



Chevron U.S.A. Inc.

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address PO Box 5004, San Ramon, CA 94583-0804

P 12/5 + 3086

Marketing Department

November 18, 1991

Ms. Pamela Evans
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Chevron Service Station #9-0504
15900 Hesperian Blvd., San Lorenzo**

Dear Ms. Evans:

Enclosed we are forwarding the Ground Water Monitoring Report dated November 8, 1991, prepared by our consultant Alton Geoscience for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor wells C-1, C-2, C-3, C-7 and C-8 only at concentrations of 220, 220, 7.9, 47 and 66 ppb, respectively. These concentrations are significantly lower than the results reported in the last sampling event. Concentrations in monitor wells C-1 and C-2 reduced from 37,000 and 1,200,000 ppb to 3,200 and 4,900 ppb, respectively since the March, 1991, sampling event. These wells were redeveloped in September. The mechanical action of redevelopment may have removed small residual pockets of separate-phase hydrocarbons trapped in e well sand packs and adjacent soils which might have contributed to the high concentrations previously detected.

As stated in my letter to you dated October 28, 1991, we recommend reevaluating the remedial approach for this site after two more quarterly sampling events to see if a trend of decreasing concentrations is being established or if the September results are anomalous.

Chevron will continue to monitor this site and report findings on a quarterly basis.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

Very truly yours,
CHEVRON U.S.A. INC.

Nancy Vukelich
Environmental Engineer

Enclosure

cc: Mr. Eddy So, RWQCB-Bay Area
Ms. B.C. Owen
File (9-0504Q1)

Mr. Bruce E. Prigoff, Esq.
Steeffel, Levitt & Weiss
One Embarcadero Center, 29th Floor
San Francisco, CA 94111

94:2113 02 NOV 16

November 8, 1991

Ms. Nancy Vukelich
Chevron U.S.A., Inc.
Post Office Box 5004
San Ramon, California 94583-0804

310-561

Subject: Quarterly Ground Water Monitoring Report
Chevron Service Station No. 9-0504
15900 Hesperian Boulevard
San Lorenzo, California

Dear Ms. Vukelich:

In accordance with our agreement, Alton Geoscience transmits this Quarterly Ground Water Monitoring and Sampling Report for Chevron Station No. 9-0504, 15900 Hesperian Boulevard, San Lorenzo, California. Figure 1 shows the site location.

Monitoring and sampling of the ground water monitoring wells was performed on September 26, 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, each well was checked for liquid-phase hydrocarbons or sheen. The depth to ground water and, if present, free product thickness 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 stored onsite in DOT-approved, 55-gallon drums pending removal by Erickson Inc., a licensed hauler. The purged ground water was transported as non-hazardous to Gibson Oil/ Pilot Petroleum of Redwood City, California for recycling.

Ms. Nancy Vukelich
November 8, 1991
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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.

Neither liquid-phase hydrocarbons nor sheen was observed in any of the ground water monitoring wells. The official laboratory reports and chain of custody records are included in Appendix A.

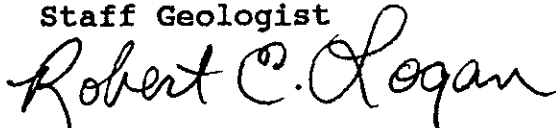
Please call John De George at (510) 682-1582 if you have any questions regarding this report.

