



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

*Copied from original County file
JMS 4/16/95*

90...

December 30, 1992

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Former Chevron Service Station #9-5630
997 Grant Avenue, San Lorenzo**

Dear Ms. Shin:

Enclosed we are forwarding the Quarterly Ground Water Sampling Report dated December 22, 1992, 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. All samples reported non-detectable concentrations of these constituents with the exception of monitor well C-1 which reported Benzene at a concentration of .6 ppb. Depth to ground water was measured at approximately 9.5 to 11.7-feet below grade, and the direction of flow is to the west.

Groundwater Technology, Inc. is currently scheduling the installation of the additional off-site well in the alternate location as approved in your letter dated December 17, 1992.

Chevron will continue to sample 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.

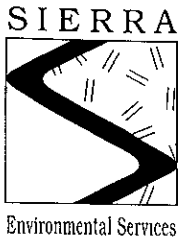
Very truly yours,
CHEVRON U.S.A. PRODUCTS COMPANY

Nancy Vukelich
Nancy Vukelich
Site Assessment and Remediation Engineer

cc: Mr. Rich Hiatt, RWQCB-Bay Area
Ms. B.C. Owen
File (9-5630Q6)

Ms. Beth Castleberry
Ware & Freidenrich
400 Hamilton Avenue
Palo Alto, CA 94301-1825

DEC 30 '92 PWM



December 22, 1992

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

Re: Former Chevron Service Station #9-5630
997 Grant Avenue
San Lorenzo, California
SES Project #1-206-04

Dear Ms. Vukelich:


This report presents the results of the quarterly ground water sampling at former Chevron Service Station #9-5630, located at 997 Grant Avenue in San Lorenzo, California (Figure 1, Appendix A). Three wells, C-1, C-2 and C-3, were sampled (Figure 2, Appendix A).


On December 1, 1992, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. 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).

The ground water samples were collected on December 1, 1992 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 if you have any questions.

