



**Chevron U.S.A. Inc.**

2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500  
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

91 JUN -2 8:11:07

Marketing Department

June 26, 1991

Mr. Scott Seery  
Alameda County Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

Re: Chevron S.S. #9-5607  
5269 Crow Canyon Road, Castro Valley, CA

Dear Mr. Seery:

Enclosed is a report dated May 15, 1991 which describes groundwater monitoring by Chevron's consultant, Alton Geoscience (Alton), on March 27, 1991 at the site referenced above.

Chevron's consultant, Geraghty & Miller, is planning to connect an additional well, C-9, to the groundwater recovery system in the near future.

If you have any questions or comments, you may contact me at (415) 842-8658.

Sincerely,

Clint B. Rogers  
Environmental Engineer

Enclosure

cc: Lester Feldman, San Francisco Bay RWQCB  
Kevin Hinckley, 5269 Crow Canyon Road, Castro Valley, CA 94546  
Gary Keyes, Geraghty and Miller, Richmond, CA

May 15, 1991

Mr. Clint Rogers  
Chevron U.S.A., Inc.  
Post Office Box 5004  
San Ramon, California 94583-0804

30-321

Subject: Quarterly Ground Water Monitoring Report  
Chevron Station No. 9-5607  
5269 Crow Canyon Road  
Castro Valley, California

Dear Mr. Rogers:

In accordance with our agreement, Alton Geoscience, Inc. transmits this Quarterly Ground Water Monitoring and Sampling Report for Chevron Station No. 9-5607, located at 5269 Crow Canyon Road, Castro Valley, California. Figure 1 shows the site location.

Monitoring and sampling of the ground water monitoring wells were performed on March 27 and 28, 1991, in accordance with the requirements and procedures of the California Regional Water Quality Control Board (RWQCB) and local regulatory agencies.

#### FIELD PROCEDURES

Prior to purging and sampling the wells, the depth to ground water in each well was measured from the top of casing to the nearest 0.01 foot using an electronic interface probe. Ground water samples were also collected at this time and checked for the presence of liquid-phase hydrocarbons or sheen.

Ground water analytical samples were collected after more than 3 casing volumes of ground water were purged from each well. Each sample was collected using a clean bailer (dedicated for each well), and then transferred into the appropriate clean sample containers for delivery to a California-certified laboratory following proper preservation and chain of custody procedures. Purged ground water was stored onsite in DOT-approved, 55-gallon drums pending proper offsite disposal.

#### SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of the ground water samples for this quarter, as well as the results of previous quarterly monitoring and sampling events are

Mr. Clint Rogers  
May 15, 1991  
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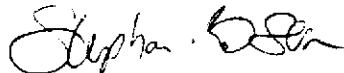
summarized in Table 1. Based on the previous wellhead elevation survey data and depth to water measurements collected during this monitoring event, ground water elevations and the general ground water flow direction at this site are presented in Figure 2.

No liquid-phase hydrocarbons or sheen were observed in any of the ground water samples. The water sampling survey forms presenting the results of the field activities and observations, as well as the official laboratory reports and chain of custody records are included in Appendix A.

Please call if you have any questions concerning this report.

Sincerely,

ALTON GEOSCIENCE, INC.



Stephan Rosen  
Supervising Geologist



Al Sevilla, R.C.E. 26392  
Regional Manager

Enclosure

pw.95607  
vct

Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-1	03/26/85	283.46	22.83	---	260.63	---	---	---	---	---	NA
C-1	07/03/86	283.46	23.58	---	259.88	---	---	---	---	---	NA
C-1	03/26/87	283.46	20.50	---	262.96	---	---	---	---	---	NA
C-1	03/28/88	283.46	26.00	---	257.46	---	---	---	---	---	NA
C-1	03/10/89	283.46	15.86	---	267.60	---	---	---	---	---	NA
C-1	04/03/89	283.46	16.85	---	266.61	---	---	---	---	---	NA
C-1	05/08/89	283.46	22.68	---	260.78	---	---	---	---	---	NA
C-1	06/05/89	283.46	24.66	---	258.80	---	---	---	---	---	NA
C-1	07/12/90	283.46	25.56	---	257.90	---	---	---	---	---	NA
C-1	08/10/90	283.46	25.89	---	257.57	---	---	---	---	---	NA
C-1	09/13/89	283.46	26.55	---	256.91	22000	3600	1100	1000	3500	NA
C-1	10/04/89	283.46	25.24	---	258.22	---	---	---	---	---	NA
C-1	11/03/89	283.46	25.03	---	258.43	---	---	---	---	---	NA
C-1	12/04/89	283.46	26.37	---	257.09	13000	2000	550	610	1600	NA
C-1	03/07/90	283.46	22.48	---	260.98	---	---	---	---	---	NA
C-1	03/09/90	283.46	---	---	283.46	---	---	---	---	---	NA
C-1	06/12/90	283.46	24.35	---	259.11	21000	3500	1400	840	4000	SAL
C-1	09/20/90	283.46	26.27	0.00	257.19	23000	2100	1200	860	5000	SAL
C-1	12/20/90	283.46	22.59	0.00	260.87	8200	760	410	260	1100	SAL
C-1**	03/27/91	283.46	19.08	0.00	264.38	---	---	---	---	---	SAL
C-2	03/26/85	284.37	---	---	284.37	---	---	---	---	---	NA
C-2	07/03/86	284.37	19.69	---	264.68	---	---	---	---	---	NA
C-2	03/26/87	284.37	15.45	---	268.92	---	---	---	---	---	NA
C-2	03/28/88	284.37	20.92	---	263.45	---	---	---	---	---	NA
C-2	03/10/89	284.37	12.80	---	271.57	---	---	---	---	---	NA
C-2	04/03/89	284.37	14.26	---	270.11	---	---	---	---	---	NA
C-2	05/08/89	284.37	18.42	---	265.95	---	---	---	---	---	NA
C-2	06/05/89	284.37	20.09	---	264.28	---	---	---	---	---	NA
C-2	07/12/90	284.37	20.79	---	263.58	---	---	---	---	---	NA
C-2	08/10/90	284.37	21.40	---	262.97	---	---	---	---	---	NA
C-2	09/13/89	284.37	21.86	---	262.51	320	62	4	10	14	NA
C-2	10/04/89	284.37	19.89	---	264.48	---	---	---	---	---	NA
C-2	11/03/89	284.37	20.76	---	263.61	---	---	---	---	---	NA
C-2	12/04/89	284.37	20.82	---	263.55	1000	240	37	66	130	NA
C-2	03/07/90	284.37	17.83	---	266.54	---	---	---	---	---	NA
C-2	03/09/90	284.37	17.83	---	266.54	390	280	35	27	50	SAL
C-2	06/12/90	284.37	19.89	---	264.48	700	260	34	28	55	SAL
C-2**	09/20/90	284.37	21.97	0.00	262.40	---	---	---	---	---	NA
C-2**	12/20/90	284.37	17.73	0.00	266.64	---	---	---	---	---	NA
C-2**	03/27/91	284.37	15.10	0.00	269.27	---	---	---	---	---	NA

Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-3	03/26/85	285.98	---	---	285.98	---	---	---	---	---	NA
C-3	07/03/86	285.98	26.04	---	259.94	---	---	---	---	---	NA
C-3	03/26/87	285.98	25.64	---	260.34	---	---	---	---	---	NA
C-3	03/28/88	285.98	28.82	---	257.16	---	---	---	---	---	NA
C-3	03/10/89	285.98	22.78	---	263.20	---	---	---	---	---	NA
C-3	04/03/89	285.98	22.71	---	263.27	---	---	---	---	---	NA
C-3	05/08/89	285.98	25.95	---	260.03	---	---	---	---	---	NA
C-3	06/05/89	285.98	27.62	---	258.36	---	---	---	---	---	NA
C-3	07/12/90	285.98	28.29	---	257.69	---	---	---	---	---	NA
C-3	08/10/90	285.98	28.46	---	257.52	---	---	---	---	---	NA
C-3	09/13/89	285.98	29.33	---	256.65	60000	1400	6800	2300	10000	NA
C-3	10/04/89	285.98	28.97	---	257.01	---	---	---	---	---	NA
C-3	11/03/89	285.98	28.72	---	257.26	---	---	---	---	---	NA
C-3	12/04/89	285.98	29.01	---	256.97	56000	1300	3300	1400	2700	NA
C-3	03/07/90	285.98	27.69	---	258.29	---	---	---	---	---	NA
C-3	03/09/90	285.98	27.69	---	258.29	42000	1100	5700	1600	7900	SAL
C-3	06/12/90	285.98	28.09	---	257.89	160000	1400	7100	3400	16000	SAL
C-3	09/24/90	285.98	29.18	0.00	256.80	53000	850	7700	2000	10000	SAL
C-3	12/20/90	285.98	28.27	0.00	257.71	520	1200	5400	5400	33000	SAL
C-3	03/27/91	285.98	24.80	0.00	261.18	92000	1300	3100	1200	11000	SAL
C-4	03/26/85	273.01	15.14	---	257.87	---	---	---	---	---	NA
C-4	07/03/86	273.01	15.37	---	257.64	---	---	---	---	---	NA
C-4	03/26/87	273.01	---	---	273.01	---	---	---	---	---	NA
C-4	03/28/88	273.01	18.04	---	254.97	---	---	---	---	---	NA
C-4	03/10/89	273.01	---	---	273.01	---	---	---	---	---	NA
C-4	04/03/89	273.01	13.34	---	259.67	---	---	---	---	---	NA
C-4	05/08/89	273.01	15.60	---	257.41	---	---	---	---	---	NA
C-4	06/05/89	273.01	16.51	---	256.50	---	---	---	---	---	NA
C-4	07/12/90	273.01	16.99	---	256.02	---	---	---	---	---	NA
C-4	08/10/90	273.01	17.27	---	255.74	---	---	---	---	---	NA
C-4	09/13/89	273.01	18.16	---	254.85	57000	21000	3100	3200	11000	NA
C-4	10/04/89	273.01	18.24	---	254.77	---	---	---	---	---	NA
C-4	11/03/89	273.01	18.17	---	254.84	---	---	---	---	---	NA
C-4	12/04/89	273.01	18.45	---	254.56	48000	17000	2200	2800	9800	NA
C-4	03/07/90	273.01	17.20	---	255.81	---	---	---	---	---	NA
C-4	03/09/90	273.01	17.20	---	255.81	43000	20000	2300	2800	11000	SAL
C-4	06/12/90	273.01	16.66	---	256.35	82000	21000	2400	4000	16000	SAL
C-4**	09/24/90	273.01	18.11	0.00	254.90	---	---	---	---	---	NA
C-4***	12/20/90	273.01	---	---	273.01	---	---	---	---	---	NA
C-4***	03/27/91	273.01	---	---	273.01	---	---	---	---	---	NA

Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-5	03/26/85	287.95	25.33	---	262.62	---	---	---	---	---	NA
C-5	07/03/86	287.95	26.41	---	261.54	---	---	---	---	---	NA
C-5	03/26/87	287.95	24.96	---	262.99	---	---	---	---	---	NA
C-5	03/28/88	287.95	29.80	---	258.15	---	---	---	---	---	NA
C-5	03/10/89	287.95	25.89	---	262.06	---	---	---	---	---	NA
C-5	04/03/89	287.95	24.38	---	263.57	---	---	---	---	---	NA
C-5	05/08/89	287.95	27.80	---	260.15	---	---	---	---	---	NA
C-5	06/05/89	287.95	29.42	---	258.53	---	---	---	---	---	NA
C-5	07/12/90	287.95	29.86	---	258.09	---	---	---	---	---	NA
C-5	08/10/90	287.95	29.77	---	258.18	---	---	---	---	---	NA
C-5	09/13/89	287.95	30.95	---	257.00	310	ND	ND	ND	ND	NA
C-5	10/04/89	287.95	31.48	---	256.47	---	---	---	---	---	NA
C-5	11/03/89	287.95	31.32	---	256.63	---	---	---	---	---	NA
C-5	12/04/89	287.95	31.70	---	256.25	ND	ND	ND	ND	1	NA
C-5	03/07/90	287.95	30.28	---	257.67	---	---	---	---	---	NA
C-5	03/09/90	287.95	30.28	---	257.67	ND	ND	ND	ND	ND	SAL
C-5	06/12/90	287.95	30.48	---	257.47	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	09/24/90	287.95	31.78	0.00	256.17	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	12/20/90	287.95	33.29	0.00	254.66	170	ND<0.5	ND<0.5	1.0	0.7	SAL
C-5**	03/27/91	287.95	27.98	0.00	259.97	---	---	---	---	---	NA
C-6	03/26/85	---	16.74	---	---	---	---	---	---	---	NA
C-6	07/03/86	275.28	17.46	---	257.82	---	---	---	---	---	NA
C-6	03/26/87	275.28	18.37	---	256.91	---	---	---	---	---	NA
C-6	03/28/88	275.28	29.84	---	245.44	---	---	---	---	---	NA
C-6	03/10/89	275.28	14.44	---	260.84	---	---	---	---	---	NA
C-6	04/03/89	275.28	14.44	---	260.84	---	---	---	---	---	NA
C-6	05/08/89	275.28	17.16	---	258.12	---	---	---	---	---	NA
C-6	06/05/89	275.28	18.51	---	256.77	---	---	---	---	---	NA
C-6	07/12/90	275.28	18.71	---	256.57	---	---	---	---	---	NA
C-6	08/10/90	275.28	19.32	---	255.96	---	---	---	---	---	NA
C-6	09/13/89	275.28	19.95	---	255.33	47	5600	3000	2400	10000	NA
C-6	10/04/89	275.28	19.87	---	255.41	---	---	---	---	---	NA
C-6	11/03/89	275.28	19.35	---	255.93	---	---	---	---	---	NA
C-6	12/04/89	275.28	19.59	---	255.69	40000	8100	1800	1700	7500	NA
C-6	03/07/90	275.28	18.39	---	256.89	---	---	---	---	---	NA
C-6	03/09/90	275.28	18.39	---	256.89	73000	23000	5900	3400	17000	SAL
C-6	06/12/90	275.28	18.87	---	256.41	85000	19000	6500	3400	16000	SAL
C-6	09/24/90	275.28	19.99	0.00	255.29	72000	15000	3200	2600	11000	SAL
C-6	12/20/90	275.28	21.57	0.00	253.71	100000	11000	4200	3400	16000	SAL
C-6	03/27/91	275.28	16.32	0.00	258.96	100000	11000	4400	2300	11000	SAL

Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-7	03/26/85	---	9.61	---	---	---	---	---	---	---	NA
C-7	07/03/86	270.70	10.74	---	259.96	---	---	---	---	---	NA
C-7	03/26/87	270.70	10.08	---	260.62	---	---	---	---	---	NA
C-7	03/28/88	270.70	13.79	---	256.91	---	---	---	---	---	NA
C-7	03/10/89	270.70	10.42	---	260.28	---	---	---	---	---	NA
C-7	04/03/89	270.70	9.14	---	261.56	---	---	---	---	---	NA
C-7	05/08/89	270.70	11.91	---	258.79	---	---	---	---	---	NA
C-7	06/05/89	270.70	11.54	---	259.16	---	---	---	---	---	NA
C-7	07/12/90	270.70	13.45	---	257.25	---	---	---	---	---	NA
C-7	08/10/90	270.70	13.37	---	257.33	---	---	---	---	---	NA
C-7	09/13/89	270.70	14.60	---	256.10	410	1.3	ND	10	ND	NA
C-7	10/04/89	270.70	15.17	---	255.53	---	---	---	---	---	NA
C-7	11/03/89	270.70	15.28	---	255.42	---	---	---	---	---	NA
C-7	12/04/89	270.70	15.70	---	255.00	1000	1	ND	5	ND	NA
C-7	03/07/90	270.70	14.22	---	256.48	---	---	---	---	---	NA
C-7	03/09/90	270.70	14.22	---	256.48	590	2.8	2.4	3.5	2.0	SAL
C-7	06/12/90	270.70	14.18	---	256.52	1200	ND<7	5.0	8.2	3.2	SAL
C-7	09/24/90	270.70	15.44	SHEEN	255.26	400	1.4	1.9	1.4	2.2	SAL
C-7D	09/24/90	270.70	15.44	SHEEN	255.26	580	ND<0.5	2.4	1.4	1.5	SAL
C-7	12/20/90	270.70	17.08	0.00	253.62	2300	ND<0.5	6.5	4.7	9.3	SAL
C-7	03/27/91	270.70	12.65	0.00	258.05	980	ND<0.5	2.4	9.1	3.0	SAL
C-8	03/26/85	---	8.68	---	---	---	---	---	---	---	NA
C-8	07/03/86	288.40	13.89	---	274.51	---	---	---	---	---	NA
C-8	03/26/87	288.40	6.01	---	282.39	---	---	---	---	---	NA
C-8	03/28/88	288.40	10.66	---	277.74	---	---	---	---	---	NA
C-8	03/10/89	288.40	6.61	---	281.79	---	---	---	---	---	NA
C-8	04/03/89	288.40	6.46	---	281.94	---	---	---	---	---	NA
C-8	05/08/89	288.40	8.97	---	279.43	---	---	---	---	---	NA
C-8	06/05/89	288.40	10.88	---	277.52	---	---	---	---	---	NA
C-8	07/12/90	288.40	12.15	---	276.25	---	---	---	---	---	NA
C-8	08/10/90	288.40	12.46	---	275.94	---	---	---	---	---	NA
C-8	09/13/89	288.40	12.78	---	275.62	ND	ND	ND	ND	ND	NA
C-8	10/04/89	288.40	12.51	---	275.89	---	---	---	---	---	NA
C-8	11/03/89	288.40	14.63	---	273.77	---	---	---	---	---	NA
C-8	12/04/89	288.40	9.59	---	278.81	64	0.6	0.6	ND	1	NA
C-8	03/07/90	288.40	8.80	---	279.60	---	---	---	---	---	NA
C-8	03/09/90	288.40	8.80	---	279.60	ND	ND	ND	ND	ND	NA
C-8	06/12/90	288.40	8.94	---	279.46	120	2.5	1.2	1.0	1.4	SAL
C-8	09/24/90	288.40	13.54	0.00	274.86	---	---	---	---	---	NA
C-8	12/20/90	288.40	9.33	0.00	279.07	---	---	---	---	---	NA
C-8	03/27/91	288.40	6.10	0.00	282.30	54	0.7	ND<0.5	0.7	1.9	SAL