Sincerely,

ALTON GEOSCIENCE,



John De George
Staff Geologist



Robert E. Logan R. G. 5088
Manager, Concord Operations

wp90504jd



FIGURE 1: SITE VICINITY MAP

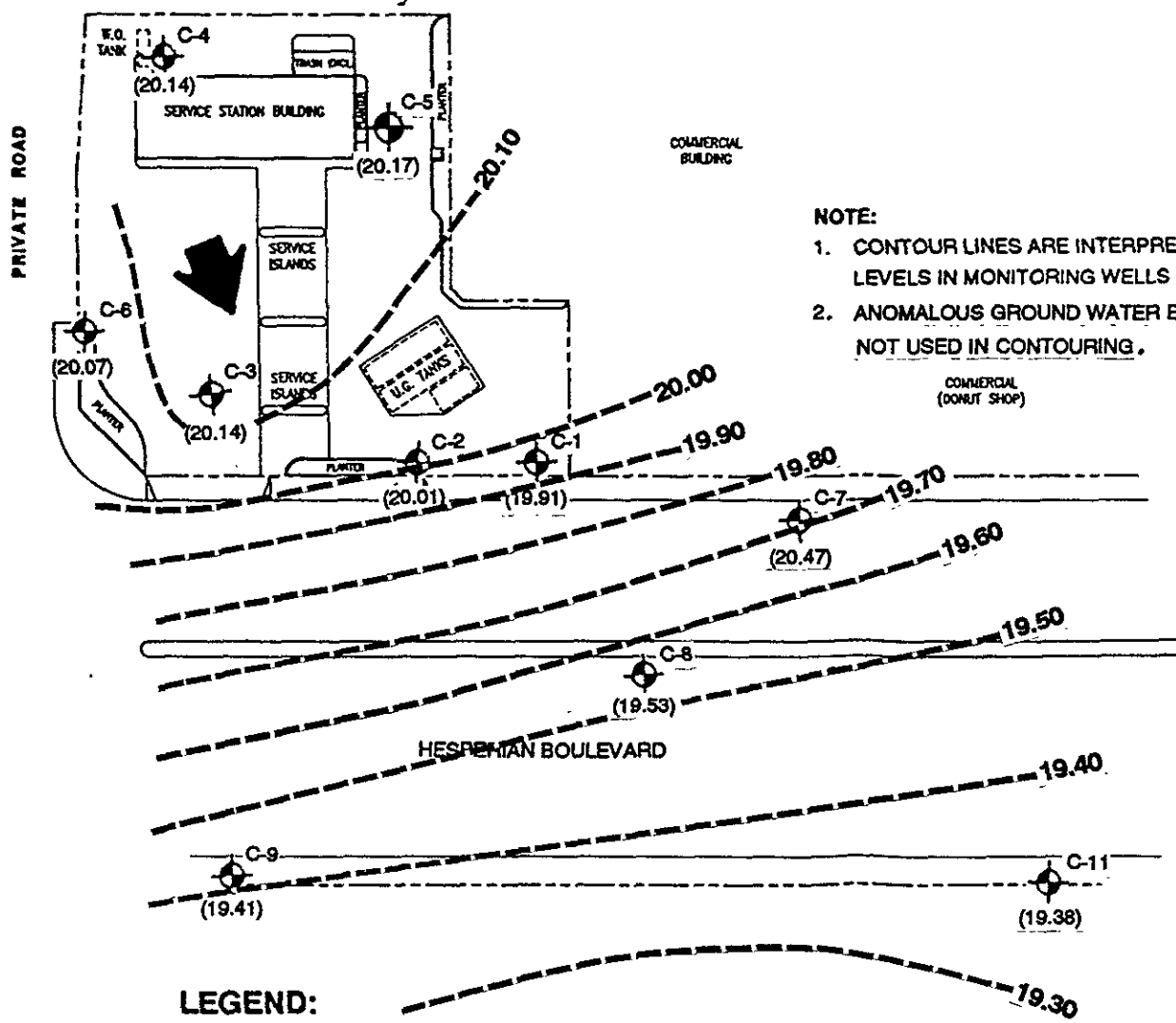
CHEVRON SERVICE STATION
 NUMBER 9-0504
 15900 HESPERIAN BOULEVARD
 SAN LORENZO, CALIFORNIA

SOURCE: THE THOMAS GUIDE
 ALAMEDA COUNTY STREET
 GUIDE & DIRECTORY

PROJECT NO. 310-561



ALTON GEOSCIENCE
 1000 Burnett Ave. Ste. 140
 Concord, California



NOTE:

1. CONTOUR LINES ARE INTERPRETIVE BASED ON FLUID LEVELS IN MONITORING WELLS MEASURED ON 9/26/91.
2. ANOMALOUS GROUND WATER ELEVATION FROM WELL C-7 NOT USED IN CONTOURING.

