Chevron

Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Department

May 13, 1992

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

Re: Chevron Station # 9-1924, 4904 South Front Street, Livermore, CA
Enclosed groundwater monitoring report for first quarter 1992
Enclosed compliance sampling report for groundwater remediation system
Enclosed Waste Analysis Plan for groundwater remediation system
Enclosed Inspection Schedule for groundwater remediation system
Enclosed Training Documents for groundwater remediation system
Enclosed Contingency Plan for groundwater remediation system
Enclosed copy of letter from Chevron to Alameda County dated March 29, 1991
Enclosed copy of Chevron project manager's informal project note log

Dear Mr. Seery:

I have received your letter dated May 8, 1992. I apologize for any lapses in communication between our offices in the past, and with this letter I hope to facilitate an improvement in this critical area. In response to your requests, I have enclosed several documents regarding the remediation and monitoring of the subject site. If you would like additional information, please let me know and I'll be glad to help.

Enclosed you will find a groundwater monitoring report dated April 27, 1992, which was prepared by Chevron's consultant, Alton Geoscience (Alton), to describe the results of monitoring performed on April 6, 1992. During this monitoring event, Alton measured the elevation of groundwater and collected groundwater samples from each of the wells at the site. Samples were analyzed for the presence of total purgeable hydrocarbons in the gasoline range (TPHG) and for benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Following five years of monitoring the nineteen site wells quarterly from 1986 to 1991, during which time the groundwater gradient direction and the concentrations of dissolved gasoline constituents had been thoroughly characterized, Chevron proposed reducing the frequency of groundwater monitoring to semi-annual in a letter to Alameda County dated March 29, 1991 (enclosed). No response to this proposal was received from Alameda County, so Chevron went ahead and enacted the proposed change. Your letter of May 8, 1992 indicated that you do not concur with the sampling frequency currently in place. Accordingly, I have instructed Chevron's consultant, Alton Geoscience (Alton), to recommence quarterly monitoring of the site. Alton will report the results to Chevron quarterly, and Chevron will forward copies of the reports to the appropriate regulatory agencies.

? Actually, Chevron directed the ir consultant to implement a reduced sampling schedule, and did not seek concurrence in the letter.

Several of the groundwater monitoring wells are located in close proximity to other wells. I would appreciate if Alameda County would consider allowing Chevron to reduce the sampling frequency of some of the wells at the site. This would make the monitoring much more cost efficient without sacrificing the quality of the monitoring data. As it is, with nineteen wells sampled every quarter, the laboratory analyses alone will cost over $6,500 per year. Chevron will not enact a frequency reduction without permission from Alameda County or the San Francisco Bay Regional Water Control Board (SFBRWQCB), but Chevron would appreciate a reasonably prompt reply regarding this request.

In regard to your questions concerning the groundwater remediation system at the site, I have enclosed the most recent discharge compliance report as well as packages of information which describe the system and its operation. Due to the tight geology of the subsurface, significant groundwater flow rates were not possible. When the system shut down in December 1990 due to scaling problems, Chevron decided against restarting the system due to its marginal continued benefit to the remediation of the site. Chevron decided to enact verification monitoring to insure that the remaining dissolved hydrocarbons do not pose a threat to public health or safety during their natural biodegradation process.

In an attempt to aid your understanding of Chevron's environmental activities at this site, I have enclosed a copy of my informal project note log, which I began during my initial review of Chevron's files pertaining to this site. The enclosed log is current through today, May 13, 1992. The log is not meant to be used for any purpose other than a quick index of the general activities which have transpired. The entries are handwritten using acronyms, abbreviations, and broken language for my convenience.

I hope the information enclosed is helpful. If you have any questions or comments, I can be reached at (510) 842-8658.

Sincerely,

Clint B. Rogers

Clint B. Rogers
Engineer, Site Assessment and Remediation

Enclosures

cc: (w/o enclosures)
Eddie So, San Francisco Bay RWQCB, Oakland, CA
Jeanne Price, 213 Del Mesa Carmel, Carmel, CA 93921
John DeGeorge, Alton Geoscience, Pleasanton, CA
Ed Hoepker, Mobil Oil, 836-B Southampton, Suite 300, Benicia, CA 94510
Peter DeSantis, BP Oil, 2868 Prospect Park Dr., Suite 360, Rancho Cordova, CA 95670

ALTON GEOSCIENCE
THE RESULTS TEAM

APR 3 0 92 T.L.H.

April 27, 1992

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

31-0284

Subject: Semiannual Ground Water Monitoring Report
Chevron Station No. 9-1924
4904 Southfront Road
Livermore, California

Dear Mr. Rogers:

In accordance with our agreement, Alton Geoscience transmits this Semiannual Ground Water Monitoring and Sampling Report for Chevron Station No. 9-1924, 4904 Southfront Road, Livermore, California. Figure 1 shows the site location.

Monitoring and sampling of the ground water monitoring wells was performed on April 6, 1992, 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, each well was checked for liquid-phase hydrocarbons or sheen. The depth to ground water and, if present, free product was measured in each well from the top of casing using an electronic interface probe with 0.01 foot tolerance.

Ground water samples were collected after more than 3 casing volumes of ground water was purged from each well. Each sample was collected using a clean bailer. Ground water samples were then decanted 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 transferred to a 600 gallon, trailer-mounted, steel tank (California Department of Health Services registered), and transported as non-hazardous to the Chevron Richmond Terminal for treatment.

5870 Stoneridge Drive, Suite 6
Pleasanton, California 94588
(510) 734-8134 • FAX (510) 734-8420

SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of ground water samples for this quarter, as well as the results of previous monitoring and sampling events, are 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 gradient 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 official laboratory reports and chain of custody records are included in Appendix A.

Please call John De George at (510) 734-8134 if you have any questions regarding this report.

