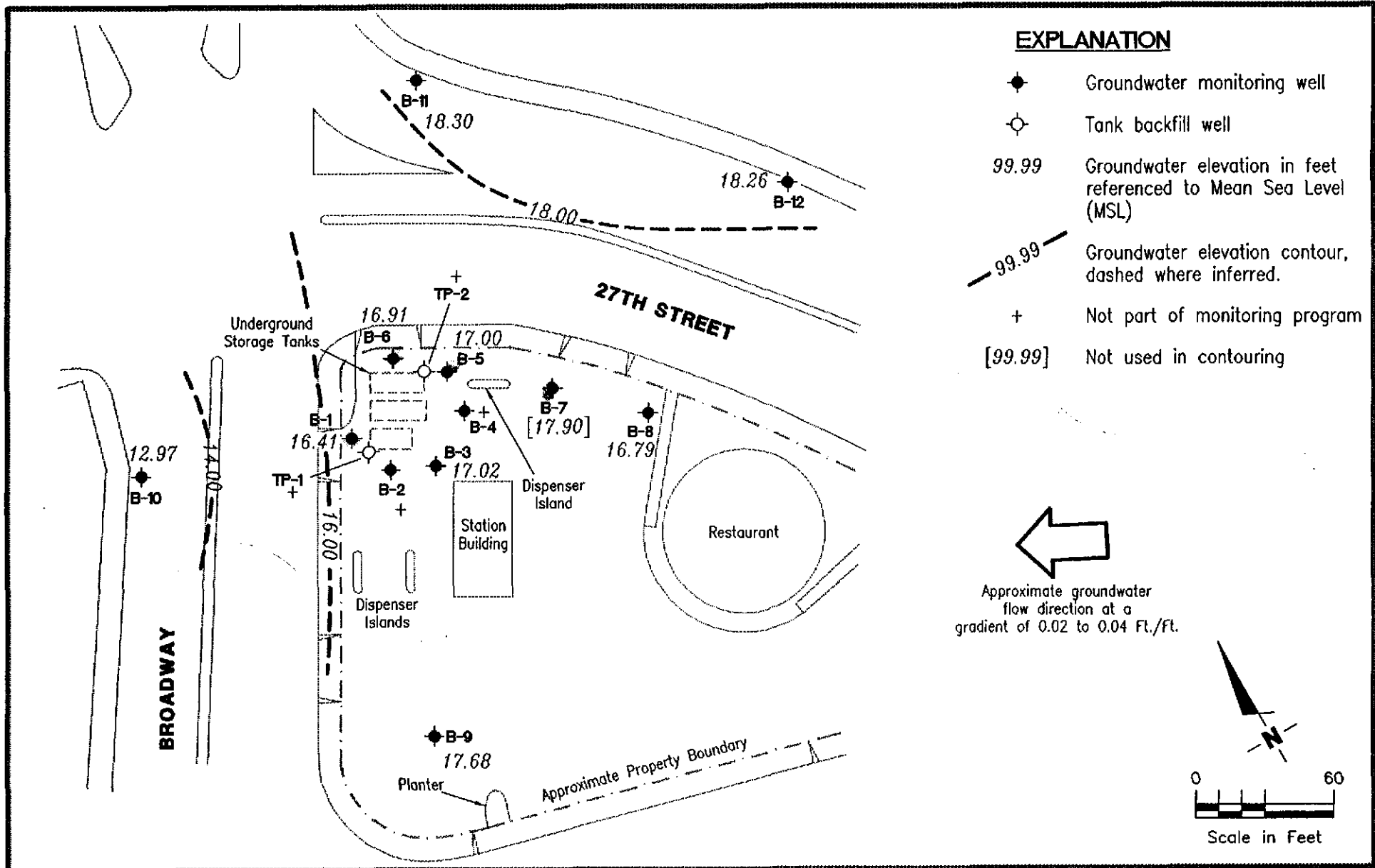
Deanna L. Harding
Deanna L. Harding
Project Coordinator

Barbara Sieminski
Barbara Sieminski
Project Geologist, R.G. No. 6676



DLH/SJC/dlh
5203.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
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 (925) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Chevron Service Station No. 9-2506
2630 Broadway
Oakland, California