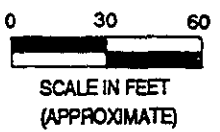


FIGURE 2.
GROUND WATER ELEVATION CONTOUR MAP

LEGEND:

- GROUND WATER MONITORING WELL
- GROUND WATER ELEVATION (FEET ABOVE MEAN SEA LEVEL [NGVD-1929])
- GROUND WATER ELEVATION CONTOUR
- GENERAL GROUND WATER GRADIENT DIRECTION

CHEVRON SERVICE STATION
NUMBER 9-0504
15900 HESPERIAN BOULEVARD
SAN LORENZO, CALIFORNIA

ALTON GEOSCIENCE
1000 Burnett Ave. Ste. 140
Concord, California

Table 1
 Summary of Results of Ground Water Sampling
 Chevron Service Station No. 9-0504
 19900 Hesperian Boulevard, San Lorenzo, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEV.	DEPTH TO WATER	L-PH	GROUND WATER ELEV.	TPH-G	TPH-D	B	T	E	X	TOG	TPH-O	LAB
C-1	06/06/89	---	---	---	---	5100	---	250	170	200	990	---	---	NA
C-1	12/08/89	---	13.14	0.01	---	---	---	---	---	---	---	---	---	NA
C-1	09/07/90	33.93	14.04	0.03	19.91	---	---	---	---	---	---	---	---	NA
C-1	12/20/90	33.93	13.87	0.01	20.07	---	---	---	---	---	---	---	---	NA
C-1	03/15/91	33.93	11.40	---	22.53	37000	---	220	53	580	1900	---	---	SAL
C-1	06/28/91	33.93	12.25	SHEEN	21.68	3300	---	110	6.2	100	350	---	---	SAL
C-1	09/26/91	33.93	14.02	---	19.91	3200	---	220	6.9	230	710	---	---	SAL
C-2	06/06/89	---	---	---	---	130000	---	14000	28000	3400	24000	---	---	NA
C-2	12/08/89	---	13.44	0.15	---	---	---	---	---	---	---	---	---	NA
C-2	09/07/90	34.21	14.28	0.10	20.01	---	---	---	---	---	---	---	---	NA
C-2	12/20/90	34.21	14.06	0.01	20.16	---	---	---	---	---	---	---	---	NA
C-2	03/15/91	34.21	11.59	0.01	22.63	1200000	---	4700	16000	13000	140000	---	---	SAL
C-2	06/28/91	34.21	12.55	SHEEN	21.66	150000	---	3500	4200	2100	16000	---	---	SAL
C-2	09/26/91	34.21	14.20	---	20.01	4900	---	220	290	130	880	---	---	SAL
C-3	06/06/89	---	---	---	---	2600	---	63	20	390	370	---	---	NA
C-3	12/08/89	---	---	---	---	680	---	6	1	31	58	---	---	SAL
C-3	09/07/90	35.46	15.31	---	20.15	490	---	6	ND<0.5	41	120	---	---	SAL
C-3D	09/07/90	35.46	15.31	---	20.15	460	---	6	ND<0.5	40	110	---	---	SAL
C-3	12/20/90	35.46	15.17	---	20.29	100	---	5	ND<0.5	27	130	---	---	SAL
C-3	03/06/91	35.46	13.27	---	22.19	1300	---	7	ND<0.5	75	250	---	---	SAL
C-3D	03/06/91	35.46	13.27	---	22.19	1400	---	8	ND<0.5	76	250	---	---	SAL
C-3	06/28/91	35.46	13.67	---	21.79	770	---	6.0	ND<0.5	81	71	---	---	SAL
C-3D	06/28/91	35.46	13.67	---	21.79	990	---	5.5	ND<0.5	86	75	---	---	SAL
C-3	09/26/91	35.46	15.32	---	20.14	1400	---	7.9	ND<0.5	98	340	---	---	SAL
C-4	06/06/89	---	---	---	---	ND<50	---	ND<0.05	ND<1	ND<1	ND<3	---	ND<500	NA
C-4	12/08/89	---	---	---	---	ND<500	ND<1000	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	---	SAL
C-4	09/07/90	35.78	15.58	---	20.20	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	---	SAL
C-4	12/20/90	35.78	15.42	---	20.36	170	---	1	ND<0.5	ND<0.5	4	---	---	SAL
C-4	03/06/91	35.78	13.54	---	22.24	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-4	06/28/91	35.78	13.93	---	21.85	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.8	---	---	SAL
C-4	09/26/91	35.78	15.64	---	20.14	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-4D	09/26/91	35.78	15.64	---	20.14	ND<50	---	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 No. 9-0504
 15900 Hesperian Boulevard, San Lorenzo, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEV.	DEPTH TO WATER	L-PH	GROUND WATER ELEV.	TPH-G	TPH-D	B	T	E	X	TOG	TPH-O	LAB
C-5	06/06/89	---	---	---	---	ND<50	---	ND<0.05	ND<1	ND<1	ND<3	---	---	NA
C-5	12/08/89	---	---	---	---	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-5	09/07/90	35.31	15.10	---	20.21	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-5	12/20/90	35.31	14.94	---	20.37	80	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-5	03/06/91	35.31	13.06	---	22.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-5	06/28/91	35.31	13.46	---	21.85	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-5	09/26/91	35.31	15.14	---	20.17	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-6	12/08/89	---	---	---	---	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-6	09/07/90	36.89	16.83	---	20.06	57	---	ND<0.5	ND<0.5	0.6	4	---	---	SAL
C-6	12/20/90	36.89	16.66	---	20.23	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-6	03/06/91	36.89	14.80	---	22.09	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-6	06/28/91	36.89	15.16	---	21.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-6	09/26/91	36.89	16.82	---	20.07	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-7	12/08/89	---	---	---	---	1700	---	32	12	17	150	---	---	SAL
C-7	09/07/90	32.75	13.02	---	19.73	880	---	84	23	46	180	---	---	SAL
C-7	12/20/90	32.75	12.28	---	20.47	560	---	24	3	19	21	---	---	SAL
C-7	03/06/91	32.75	16.92	---	15.83	240	---	25	2	4	26	---	---	SAL
C-7	06/28/91	32.75	11.31	---	21.44	2600	---	130	13	82	220	---	---	SAL
C-7	09/26/91	32.75	12.28	---	20.47	8100	---	47	35	350	1200	---	---	SAL
C-8	12/08/89	---	---	---	---	4800	---	62	11	95	180	---	---	SAL
C-8	09/07/90	33.82	14.32	---	19.50	3700	---	170	31	180	270	---	---	SAL
C-8	12/20/90	33.82	14.21	---	19.61	3900	---	120	20	130	180	---	---	SAL
C-8	03/06/91	33.82	14.80	---	19.02	1200	---	45	6	34	57	---	---	SAL
C-8	06/28/91	33.82	12.65	---	21.17	6900	---	180	46	340	640	---	---	SAL
C-8	09/26/91	33.82	14.29	---	19.53	1400	---	66	9.8	38	40	---	---	SAL