Sincerely,

ALTON GEOSCIENCE,

John De George
Staff Geologist

Robert E. Logan R. G. 5088
Manager, Northern California Operations

wp91924jd

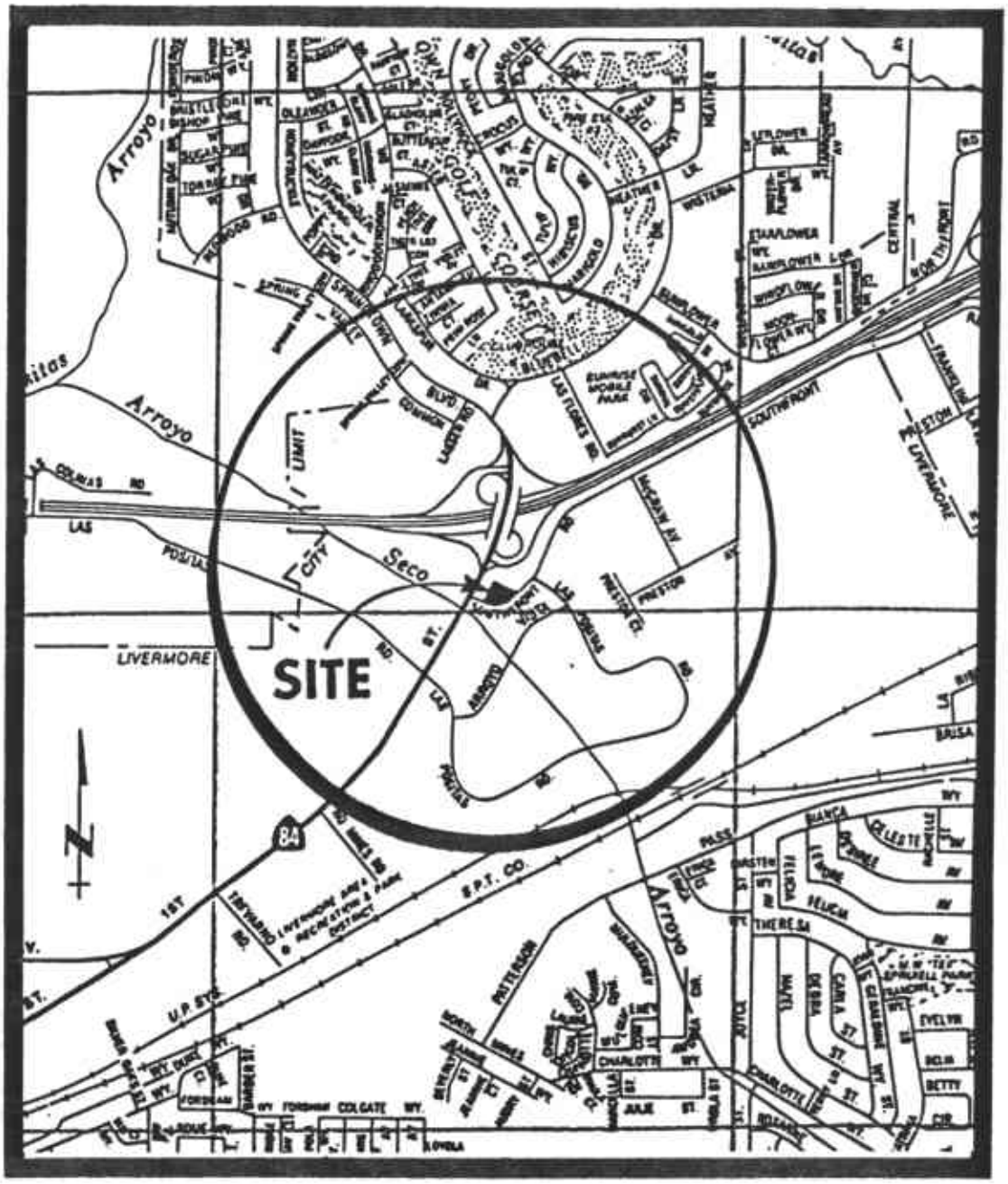

FIGURE 1. SITE VICINITY MAP

NOT TO SCALE

CHEVRON SERVICE STATION NO. 9-1924
4904 SOUTH FRONT ROAD
LIVERMORE, CALIFORNIA

PROJECT NO. 31-0284

SOURCE: WESTERN GEOLOGIC RESOURCES, INC.

ALTON GEOSCIENCE
Pleasanton, California

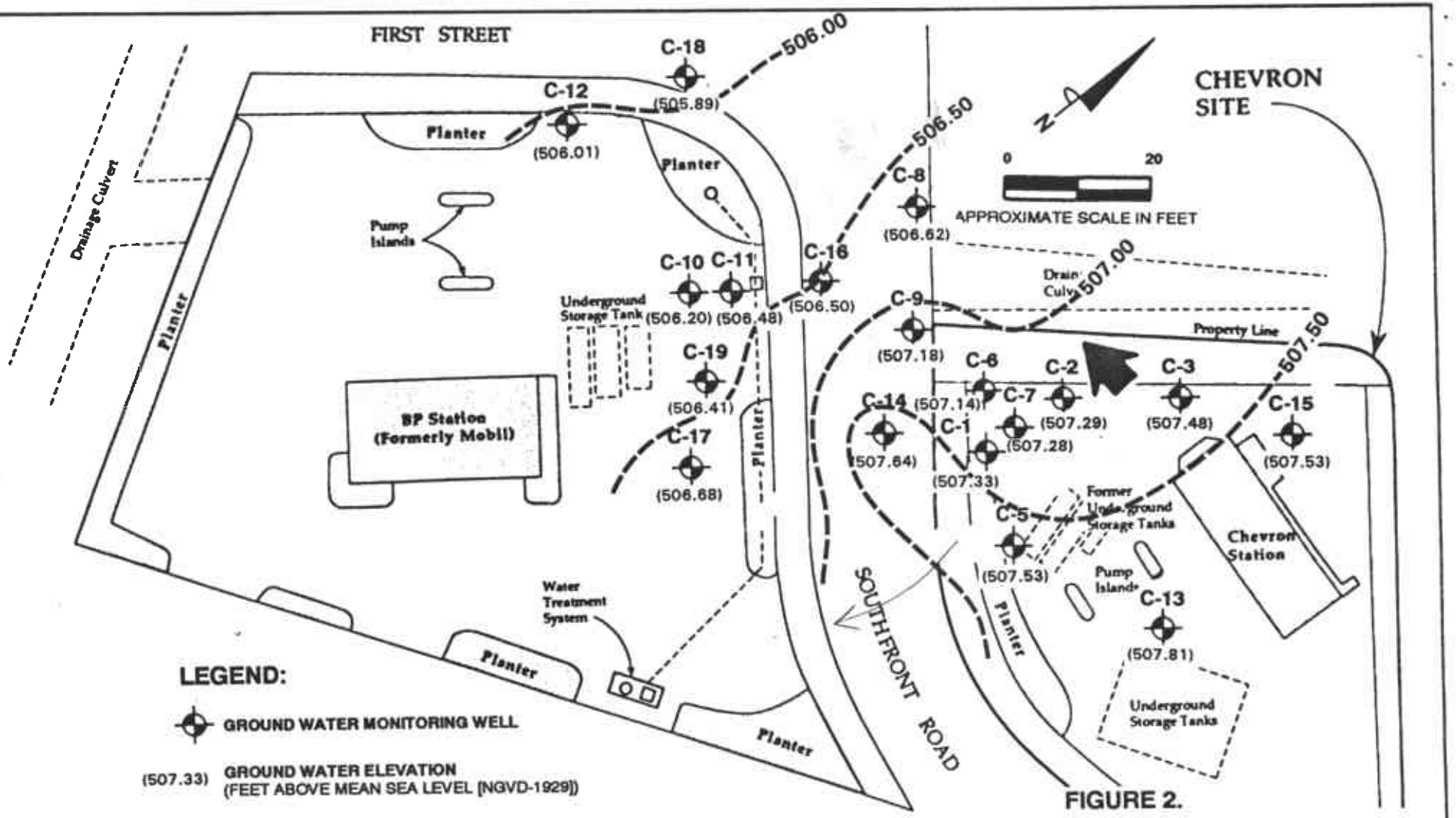

FIGURE 2.

GROUND WATER ELEVATION CONTOUR MAP

CHEVRON SERVICE STATION
NO. 9 - 1924
4904 SOUTHFRONT ROAD
LIVERMORE, CALIFORNIA

SOURCE: WESTERN GEOLOGIC RESOURCES, INC.