FIGURE

1

JOB NUMBER
5203

REVIEWED BY

DATE
April 2, 1998

REVISED DATE

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE
B-1/ 23.00 ¹	3/18/82	7.81	15.19	0	---	---	---	---	---	---
	3/25/82	8.67	14.33	0	---	---	---	---	---	---
	5/21/82	9.30	13.70	0	---	---	---	---	---	---
	5/26/82	10.18	12.82	0	---	---	---	---	---	---
	6/24/82	9.92	13.08	0	---	---	---	---	---	---
	9/9/93	9.90	13.10	0	8,800 ²	240	280	<2.5	<7.5	---
	12/2/93	9.10	13.90	0	1,100	100	7.9	3.4	3.9	---
	3/17/94	9.41	13.59	0	1,600	370	13	13	26	---
	6/10/94	9.89	13.11	0	1,400	270	24	18	78	---
	9/15/94	11.24	11.76	0	4,100	740	<5	270	300	---
25.67 ³	12/28/94	9.25	16.42	0	1,200	200	32	37	79	---
	3/29/95	8.32	17.35	0	13,000	540	54	77	120	---
	6/5/95	9.72	15.95	0	3,000	610	<25	<25	<25	---
	9/21/95	10.92	14.75	0	630 ⁶	5.4	<0.5	1.3	6.1	---
	12/22/95	10.14	15.53	0	<50	<0.50	<0.50	<0.50	<0.50	40,000
	3/22/96	8.83	16.84	0	<1,200 ¹¹	150	<12	<12	<12	32,000
	9/25/96	10.80	14.87	0	28,000 ¹²	19	<12	<12	<12	38,000
	3/6/97	9.15	16.52	0	<5,000 ¹⁵	52	<50	<50	<50	18,000
	9/12/97	10.72	14.95	0	89	<0.50	0.54	<0.50	1.3	9,200
	4/2/98	9.26	16.41	0	<5,000	110	<50	<50	<50	25,000
B-2/ 22.28 ¹	3/18/82	3.83	18.45	0	---	---	---	---	---	---
	3/25/82	5.79	16.49	0	---	---	---	---	---	---
	5/21/82	4.85	17.43	0	---	---	---	---	---	---
	5/26/82	8.53	13.75	0	---	---	---	---	---	---
	6/24/82	8.40	13.88	0	---	---	---	---	---	---
	9/9/93	6.46	15.82	0	4,700	470	630	180	590	---
	12/2/93	5.41	16.87	0	2,200	59	27	110	350	---
	3/17/94	7.44	14.84	0	1,800	52	33	97	320	---
	6/10/94	8.15	14.13	0	1,200	37	48	20	93	---
	9/15/94	10.00	12.28	0	4,900	710	12	340	450	---
25.13 ³	12/28/94	7.32	17.81	0	2,600	63	49	56	370	---
	3/29/95 ⁵	---	---	---	---	---	---	---	---	---
B-3/ 21.78 ¹	3/18/82	5.65	16.13	0	---	---	---	---	---	---
	3/25/82	5.75	16.03	0	---	---	---	---	---	---
	5/21/82	5.58	16.20	0	---	---	---	---	---	---
	5/26/82	7.99	13.79	0	---	---	---	---	---	---
	6/24/82	7.68	14.10	0	---	---	---	---	---	---
	9/9/93	5.99	15.79	0	7,800	500	760	180	720	---

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE
B-3 (cont)	12/2/93	5.70	16.08	0	9,800	790	870	380	1,500	---
	3/17/94	6.50	15.28	0	2,400	88	55	74	270	---
24.35 ³	6/10/94	7.23	14.55	0	2,300	110	95	84	240	---
	9/15/94	9.16	12.62	0	5,000	670	9.3	340	410	---
	12/28/94	6.44	17.91	0	4,100	650	34	320	440	---
	3/29/95	5.47	18.88	0	3,300	170	2.2	51	8.9	---
	6/5/95	7.05	17.30	0	2,500	850	31	170	85	---
	9/21/95	8.92	15.43	0	2,900 ⁷	1,300	280	140	100	---
	12/22/95	8.53	15.82	0	5,400 ⁹	340	37	150	460	8,600
	3/22/96	5.98	18.37	0	2,200	79	50	58	200	1,600
	9/25/96	9.02	15.33	0	11,000	530	97	74	400	7,200
	3/6/97	6.71	17.64	0	<500 ¹⁴	20	<5.0	<5.0	<5.0	420
	9/12/97	9.31	15.04	0	<500 ¹⁹	<5.0	<5.0	<5.0	<5.0	1,900
	4/2/98	7.33	17.02	0	110	8.3	0.79	4.0	7.4	590
B-4/ 21.35 ¹	3/18/82	4.65	16.70	0	---	---	---	---	---	---
	3/25/82	5.08	16.27	0	---	---	---	---	---	---
	5/21/82	---	---	2.5	---	---	---	---	---	---
	5/26/82	9.21	12.14	---	---	---	---	---	---	---
	6/24/82	8.22	13.13	0.5	---	---	---	---	---	---
	9/9/93	6.09	15.26	0	88,000	3,200	16,000	2,000	9,500	---
	12/2/93	5.54	15.81	0	110,000	3,600	25,000	2,800	15,000	---
	3/17/94	6.00	15.35	0	60,000	1,400	16,000	1,800	8,900	---
	6/10/94	6.87	14.48	0	25,000	770	880	190	1,100	---
	9/15/94	8.74	12.61	0	3,300	800	8.0	300	350	---
24.11 ³	12/28/94	5.74	18.37	0	17,000	400	4,000	630	2,900	---
	3/29/95 ³	---	---	---	---	---	---	---	---	---
B-5/ 21.53 ¹	3/18/82	5.13	16.40	0	---	---	---	---	---	---
	3/25/82	5.27	16.26	0	---	---	---	---	---	---
	5/21/82	4.40	17.13	0	---	---	---	---	---	---
	5/26/82	7.55	13.98	0	---	---	---	---	---	---
	6/24/82	7.27	14.26	0	---	---	---	---	---	---
	9/9/93	6.45	15.08	0	110,000	1,800	1,800	6,300	25,000	---
	12/2/93	5.13	16.40	0	81,000	4,400	3,800	6,700	28,000	---
	3/17/94	6.55	14.98	0	38,000	2,100	3,100	1,800	9,100	---
	6/10/94	7.34	14.19	0	110,000	5,100	7,000	5,400	27,000	---
	9/15/94	6.34	15.19	0	2,700	770	15	240	320	---
24.23 ³	12/28/94	6.55	17.68	0	94,000	4,600	10,000	4,400	19,000	---
	3/29/95	5.59	18.64	0	59,000	1,500	3,100	2,100	8,100	---
	6/5/95	7.19	17.04	0	58,000	2,300	4,300	2,600	11,000	---

