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

91 NOV 20 PM 12:47

Marketing Department

November 18, 1991

Mr. Rafat Shahid
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-1740
6550 Moraga Avenue, Oakland 94611

Dear Mr. Shahid:

Enclosed we are forwarding the Ground Water Sampling Report dated November 5, 1991, prepared by our consultant Sierra Environmental Services 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 and C-4 at concentrations of 68, 200 and 850 ppb, respectively. Depth to groundwater was measured at approximately 4 to 7-feet below grade, and the groundwater flow direction is to the south.

Chevron will continue to sample this site and report findings on a quarterly basis. At completion of one (1) years worth of sampling (one (1) additional quarter), the data will be evaluated and appropriate next actions recommended with regards to additional site assessment. At this time we will have confirmed ground water flow direction.

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

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

Nancy Vukelich
Environmental Engineer

Enclosures

cc: Mr. Eddy So, RWQCB-Bay Area
Mr. S.A. Willer
File (9-1740Q1)

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Environmental Services

November 5, 1991

Nancy Vukelich
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California
SES Project #1-221-04

Dear Ms. Vukelich:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-1740, located at 6550 Moraga Avenue in Oakland, California (Figure 1, Appendix A). Four wells, C-1 through C-4, were sampled (Figure 2, Appendix A).

On September 25, 1991, SES personnel visited the site. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 (Appendix B) and a ground water elevation contour map is included as Figure 2 (Appendix A).

Ground water samples were collected on September 25, 1991 in accordance with SES Standard Operating Procedure - Ground Water Sampling (Appendix C). All analyses were performed by Superior Analytical Laboratory of Martinez, California. Analytic results for ground water are presented in Table 2 (Appendix B). The chain of custody document and laboratory analytic reports are included in Appendix D. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron USA. Please call Jeanne Wahler if you have any questions.

Sincerely,
Sierra Environmental Services

J.F. Leising
Environmental Technician

Dr. Roger Greensfelder
Registered Geologist #003011

JFL/RG:ly
22104QM.OC1

Appendices A - Figures
B - Tables
C - SES Standard Operating Procedure
D - Chain of Custody Document and Laboratory Analytic Reports