Table 1  
Summary of Results of Ground Water Sampling  
Chevron Service Station # 9-5607  
5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-9	07/03/86	268.46	13.89	---	254.57	---	---	---	---	---	NA
C-9	03/26/87	268.46	13.74	---	254.72	---	---	---	---	---	NA
C-9	03/28/88	268.46	14.99	---	253.47	---	---	---	---	---	NA
C-9	03/10/89	268.46	13.39	---	255.07	---	---	---	---	---	NA
C-9	04/03/89	268.46	12.84	---	255.62	---	---	---	---	---	NA
C-9	05/08/89	268.46	14.38	---	254.08	---	---	---	---	---	NA
C-9	06/05/89	268.46	15.36	---	253.10	---	---	---	---	---	NA
C-9	07/12/90	268.46	15.65	---	252.81	---	---	---	---	---	NA
C-9	08/10/90	268.46	15.80	---	252.66	---	---	---	---	---	NA
C-9	09/13/89	268.46	16.53	---	251.93	42000	14000	1100	2800	4200	NA
C-9	10/04/89	268.46	16.52	---	251.94	---	---	---	---	---	NA
C-9	11/03/89	268.46	16.51	---	251.95	---	---	---	---	---	NA
C-9	12/04/89	268.46	16.79	---	251.67	36000	11000	670	2500	3800	NA
C-9	03/07/90	268.46	16.22	---	252.24	---	---	---	---	---	NA
C-9	03/09/90	268.46	16.22	---	252.24	28000	12000	940	3000	4700	NA
C-9	06/12/90	268.40	14.88	---	253.52	39000	11000	1600	2300	4800	SAL
C-9	09/24/90	268.40	16.30	0.00	252.10	120000	13000	1600	3700	6800	SAL
C-9	12/20/90	268.40	17.23	0.00	251.17	51000	9300	560	2800	3300	SAL
C-9D	12/20/90	268.40	17.23	0.00	251.17	44000	12000	580	2800	3500	SAL
C-9	03/27/91	268.40	13.78	0.00	254.62	56000	3400	5000	1600	5600	SAL
C-10A	03/07/90	264.84	20.21	---	244.63	---	---	---	---	---	NA
C-10A	03/09/90	264.84	---	---	264.84	ND<50	1.6	0.7	0.8	3.5	SAL
C-10A	06/12/90	264.84	19.70	---	245.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10	09/24/90	264.84	19.54	0.00	245.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10	12/20/90	264.84	19.84	0.00	245.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10	03/27/91	264.84	18.01	0.00	246.83	---	---	---	---	---	NA
C-10B	03/07/90	264.85	21.44	---	243.41	---	---	---	---	---	NA
C-10B	06/12/90	264.85	19.94	---	244.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10B	09/24/90	264.85	19.77	0.00	245.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10B	12/20/90	264.85	20.00	0.00	244.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10B**	03/27/91	264.85	18.23	0.00	246.62	---	---	---	---	---	NA
C-11	03/07/90	265.30	22.74	---	242.56	---	---	---	---	---	NA
C-11	03/09/90	265.30	---	---	265.30	ND<50	1.2	0.7	ND	1.4	SAL
C-11	06/12/90	265.30	21.98	---	243.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-11	09/24/90	265.30	21.88	0.00	243.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-11	12/20/90	265.30	23.18	0.00	242.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-11	03/27/91	265.30	21.52	0.00	243.78	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	SAL



Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-12	03/07/90	269.66	14.92	---	254.74	---	---	---	---	---	NA
C-12	03/09/90	269.66	---	---	269.66	1400	230	140	33	180	SAL
C-12	06/12/90	269.66	14.79	---	254.87	720	190	71	18	73	SAL
C-12	09/24/90	269.66	15.72	0.00	253.94	ND<50	1.1	ND<0.5	ND<0.5	0.6	SAL
C-12	12/20/90	269.66	15.26	0.00	254.40	810	210	26	8.2	23	SAL
C-12	03/27/91	269.66	12.11	0.00	257.55	2900	350	220	52	210	SAL
C-13	03/07/90	284.32	11.18	---	273.14	---	---	---	---	---	NA
C-13	03/09/90	284.32	---	---	284.32	ND<50	15	3.7	1.0	6.2	SAL
C-13	06/12/90	284.32	10.70	---	273.62	ND<50	2.6	ND<0.5	ND<0.5	ND<0.5	SAL
C-13	09/24/90	284.32	11.60	0.00	272.72	ND<50	2.4	ND<0.5	ND<0.5	ND<0.5	SAL
C-13	12/20/90	284.32	10.16	0.00	274.16	ND<50	1.6	ND<0.5	ND<0.5	ND<0.5	SAL
C-13**	03/27/91	284.32	7.64	0.00	276.68	---	---	---	---	---	NA
C-14	03/07/90	270.74	15.18	---	255.56	---	---	---	---	---	NA
C-14	03/09/90	270.74	---	---	270.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-14	06/12/90	270.74	13.42	---	257.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-14	09/24/90	270.74	12.84	0.00	257.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-14	12/20/90	270.74	16.72	0.00	254.02	ND<50	1.7	0.7	ND<0.5	0.7	SAL
C-14	03/27/91	270.74	8.00	0.00	262.74	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	SAL
C-15	03/07/90	246.15	11.10	---	235.05	---	---	---	---	---	NA
C-15	03/09/90	246.15	---	---	246.15	410	ND<0.5	1.4	0.5	0.6	SAL
C-15	06/12/90	246.15	10.78	---	235.37	420	11	ND<0.5	ND<0.5	ND<0.5	SAL
C-15	09/24/90	246.15	10.93	0.00	235.22	430	ND<0.5	1.5	ND<0.5	ND<0.5	SAL
C-15	12/20/90	246.15	11.08	0.00	235.06	300	1.3	1.1	0.6	1.5	SAL
C-15	03/27/91	246.15	8.50	0.00	237.65	520 ****	4.6	1.1	ND<0.5	1.0	SAL
C-16	03/07/90	246.69	18.50	---	228.19	---	---	---	---	---	NA
C-16	03/09/90	246.69	---	---	246.69	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-16	06/12/90	246.69	11.42	---	235.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-16	09/24/90	246.69	11.39	0.00	235.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-16	12/20/90	246.69	11.57	0.00	235.12	ND<50	ND<0.5	ND<0.5	ND<0.5	0.7	SAL
C-16	03/27/91	246.69	8.76	0.00	237.93	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	SAL
C-16D	03/27/91	246.69	8.76	0.00	237.93	ND<50	ND<0.5	ND<0.5	ND<0.5	1.2	SAL
RW	12/04/89	---	---	---	---	62000	29000	1700	1800	8800	NA
RW	03/07/90	274.52	18.50	---	256.02	---	---	---	---	---	NA
RW	06/12/90	274.52	18.49	---	256.03	31000	15000	2000	560	3100	SAL
RW	09/24/90	274.52	NA	NA	NA	---	---	---	---	---	NA
RW	12/20/90	274.52	NA	NA	NA	ND<50	0.5	ND<0.5	ND<0.5	1.2	SAL
RW	03/27/91	274.52	NA	NA	NA	---	---	---	---	---	NA

Table 1  
 Summary of Results of Ground Water Sampling  
 Chevron Service Station # 9-5607  
 5269 Crow Canyon Road, Castro Valley, California

Concentrations in parts per billion (ppb)

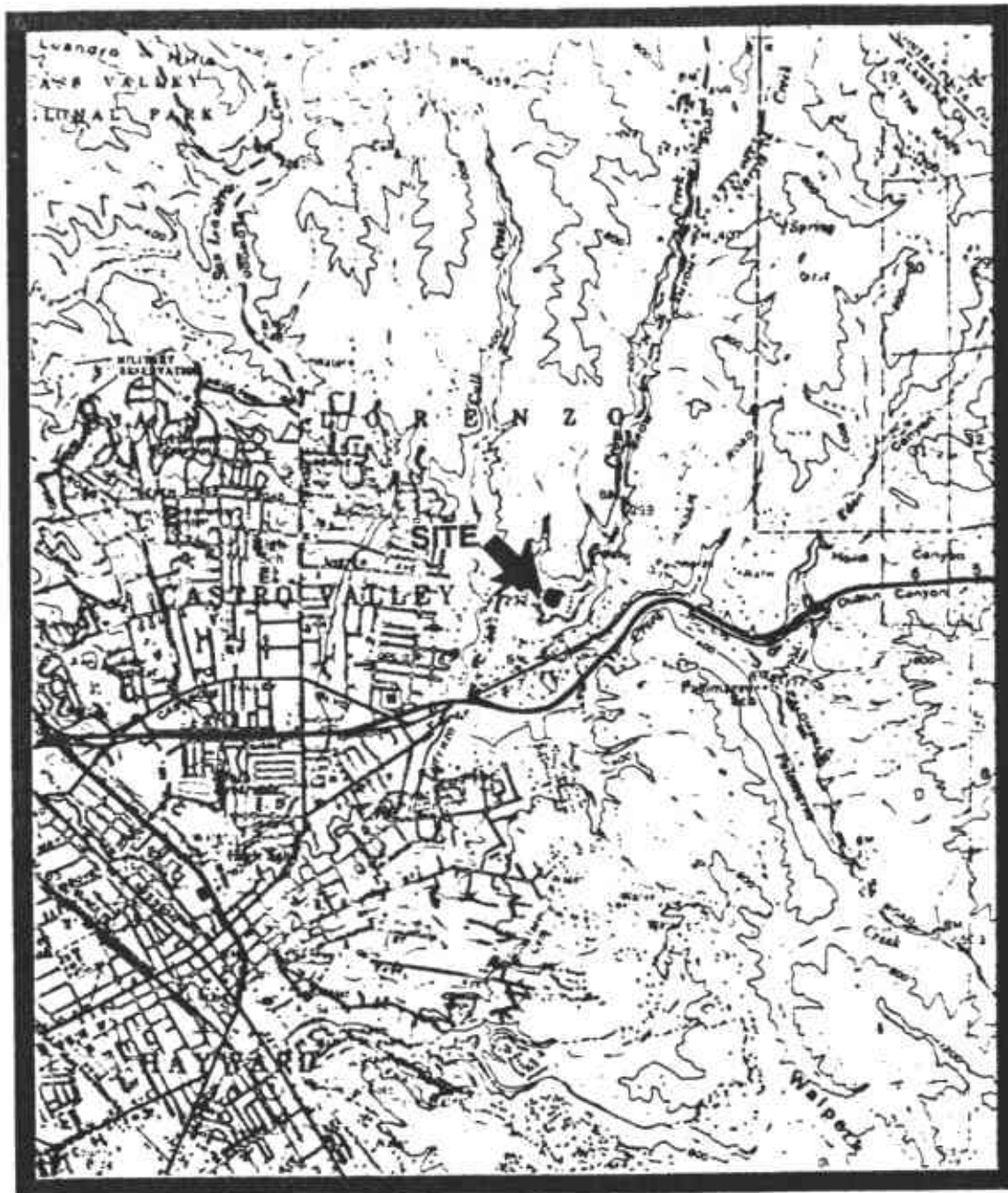
WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	L-PH	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
RINSATE	09/24/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RINSATE	12/20/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	0.9	SAL
RINSATE	03/27/91	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	09/24/90	NA	NA	NA	NA	200	1.9	14	4.4	32	SAL
TB	12/20/90	NA	NA	NA	NA	ND<50	0.5	ND<0.5	ND<0.5	1.2	SAL
TB	03/27/91	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