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE	
B-5 (cont)	9/21/95	9.10	15.13	0	3,500 ⁶	300	30	260	330	---	
	12/22/95	8.61	15.62	0	6,500 ⁹	370	120	400	870	5,500	
	3/22/96	6.02	18.21	0	13,000	410	1,000	750	2,900	5,400	
	9/25/96	9.20	15.03	0	8,000	170	<5.0	140	110	7,200	
	3/6/97	6.63	17.60	0	60,000	630	320	2,300	9,500	4,700	
	9/12/97	8.30	15.93	0	1,400	66	<10	59	24	3,300	
	4/2/98	7.23	17.00	0	1,000 ⁹	5.9	2.1	18	5.1	470	
B-6/ 22.03 ¹	3/18/82	7.56	14.47	0	---	---	---	---	---	---	
	3/25/82	6.08	15.95	0	---	---	---	---	---	---	
	5/21/82	4.85	17.18	0	---	---	---	---	---	---	
	5/26/82	8.31	13.72	0	---	---	---	---	---	---	
	6/24/82	8.03	14.00	0	---	---	---	---	---	---	
	9/9/93	8.12	13.91	0	6,800 ²	<0.5	<0.5	<0.5	<1.5	---	
	12/2/93	7.06	14.97	0	320	29	<0.5	<0.5	<0.5	---	
	3/17/94	7.57	14.46	0	570	130	6.2	4.7	14	---	
	6/10/94	8.21	13.82	0	1,500	100	81	51	240	---	
	9/15/94	9.94	12.09	0	6,400	900	24	490	620	---	
	24.72 ³	12/28/94	7.45	17.27	0	350	110	4.4	3.7	14	---
	3/29/95	6.40	18.32	0	3,300	46	<0.5	1.3	1.2	---	
	6/5/95	8.07	16.65	0	230	<0.5	<0.5	<0.5	<0.5	---	
	9/21/95	9.55	15.17	0	<50 ⁶	<0.5	<0.5	<0.5	<0.5	---	
	12/22/95	8.91	15.81	0	<50	<0.50	<0.50	<0.50	<0.50	15,000	
	3/22/96	6.94	17.78	0	<1,200 ¹⁰	<12	<12	<12	<12	18,000	
	9/25/96	9.63	15.09	0	15,000 ¹²	<10	<10	<10	<10	20,000	
3/6/97	7.50	17.22	0	<5,000 ¹⁴	<50	<50	<50	<50	18,000		
9/12/97	9.70	15.02	0	<100 ¹³	<1.0	<1.0	<1.0	<1.0	1,300		
4/2/98	7.81	16.91	0	<500	17	<5.0	<5.0	<5.0	5,800		
B-7/ 19.54 ¹	3/18/82	4.08	15.46	0	---	---	---	---	---	---	
	3/25/82	4.00	15.54	0	---	---	---	---	---	---	
	5/21/82	3.00	16.54	0	---	---	---	---	---	---	
	5/26/82	4.96	14.58	0	---	---	---	---	---	---	
	6/24/82	4.90	14.64	0	---	---	---	---	---	---	
	9/9/93	6.54	13.00	0	230	1.3	2.3	0.6	2.1	---	
	12/2/93	6.20	13.34	0	190	4.7	<0.5	1.1	1.9	---	
	3/17/94	5.19	14.35	0	320	15	3.3	1.0	3.0	---	
	6/10/94	5.97	13.57	0	210	6.1	5.7	2.3	5.8	---	
	9/15/94	7.78	11.76	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	22.22 ³	12/28/94	5.04	17.18	0	520	17	4.8	2.5	2.1	---
3/29/95	4.35	17.87	0	420	6.0	2.3	1.8	0.9	---		

