XI

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

Marketing Department

91 OCT 17 AM 9:07

October 7, 1991

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

Re: Former Chevron Service Station #9-1153
3126 Fernside Blvd., Alameda, CA

Dear Mr. Shahid:

Enclosed we are forwarding the Quarterly Ground Water Sampling Report dated October 3, 1991, prepared by our consultant Sierra Environmental Services for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor well C-1 only at a concentration of 10,000 ppb. Depth to groundwater was measured at approximately 4.5-feet below grade, and the inferred groundwater flow direction is to the east-southeast.

The groundwater remediation system was started up on October 3, 1991. Chevron will continue to monitor this site and report findings on a quarterly basis and monitor the effectiveness of the groundwater remediation system.

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. Eddie So, RWQCB-Bay Area
Ms. B.C. Owen
File (9-1153-1)

Mr. Larry Bolten
State Farm Insurance
2509 Santa Clara Avenue
Alameda, CA 94501

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Environmental Services

October 3, 1991

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

Re: Former Chevron Service Station #9-1153
3126 Fernside Boulevard
Alameda, California
SES Project #1-232-04

Dear Ms. Vukelich:

This report presents the results of the quarterly ground water sampling at Former Chevron Service Station #9-1153, located at 3126 Fernside Boulevard in Alameda, California (Figure 1, Appendix A). Two wells, C-1 and C-3, were sampled (Figure 2, Appendix A).

On September 6, 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). Monitoring well locations with the depth to ground water are shown on Figure 2 (Appendix A).

Ground water samples were collected on September 6, 1991 in accordance with SES Standard Operating Procedure - Ground Water Sampling (Appendix C). All analyses were performed by Superior Precision Analytical, Inc. 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. Please call Jeanne Wahler if you have any questions.

Sincerely,
Sierra Environmental Services

Argy Mena
Environmental Technician

Roger Greensfelder
Registered Geologist #003011

R. W. GREENSFELDER
No. 003011
STATE OF CALIFORNIA

AM/RG:ly
23204QM.SE1

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

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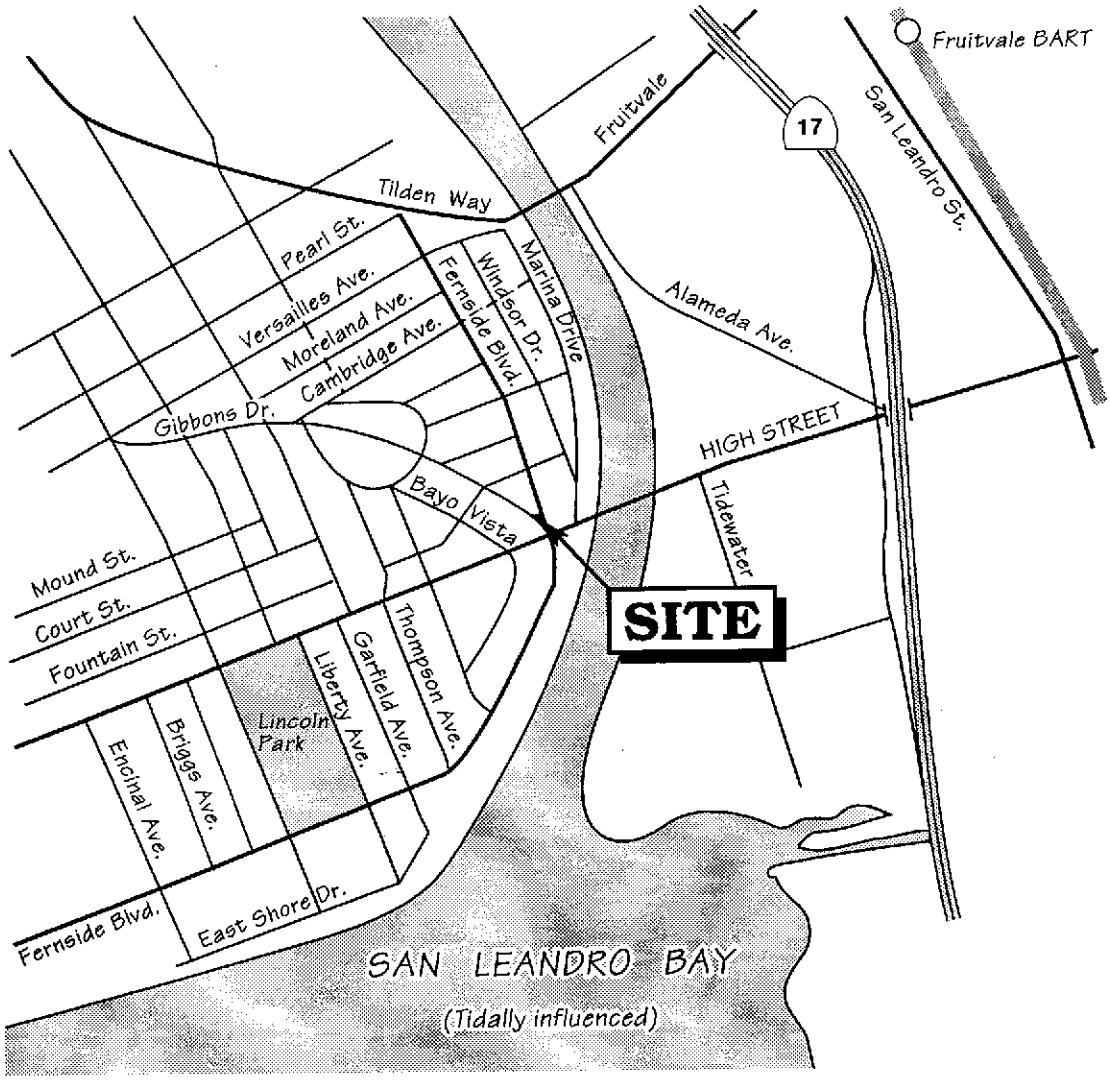