REGISTERED GEOLOGIST
R. W. GREENSFELDER
No. 003011
STATE OF CALIFORNIA

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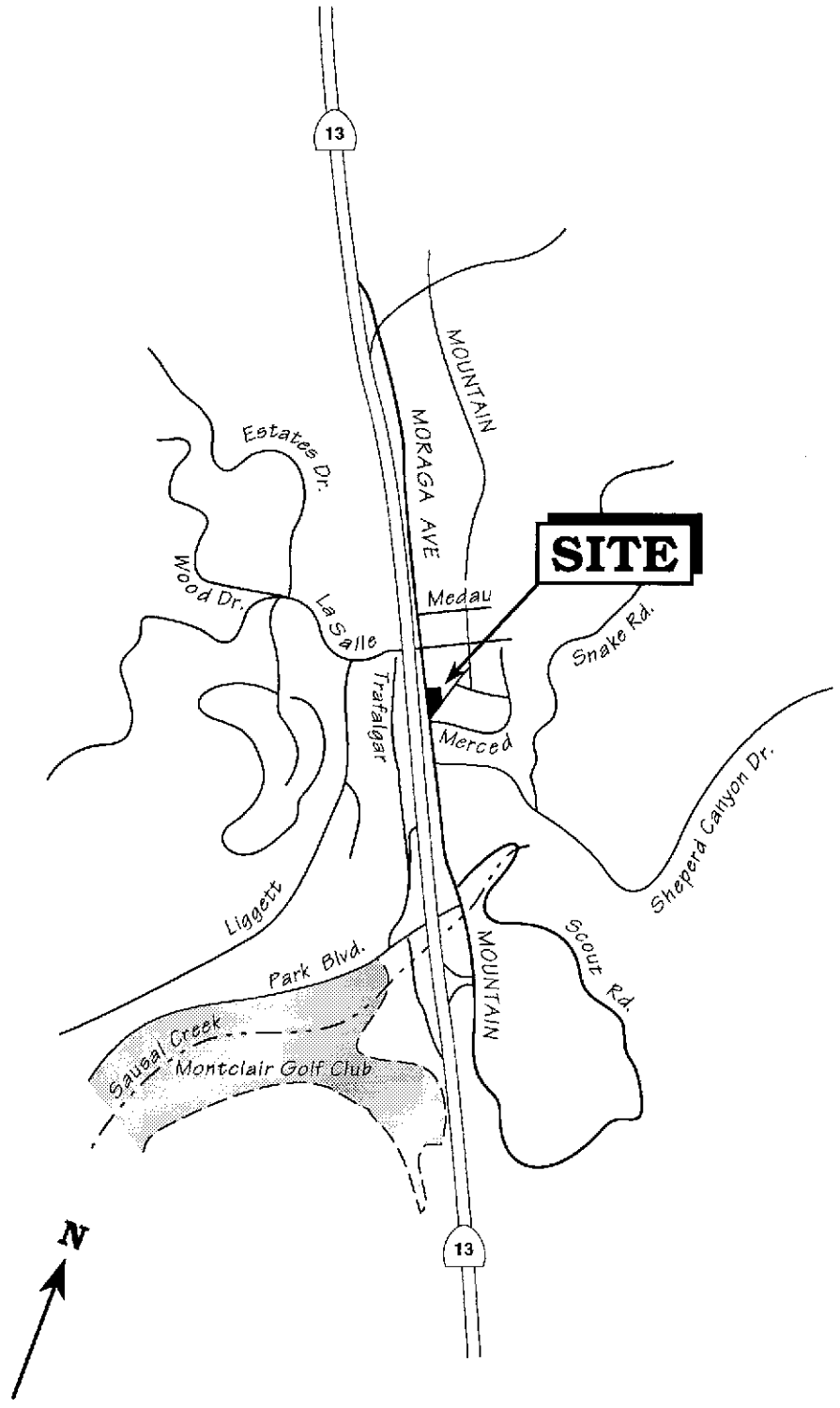

Base map ref: California Automobile Association (AAA)

Figure 1. Site Location Map – Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