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE	
B-7 (cont)	6/5/95	5.79	16.43	0	65	<0.5	<0.5	<0.5	<0.5	---	
	9/21/95	7.55	14.67	0	<50 ⁶	<0.5	<0.5	<0.5	<0.5	---	
	12/22/95	9.16	13.06	0	<50	<0.50	<0.50	<0.50	<0.50	930	
	3/22/96	4.60	17.62	0	300	1.0	0.5	<0.5	0.6	280	
	9/25/96	7.98	14.24	0	310 ¹²	<0.5	0.6	<0.5	0.8	420	
	3/6/97	5.06	17.16	0	1,200	9.0	<0.5	<0.5	2.9	1,000	
	9/12/97	7.85	14.37	0	<500 ¹¹	<5.0	<5.0	<5.0	<5.0	3,500	
	4/2/98	4.32	17.90	0	<500	26	1.0	9.0	20	2,200	
B-8/ 18.49 ¹	3/18/82	4.27	14.22	0	---	---	---	---	---	---	
	3/25/82	4.06	14.43	0	---	---	---	---	---	---	
	5/21/82	4.86	13.63	0	---	---	---	---	---	---	
	5/26/82	4.96	13.53	0	---	---	---	---	---	---	
	6/24/82	4.87	13.62	0	---	---	---	---	---	---	
	9/9/93	5.20	13.29	0	<50	3.4	<0.5	<0.5	<1.5	---	
	12/2/93	5.31	13.18	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/17/94	4.87	13.62	0	<50	1.7	0.5	<0.5	0.6	---	
	6/10/94	5.63	12.86	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/15/94	7.10	11.39	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	21.01 ³	12/28/94	4.63	16.38	0	<50	<0.5	<0.5	<0.5	<0.5	---
		3/29/95	4.20	16.81	0	<50	<0.5	<0.5	<0.5	<0.5	---
		6/5/95	5.18	15.83	0	<50	<0.5	<0.5	<0.5	<0.5	---
		9/21/95	6.80	14.21	0	<50 ⁹	<0.5	<0.5	<0.5	<0.5	---
		12/22/95	6.48	14.53	0	<50	<0.50	<0.50	<0.50	<0.50	190
		3/22/96	4.49	16.52	0	<50	<0.5	<0.5	<0.5	<0.5	86
		9/25/96	7.18	13.83	0	90 ¹²	<0.5	<0.5	<0.5	1.0	110
		3/6/97 ¹³	---	---	---	---	---	---	---	---	---
		9/12/97 ¹³	---	---	---	---	---	---	---	---	---
4/2/98		4.22	16.79	0	<50	<0.50	<0.50	<0.50	<0.50	56	
B-9 ⁴	8/4/94	11.53	14.08	---	650	4.4	2.4	6.3	14	---	
	11/2/94	9.42	16.19	---	---	---	---	---	---	---	
25.61 ³	12/28/94	8.35	17.26	0	2,400	290	8.4	90	36	---	
	3/29/95	7.43	18.18	0	5,900	540	24	200	84	---	
	6/5/95	8.47	17.14	0	3,000	130	<25	<25	<25	---	
	9/21/95	8.99	16.62	0	240 ⁸	1,500	14	62	55	---	
	12/22/95	9.20	16.41	0	1,800	170	6.6	59	20	<6.0	
	3/22/96	7.84	17.77	0	2,400	230	6.2	77	9.7	9.2	
	9/25/96	9.24	16.37	0	1,800	28	4.7	39	13	56	
	3/6/97	8.46	17.15	0	3,400	68	3.3	45	18	47	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE
B-9 (cont)	9/12/97	9.15	16.46	0	560	13	7.9	5.8	16	67
	4/2/98	7.93	17.68	0	2,500 ¹⁹	93	14	15	39	30
B-10 ^A	8/4/94	10.95	12.20	---	<50	<0.5	<0.5	<0.5	<0.5	---
	11/2/94	11.19	11.96	---	---	---	---	---	---	---
23.15 ³	12/28/94	10.30	12.85	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/29/95	9.68	13.47	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	10.59	12.56	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/21/95	10.87	12.28	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/22/95	10.41	12.74	0	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	3/22/96	10.11	13.04	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/25/96	10.15	13.00	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	9.98	13.17	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	10.90	12.25	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	4/2/98	10.18	12.97	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	B-11 ^A	8/4/94	10.39	14.84	---	<50	<0.5	<0.5	<0.5	<0.5
11/2/94		11.50	13.73	---	---	---	---	---	---	---
25.23 ³	12/28/94	9.09	16.14	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/29/95	7.40	17.83	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	8.26	16.97	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/21/95	9.79	15.44	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/22/95	9.55	15.68	0	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	3/22/96	7.35	17.88	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/25/96	10.21	15.02	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	7.76	17.47	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	10.08	15.15	0	<50	<0.50	<0.50	<0.50	<0.50	2.5
	4/2/98	6.93	18.30	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	B-12 ^A	8/4/94	6.41	13.99	---	<50	<0.5	<0.5	<0.5	<0.5
11/2/94		8.75	11.65	---	---	---	---	---	---	---
20.40 ³	12/28/94	2.76	17.64	0	74	1.0	2.6	1.3	4.4	---
	3/29/95	2.46	17.94	0	210	<0.5	<0.5	0.7	1.6	---
	6/5/95	4.59	15.81	0	<50	<0.5	<0.5	<0.5	0.7	---
	9/21/95	7.36	13.04	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/22/95	3.96	16.44	0	140 ⁹	<0.50	<0.50	<0.50	0.93	<0.60
	3/22/96	2.92	17.48	0	150	<0.5	0.8	<0.5	2.0	<5.0
	9/25/96	7.84	12.56	0	90	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	3.17	17.23	0	270 ¹²	<0.5	<0.5	<0.5	<0.5	<5.0