Base map ref: California Automobile Association (AAA)

Figure 1. Site Location Map – Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, California

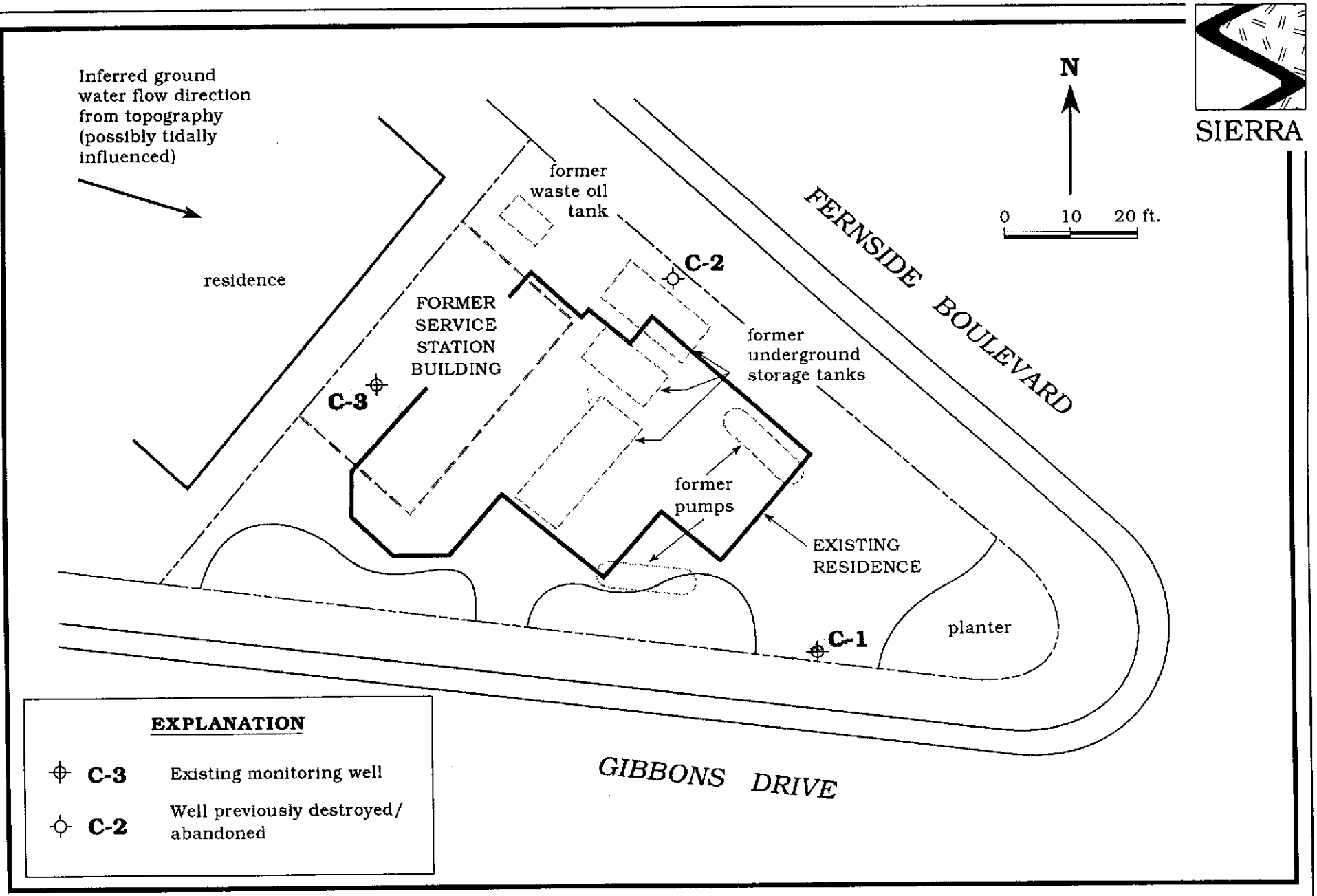

Figure 2. Monitoring Well Locations and Depth to Ground Water – Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, California

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Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, 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	8/18/86	4.10	UNK	---	UNK	UNK	UNK	UNK
	9/4/86	---		---	UNK			
	7/22/87	---		---	UNK			
	5/3/89	4.46		---	UNK			
	12/4/89	4.16		---	UNK			
	2/14/90	3.64		---	UNK			
	3/7/90	3.36		---	UNK			
	9/6/91	**4.43**		**---**	**0***			
C-2	8/18/86	UNK	UNK	---	UNK	UNK	UNK	UNK
	9/4/86	UNK		---	UNK			
	7/22/87	UNK		---	UNK			
	5/3/89**	---		---	---			
C-3	8/18/86	4.00	UNK	---	UNK	UNK	UNK	UNK
	9/4/86	---		---	UNK			
	7/22/87	---		---	UNK			
	5/3/89	4.15		---	UNK			
	12/4/89	4.24		---	UNK			
	2/14/90	3.57		---	UNK			
	3/7/90	3.31		---	UNK			
	9/6/91	**4.59**		**---**	**0***			

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Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
--- = Not measured/not applicable
UNK = Information unknown

NOTES:

All data and information in this table were compiled from the Report of Soil and Groundwater Investigation, dated October 26, 1989; the Quarterly Groundwater Sampling Report, dated May 9, 1990; and the Revised Work Plan for Remediation of Soil and Groundwater, dated June 21, 1990, prepared by EA Engineering, Science, and Technology, Inc. of Lafayette, California.

* Product thickness was measured with an MMC flexi-dip interface probe.

** Monitoring well destroyed/abandoned during construction of residence.

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Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, California