Table 1
 Summary of Results of Ground Water Sampling
 Chevron Service Station No. 9-0504
 15900 Hesperian Boulevard, San Lorenzo, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEV.	DEPTH TO WATER	L-PH	GROUND WATER ELEV.	TPH-G	TPH-D	B	T	E	X	TOG	TPH-O	LAB
C-9	09/07/90	33.43	14.06	---	19.37	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-9	12/20/90	33.43	14.03	---	19.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-9	03/06/91	33.43	12.12	---	21.31	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-9	06/28/91	33.43	12.41	---	21.02	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-9	09/26/91	33.43	14.02	---	19.41	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-10	09/07/90	31.63	12.49	---	19.14	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-10	12/20/90	31.63	12.36	---	19.27	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-10	03/06/91	31.63	10.45	---	21.18	ND<50	---	ND<0.5	0.8	ND<0.5	0.8	---	---	SAL
C-10	06/28/91	31.63	10.74	---	20.89	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-10	09/26/91	31.63	12.42	---	19.21	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-11	09/07/90	31.58	12.22	---	19.36	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-11	12/20/90	31.58	12.08	---	19.50	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-11	03/06/91	31.58	16.15	---	15.43	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-11	06/28/91	31.58	10.52	---	21.06	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
C-11	09/26/91	31.58	12.20	---	19.38	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
TB	09/07/90	NA	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
TB	03/06/91	NA	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
TB	06/28/91	NA	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
TB	09/26/91	NA	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
RINSATE	03/06/91	NA	NA	NA	NA	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	SAL
RINSATE	09/26/91	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)	B	:Benzene (EPA Method 8020 or 8240)
TPH-D	:Total Petroleum Hydrocarbons as Diesel (EPA method 8015 modified)	T	:Toluene (EPA Method 8020 or 8240)
TPH-O	:Total Petroleum Hydrocarbons as Oil (EPA method 8015 modified)	E	:Ethylbenzene (EPA Method 8020 or 8240)
TOG	:Total Oil and Grease (EPA method 5520)	X	:Xylenes (EPA Method 8020 or 8240)
L-PH	:Liquid-Phase Hydrocarbons (expressed in feet)	ND	:Not detected
		NA	:Not applicable/Not available
		---	:Not analyzed/Not measured
		TB	:Trip Blank
		SAL	:Superior Analytical Laboratory