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE
B-12	9/12/97	6.81	13.59	0	130 ¹⁷	<1.0	<1.0	<1.0	<1.0	<5.0
(cont)	4/2/98	2.14	18.26	0	110 ¹⁸	1.2	<0.50	<0.50	<0.50	12
TP-1/ ---	9/9/93	7.33	---	0	8,500	770	890	120	590	---
TP-2/ ---	9/9/93	6.18	---	0	13,000	2,400	3,200	380	1,900	---
Trip-Blank TB-LB	9/9/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---
	12/2/93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/17/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/10/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/28/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/29/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/5/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/21/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/22/95	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	3/22/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/25/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	---	---	---	<50	<0.50	0.55	<0.50	<0.50	<2.5
	4/2/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
Bailer Blank BB	9/9/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---
	12/2/93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/17/94	---	---	---	<50	<0.5	<0.5	<0.5	0.6	---

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, 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
 ppb = Parts per billion
 --- = Not analyzed/Not applicable

ANALYTICAL METHODS:

EPA Method 8015/5030 for TPH(G)
 EPA Method 8020 for BTEX & MTBE

NOTES:

Water level data and laboratory analytical results prior to March 29, 1995, compiled from the quarterly monitoring reports prepared for Chevron by Sierra Environmental Services.

- * Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.
- ¹ Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.
- ² Laboratory indicates a non-typical gasoline pattern.

NOTES (continued):

- ³ Wells were resurveyed. Top of casing elevations were compiled from RESNA Subsurface Investigation Report, October 19, 1994.
- ⁴ Water level and analytic data prior to 12/28/94 from RESNA Subsurface Investigation Report, October 19, 1994.
- ⁵ Well removed from monitoring program January 11, 1995, per approval of Alameda County Health Services.
- ⁶ Laboratory report indicates uncategorized compounds are not included in gasoline concentration.
- ⁷ Laboratory report indicates uncategorized compounds are not included in gasoline concentration. Data obtained from multiple dilutions. Dilution factor noted represents the dilution used for majority of results.
- ⁸ BFB recovery high due to interference of hydrocarbons.
- ⁹ Laboratory report indicates gasoline and discrete peaks.
- ¹⁰ Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern. The TPH as gasoline value was 4,200 ug/L which was attributed to the presence of MTBE.
- ¹¹ Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern. The TPH as gasoline value was 9,600 ug/L which was attributed to the presence of MTBE.
- ¹² Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern.
- ¹³ Well was inaccessible.
- ¹⁴ Laboratory report indicates the TPH as Gasoline value was 22,000 ug/L which was attributed to the presence of a single target analyte.
- ¹⁵ Laboratory report indicates the TPH as Gasoline value was 21,000 ug/L which was attributed to the presence of a single target analyte.
- ¹⁶ Laboratory report indicates the TPH as Gasoline value was 770 ug/L which was attributed to the presence of a single target analyte.
- ¹⁷ Laboratory report indicates unidentified hydrocarbons > C8.
- ¹⁸ Laboratory report indicates discrete peaks.
- ¹⁹ Laboratory report indicates gas and unidentified hydrocarbons C6-C12.



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 MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
Address: 2630 Broadway
City: Oakland, CA

Job#: 5203.80
Date: 4-2-98
Sampler: F.Cline

Well ID B-1
Well Diameter 2" in.
Total Depth 29 ft.
Depth to Water 9.26 ft.

Well Condition: okay

Hydrocarbon Thickness: 0 in. Amount Bailed 0 (gal.)
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

19.74 X VF 0.17 = 3.4 X 3 (case volume) = Estimated Purge Volume: 10.8 (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 15:44
Sampling Time: 15:52
Purging Flow Rate: 1.8 gpm.
Did well de-water? No

Weather Conditions: cloudy cool
Water Color: clear Odor: Mild
Sediment Description: None
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:46</u>	<u>3.6</u>	<u>6.79</u>	<u>1344</u>	<u>19.7</u>			
<u>15:48</u>	<u>7.2</u>	<u>6.67</u>	<u>1295</u>	<u>19.2</u>			
<u>15:50</u>	<u>10.8</u>	<u>6.73</u>	<u>1298</u>	<u>19.7</u>			
<u>15:52</u>	<u>11.5</u>	<u>6.70</u>	<u>1296</u>	<u>19.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-1</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEVOTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job #: 5203.80
 Date: 4-2-98
 Sampler: F. Cline

Well ID: B-3
 Well Diameter: 2" in.
 Total Depth: 19' ft.
 Depth to Water: 7.33 ft.

Well Condition: okay

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

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

11.67 x VF 0.17 = 1.98 x 3 (case volume) = Estimated Purge Volume: 5.95 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 ~~Stack~~
 ~~Suction~~
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 15:56
 Sampling Time: 16:04
 Purging Flow Rate: 1 gpm.
 Did well de-water? NO

Weather Conditions: Cloudy cool
 Water Color: clear Odor: M.I.C.
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1558</u>	<u>2</u>	<u>6.69</u>	<u>2830</u>	<u>17.8</u>			
<u>1600</u>	<u>4</u>	<u>6.73</u>	<u>2880</u>	<u>17.5</u>			
<u>1602</u>	<u>6</u>	<u>6.53</u>	<u>2850</u>	<u>16.9</u>			
<u>1604</u>	<u>7</u>	<u>6.80</u>	<u>2860</u>	<u>17.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-3</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEHOTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: 4' Down casing sheared & shifted needs to be dug out & repaired replaced or Abandoned

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-2-98
 Sampler: E.Cline

Well ID: B- 5
 Well Diameter: 2" in.
 Total Depth: 19' ft.
 Depth to Water: 7.23 ft.