PROJECT NO. 31-0284

ALTON GEOSCIENCE
Pleasanton, California

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-1	03-28-86	520.39	11.75	508.64	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	03-15-88	520.39	13.50	506.89	27000	---	770	87	610	2100	---	---	---	---	---	---	GTEL
C-1	05-10-88	520.39	13.65	506.74	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	06-10-88	520.39	14.72	505.67	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	07-25-88	520.39	13.50	506.89	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	10-13-88	520.39	12.89	507.50	3200	---	220	11	62	130	---	---	---	---	---	---	NA
C-1	01-01-89	520.39	12.89	507.50	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	01-12-89	---	---	---	4000	---	820	43	490	260	---	---	---	---	---	---	SAL
C-1	04-10-89	520.39	13.65	506.74	4000	ND(3.0	100	ND(5	70	50	ND(5	---	---	---	---	---	CCAS
C-1D	04-10-89	520.39	13.65	506.74	4000	---	100	ND(5	60	50	ND(5	---	---	---	---	---	*CCAS
C-1	06-26-89	520.39	13.94	506.45	600	ND(3.0	97	20	60	50	3	---	---	---	---	---	NA
C-1D	06-26-89	520.39	13.94	506.45	570	---	86	15	44	35	1.7	---	---	---	---	---	CCAS
C-1	10-13-89	520.39	13.92	506.47	1600	ND(5	64	ND(5	51	48	ND(5	5	---	---	---	---	SAL
C-1	01-03-90	520.39	13.80	506.59	1100	---	36	0.68	30	30	1	---	---	---	---	---	SAL
C-1	05-08-90	520.39	13.91	506.48	1300	---	37	9.2	40	32	1.2	---	ND(0.5	---	ND(0.5	---	PACE
C-1	09-29-90	520.39	13.93	506.46	350	---	19	1.2	32	31	ND(0.5	ND!	0.7*	1.4	ND(0.5	---	PACE
C-1	01-03-91	520.39	13.85	506.54	400	---	12	ND(0.5	17	14	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-1	04/12/91	520.39	13.51	506.88	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	09/04/91	520.39	14.10	506.29	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-1	04/06/92	520.39	13.06	507.33	[redacted]	---	[redacted]	[redacted]	[redacted]	[redacted]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
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4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-2	03-28-86	520.76	11.98	508.78	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	03-15-88	520.76	13.77	506.99	22000	---	3900	1900	1200	1200	---	---	---	---	---	---	GTEL
C-2	05-10-88	520.76	14.03	506.73	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	06-10-88	520.76	15.12	505.64	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	07-25-88	520.76	13.86	506.90	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	10-13-88	520.76	14.11	506.65	ND(1000	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	BC
C-2	01-01-89	520.76	12.83	507.93	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	01-12-89	---	---	---	1000	---	25	3	83	59	---	---	---	---	---	---	SAL
C-2	04-10-89	520.76	14.04	506.72	600	ND(3.0	2.5	ND(0.2	15	12	ND(0.2	---	---	---	---	---	CCAS
C-2D	04-10-89	520.76	14.04	506.72	ND(10000	---	ND(10	ND(10	11	11	ND(10	---	---	---	---	---	CCAS
C-2	06-26-89	520.76	14.34	506.42	640	ND(3.0	5.3	8	18	14	ND(0.5	---	---	---	---	---	CCAS
C-2D	06-26-89	520.76	14.34	506.42	750	---	3.7	0.6	13	8.2	2	---	---	---	---	---	CCAS
C-2	10-13-89	520.76	13.92	506.42	630	---	ND(5	ND(5	17	10	ND(5	---	---	---	---	---	SAL
C-2	01-03-90	520.76	14.11	506.65	880	---	3	ND(0.5	19	17	1	---	---	---	---	---	SAL
C-2	05-08-90	520.76	14.28	506.48	340	---	1.3	2.7	8.4	11	1.1	---	ND(0.5	---	ND(0.5	---	PACE
C-2	09-29-90	520.76	14.25	506.51	74	---	ND(0.5	ND(0.5	4.6	1.8	ND(0.5	ND!	1.7#	0.5	ND(0.5	---	PACE
C-2	01-03-91	520.76	14.15	506.61	2000	---	270	ND(3	79	93	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-2	04/12/91	520.76	13.86	506.90	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	09/04/91	520.76	14.50	506.26	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-2	04/06/92	520.76	13.47	507.29	[redacted]	---	ND(0.5	ND(0.5	[redacted]	[redacted]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