Sincerely,
Sierra Environmental Services

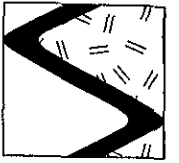

Argy Mena
Staff Geologist


Chris J. Bramer
Professional Engineer #C48846



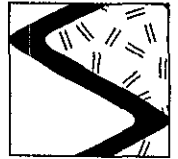
AJM/CJB/ly
20604QM.DE2

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

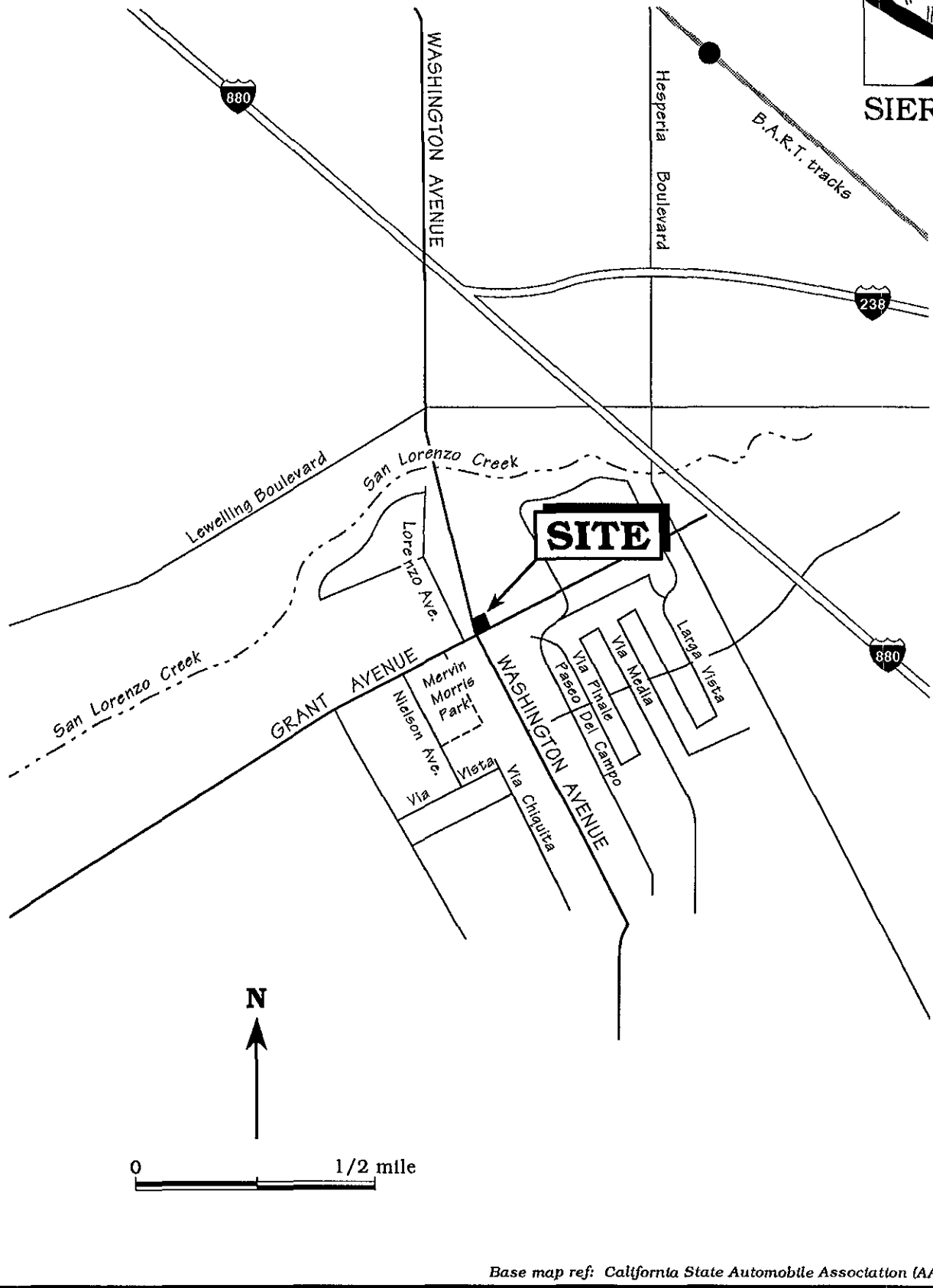


SIERRA

APPENDIX A
FIGURES

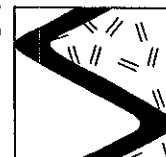


SIERRA

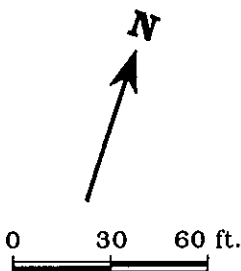
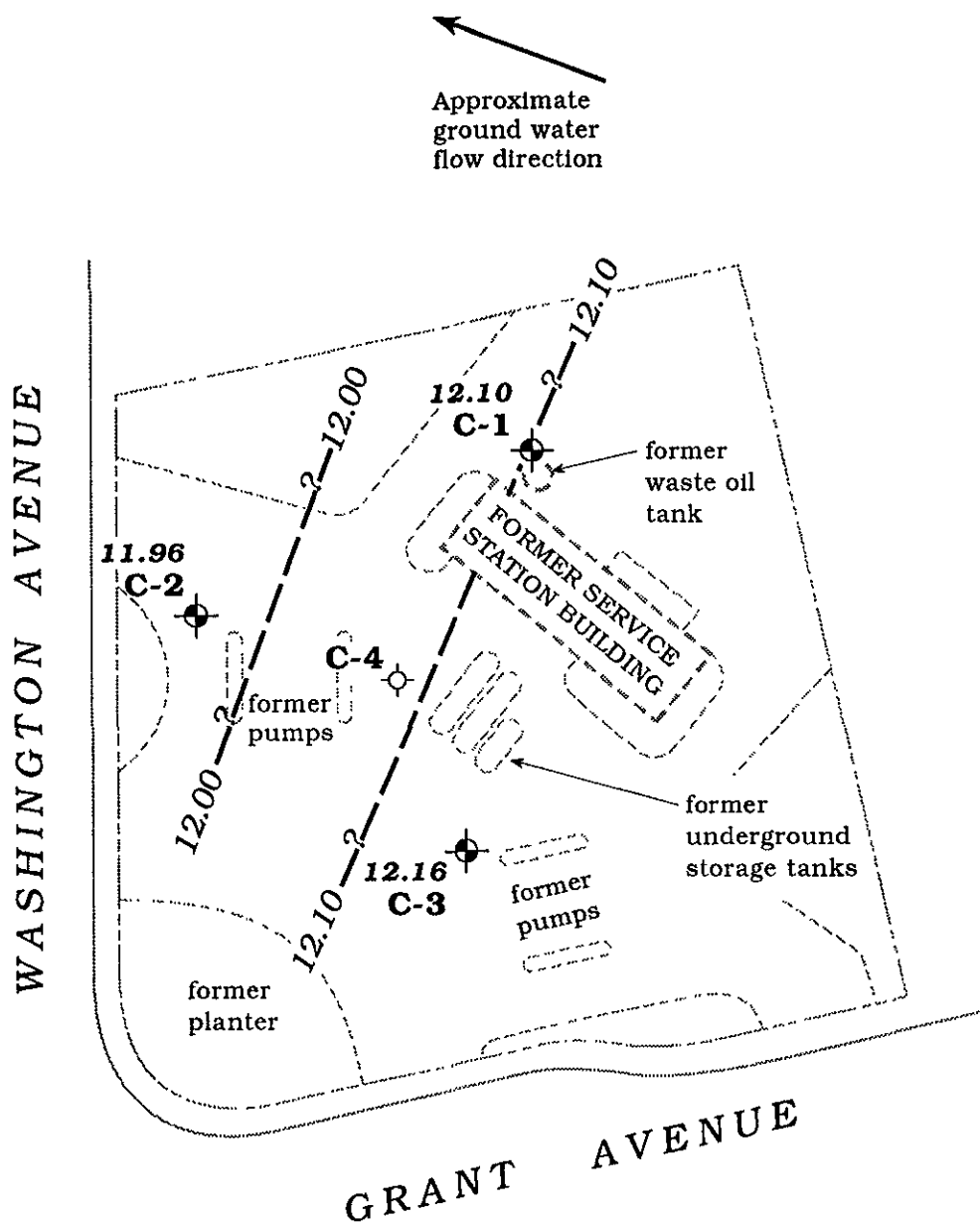