Well Condition: okay
 Hydrocarbon Thickness: 0 in.
 Amount Bailed (product/water): 0 (gal.)
 Volume Factor (VF):
 2" = 0.17 3" = 0.38 4" = 0.66
 6" = 1.50 12" = 5.80

11.77 x VF 0.17 = 2.0 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 10:22
 Sampling Time: 11:30
 Purging Flow Rate: 1 gpm.
 Did well de-water? No

Weather Conditions: cloudy clear
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:24</u>	<u>2</u>	<u>6.86</u>	<u>1389</u>	<u>18.14</u>			
<u>11:26</u>	<u>3</u>	<u>7.07</u>	<u>1408</u>	<u>18.14</u>			
<u>11:28</u>	<u>4</u>	<u>7.10</u>	<u>1409</u>	<u>18.13</u>			
<u>11:30</u>	<u>7</u>	<u>7.09</u>	<u>1408</u>	<u>18.14</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 5</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEHOTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 4-2-98
 Sampler: E. Cline

Well ID: B-6
 Well Diameter: 2" in.
 Total Depth: 19' ft.
 Depth to Water: 7.81 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.19 X VF 0.17 = 1.9 X 3 (case volume) = Estimated Purge Volume: 5.7 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
~~Stack~~
~~Suction~~
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 15:18
 Sampling Time: 15:34
 Purging Flow Rate: 1 gpm.
 Did well de-water? No.

Weather Conditions: cloudy cool
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:20</u>	<u>2</u>	<u>6.81</u>	<u>1804</u>	<u>17.7</u>			
<u>15:22</u>	<u>4</u>	<u>6.76</u>	<u>1845</u>	<u>19.0</u>			
<u>15:24</u>	<u>6</u>	<u>6.80</u>	<u>1850</u>	<u>18.9</u>			
<u>15:26</u>	<u>7</u>	<u>6.79</u>	<u>1848</u>	<u>19.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-6</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEWTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job #: 5203.80
 Date: 4-2-98
 Sampler: F. Cline

Well ID: B- 7 Well Condition: okay
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth: 191 ft.
 Depth to Water: 4,32 ft.

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

14,168 X VF 0.17 = 2.5 X 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
~~Suction~~
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 10:13
 Sampling Time: 10:21
 Purging Flow Rate: 1.4 gpm.
 Did well de-water? _____

Weather Conditions: cloudy cool
 Water Color: clear Odor: none
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:15</u>	<u>2.9</u>	<u>6.72</u>	<u>1690</u>	<u>18.9</u>			
<u>10:17</u>	<u>5.6</u>	<u>6.80</u>	<u>1514</u>	<u>19.1</u>			
<u>10:19</u>	<u>8.4</u>	<u>6.82</u>	<u>1360</u>	<u>19.2</u>			
<u>10:21</u>	<u>9.0</u>	<u>6.81</u>	<u>1498</u>	<u>19.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 7</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEWPORT SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job #: 5203.80
 Date: 4-2-98
 Sampler: E. Cline

Well ID: B- 8
 Well Diameter: 2" in.
 Total Depth: 18' ft.
 Depth to Water: 4.22 ft.

Well Condition: clay

Hydrocarbon Thickness: 0 in. Amount Bailed: 0 (gal.)

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

13.78 x VF 0.17 = 2.3 x 3 (case volume) = Estimated Purge Volume: 7.0 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1505
 Sampling Time: 1513
 Purging Flow Rate: 1.2 gpm.
 Did well de-water? NO

Weather Conditions: cloudy (cc)
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1507</u>	<u>2.4</u>	<u>6.79</u>	<u>1208</u>	<u>17.6</u>			
<u>1509</u>	<u>4.8</u>	<u>6.79</u>	<u>510</u>	<u>18.0</u>			
<u>1511</u>	<u>7.2</u>	<u>6.79</u>	<u>526</u>	<u>18.1</u>			
<u>1513</u>	<u>8.0</u>	<u>6.80</u>	<u>520</u>	<u>18.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 8</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEVETEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job #: 5203.80
 Date: 4-2-98
 Sampler: E. Cline

Well ID B-9
 Well Diameter 2" in.
 Total Depth 19' ft.
 Depth to Water 7.93 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>Ø</u> in.	Amount Bailed (product/water):	<u>Ø</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.07 X VF 0.17 = 1.88 X 3 (case volume) = Estimated Purge Volume: 5.64 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 15:28
 Sampling Time: 15:36
 Purging Flow Rate: 1 gpm.
 Did well de-water? NO.