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Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-3	03-28-86	521.31	12.24	509.07	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-3	03-15-88	521.31	14.21	507.10	2100	---	86	8	30	36	---	---	---	---	---	---	GTEL
C-3	05-10-88	521.31	14.43	506.88	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-3	06-10-88	521.31	15.53	505.78	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-3	07-25-88	521.31	14.22	507.09	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-3	10-13-88	521.31	14.10	507.21	ND<1000	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	BC
C-3	01-01-89	521.31	12.70	508.61	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-3	04-10-89	521.31	14.36	506.95	200	ND<3.0	2.1	ND<0.2	4.4	2.6	1.4	---	---	---	---	---	CCAS
C-3	06-26-89	521.31	14.74	506.57	260	ND<3.0	1.1	0.7	4.9	1.6	1.5	---	---	---	---	---	CCAS
C-3	10-13-89	521.31	14.70	506.61	ND<500	---	ND<5	ND<5	ND<5	ND<5	ND<5	---	---	---	---	---	SAL
C-3	01-03-90	521.31	14.42	506.89	ND<500	---	ND<0.5	ND<0.5	0.9	1.4	0.7	---	---	---	---	---	SAL
C-3	05-08-90	521.31	14.65	506.66	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.7	---	ND<0.5	---	ND<0.5	---	PACE
C-3	09-27-90	521.31	14.67	506.64	71	---	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND!	1.1*	1.6	ND<0.5	---	PACE
C-3	01-03-91	521.31	14.58	506.73	57	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-3	04/12/91	521.31	14.23	507.08	98	---	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-3	09/04/91	521.31	14.88	506.43	64 *	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-3	[redacted]	521.31	13.83	507.48	[redacted]	---	ND<0.5	ND<0.5	[redacted]	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	03-28-86	520.82	12.00	508.82	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-5	03-15-88	520.82	13.75	507.07	1600	---	82	7	77	95	---	---	---	---	---	---	GTEL
C-5	05-10-88	520.82	13.92	506.90	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-5	07-10-88	520.82	13.72	507.10	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-5	07-25-88	520.82	13.72	507.10	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-5	10-13-88	520.82	13.84	506.98	2500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	BC
C-5	01-01-89	520.82	13.41	507.41	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-5	01-12-89	---	---	---	ND<1000	---	42	3	44	52	---	---	---	---	---	---	SAL
C-5	04-10-89	520.82	13.88	506.94	180	ND<3.0	2.6	ND<0.2	6.2	5.5	1.4	---	---	---	---	---	CCAS
C-5	06-26-89	520.82	14.14	506.68	420	ND<3.0	7.6	0.8	40	56	1.5	---	---	---	---	---	CCAS
C-5	10-13-89	520.82	14.15	506.68	620	ND<5	ND<5	ND<5	10	ND<5	ND<5	---	---	---	---	---	SAL
C-5	01-03-90	520.82	14.10	506.72	ND<500	---	0.7	ND<0.5	8	6	ND<0.5	---	---	---	---	---	SAL
C-5	05-08-90	520.82	14.00	506.82	140	---	0.6	0.8	11	7.2	0.8	---	ND<0.5	---	ND<0.5	---	PACE
C-5	09-27-90	520.82	14.00	506.82	360	---	ND<0.5	3.2	5.2	6.4	ND<0.5	ND!	0.7*	ND<0.5	ND<0.5	---	PACE
C-5	01-03-91	520.82	14.00	506.82	90	---	ND<0.5	ND<0.5	ND<0.5	3	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	04/12/91	520.82	13.71	507.11	270	---	12	ND<0.5	19	7	0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	09/04/91	520.82	14.30	506.52	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	[redacted]	520.82	13.29	507.53	[redacted]	---	[redacted]	ND<0.5	[redacted]	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-6	03-26-86	519.62	11.12	508.50	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	03-15-88	519.62	12.93	506.69	46000	---	870	4600	1500	8200	---	---	---	---	---	---	GTEL
C-6	05-10-88	519.62	13.03	506.59	86000	---	1400	10000	3000	19000	---	---	---	---	---	---	GTEL
C-6	06-10-88	519.62	14.11***	505.51	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	07-25-88	519.62	12.95	506.67	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	10-13-88	519.62	13.14	506.48	5300	---	300	600	260	1600	---	---	---	---	---	---	BC
C-6	01-01-89	519.62	12.14	507.48	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	01-12-89	---	---	---	5000	---	260	110	270	720	---	---	---	---	---	---	SAL
C-6	04-12-89	519.62	12.98	506.64	5000	4.0	90	190	190	680	ND(20	---	---	---	---	---	CCAS
C-6	06-26-89	519.62	13.39	506.23	3600	ND(3.0	77	250	140	610	ND(5.0	---	---	---	---	---	CCAS
C-6	10-13-89	519.62	13.40	506.22	3500	ND(5	32	81	100	530	ND(50	---	---	---	---	---	SAL
C-6	01-03-90	519.62	13.18	506.44	3200	---	20	97	65	410	1	---	---	---	---	---	SAL
C-6	05-08-90	519.62	13.39	506.23	1800	---	17	140	ND(2.5	400	1.6	---	ND(0.5	---	ND(0.5	---	PACE
C-6	09-29-90	519.62	13.32	506.30	8000	---	58	210	260	2100	1.0	ND!	ND(0.5	2.4	1.6	---	PACE
C-6	01-03-91	519.62	13.19	506.43	2300	---	4	79	59	380	0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-6	04/12/91	519.62	12.91	506.71	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	09/04/91	519.62	13.56	506.06	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-6	[redacted]	519.62	12.48	507.14	[redacted]	---	ND(5	[redacted]	[redacted]	[redacted]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-7	03-28-86	520.30	11.67	508.63	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	03-15-88	520.30	13.48	506.82	8000	---	98	690	120	120	---	---	---	---	---	---	GTEL
C-7	05-10-88	520.30	13.60	506.70	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	06-10-88	520.30	14.68	505.62	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	07-25-88	520.30	13.43	506.87	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	10-13-88	520.30	13.61	506.69	16000	---	4400	220	1000	3000	---	---	---	---	---	---	BC
C-7	01-01-89	520.30	12.66	507.64	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	01-12-89	---	---	---	8000	---	950	47	670	640	---	---	---	---	---	---	SAL
C-7	04-12-89	520.30	13.60	506.70	6000	ND(3.0	1100	30	760	370	ND(20	---	---	---	---	---	CCAS
C-7	06-26-89	520.30	13.88	506.42	6000	ND(3.0	1300	50	600	340	ND(10	---	---	---	---	---	CCAS
C-7	10-13-89	520.30	13.81	506.49	3900	---	1300	ND(50	160	150	ND(50	---	---	---	---	---	SAL
C-7	01-03-90	520.30	13.71	506.59	5600	---	1200	13	180	200	1	---	---	---	---	---	SAL
C-7	05-08-90	520.30	13.85	506.45	3500	---	1100	15	110	140	1.7	---	ND(0.5	---	ND(0.5	---	PACE
C-7	09-29-90	520.30	13.80	506.50	2400	---	580	ND(10	46	68	0.7	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-7	01-03-91	520.30	13.71	506.59	2500	---	300	2	110	120	0.7	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-7	04/12/91	520.30	13.46	506.84	2300	---	190	1	81	87	0.6	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-7	09/04/91	520.30	14.09	506.21	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-7	10/07/91	520.30	---	---	4700	---	170	1.9	97	59	ND(0.5	ND!	24	ND(0.5	ND(0.5	ND(0.5	SAL
C-7	[redacted]	520.30	13.02	507.28	[redacted]	---	[redacted]	[redacted]	[redacted]	[redacted]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-8	03-28-86	519.74	11.78	507.96	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-8	03-15-88	519.74	13.63	506.11	7500	---	360	25	10	ND(0.5	---	---	---	---	---	---	GTEL
C-8	05-10-88	519.74	13.74	506.00	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-8	06-10-88	519.74	14.89	504.85	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-8	07-25-88	519.74	13.65	506.09	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-8	10-13-88	519.74	13.78	505.96	ND(1000	---	6	5.3	ND(0.5	ND(0.5	---	---	---	---	---	---	BC
C-8	01-01-89	519.74	12.68	507.06	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-8	01-12-89	---	---	---	ND(1000	---	37	4	1	5	---	---	---	---	---	---	SAL
C-8	04-12-89	519.74	13.77	505.97	3000	12.0	13	ND(5	ND(5	ND(5	5	---	---	---	---	---	CCAS
C-8	06-26-89	519.74	14.03	505.71	780	ND(3.0	14	6	ND(2.0	6	4	---	---	---	---	---	CCAS
C-8	10-13-89	519.74	14.06	505.68	ND(500	ND(5	ND(5	ND(5	ND(5	ND(5	ND(5	---	---	---	---	---	SAL
C-8	01-03-90	519.74	13.74	506.00	910	---	ND(0.5	ND(0.5	1	1	1.5	---	---	---	---	---	SAL
C-8	05-07-90	519.74	14.10	505.64	620	---	3.9	6	0.5	3.4	1.9	---	ND(0.5	---	ND(0.5	---	PACE
C-8	09-29-90	519.74	13.97	505.77	77	---	ND(0.5	1.4	ND(0.5	ND(0.5	ND(0.5	ND!	0.6#	ND(0.5	ND(0.5	---	PACE
C-8	01-03-91	519.74	13.81	505.93	67	---	2	2	ND(0.5	2	ND(0.5	ND!	0.7	ND(0.5	ND(0.5	ND(0.5	SAL
C-8	04/12/91	519.74	13.60	506.14	180	---	4	ND(0.5	ND(0.5	ND(0.5	0.6	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-8	09/04/91	519.74	14.14	505.60	140	---	1.8	4.7	0.8	4.8	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-8	04/06/92	519.74	13.12	506.62	[redacted]!	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-9	03-28-86	519.52	11.24	508.28	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	03-15-88	519.52	12.92	506.60	29000	---	540	560	580	3900	---	---	---	---	---	---	GTEL
C-9	05-10-88	519.52	13.12	506.40	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	06-10-88	519.52	14.16	505.36	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	07-25-88	519.52	13.00	506.52	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	10-13-88	519.52	13.13	506.39	2200	---	57	8	20	150	---	---	---	---	---	---	BC
C-9	01-01-89	519.52	12.19	507.33	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	01-12-89	---	---	---	2000	---	39	12	51	46	---	---	---	---	---	---	SAL
C-9	04-12-89	519.52	13.11	506.41	6000	ND(3.0	16	20	55	240	2.1	---	---	---	---	---	CCAS
C-9D	04-11-89	519.52	13.11	506.41	6000	---	14	25	45	290	ND(5.0	---	---	---	---	---	CCAS
C-9	06-26-89	519.52	13.40	506.12	3900	ND(3.0	37	63	140	690	ND(5.0	---	---	---	---	---	CCAS
C-9	10-13-89	519.52	13.46	506.06	1300	ND(5	7	ND(5	26	50	ND(5	---	---	---	---	---	SAL
C-9	01-03-90	519.52	13.30	506.32	1500	---	ND(0.5	0.7	202	37	1.5	---	---	---	---	---	SAL
C-9	05-07-90	519.52	13.48	506.04	7100	---	21	33	89	500	1.9	---	ND(0.5	---	ND(0.5	---	PACE
C-9	09-29-90	519.52	13.39	506.13	1000	---	21	3.9	31	110	1.0	ND!	0.7#	1.8	1.0	---	PACE
C-9	01-03-91	519.72	13.28	506.44	3200	---	ND(3	ND(3	32	140	0.8	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-9	04/12/91	519.72	13.00	506.72	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	09/04/91	519.72	13.61	506.11	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-9	04/06/92	519.72	12.54	507.18	[redacted]	---	ND(0.5	ND(0.5	[redacted]	[redacted]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9 1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-10	03-28-86	520.41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-10	03-15-88	520.41	14.86	505.55	90	---	7	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	GTEL
C-10	05-10-88	520.71	14.90	505.51	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-10	06-10-88	520.41	15.94	504.47	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-10	07-25-88	520.41	14.85	505.56	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-10	10-13-88	520.41	14.90	505.51	ND(1000	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	BC
C-10	01-01-89	520.41	14.83	505.58	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-10	01-12-89	---	---	---	ND(1000	---	ND(0.3	ND(0.3	ND(0.3	ND(0.3	---	---	---	---	---	---	SAL
C-10	04-11-89	520.41	14.90	505.51	ND(300	ND(3.0	4.8	ND(0.5	ND(0.5	ND(1	6.1	---	---	---	---	---	CCAS
C-10	06-26-89	520.41	15.12	505.29	ND(100	4.0	0.7	ND(0.5	ND(0.5	1.5	ND(0.5	---	---	---	---	---	CCAS
C-10	10-13-89	520.41	15.11	505.30	ND(500	ND(5	ND(5	ND(5	ND(5	ND(5	ND(5	---	---	---	---	---	SAL
C-10	01-03-90	520.41	15.01	505.40	ND(500	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	3	---	---	---	---	---	SAL
C-10	05-07-90	520.41	15.53	504.88	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	ND(0.5	---	ND(0.5	---	PACE
C-10	09-27-90	520.41	15.20	505.21	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	1.2*	ND(0.5	ND(0.5	---	PACE
C-10	01-03-91	520.41	15.06	505.35	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-10	04/12/91	520.41	14.86	505.55	110	---	16	ND(0.5	2.9	2.7	1	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-10	09/04/91	520.41	15.22	505.19	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-10	04/06/92	520.41	14.21	506.20	[redacted]	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	[redacted]	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-11	03-28-86	520.04	13.82	506.22	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	03-15-88	520.04	14.49	505.55	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	05-10-88	520.04	14.31	505.73	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	06-10-88	520.04	15.47	504.57	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	07-25-88	520.04	13.60	506.44	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	10-14-88	520.04	14.53	505.51	1.9	---	240	33	4.7	67	---	---	---	---	---	---	BC
C-11	01-01-89	520.04	14.10	505.94	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	01-12-89	---	---	---	ND(1000	---	ND(0.3	0.8	ND(0.3	ND(0.3	---	---	---	---	---	---	SAL
C-11	04-12-89	520.04	14.36	505.68	ND(50	ND(3.0	4.3	ND(1	ND(1	ND(1	ND(1	---	---	---	---	---	CCAS
C-11	06-26-89	520.04	14.58	505.46	ND(50	4.0	2	ND(2.0	ND(2.0	ND(2.0	ND(0.2	---	---	---	---	---	CCAS
C-11	10-13-89	520.04	14.71	505.33	ND(500	ND(5	ND(5	ND(5	ND(5	ND(5	ND(5	---	---	---	---	---	SAL
C-11	01-03-90	520.04	14.61	505.43	ND(500	---	ND(0.5	ND(0.5	ND(0.5	0.7	ND(0.5	---	---	---	---	---	SAL
C-11	05-08-90	520.04	15.53	504.51	110	---	12	11	0.9	22	ND(0.5	---	ND(0.5	---	ND(0.5	---	PACE
C-11	09-28-90	520.04	15.51	504.53	ND(50	---	2.0	1.4	ND(0.5	3.3	ND(0.5	ND!	1.2*	ND(0.5	ND(0.5	---	PACE
C-11	01-03-91	520.04	14.63	505.41	ND(50	---	2	ND(0.5	ND(0.5	2	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	1	SAL
C-11	04/12/91	520.04	14.30	505.74	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	09/04/91	520.04	14.84	505.20	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-11	04/06/92	520.04	13.56	506.48	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-12	03-28-86	519.82	13.61	506.21	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	03-15-88	519.82	14.55	505.27	ND(1.0	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	GTEL
C-12	05-10-88	519.82	14.57	505.25	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	06-10-88	519.82	15.63	504.19	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	07-25-88	519.82	14.51	505.31	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	10-13-88	519.82	14.60	505.22	ND(1000	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	BC
C-12	01-12-89	519.82	14.62	505.20	ND(1000	---	ND(0.3	ND(0.3	ND(0.3	ND(0.3	---	---	---	---	---	---	SAL
C-12	04-11-89	519.82	14.61	505.21	ND(100	ND(3.0	ND(0.2	ND(0.2	ND(0.2	ND(0.4	ND(0.2	---	---	---	---	---	CCAS
C-12	06-26-89	519.82	14.75	505.07	ND(50	ND(3.0	ND(0.2	ND(0.2	ND(2.0	ND(2.0	ND(0.2	---	---	---	---	---	CCAS
C-12	10-13-89	519.82	14.77	505.05	ND(500	ND(5	ND(5	ND(5	ND(5	ND(5	ND(5	---	---	---	---	---	SAL
C-12	01-03-90	519.82	14.85	504.97	ND(500	---	ND(0.5	ND(0.5	ND(0.5	0.6	ND(0.5	---	---	---	---	---	SAL
C-12	05-07-90	519.82	14.75	505.07	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	ND(0.5	---	ND(0.5	---	PACE
C-12	09-27-90	519.82	14.61	505.21	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	1.2*	ND(0.5	ND(0.5	---	PACE
C-12	01-03-91	519.82	14.70	505.12	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-12	04/12/91	519.82	14.52	505.30	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	09/04/91	519.82	14.83	504.99	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-12	04/06/92	519.82	13.81	506.01	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