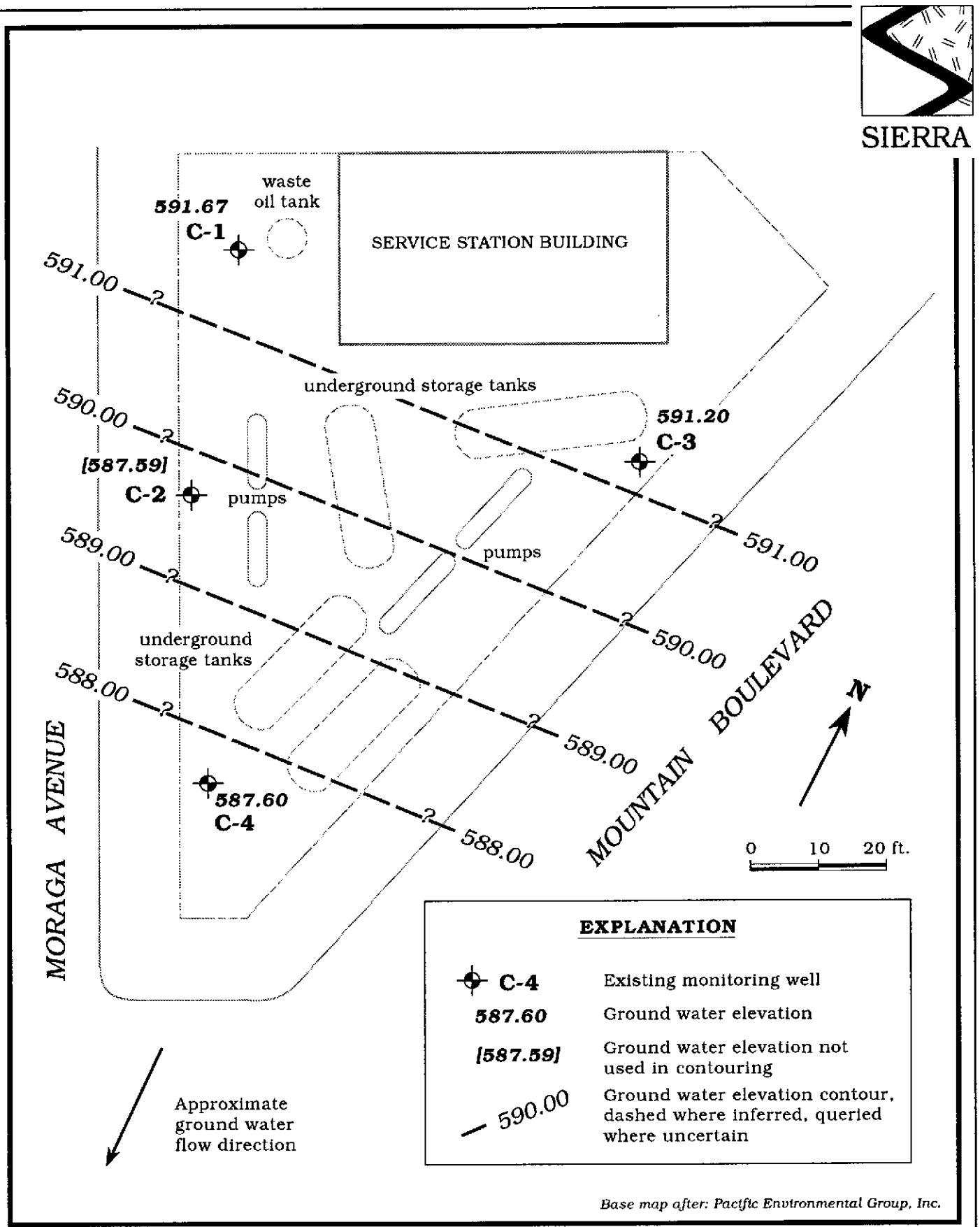

Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map – September 25, 1991 – Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------*feet below grade*---------->		
C-1	3/25/91	3.28	595.82	592.54	0	5 - 25	4 - 25	0 - 4
	7/1/91	3.43		592.39	0			
	9/25/91	**4.15**		**591.67**	**0**			
C-2	3/25/91	22.89	594.57	571.68	0	5 - 25	4 - 25	0 - 4
	7/1/91	7.37		587.20	0			
	9/25/91	**6.98**		**587.59**	**0**			
C-3	3/25/91	5.16	597.14	591.98	0	5 - 25	4 - 25	0 - 4
	7/1/91	5.84		591.30	0			
	9/25/91	**5.94**		**591.20**	**0**			
C-4	3/25/91	4.45	593.10	588.65	0	5 - 25	4 - 25	0 - 4
	7/1/91	5.33		587.77	0			
	9/25/91	**5.50**		**587.60**	**0**			

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level

NOTES:

Depth to water measurements prior to July 1, 1991, top of casing elevations, and well construction details were compiled from the Soil and Groundwater Investigation Report prepared for this service station by Pacific Environmental Group, Inc. dated June 13, 1991.

* Product thickness measurements prior to July 1, 1991 were measured with a clear teflon bailer. Measurements made on July 1, 1991 were measured with an MMC flexi-dip interface probe.

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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID	Date Sampled	Analytic Method	TPPH(G)	TPH(D)	O&G	B	T	E	X
			<--------			ppb			-------->
C-1	3/25/91	8015/8020/503E	54	<50	<5,000	0.7	<0.5	<0.5	2
	7/1/91	8015/8020	730	---	---	250	3.0	16	4.8
	9/25/91	**8015/8020**	**360**	**---**	**---**	**68**	**1.3**	**6.1**	**1.3**
C-2	3/25/91	8015/8020	<50	<50	---	1	<0.5	<0.5	2
	7/1/91	8015/8020	660	---	---	190	2.5	28	22
	9/25/91	**8015/8020**	**110**	**---**	**---**	**200**	**1.9**	**21**	**1.7**
C-3	3/25/91	8015/8020	<50	<50	---	<0.5	<0.5	<0.5	0.5
	7/1/91	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
C-4	3/25/91	8015/8020	2,700	<50	---	240	16	<0.5	350
	7/1/91	8015/8020	7,900	---	---	1,500	230	340	350
	9/25/91	**8015/8020**	**3,200**	**---**	**---**	**850**	**160**	**150**	**220**
Trip Blank (AA)	3/25/91	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/1/91	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank (BB)	3/25/91	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/1/91	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8015 = EPA Method 8015 for TPH(D)
8020 = EPA Method 8020 for BTEX
503E = Standard Methods Method 503E for O&G

ANALYTIC LABORATORY:

All samples were analyzed by Superior Analytic Laboratory of Martinez, California.

NOTE:

Analytic data prior to July 1, 1991 were compiled from the Soil and Groundwater Investigation Report prepared for this service station by Pacific Environmental Group, Inc. dated June 13, 1991.

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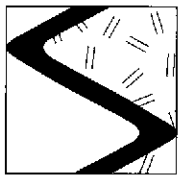

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APPENDIX C
SIERRA ENVIRONMENTAL SERVICES
STANDARD OPERATING PROCEDURE

P.O. Box 2546 • Martinez, California 94553 • (510) 370-1280

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SES STANDARD OPERATING PROCEDURE

GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of four well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is stored temporarily on-site in 55-gallon Department of Transportation-approved drums pending analytic results. The drums are labeled with the date, contents, the SES field personnel initials and SES phone number.

Ground water samples are collected from the wells with steam-cleaned Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under chain-of-custody to the laboratory.

The chain-of-custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.

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Environmental Services

APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 83994

Chain-of-Custody-Record

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

Chevron Facility Number 9-1740
Facility Address 6550 Moraga Ave, Oakland
Consultant Project Number 1-221-04
Consultant Name Sierra Environmental Services
Address Box 2546, Martinez CA 94553
Project Contact (Name) Jeanne Wahler / Shannon Hales
(Phone) (510) 370-1280 (Fax Number) (510) 370-7959

Chevron Contact (Name) Nancy Urkelich
(Phone) (510) 842-9581
Laboratory Name Superior Precision Analytical
Laboratory Release Number 4600980
Samples Collected by (Name) J. F. Leising
Collection Date 9/25/91
Signature

Analyses To Be Performed

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)	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
AA	1	3	W	N/A	09:40	HCl	Yes	✓												Analyze in order
BB	2	3			14:00			✓												
C-3	3	3			14:25			✓												
C-2	4	3			14:56			✓												
C-1	5	3			14:36			✓												
C-4	6	3	↓	↓	14:48	↓	↓	✓												

Please Initial: BW
Samples Stored in ice. BW
Appropriate containers BW
Samples preserved BW
VOA's without headspace BW
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	SES	18:09 7/25/91			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
					18:09 / 7/25/91

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

COC-3.DWG/03 91/HCH

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

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

LABORATORY NO.: 83994
CLIENT: Sierra Environmental
CLIENT JOB NO.: 1-221-04

DATE RECEIVED: 09/25/91
DATE REPORTED: 10/01/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
83994- 1	AA	09/25/91	09/27/91
83994- 2	BB	09/25/91	09/26/91
83994- 3	C-3	09/25/91	09/27/91
83994- 4	C-2	09/25/91	09/30/91
83994- 5	C-1	09/25/91	09/26/91
83994- 6	C-4	09/25/91	09/27/91

Laboratory Number:	83994 1	83994 2	83994 3	83994 4	83994 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	110	160
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	200	68
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	1.9	1.3
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	21	6.1
XYLENES:	ND<0.5	ND<0.5	ND<0.5	1.7	1.3

Laboratory Number:	83994 6
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)
OIL AND GREASE:	NA
TPH/GASOLINE RANGE:	3200
TPH/DIESEL RANGE:	NA
BENZENE:	850
TOLUENE:	160
ETHYL BENZENE:	150
XYLENES:	220

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

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: 83994

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: 06/26/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 07/08/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	06/26/91	200 ng	98/91	8	70-130
Benzene	07/08/91	200 ng	102/96	6	70-130
Toluene	07/08/91	200 ng	92/90	2	70-130
Ethyl Benzene	07/08/91	200 ng	92/89	3	70-130
Total Xylene	07/08/91	200 ng	89/87	2	70-130

Richard Srna, Ph.D.
Laboratory Director