Weather Conditions: cloudy cool
 Water Color: clear Odor: Mild
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:36</u>	<u>2</u>	<u>6.73</u>	<u>1875</u>	<u>20.1</u>			
<u>15:32</u>	<u>4</u>	<u>6.66</u>	<u>1884</u>	<u>20.2</u>			
<u>15:34</u>	<u>6</u>	<u>6.64</u>	<u>1890</u>	<u>20.3</u>			
<u>15:36</u>	<u>7</u>	<u>6.65</u>	<u>1889</u>	<u>20.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-9</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEHOTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 4-2-98
 Sampler: F.Cline

Well ID: B-10 Well Condition: okay
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth: 19' ft.
 Depth to Water: 10.18 ft.
 Volume Factor (VF) table:

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

 $8.52 \times VF_{0.17} = 1.5$ X 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 13:50 Weather Conditions: cloudy cool
 Sampling Time: 13:55 Water Color: clear Odor: N/A
 Purging Flow Rate: 1.5 gpm. Sediment Description: N/A
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1351</u>	<u>1.5</u>	<u>6.58</u>	<u>390</u>	<u>19.0</u>			
<u>1352</u>	<u>3.0</u>	<u>6.83</u>	<u>384</u>	<u>18.8</u>			
<u>1353</u>	<u>4.5</u>	<u>6.80</u>	<u>378</u>	<u>18.7</u>			
<u>1355</u>	<u>5.1</u>	<u>6.81</u>	<u>380</u>	<u>18.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-10</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>HEWLETT PACKARD</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 4-2-98
 Sampler: F. Cline

Well ID: B- 11
 Well Diameter: 2" in.
 Total Depth: 18' ft.
 Depth to Water: 6.93 ft.

Well Condition: dry

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.07 x VF 0.17 = 1.88 x 3 (case volume) = Estimated Purge Volume: 5.6 (gal.)

Purge Equipment: Section Grundfos
 Disposable Bailer
 Bailer
 Stack
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1400
 Sampling Time: 1415
 Purging Flow Rate: 2 gpm.
 Did well de-water? NC

Weather Conditions: cloudy / cool
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:11</u>	<u>2</u>	<u>6.50</u>	<u>232</u>	<u>17.7</u>			
<u>14:12</u>	<u>4</u>	<u>6.43</u>	<u>233</u>	<u>17.7</u>			
<u>14:13</u>	<u>6</u>	<u>6.40</u>	<u>332</u>	<u>17.7</u>			
<u>14:15</u>	<u>7</u>	<u>6.42</u>	<u>338</u>	<u>17.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 11</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEWTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
Address: 2630 Broadway
City: Oakland, CA

Job#: 5203.80
Date: 4-2-98
Sampler: E. Cline

Well ID: B-12 Well Condition: dry
Well Diameter: 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
Total Depth: 18' ft.
Depth to Water: 2.14 ft.

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

15.86 x VF 0.17 2.7 x 3 (case volume) = Estimated Purge Volume: 8.1 (gal.)

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: _____
Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: 14:28 Weather Conditions: cloudy (cc)
Sampling Time: 14:36 Water Color: clear Odor: None
Purging Flow Rate: 1.5 gpm. Sediment Description: None
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:36</u>	<u>3</u>	<u>6.32</u>	<u>389</u>	<u>18.2</u>			
<u>14:32</u>	<u>6</u>	<u>6.53</u>	<u>395</u>	<u>17.8</u>			
<u>14:34</u>	<u>9</u>	<u>6.66</u>	<u>402</u>	<u>17.6</u>			
<u>14:36</u>	<u>10</u>	<u>6.58</u>	<u>399</u>	<u>17.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-12</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEVGTEL SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

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

Chevron Facility Number: #9-2506
Facility Address: 2630 Broadway, Oakland, CA
Consultant Project Number: 5203
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): Mr. Phil Briggs
(Phone): (510) 842-9136
Laboratory Name: NEI/GTEL SEQUOIA Service Code: ZZ02790
Laboratory Service Order #: 9090635
Samples Collected by (Name): F. Cline
Collection Date: 4-2-98
Signature: *[Handwritten Signature]*

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks				
								TPH Gas + BTEX W/M/TB (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)							
✓ TB-UB	01	2	W	TB	-	1/2L	X	X														
✓ B-10	02	3		G	13:30			X														
✓ B-11	03				14:15			X														
✓ B-12	04				14:30			X														
✓ B-8	05				15:15			X														on Bottle Broken
✓ B-6	06				15:20			X														
✓ B-9	07				15:30			X														
✓ B-1	08				15:50			X														
✓ B-3	09				16:09			X														
✓ B-7	10				16:20			X														
✓ B-5	11				16:30			X														

DO NOT BILL
TB-LB ANALYSIS
9804219
Remarks

APR 3 5 47

LABORATORY/03 9/17/98

Relinquished By (Signature): <i>[Handwritten Signature]</i>	Organization: G-R Inc.	Date/Time: 4/3/98	Received By (Signature): <i>[Handwritten Signature]</i>	Organization: G-R Inc.	Date/Time: 4/3/98
Relinquished By (Signature): <i>[Handwritten Signature]</i>	Organization: G-R Inc.	Date/Time: 4/3/98	Received By (Signature): <i>[Handwritten Signature]</i>	Organization: SEQUOIA	Date/Time: 4.3.98
Relinquished By (Signature): <i>[Handwritten Signature]</i>	Organization: G-R Inc.	Date/Time: 4.2.98	Received For Laboratory By (Signature): <i>[Handwritten Signature]</i>		Date/Time: 4/2/98 1747