C-13	03-28-86	522.24	12.95	509.29	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	03-15-88	522.24	14.82	507.42	250	---	2	ND(0.5	9	3	---	---	---	---	---	---	GTEL
C-13	05-10-88	522.24	15.03	507.21	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	06-10-88	522.24	16.10	506.14	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	07-25-88	522.24	14.73	507.51	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	10-13-88	522.24	14.91	507.33	ND(1000.0	---	1.9	ND(0.5	ND(0.5	ND(0.5	---	---	---	---	---	---	BC
C-13	01-01-89	522.24	14.10	508.14	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	01-12-89	---	---	---	ND(1000	---	ND(0.3	0.6	4	ND(0.3	---	---	---	---	---	---	SAL
C-13	04-10-89	522.24	14.99	507.25	ND(100	ND(3.0	ND(0.2	ND(0.2	8	ND(0.4	ND(0.2	---	---	---	---	---	CCAS
C-13	06-26-89	522.24	15.16	507.08	ND(50	ND(3.0	0.3	ND(2.0	ND(2.0	ND(2.0	ND(0.2	---	---	---	---	---	CCAS
C-13	10-13-89	522.24	15.23	507.01	ND(500	ND(5	ND(5	ND(5	ND(5	ND(5	ND(5	---	---	---	---	---	SAL
C-13	01-03-90	522.24	15.15	507.09	ND(500	---	ND(0.5	ND(0.5	0.5	0.6	ND(0.5	---	---	---	---	---	SAL
C-13	05-08-90	522.24	15.02	507.22	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	---	ND(0.5	---	ND(0.5	---	PACE
C-13	09-27-90	522.24	15.11	507.13	ND(50	---	ND(0.5	0.6	ND(0.5	ND(0.5	ND(0.5	ND!	1.7*	ND(0.5	ND(0.5	---	PACE
C-13	01-03-91	522.24	15.08	507.16	ND(50	---	ND(0.5	ND(0.5	ND(0.5	0.6	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-13	04/12/91	522.24	14.77	507.47	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	09/04/91	522.24	15.43	506.81	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-13	04/06/92	522.24	14.43	507.81	[redacted]	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-14	03-28-86	520.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	03-15-88	520.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	05-10-88	520.08	13.39	506.69	120000	---	13000	29000	2700	18	---	---	---	---	---	---	GTEL
C-14	06-10-88	520.08	14.65	505.43	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	07-25-88	520.08	13.47	506.61	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	10-13-88	520.08	13.58	506.50	ND	---	ND	ND	ND	ND	---	---	---	---	---	---	NA
C-14	01-01-89	520.08	13.00	507.08	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	01-12-89	---	---	---	NS	---	ND	ND	ND	ND	---	---	---	---	---	---	NA
C-14	04-12-89	520.08	13.47	506.61	NS	ND	ND	ND	ND	ND	ND	---	---	---	---	---	NA
C-14	06-26-89	520.08	13.80	506.28	140000	---	14000	25000	3400	26000	30	---	---	---	---	---	NA
C-14G	10-13-89	520.08	13.62	506.46	86000	---	12000	16000	1600	13000	---	---	---	---	---	---	SAL
C-14	01-03-90	520.08	13.91	506.17	120000	---	9500	16000	1800	13000	25	3	---	---	---	---	SAL
C-14G	01-04-90	520.08	13.91	506.17	76000	---	3900	8100	1200	7700	18	1	---	---	---	---	SAL
C-14	05-08-90	520.08	13.89	506.19	62000	---	7500	17000	1400	14000	13	---	ND<0.5	---	ND<0.5	---	PACE
C-14**	09-27-90	520.08	13.78	506.30	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14**	01-03-91	520.08	13.72	506.36	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-14	04/12/91	520.08	12.97	507.11	60000	---	750	3800	720	9200	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-14###	09/04/91	520.08	13.84	506.24	110000	---	2800	11000	1300	13000	---	---	---	---	---	---	SAL
C-14	04/06/92	520.08	12.44	507.64	[redacted]	---	[redacted]	[redacted]	[redacted]	[redacted]	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-15	03-28-86	522.41	13.14	509.27	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	03-15-88	522.41	15.13	507.28	ND<1.0	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	GTEL
C-15	05-10-88	522.41	15.40	507.01	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	06-10-88	522.41	16.49	505.92	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	07-25-88	522.41	15.17	507.24	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	10-13-88	522.41	15.33	507.08	ND<1000	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	BC
C-15	01-01-89	522.41	13.70	508.71	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	01-12-89	---	---	---	ND<1000	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
C-15	04-12-89	522.41	15.34	507.07	ND<100	ND<3.0	ND<0.2	ND<0.2	ND<0.2	ND<0.4	ND<0.2	---	---	---	---	---	CCAS
C-15	06-26-89	522.41	15.72	506.69	ND<50	ND<3.0	ND<0.2	ND<0.2	ND<2.0	ND<2.0	ND<0.2	---	---	---	---	---	CCAS
C-15	10-13-89	522.41	15.96	506.45	ND<500	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	---	---	---	---	---	SAL
C-15	01-03-90	522.41	15.42	506.99	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	SAL
C-15	05-08-90	522.41	15.62	506.79	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<0.5	---	ND<0.5	---	PACE
C-15	09-27-90	522.41	15.59	506.82	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	2.9*	ND<0.5	ND<0.5	---	PACE
C-15	01-03-91	522.41	15.50	506.91	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-15	04/12/91	522.41	15.21	507.20	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	09/04/91	522.41	15.90	506.51	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-15	04/06/92	522.41	14.88	507.53	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-16	03-28-86	519.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	03-15-88	519.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	05-10-88	519.68	13.78	505.90	4500	---	1000	73	140	180	---	---	---	---	---	---	GTEL
C-16	06-10-88	519.68	14.88	504.80	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	07-25-88	519.68	13.69	505.99	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	10-13-88	519.68	13.80	505.88	1600	---	16	5.5	ND<1.0	16	---	---	---	---	---	---	BC
C-16	01-01-89	519.68	13.45	506.23	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	01-12-89	---	---	---	1000	---	360	11	78	51	---	---	---	---	---	---	SAL
C-16	04-11-89	519.68	13.78	505.90	15800	ND<3.0	130	4	21	19	8	---	---	---	---	---	CCAS
C-16	06-26-89	519.68	14.02	505.66	1300	ND<3.0	170	8	37	43	ND<1.0	---	---	---	---	---	CCAS
C-16	10-13-89	519.68	14.01	505.67	1000	ND<5	20	ND<5	7	ND<5	ND<5	---	---	---	---	---	SAL
C-16	01-03-90	519.68	13.97	505.71	1300	---	150	3	41	24	5	---	---	---	---	---	SAL
C-16	05-07-90	519.68	14.45	505.23	480	---	49	4.4	29	13	4.5	---	ND<0.5	---	ND<0.5	---	PACE
C-16	09-29-90	519.68	14.32	505.36	360	---	18	2.1	11	8.0	1.8	ND!	ND<0.5	ND<0.5	ND<0.5	---	PACE
C-16	01-03-91	519.68	13.96	505.72	230	---	12	ND<0.5	6	6	2	ND!	0.8	ND<0.5	ND<0.5	ND<0.5	SAL
C-16	04/12/91	519.68	13.74	505.94	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	09/04/91	519.68	14.22	505.46	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-16	04/06/92	519.68	13.18	506.50	[redacted]	---	[redacted]	ND<0.5	[redacted]	[redacted]	[redacted]	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