Base map ref: California State Automobile Association (AAA)

Figure 1. Site Location Map - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California

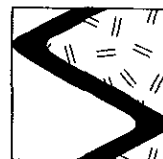


SIERRA



EXPLANATION	
	C-3 Monitoring well
	C-4 Destroyed well
12.16	Ground water elevation, in feet
	12.00 Ground water elevation contour, dashed where inferred, queried where uncertain

Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map - December 1, 1992 - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California



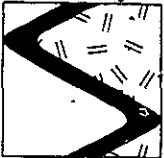
SIERRA

APPENDIX B
TABLES



Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval ←-----feet below grade-----→	Sand Pack Interval	Bentonite/Grout Interval
C-1	12/5/90	12.44	24.08 ¹	11.64	0	15 - 28	13 - 28	0 - 13
	9/6/91	13.20	23.88 ²	10.68	0			
	12/4/91	11.71		12.17	0			
	4/2/92	9.43		14.45	0			
	6/3/92	10.14		13.74	0			
	9/2/92	11.79		12.09	0			
	12/1/92	11.78		12.10	0			
C-2	12/5/90	11.30	22.69 ¹	11.39	0	15 - 28	13 - 28	0 - 13
	9/6/91	11.00	21.54 ²	10.54	0			
	12/4/91	9.38		12.16	0			
	4/2/92	7.33		14.21	0			
	6/3/92	8.99		12.55	0			
	9/2/92	9.59		11.95	0			
	12/1/92	9.58		11.96	0			
C-3	12/5/90	11.75	23.45 ¹	11.70	0	17 - 27	15 - 27	0 - 15
	9/6/91	11.62	22.40 ²	10.78	0			
	12/4/91	10.14		12.26	0			
	4/2/92	8.07		14.33	0			
	6/3/92	8.63		13.77	0			
	9/2/92	10.30		12.10	0			
	12/1/92	10.24		12.16	0			
C-4	12/5/90	11.85	23.32 ¹	11.47	0	17 - 29	17 - 29	0 - 15
	9/6/91 ³	---	---	---	---			
	12/4/91 ³	---	---	---	---			



SIERRA

Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, 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 applicable

NOTE:

- * SES product thicknesses were measured with an MMC flexi-dip interface probe.
- ¹ Well head elevations taken from the Preliminary Site Assessment/Well Installation Report prepared by GeoStrategies, Inc., dated February 8, 1991.
- ² Top of Casing elevations surveyed by Ron Miller, P.E. #15816, on April 2, 1992. Ground water elevations prior to this date, corrected using this survey data.
- ³ Well was destroyed during tank removal and soil excavation operations.

20604T.WL



Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	O&G
				-----ppb-----					
C-1	12/5/90	SAL	8015/8020/503E	<50	<0.5	<0.5	<0.5	<0.5	<5,000
	9/6/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/4/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5,000
	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/1/92	SPA	8015/8020	<50	0.6	3.5	0.7	3.4	---
C-2	12/5/90	SAL	8015/8020	<50	0.7	<0.5	<0.5	0.5	---
	9/6/91	SPA	8015/8020	<50	1.3	0.6	0.7	1.5	---
	12/4/91 ²	---	---	---	---	---	---	---	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
C-3	12/5/90	SAL	8015/8020	<50	1	0.7	<0.5	<0.5	---
	9/6/91	SPA	8015/8020	1,100	150	0.6	51	1.9	---
	12/4/91	SPA	8015/8020	89	<0.5	<0.5	0.7	0.6	---
	4/2/92	SPA	8015/8020	60	2.1	1.3	1.1	3.2	---
	6/3/92	SPA	8015/8020	180	3.0	1.4	0.6	1.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
C-4	12/5/90	SAL	8015/8020	<50	4	2	0.7	3	---
	9/6/91 ¹	---	---	---	---	---	---	---	---
AA (Trip Blank)	12/5/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/6/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/4/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB-LB	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	O&G
				-----ppb-----					
BB	9/6/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
(Bailer Blank)	12/4/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	0.4	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
DHS MCLs	---	---	---	NE	1	---	680	1,750	NE
DHS RALs	---	---	---	NE	---	100	---	---	NE