-----  
 EXPLANATION OF ABBREVIATIONS:

TPH-G	:Total Petroleum Hydrocarbons as Gasoline (EPA method 8015 modified)	ND	:Not Detected
B	:Benzene (EPA method 8020 or 8240)	TB	:Trip Blank
T	:Toluene (EPA method 8020 or 8240)	D	:Duplicate
E	:Ethylbenzene (EPA method 8020 or 8240)	SAL	:Superior Analytical Laboratory
X	:Xylenes (EPA method 8020 or 8240)	*	:Not sampled due to insufficient water in well.
---	:Not Analyzed/Not Measured	**	:Well sampled annually.
NA	:Not Applicable/Not Available	***	:Well could not be located.
		****	:Typical gasoline chromatographic pattern not present.

Note: Top of casing and Ground Water Elevations are expressed as feet above mean sea level (NGVD-1929).  
 -----

L2cm



**FIGURE 1. SITE VICINITY MAP**

**CHEVRON U.S.A.  
CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD  
CASTRO VALLEY, CALIFORNIA**

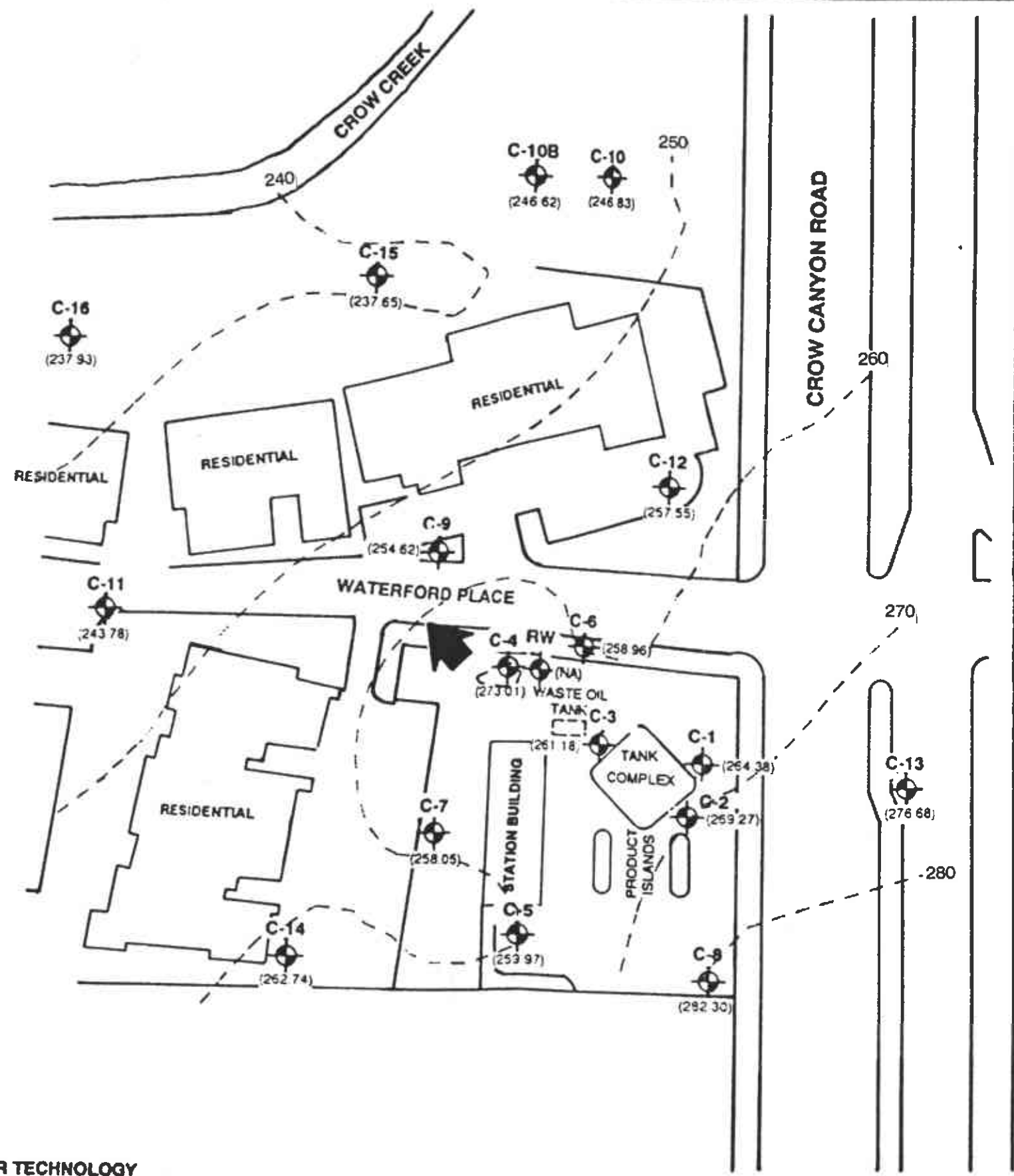


**PROJECT NO. 30-321**

**SOURCE: USGS 15 MINUTE SERIES  
HAYWARD QUADRANGLE**



**ALTON GEOSCIENCE**  
1000 Burnett Ave., Ste. 140  
Concord, CA 94520



- LEGEND:**
- GROUND WATER MONITORING WELL
  - GROUND WATER ELEVATION (FEET ABOVE MEAN SEA LEVEL (NGVD-1929))
  - GROUND WATER ELEVATION CONTOUR
  - GENERAL DIRECTION OF GROUND WATER FLOW

CONTOUR LINES ARE INTERPRETIVE BASED ON FLUID LEVELS IN MONITORING WELLS MEASURED ON 03/27/91.  
 (—) ELEVATION DATA NOT AVAILABLE

**FIGURE 2. GROUND WATER ELEVATION CONTOUR MAP**

Chevron Service Station No. 9-5607  
 5269 Crow Canyon Road  
 Castro Valley, California

SOURCE: GROUNDWATER TECHNOLOGY

PROJECT NO. 30-321

**APPENDIX A**  
**FIELD SAMPLE FORMS,**  
**OFFICIAL LABORATORY RESULTS, AND**  
**CHAIN OF CUSTODY FORMS**

ALTON GECSCIENCE, INC  
 1170 Burnett Ave., Ste. S  
 Concord, CA 94520

JOB NUMBER 30-321 #9-5607

TECHNICIAN Lamy

JOB LOCATION Castro Valley

DATE 3/27/91

PUMPOUT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		DATE OF LAST PUMPOUT: <u>12/19/90</u>			WEATHER: <u>Sunny</u> TIME: <u>0850</u>		COMMENTS (Notes, conditions, etc.)
WELL #	HOLD DEPTH TO WATER	CUT DEPTH TO PRODUCT	LEVEL PROD. THICKNESS (FT)	TOTAL DEPTH	DEPTH TO PUMP		
4"	C-5	27.98	∅	∅	40.28		Dedicated Bailer
3"	C-10	18.01	∅	∅	22.85		Dedicated Bailer
3"	C-10B	18.23	∅	∅	34.15		" "
3"	C-11	21.52	∅	∅	33.89		" "
3"	C-16	8.76	∅	∅	30.97		
3"	C-12	12.11	∅	∅	28.85		
3"	C-13	7.64	∅	∅	28.38		
3"	C-15	8.50	∅	∅	19.60		
2"	C-7	12.65	∅	∅	27.04		
4"	C-1	19.08	∅	∅	43.10		
4"	C-6	16.32	∅	∅	30.90		
4"	C-9	13.78	∅	∅	29.09		
2"	C-8	6.10	∅	∅	25.45		Dedicated Bailer
4"	C-2	15.10	∅	∅	42.93		Installed cap + lock
	C-4	∅	∅	∅	∅		
3"	C-14	8.00	∅	∅	27.81		
4"	C-3	24.80	∅	∅	31.54		Installed lock
							* Sampled only
							C-6, 8, 11, 12, 14,
							15, 16, 7, 3, + 9









ALTON GEOSCIENCE, INC.  
Water Sampling Field Survey

WELL # C-8 PROJECT# 30-321 LOCATION Castro Valley DATE 3/27/91  
 SAMPLING METHOD: BAILER  PUMP   
 DECONTAMINATION METHOD: TRIPLE RINSE W/TEP AND DEIONIZED WATER   
 STEAM CLEAN

WELL DATA:  
 DEPTH TO WATER 6.10 ft  
 TOTAL DEPTH 25.45 ft  
 HT. WATER COL 19.35 Ft.  
19.35

CONVERSION	
diam	gal/ft
2 in	10.16
3 in	10.36
4 in	10.63
6 in	11.44

Volume of Water Column 3.10 gal  
 Volume to Purge 2.3 Vol  
 Total Volume to Purge 9.30 gal

*Begin 1253*

CHEMICAL DATA:

T (F)	SC/unhos	pH	Time	Comments	Volume (gal)
74.7	5.37	5.23	1257	clear	1.5
75.9	6.33	5.19	1302	"	3.0
71.4	6.57	5.07	1311	"	4.5
70.7	6.93	5.06	1325	"	6.0
70.1	7.14	5.10	1346	"	7.5
ACTUAL VOLUME PURGED					<u>9.57 gal</u>

*Sampled 1410*

COMMENTS: *meter x100*







ALTON GEOSCIENCE, INC.  
Water Sampling Field Survey

WELL # C-14 PROJECT# 30-321 LOCATION Castro Valley DATE 3/28/91  
 SAMPLING METHOD: BAILER  PUMP   
 DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER   
 STEAM CLEAN

WELL DATA:

DEPTH TO WATER 8.00 ft  
 TOTAL DEPTH 27.81 ft  
 HT. WATER COL 19.81 ft

CONVERSION	
diam	gal/ft
2 in	10.16
3 in	10.30
4 in	10.63
6 in	11.44

Volume of Water Column 7.13 gal  
 Volumes to Purge 3 Vol  
 Total Volume to Purge 21.39 gal

Begin 1214

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
73.6	7.23	13.04	1217	Clear	4
70.9	4.98	9.16	1220	"	8
71.0	5.48	10.64	1224	"	12
72.7	5.29	8.07	1230	"	16
73.5	5.28	7.40	1237	"	20
ACTUAL VOLUME PURGED					<u>21.5</u> gal

Sampled 1317

COMMENTS: meter x 100



ALTON GEOSCIENCE, INC.  
Water Sampling Field Survey

WELL # C-16 PROJECT# 30-321 LOCATION Castro Valley DATE 3/28/91  
 SAMPLING TEAM Lamy SAMPLING METHOD: BAILEY  PUMP  
 DECONTAMINATION METHOD: TRIPLE RINSE W/TP AND DEIONIZED WATER   
 STEAM CLEAN

WELL DATA:  
 DEPTH TO WATER 8.76 ft  
 TOTAL DEPTH 30.97 ft  
 ST. WATER COL 22.21 ft

CONVERSION	
diam	gal/ft
2 in	29.16
3 in	39.36
4 in	49.63
6 in	81.44

Volume of Water Column 8.00 gal  
 Volumes to Purge 3 Vol  
 Total Volume to Purge 24.00 gal

2 gal 444

CHEMICAL DATA:

T (F)	SC/unhos	PH	Time	Comments	Volume (gal)
66.6	13.05	5.07	1:50	Clear	4.75
64.4	11.18	4.82	1:57	Clear	9.50
62.7	11.06	4.83	1:57	"	14.25
73.4	15.02	5.06	5:24	Clear	19.00
72.3	14.52	5.00	5:27		23.75

Sampled 1549 ACTUAL VOLUME PURGED 24.00/gal

COMMENTS: meter X100



APR 11 1991

**SUPERIOR ANALYTICAL LABORATORIES, INC.**

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319  
DOHS #220

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 82800  
CLIENT: Alton Geoscience  
CLIENT JOB NO.: 30-321

DATE RECEIVED: 04/02/91  
DATE REPORTED: 04/09/91

Page 1 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
82800- 1	0391031	03/27/91	04/09/91
82800- 2	0391061	03/27/91	04/09/91
82800- 3	0391071	03/27/91	04/09/91
82800- 4	0391081	03/27/91	04/09/91
82800- 5	0391091	03/27/91	04/09/91
82800- 6	0391111	03/27/91	04/09/91
82800- 7	0391121	03/27/91	04/09/91
82800- 8	0391141	03/27/91	04/09/91
82800- 9	0391151	03/27/91	04/09/91
82800-10	0391161	03/27/91	04/09/91

Laboratory Number:	82800 1	82800 2	82800 3	82800 4	82800 5
--------------------	------------	------------	------------	------------	------------

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	92000	100000	980	54	56000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	1300	11000	ND<0.5	0.7	3400
TOLUENE:	3100	4400	2.4	ND<0.5	5000
ETHYL BENZENE:	1200	2300	9.1	0.7	1600
XYLENES:	11000	11000	3.0	1.9	5600

Laboratory Number:	82800 6	82800 7	82800 8	82800 9	82800 10
--------------------	------------	------------	------------	------------	-------------

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	2900	ND<50	520*	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	350	ND<0.5	4.6	ND<0.5
TOLUENE:	ND<0.5	220	ND<0.5	1.1	ND<0.5
ETHYL BENZENE:	ND<0.5	52	ND<0.5	ND<0.5	ND<0.5
XYLENES:	1.5	210	1.3	1.0	1.3

\* Typical gasoline chromatographic pattern not present.

**OUTSTANDING QUALITY AND SERVICE**

APR 11 1991

# SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319  
DOHS #220

## C E R T I F I C A T E   O F   A N A L Y S I S

LABORATORY NO.: 82800  
CLIENT: Aiton Geoscience  
CLIENT JOB NO.: 30-321

DATE RECEIVED: 04/02/91  
DATE REPORTED: 04/09/91

Page 2 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
82800-11	0391163	03/27/91	04/09/91
82800-12	0391002	03/27/91	04/09/91
82800-13	0391304	03/27/91	04/09/91

Laboratory Number:	82800	82800	82800
	11	12	13

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)		
OIL AND GREASE:	NA	NA	NA
TPH GASOLINE RANGE:	ND<50	ND<50	ND<50
TPH DIESEL RANGE:	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5
XYLENES:	1.2	ND<0.5	ND<0.5

**OUTSTANDING QUALITY AND SERVICE**

APR 11 1991

# SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319  
DOHS #220

## C E R T I F I C A T E   O F   A N A L Y S I S

### ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 3 of 3  
QA/QC INFORMATION  
SET: 82800

NA = ANALYSIS NOT REQUESTED  
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT  
ug/l = part per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:  
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:  
Minimum Quantitation Limit for Diesel in Water: 50ug/l  
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:  
Minimum Quantitation Limit for Gasoline in Water: 50ug/l  
Standard Reference: 03/28/91

SW-846 Method 8020/BTXE  
Minimum Quantitation Limit in Water: 0.5ug/l  
Standard Reference: 03/16/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	03/28/91	200 ng	110	19	70-130
Benzene	03/16/91	200 ng	86	1	70-130
Toluene	03/16/91	200 ng	89	3	70-130
Ethyl Benzene	03/16/91	200 ng	93	3	70-130
Total Xylene	03/16/91	200 ng	97	3	70-130

Richard Srna, Ph.D.

*Richard Srna*  
Laboratory Director

OUTSTANDING QUALITY AND SERVICE