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Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-17	03-28-86	520.82	13.48	507.34	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	03-15-88	520.82	14.76	506.06	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	05-10-88	520.82	14.77	506.05	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	06-10-88	520.82	15.84	504.98	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	07-25-88	520.82	14.63	506.19	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	10-13-88	520.82	14.83	505.99	270000	---	18	900	760	5500	---	---	---	---	---	---	BC
C-17	01-01-89	520.82	14.78	506.04	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-17	01-12-89	---	---	---	190000	---	ND(15	490	2100	6700	---	---	---	---	---	---	SAL
C-17	04-11-89	520.82	14.83	506.06	27000	6.0	30	150	320	1000	ND(10	---	---	---	---	---	CCAS
C-17	06-26-89	520.82	15.03	505.79	20000	ND(3.0	50	390	660	2000	ND(10	---	---	---	---	---	CCAS
C-17D	06-26-89	520.82	15.03	505.79	27000	---	40	420	740	2200	ND(10	---	---	---	---	---	CCAS
C-17	10-13-89	520.82	15.02	505.80	17000	ND(5	ND(25	48	230	480	ND(25	---	---	---	---	---	SAL
C-17	01-03-90	520.82	15.10	505.72	14000	---	ND(0.3	29	120	210	ND(0.5	---	---	---	---	---	SAL
C-17	05-08-90	520.82	15.12	505.70	9500	---	25	130	210	470	ND(0.5	---	ND(0.5	---	ND(0.5	---	PACE
C-17	09-29-90	520.82	14.99	505.83	ND(50	---	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND(0.5	ND!	ND(0.5	1.9	ND(0.5	---	PACE
C-17D	09-29-90	520.82	14.99	505.83	ND(50	---	ND(0.5	3.4	ND(0.5	ND(0.5	ND(0.5	ND!	1.8*	1.9	ND(0.5	---	PACE
C-17	01-03-91	520.82	14.92	505.90	3700	---	ND(0.5	28	56	140	ND(0.5	ND!	1.8*	1.9	ND(0.5	ND(0.5	PACE
C-17D	01-03-91	520.82	14.92	505.90	8600	---	ND(3	10	59	150	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-17	04/12/91	520.82	14.71	506.11	8600	---	ND(5 ##	5	47	120	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-17D	04/12/91	520.82	14.71	506.11	4400	---	ND(5 ##	11	48	120	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-17	09/04/91	520.82	15.17	505.65	5800	---	ND(5 ##	27	49	79	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-17D	09/04/91	520.82	15.17	505.65	4100	---	ND(5 ##	21	36	61	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL
C-17	04/06/92	520.82	14.14	506.68	[illegible]	---	ND(0.5	5.8	27	[illegible]	ND(0.5	ND!	ND(0.5	ND(0.5	ND(0.5	ND(0.5	SAL