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes
 O&G = Total Oil and Grease
 --- = Not analyzed/Not applicable
 DHS = Department of Health Services
 MCLs = Maximum Contaminant Levels
 RALs = Recommended Action Levels
 NE = Not established
 ppb = Parts per billion

ANALYTIC METHODS:

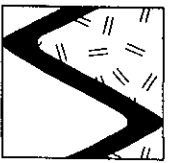
8015 = EPA Method 8015/5030 for TPH(G)
 8020 = EPA Method 8020 for BTEX
 503E = Standards Method Method 503E for O&G

ANALYTIC LABORATORY:

SAL = Superior Analytical Laboratory of San Francisco, California
 SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTE:

- ¹ Well was destroyed during tank removal and soil excavation operations.
- ² Well obstructed, therefore could not be sampled.



SIERRA

APPENDIX C
SIERRA ENVIRONMENTAL SERVICES
STANDARD OPERATING PROCEDURES



SES STANDARD OPERATING PROCEDURE GROUND WATER SAMPLING - QUARTERLY MONITORING

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 three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured during purging. Purging is continued until these parameters have stabilized for consecutive readings.

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.

GWS-GMP2.SOP



APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

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

8732 Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>#9-5030</u> Facility Address <u>997 Grant Ave., San Lorenzo, CA</u>	Chevron Contact (Name) <u>Nancy Vukelich</u> (Phone) <u>842-9581</u>
	Consultant Project Number <u>1-206-04</u>	Laboratory Name <u>Superior Precision Analytical</u>
	Consultant Name <u>Sierra Environmental Services</u> Address <u>PO Box 2546, Martinez, CA</u>	Laboratory Release Number <u>4247210</u>
	Project Contact (Name) <u>Chris Branner</u> (Phone) <u>370-1280</u> (Fax Number) <u>370-7959</u>	Samples Collected by (Name) <u>Carol Eaton</u>
		Collection Date <u>12/1/92</u> Signature <u>Carol Eaton</u>

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											Remarks				
								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)								
TB-1B	1	3	W	G	12:10	HCl	✓	✓															Note: Do Not Bill TB-LB Samples Analyze in order ↓
BB	2	↓	↓	↓	12:15	↓	↓	✓															
C-1	3	↓	↓	↓	12:20	↓	↓	✓															
C-2	4	↓	↓	↓	12:30	↓	↓	✓															
C-3	5	↓	↓	↓	12:40	↓	↓	✓															

Please Initial:
 Samples Stored in Ice
 Appropriate containers
 Samples received
 VOA's without headspace
 Comments:

Relinquished By (Signature) <u>Carol Eaton</u> Relinquished By (Signature) _____ Relinquished By (Signature) _____	Organization <u>SES</u> Organization _____ Organization _____	Date/Time <u>12/1/92 3:55 pm</u> Date/Time _____ Date/Time _____	Received By (Signature) _____ Received By (Signature) _____ Received For Laboratory By (Signature) <u>Afsaneh Salempour</u>	Organization _____ Organization _____ Date/Time <u>12/1/92</u>	Date/Time _____ Date/Time _____ Date/Time _____	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
--	---	--	---	--	---	---



Superior Precision Analytical, Inc.

P.O. Box 1545 ▪ Martinez, California 94553 ▪ (510) 229-1590 / fax (510) 229-0916

Sierra Environmental
Attn: Chris Bramer

Project 1-206-04
Reported 12/09/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
87323- 1	TB-LB	12/01/92	12/08/92 Water
87323- 2	BB	12/01/92	12/08/92 Water
87323- 3	C-1	12/01/92	12/08/92 Water
87323- 4	C-2	12/01/92	12/08/92 Water
87323- 5	C-3	12/01/92	12/08/92 Water

RESULTS OF ANALYSIS

Laboratory Number: 87323- 1 87323- 2 87323- 3 87323- 4 87323- 5

Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	0.6	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	0.7	ND<0.5	ND<0.5
Xylenes:	ND<0.5	ND<0.5	3.4	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L



CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 87323

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

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

Table with 5 columns: ANALYTE, SPIKE LEVEL, MS/MSD RECOVERY, RPD, CONTROL LIMIT. Rows include Gasoline, Benzene, Toluene, Ethyl Benzene, and Xylenes with their respective values.

Richard Srna, Ph.D.
[Signature]
Laboratory Director