Turn Around Time (Circle Choice)

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



**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(510) 988-9600
(916) 921-9600
(707) 792-1865

FAX (650) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

RECEIVED

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-01	APR 2 1998 Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
---	---	---

QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	86

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager





Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Client Proj. ID: Chevron 9-2506, Oakland
Sample Descript: B-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9804219-08

Sampled: 04/02/98
Received: 04/03/98
Analyzed: 04/09/98
Reported: 04/16/98

Attention: Deanna Harding

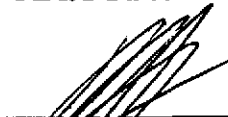
QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	N.D.
Methyl t-Butyl Ether	250	25000
Benzene	50	110
Toluene	50	N.D.
Ethyl Benzene	50	N.D.
Xylenes (Total)	50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-09	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
Attention: Deanna Harding		


QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	590
Benzene	0.50	8.3
Toluene	0.50	0.79
Ethyl Benzene	0.50	4.0
Xylenes (Total)	0.50	7.4
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
		80

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager





Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-2506, Oakland
Sample Descript: B-5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9804219-11

Sampled: 04/02/98
Received: 04/03/98

Analyzed: 04/09/98
Reported: 04/16/98

QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	1000
Methyl t-Butyl Ether	2.5	470
Benzene	0.50	5.9
Toluene	0.50	2.1
Ethyl Benzene	0.50	18
Xylenes (Total)	0.50	5.1
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	118

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-2506, Oakland
Sample Descript: B-6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9804219-06

Sampled: 04/02/98
Received: 04/03/98
Analyzed: 04/09/98
Reported: 04/16/98

QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	25	5800
Benzene	5.0	17
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-10	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
---	---	---

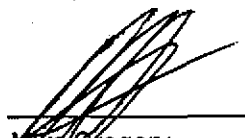
QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	25	2200
Benzene	5.0	26
Toluene	5.0	1.0
Ethyl Benzene	5.0	9.0
Xylenes (Total)	5.0	20
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-05	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
Attention: Deanna Harding		

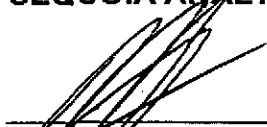
QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	56
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	78

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(510) 988-9600
(916) 921-9600
(707) 792-1865

FAX (650) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-07	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
--	---	---

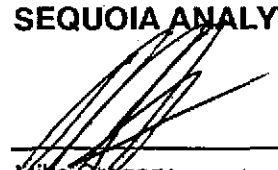
QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	2500
Methyl t-Butyl Ether	2.5	30
Benzene	0.50	93
Toluene	0.50	14
Ethyl Benzene	0.50	15
Xylenes (Total)	0.50	39
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	92

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



 Mike Gregory
 Project Manager





**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(510) 988-9600
(916) 921-9600
(707) 792-1865

FAX (650) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-2506, Oakland
Sample Descript: B-10
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9804219-02

Sampled: 04/02/98
Received: 04/03/98
Analyzed: 04/09/98
Reported: 04/16/98

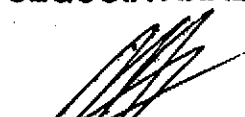
QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	82

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-11 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-03	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
Attention: Deanna Harding		

QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 9-2506, Oakland Sample Descript: B-12 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804219-04	Sampled: 04/02/98 Received: 04/03/98 Analyzed: 04/09/98 Reported: 04/16/98
--	--	---


QC Batch Number: GC040998802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	12
Benzene	0.50	1.2
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager



**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233
(510) 988-9600 FAX (510) 988-9673
(916) 921-9600 FAX (916) 921-0100
(707) 792-1865 FAX (707) 792-0342

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Proj. ID: Chevron 9-2506, Oakland

Received: 04/03/98

Lab Proj. ID: 9804219

Reported: 04/16/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample 9804219-06 was diluted 10-fold.
 Sample 9804219-08 was diluted 100-fold.
 Sample 9804219-10 was diluted 10-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd., North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(510) 988-9600
(916) 921-9600
(707) 792-1865

FAX (650) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-2506, Oakland
Matrix: Liquid

Work Order #: 9804219 -01-11

Reported: Apr 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040998802007A	GC040998802007A	GC040998802007A	GC040998802007A	GC040998802007A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98040094	98040094	98040094	98040094	-
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	-
Prepared Date:	4/9/98	4/9/98	4/9/98	4/9/98	-
Analyzed Date:	4/9/98	4/9/98	4/9/98	4/9/98	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Result:	17	16	18	54	-
MS % Recovery:	85	80	90	90	-
Dup. Result:	21	21	22	68	-
MSD % Recov.:	105	65	110	113	-
RPD:	21	27	20	23	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS040998	LCS040998	LCS040998	LCS040998	LCS040998
Prepared Date:	4/9/98	4/9/98	4/9/98	4/9/98	4/9/98
Analyzed Date:	4/9/98	4/9/98	4/9/98	4/9/98	4/9/98
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	22	22	23	70	468
LCS % Recov.:	110	110	115	117	94

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits					

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9804219.GET <1>