Table 1
Summary of Results of Ground Water Sampling
Chevron Service Station #9-1924
4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
C-18	03-28-86	518.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	03-15-88	518.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	05-10-88	518.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	06-10-88	518.96	14.89	504.07	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	07-25-88	518.96	13.79	505.17	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	10-13-88	518.96	13.86	505.10	ND<1000	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	BC
C-18	01-01-89	518.96	13.94	505.02	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-18	01-12-89	---	---	---	ND<1000	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
C-18	04-11-89	518.96	14.86	504.10	ND<200	ND<3.0	ND<0.2	ND<0.2	ND<0.2	ND<0.4	3.6	---	---	---	---	---	CCAS
C-18	06-26-89	518.96	14.02	504.94	ND<50	ND<3.0	ND<0.2	ND<0.2	ND<2.0	ND<2.0	3.1	---	---	---	---	---	CCAS
C-18	10-13-89	518.96	15.06	503.90	ND<500	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	---	---	---	---	---	SAL
C-18	01-03-90	518.96	14.07	504.89	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1	---	---	---	---	---	SAL
C-18	05-07-90	518.96	14.01	504.95	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<0.5	---	ND<0.5	---	PACE
C-18	09-27-90	518.96	13.91	505.05	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	0.6*	ND<0.5	ND<0.5	---	PACE
C-18	01-03-91	518.96	13.98	504.98	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-18	04/12/91	518.96	13.83	505.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-18	09/04/91	518.96	14.20	504.76	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-18	04/06/92	518.96	13.07	505.89	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-19	03-28-86	520.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	03-15-88	520.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	05-10-88	520.99	15.23	505.76	18	---	1400	360	350	1300	---	---	---	---	---	---	GTEL
C-19	06-10-88	520.99	16.58	504.41	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	07-25-88	520.99	15.19	505.80	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	10-13-88	520.99	15.27	505.72	ND<1000	---	8.3	4.7	4.4	ND<0.5	---	---	---	---	---	---	BC
C-19	01-01-89	520.99	15.20	505.79	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	01-12-89	---	---	---	ND<1000	---	5	4	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
C-19	04-11-89	520.99	15.24	505.75	ND<1000	ND<3.0	1.8	ND<2	ND<2	ND<4	13	---	---	---	---	---	CCAS
C-19D	04-11-89	520.99	15.24	505.76	500	---	1.2	ND<0.2	0.6	0.6	14	---	---	---	---	---	CCAS
C-19	06-26-89	520.99	15.44	505.55	500	ND<3.0	2.5	ND<5.0	ND<5.0	ND<5.0	26	---	---	---	---	---	CCAS
C-19	10-13-89	520.99	15.47	505.52	540	ND<5	ND<5	ND<5	ND<5	ND<5	13	13	---	---	---	---	SAL
C-19	01-03-90	520.99	15.45	505.54	ND<500	---	1.2	0.7	1.3	0.9	11	---	---	---	---	---	SAL
C-19	05-07-90	520.99	15.68	505.31	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.6	---	ND<0.5	---	ND<0.5	---	PACE
C-19	09-28-90	520.99	15.52	505.47	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND!	1.2*	ND<0.5	ND<0.5	---	PACE
C-19	01-03-91	520.99	15.56	505.43	66	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1	ND!	ND<0.5	ND<0.5	ND<0.5	0.9	SAL
C-19	04/12/91	520.99	15.20	505.79	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	09/04/91	520.99	15.60	505.39	---	---	---	---	---	---	---	---	---	---	---	---	NA
C-19	04/06/92	520.99	14.58	506.41	[illegible]	---	[illegible]	ND<0.5	[illegible]	ND<0.5	[illegible]	ND!	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

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4904 Southfront Road, Livermore, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TOG	B	T	E	X	1,2-DCA	OTHER	MC	1,1,1-TCA	1,1-DCA	PCE	LAB
TB	01-12-89	NA	NA	NA	---	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
TB	04-12-89	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<1.0	ND<1.0	ND<1.0	---	---	---	---	---	CCAS
TB	06-26-89	NA	NA	NA	ND<50	---	ND<0.1	ND<0.1	ND<1.0	ND<1.0	ND<0.1	---	---	---	---	---	CCAS
TB	10-13-89	NA	NA	NA	ND<500	---	ND<5	ND<5	ND<5	ND<5	ND<5	---	---	---	---	---	SAL
TB	01-03-90	NA	NA	NA	ND<500	---	ND<0.5	0.5	ND<0.5	0.7	ND<0.5	---	---	---	---	---	SAL
TB	05-07-90	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<0.5	---	ND<0.5	---	PACE
TB	09-28-90	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
TB	01-03-91	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.8	---	---	---	---	---	---	SAL
TB	04/12/91	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	SAL
TB	09/04/91	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	SAL
TB	04/06/92	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	SAL
RINSATE	09-27-90	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
RINSATE	01-03-91	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	---	---	---	---	---	---	SAL
RINSATE	04/12/91	NA	NA	NA	ND<50	---	ND<0.5	0.6	ND<0.5	0.5	---	---	---	---	---	---	SAL
RINSATE	09/04/91	NA	NA	NA	ND<50	---	ND<0.5	0.6	ND<0.5	0.5	---	---	---	---	---	---	SAL
[redacted]	04/06/92	NA	NA	NA	ND<50	---	ND<0.5	[redacted]	ND<0.5	[redacted]	---	---	---	---	---	---	SAL

EXPLANATION OF ABBREVIATIONS:

TPH-G	:Total Petroleum Hydrocarbons as Gasoline (EPA method 8015 modified)	---	:Not Analyzed/Not Measured	OTHER	:5 ppb Carbon Disulfide detected in C-1 on 10-13-89.
TOG	:Total Oil & Grease (EPA Method 503D & 503E)	NA	:Not Applicable/Not Available		3 ppb Vinyl Chloride detected in C-14 on 1-3-90.
B	:Benzene (EPA method 8020 or 8240)	ND	:Not Detected		1 ppb Vinyl Chloride detected in C-14 on 1-4-90.
T	:Toluene (EPA method 8020 or 8240)	TB	:Trip Blank		13 ppb Carbon Disulfide detected in C-19 on 10-13-89.
E	:Ethylbenzene (EPA method 8020 or 8240)	D	:Duplicate	*	:Probable laboratory contamination.
X	:Xylenes (EPA method 8020 or 8240)	GTEL	:GTEL Laboratory	**	:Not sampled due to insufficient water in well.
1,2-DCA	:1,2-Dichloroethane	BC	:Brown & Caldwell Laboratory	***	:0.01 feet L-PH measured.
MC	:Methylene Chloride	SAL	:Superior Analytical Laboratory	#	:Sheen observed.
TCA	:1,1,1-Trichloroethane	CCAS	:CCAS Laboratory	##	:Diluted 1:10.
1,1-DCA	:1,1-Dichloroethane	PACE	:PACE Laboratory	###	:Insufficient water in well for EPA 8010 analysis, only 1 and 1/2 40-ml VOA's sampled.
PCE	:Tetrachloroethene	C-146	:Grab sample.		
				!	:See laboratory reports for various detection limits.
				!!	:Non-typical gasoline pattern observed in chromatogram.

Monitoring Wells C-3, C-5, C-7, C-8, C-10, C-14, C-17, and C-18 sampled semiannually, 1st and 3rd quarter.
Monitoring Wells C-1, C-2, C-6, C-9, C-11, C-12, C-13, C-15, C-16, and C-19 sampled annually, 1st quarter.

Note: Top of casing and ground water elevations are expressed as feet above mean sea level (NGVD-1929).

APPENDIX A

OFFICIAL LABORATORY RESULTS
AND
CHAIN OF CUSTODY FORMS

Superior Precision Analytical, Inc.
1555 Burke Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12972
CLIENT: Alton Geoscience
CLIENT JOB NO.: 31-0284

DATE RECEIVED: 04/07/92
DATE REPORTED: 04/14/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12972- 1	TB	04/06/92	04/10/92
12972- 2	RINS	04/06/92	04/13/92
12972- 3	C-3	04/06/92	04/13/92
12972- 4	C-10	04/06/92	04/13/92
12972- 5	C-12	04/06/92	04/13/92
12972- 6	C-13	04/06/92	04/13/92
12972- 7	C-15	04/06/92	04/13/92
12972- 8	C-18	04/06/92	04/10/92
12972- 9	C-19	04/06/92	04/13/92
12972-10	C-5	04/06/92	04/10/92

Laboratory Number:	12972 1	12972 2	12972 3	12972 4	12972 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	88	57*	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TOLUENE:	ND<0.5	0.7	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	0.8	ND<0.5	ND<0.5
XYLENES:	ND<0.5	0.6	ND>0.5	ND<0.5	ND<0.5

Laboratory Number:	12972 6	12972 7	12972 8	12972 9	12972 10
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	66*	ND<50	ND<50	110	670
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	0.7	12
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	1.0	40
XYLENES:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Superior Precision Analytical, Inc.
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C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 12972
CLIENT: Alton Geoscience
CLIENT JOB NO.: 31-0284