Well ID	Date Sampled	Analytic Method	Analytic Lab	TPPH(G)	B	T	E	X	Other VOCs	Metals
				<----------ppb---------->						
C-1	8/18/86	---	---	---	---	---	---	---	---	---
	9/4/86	8015/8020[1]	UNK	15,000	780	820	1,500[2]	---[2]	---	---
	7/22/87	8015/8020[1]	UNK	1,100	250	7	40[2]	---[2]	---	---
	5/3/89	8015/8020[1]	UNK	6,900	3,800	190	229[2]	---[2]	---	---
	12/4/89	8015/8020[1]	UNK	17,000	8,000	490	470[2]	---[2]	---	---
	2/14/90	8015/8020	PACE	19,000	12,000	990	1,050[2]	---[2]	---	---
	3/7/90	624/Metals	PACE	---	4,260	261	430[2]	---[2]	ND[3]	ND[4]
	9/6/91	**8015/8020**	**SPA**	**21,000**	**10,000**	**100**	**240**	**560**	**---**	**---**
C-2	8/18/86	---	---	---	---	---	---	---	---	---
	9/4/86	8015/8020[1]	UNK	1,100	49	18	84[2]	---[2]	---	---
	7/22/87	8015/8020[1]	UNK	<50	1.8	<1.0	<4.0[2]	---[2]	---	---
	5/3/89[5]	---	---	---	---	---	---	---	---	---
C-3	8/18/86	---	---	---	---	---	---	---	---	---
	9/4/86	8015/8020[1]	UNK	50	3.2	5.4	5.8[2]	---[2]	---	---
	7/22/87	8015/8020[1]	UNK	<50	<0.5	<1.0	<4.0[2]	---[2]	---	---
	5/3/89	8015/8020[1]	UNK	<50	<0.5	<1.0	<2.0[2]	---[2]	---	---
	12/4/89	8015/8020[1]	UNK	<250	<0.5	<0.5	<0.5[2]	---[2]	---	---
	2/14/90	8015/8020	PACE	<50	<0.5	<0.5	<0.5[2]	---[2]	---	---
	3/7/90	624	PACE	NA	<5	<5	<5[2]	---[2]	ND[3]	ND[6]
	9/6/91	**8015/8020**	**SPA**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**---**
Trip Blank	2/14/90	8015/8020	PACE	<50	<0.5	1.1	<0.5	<0.5	---	---
AA	**9/6/91**	**8015/8020**	**SPA**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**---**
Bailer Blank	2/14/90	8015/8020	PACE	<50	<0.5	0.5	<0.5	0.5	---	---
BB	**9/6/91**	**8015/8020**	**SPA**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**---**

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Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-1153, 3126 Fernside Boulevard, Alameda, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
VOCs = Volatile Organic Compounds
Metals = Priority Pollutant Metals (Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium and Zinc)
ppb = Parts per billion
--- = Not analyzed/Not applicable
UNK = Unknown

ANALYTIC METHODS:

8015 = EPA Method 8015 for TPPH(G)
8020 = EPA Method 8020 for BTEX
624 = EPA Method 624 for VOCs, including BTEX
Metals = Methods vary for Priority Pollutant Metals

ANALYTIC LABORATORIES:

UNK = Analytic laboratory was not reported
PACE = PACE Laboratories, Inc. of Novato, California
SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTES:

All data and information in this table were compiled from the Report of Soil and Groundwater Investigation, dated October 26, 1989; the Quarterly Groundwater Sampling Report, dated May 9, 1990; and the Revised Work Plan for Remediation of Soil and Groundwater, dated June 21, 1990, prepared by EA Engineering, Science, and Technology, Inc. of Lafayette, California.

[1] Analytic method assumed from the analytes reported.
[2] Ethylbenzene and xylenes were reported together.
[3] Other VOCs not detected at detection limits of 5 ppb to 10 ppb.
[4] Arsenic, Chromium, Copper, Nickel and Zinc were detected at concentrations of 30, 20, 20, 30 and 40 ppb, respectively. Other Priority Pollutant Metals were not detected at detection limits of 0.2 ppb to 200 ppb.
[5] Monitoring well destroyed/abandoned during construction of residence.
[6] Chromium, Copper, Nickel and Zinc were detected at concentrations of 20, 10, 40 and 30 ppb, respectively. Other Priority Pollutant Metals were not detected at detection limits of 0.2 ppb to 200 pp.

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APPENDIX C
SIERRA ENVIRONMENTAL SERVICES
STANDARD OPERATING PROCEDURE

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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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APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 83869

Chain-of-Custody-Record

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

Chevron Facility Number 9-1153
Facility Address 3126 Fernside Blvd, Alameda CA
Consultant Project Number 1-232-04
Consultant Name Sierra Environmental Services
Address Box 2546, Martinez CA 94553
Project Contact (Name) Jeanne Walhelm
(Phone) (510) 370-1280 (Fax Number)

Chevron Contact (Name) Nancy Ukkelich
(Phone) (510) 842-9581
Laboratory Name Superior Analytical Laboratory
Laboratory Release Number 5901420 (SAL)
Samples Collected by (Name) J. F. Leising
Collection Date 9/6/91
Signature

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
AA	1	3	W	N/A		1+Cl	Yes	✓								Analyze in order
BB	2	3	↓	↓		↓	↓	✓								
C-3	3	3						✓								
C-1	4	3						✓								

Please Initial:
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	9/6/91 13:32			
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
			Brenda L. Ole		9/10/91 13:25

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

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 83869
CLIENT: Sierra Environmental
CLIENT JOB NO.: 1-232-04

DATE RECEIVED: 09/06/91
DATE REPORTED: 09/13/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
83869- 1	AA	09/06/91	09/12/91
83869- 2	BB	09/06/91	09/12/91
83869- 3	C-3	09/06/91	09/12/91
83869- 4	C-1	09/06/91	09/12/91

Laboratory Number:	83869 1	83869 2	83869 3	83869 4
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)			
OIL AND GREASE:	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	21000
TPH/DIESEL RANGE:	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	10000
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	100
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	240
XYLENES:	ND<0.5	ND<0.5	ND<0.5	560

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: 83869

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	100/100	0	70-130
Benzene	07/08/91	200 ng	100/107	6	70-130
Toluene	07/08/91	200 ng	96/101	5	70-130
Ethyl Benzene	07/08/91	200 ng	94/99	5	70-130
Total Xylene	07/08/91	200 ng	90/97	8	70-130

Richard Srna, Ph.D.
Lynda D. Ullmann
Laboratory Director