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

APPENDIX A
OFFICIAL LABORATORY RESULTS
AND
CHAIN OF CUSTODY FORMS



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

NOV 13 1991

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 84017
CLIENT: Alton Geoscience
CLIENT JOB NO.: 310-561

DATE RECEIVED: 09/27/91
DATE REPORTED: 10/04/91

Page 1 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
84017- 1	TB	09/26/91	10/03/91
84017- 2	RIN	09/26/91	10/03/91
84017- 3	C-5	09/26/91	10/02/91
84017- 4	C-4	09/26/91	10/02/91
84017- 5	C-4D	09/26/91	10/03/91
84017- 6	C-6	09/26/91	10/02/91
84017- 7	C-9	09/26/91	10/02/91
84017- 8	C-11	09/26/91	10/02/91
84017- 9	C-10	09/26/91	10/02/91
84017-10	C-8	09/26/91	10/03/91

Laboratory Number:	84017 1	84017 2	84017 3	84017 4	84017 5
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ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND <50	ND <50	ND <50	ND <50	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	ND <0.5	ND <0.5	ND <0.5	ND <0.5
ETHYL BENZENE:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5
XYLENES:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5

Laboratory Number:	84017 6	84017 7	84017 8	84017 9	84017 10
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ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND <50	ND <50	ND <50	ND <50	1400
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	66
TOLUENE:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	9.8
ETHYL BENZENE:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	38
XYLENES:	ND <0.5	ND <0.5	ND <0.5	ND <0.5	40



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 84017
CLIENT: Alton Geoscience
CLIENT JOB NO.: 310-561

DATE RECEIVED: 09/27/91
DATE REPORTED: 10/04/91

Page 2 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
84017-11	C-7	09/26/91	10/04/91
84017-12	C-3	09/26/91	10/03/91
84017-13	C-2	09/26/91	10/04/91
84017-14	C-1	09/26/91	10/03/91

Laboratory Number:	84017 11	84017 12	84017 13	84017 14
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ANALYTE LIST	Amounts/Quantitation Limits (ug/L)			
OIL AND GREASE:	NA	NA	NA	NA
TPH/GASOLINE RANGE:	8000	1400	4900	3200
TPH/DIESEL RANGE:	NA	NA	NA	NA
BENZENE:	47	7.9	220	220
TOLUENE:	35	ND <0.5	290	6.9
ETHYL BENZENE:	350	98	130	230
XYLENES:	1200	340	880	710



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: 84017

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: 10/04/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 10/11/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	10/04/91	200 ng	74/79	6	70-130
Benzene	10/11/91	200 ng	103/98	5	70-130
Toluene	10/11/91	200 ng	91/97	6	70-130
Ethyl Benzene	10/11/91	200 ng	92/96	4	70-130
Total Xylene	10/11/91	200 ng	89/94	6	70-130

Richard S. Ana, Ph.D.
[Signature]
Laboratory Director