DATE RECEIVED: 04/07/92
DATE REPORTED: 04/14/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12972-11	C-11	04/06/92	04/10/92
12972-12	C-2	04/06/92	04/13/92
12972-13	C-16	04/06/92	04/10/92
12972-14	C-8	04/06/92	04/13/92
12972-15	C-1	04/06/92	04/10/92
12972-16	C-6	04/06/92	04/13/92
12972-17	C-7	04/06/92	04/10/92
12972-18	C-9	04/06/92	04/13/92
12972-19	C-17	04/06/92	04/10/92
12972-20	C-14	04/06/92	04/10/92

Laboratory Number:	12972 11	12972 12	12972 13	12972 14	12972 15
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	1200	360	150*	1000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	30	ND<0.5	12
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.8
ETHYL BENZENE:	ND<0.5	54	14	ND<0.5	31
XYLENES:	ND<0.5	6.1	12	ND<0.5	31

Laboratory Number:	12972 16	12972 17	12972 18	12972 19	12972 20
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	44000	2400	2800	2300	41000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<5	95	ND<0.5	ND<0.5	190
TOLUENE:	120	0.8	ND<0.5	5.8	1800
ETHYL BENZENE:	740	110	33	27	440
XYLENES:	3400	100	130	29	5100

Superior Precision Analytical, Inc.
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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

QA/QC INFORMATION
SET: 12972

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: 10/12/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L
Standard Reference: 04/03/92

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	04/03/92	200ng	89/93	5.4	76-111
Benzene	04/03/92	200ng	89/97	9.2	78-110
Toluene	04/03/92	200ng	87/95	9.4	78-111
Ethyl Benzene	04/03/92	200ng	87/96	10	78-118
Total Xylene	04/03/92	600ng	84/92	9.1	73-113

* Gasoline range concentration reported. A non-typical gasoline pattern was observed in the chromatogram.

Richard Srna, Ph.D.
Laboratory Director

Superior Precision Analytical, Inc.
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C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 12972-15
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-1

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia H. Jorgens (for)
Laboratory Director

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / Fax (415) 821-7123

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

LABORATORY NO.: 12972-12
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-2

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia G. Jaguin (for)
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C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 12972-3
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-3

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

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

LABORATORY NO.: 12972-10
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-5

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia G. Jorgensen (for)
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C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 12972-16
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-6

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia G. Jaquin (for)
Laboratory Director

Superior Precision Analytical, Inc.
1555 Burke Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

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

LABORATORY NO.: 12972-17
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
DATE ANALYZED: 04/07/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-7

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia G. Jaquin (for)
Laboratory Director

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

LABORATORY NO.: 12972-14
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
DATE RECEIVED: 04/07/92
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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-8

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

Richard Srna, Ph.D.

Cecilia G. Joaquin (for)
Laboratory Director

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

LABORATORY NO.: 12972-18
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-9

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-4
CLIENT: Alton Geoscience
JOB NO.: 31-0284

DATE SAMPLED: 04/06/92
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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-10

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	1.1
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-11
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-11

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-5
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-12

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 101 % :MS/MSD RPD = 7.5 %

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CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12972-6
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-13

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-20
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-14

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 101 % :MS/MSD RPD = 7.5 %

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

LABORATORY NO.: 12972-7
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-15

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-13
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-16

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	1.0
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-19
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-17

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-8
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-18

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	ND
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 104 % :MS/MSD RPD = 3.6 %

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

LABORATORY NO.: 12972-9
CLIENT: Alton Geoscience
JOB NO.: 31-0284

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DATE ANALYZED: 04/09/92

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE:C-19

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride	1.0	ND
Bromomethane/Chloroethane	1.0	ND
Trichlorofluoromethane	0.5	ND
1,1-Dichloroethene	0.5	ND
Methylene Chloride	0.5	ND
trans-1,2-Dichloroethene	0.5	ND
1,1-Dichloroethane	0.5	ND
Chloroform	0.5	ND
1,1,1-Trichloroethane	0.5	ND
Carbon tetrachloride	0.5	ND
1,2-Dichloroethane	0.5	1.9
Trichloroethylene	0.5	ND
1,2-Dichloropropane	0.5	ND
Bromodichloromethane	0.5	ND
Cis-1,3-Dichloropropene	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Dibromochloromethane	0.5	ND
Chlorobenzene	0.5	ND
Bromoform	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,2-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Cis-1,2-Dichloroethene	0.5	ND

MDL = Method Detection Limit
ug/L = parts per billion (ppb)
QA/QC Summary: Daily Standard RPD =< 15%
MS/MSD average recovery = 101 % :MS/MSD RPD = 7.5 %

Richard Srna, Ph.D.

Cecilia G. Joaquin (for)
Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☒ No — Page 1 of 2

Chain-of-Custody-Record

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

Chevron Facility Number: 9-1924
Facility Address: 4904 South Front Rd, Livermore
Consultant Project Number: 31-0284
Consultant Name: Alton Geoscience
Address: 5870 Stoneridge Dr. #6, Pleasanton
Project Contact (Name): John DeGeorge
(Phone) (510) 734-8134 (Fax Number) (510) 734-8420

Chevron Contact (Name): Clint Rogers
(Phone): 842-9500
Laboratory Name: Superior Analytical
Laboratory Release Number: 4611220
Samples Collected by (Name): Jon VAIL / Lar[illegible]
Collection Date: 4-6-92
Signature: [signature], [signature]

Analyses To Be Performed

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	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)						Remarks
TB	1	2	W	G	1258	HCL	Y	X													Analyze
RINS	2	2	W	G	1259	HCl	Y	X													Analyze
C-3	3	4	↓	↓	1302	↓	↓	↓													↓
C-10	4				1318																
C-12	5				1328																
C-13	6				1345																
C-15	7				1410																
C-18	8				1427																
C-19	9				1443																
C-5	10				1417																
C-11	11				1550																
C-2	12				~~1410~~ 1400																
C-16	13				1430																
C-8	14	↓	↓	↓	1445	↓	↓	↓													↓

Handwritten note (slanted, in table): add BTEX [illegible] sample per John DeGeorge 4/7/92 CWG

Stamp:
Please initial: CWG
Samples Stored in ice. ✓
Appropriate containers. ✓
Samples preserved. ✓
VOA's without headspace. ✓
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	ALTON	4/7/92 0920	[signature]	Alton	4-7-92 0920
[signature]	Alton	4-7-92 0945	W Eich	Exp-it	4-7-92
W Eich	Exp-it	4-7-92	Received For Laboratory By (Signature): [signature]		4/7/92 1215

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days (circled)
10 Days
As Contracted
STAT (circled)

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☒ No

Chain-of-Custody-Record

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

Chevron Facility Number: 9-1924
Facility Address: 4904 Southfront Rd, Livermore
Consultant Project Number: 31-0284
Consultant Name: Alton Geoscience
Address: 5870 Stoneridge DR #6, Pleasanton
Project Contact (Name): John De George
(510) (Phone) 734-8134 (Fax Number) (510) 734-8420

Chevron Contact (Name): Clint Rogers
(Phone): 842-9500
Laboratory Name: SAL
Laboratory Release Number: 461220
Samples Collected by (Name): LARRY / John
Collection Date: 4/6/92
Signature: Larry Burnda

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	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)	Remarks
C-1	15	4	W	G	1502	HCl	Yes	X			X					analyze
C-6	16				1529											
C-7	17				1544											
C-9	18				1601											
C-17	19				1640											
C-14	20				1650											

Please Initial:
Samples Stored in ice. dgs
Appropriate containers. dgs
Samples preserved. dgs
VOA's without headspace. Y/N
Comments: only 2 VOAs for C-14

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	ALTON	4/7/92 0920	[signature]	Alton	4-7-92 0920
[signature]	Alton	4-7-92 0940	[signature]	EXPIT	4-7-92
W. Eich	EXPIT	4-7-92	[signature]		4/7/92 1242

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted