Chevron

August 30, 1994

Chevron U.S.A. Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Marketing – Northwest Region
Phone 510 842 9500

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station #9-0100
2428 Central Avenue, Alameda, CA

Dear Ms. Shin:

Enclosed is the Quarterly Ground Water Sampling report dated July 25, 1994, 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 (TPH-G) and BTEX. Benzene was detected in ground water monitor wells MW-1 and MW-2 at concentrations of 140 and 23 ppb, respectively. Depth to ground water was measured at approximately 7.7 to 8.5 feet below grade and the direction of flow is to the north

Chevron will monitor and sample all wells at this site for three additional quarters to develop a baseline trend of hydrocarbon concentrations in ground water. At the conclusion of one year of monitoring and sampling, we will evaluate appropriate next actions.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Kevin Graves, RWQCB - Bay Area
Ms. B.C. Owen

Mr. Robert Stahl
Stahl-Wooldridge Investment Properties
2428 Central Avenue
Alameda, CA 94501

Mr. Carl Pendleton
Bank of America
Northern California Special Assets Group #1415
P.O. Box 37000
San Francisco, CA 94137

File: 9-0100 QM1

SIERRA
Environmental Services

July 25, 1994

Mark Miller
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Former Chevron Service Station #9-0100
2428 Central Avenue
Alameda, California
SES Project #1-381-04

Dear Mr. Miller:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-0100, located at 2428 Central Avenue in Alameda, California. Three wells, MW-1, MW-2 and MW-3 were sampled (Figure 1).

On June 21, 1994, 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 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on June 21, 1994 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). The field water sampling forms for this event are inlcuded. All analyses were performed by Superior Precision Analytical, Inc. of San Francisco, California. Analytic results for ground water are presented in Table 1. The chain of custody document and laboratory analytic reports are attached. 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.

REGISTERED PROFESSIONAL ENGINEER
CHRIS J. BRAMER
C 048846
Exp 9/96
CIVIL
STATE OF CALIFORNIA

Sincerely,
Sierra Environmental Services

Argy Meria
Staff Geologist

Chris J. Bramer
Professional Engineer #C48846

AJM/CJB/lo
381040M.JL4

cc: Sheldon Nelson, CRTC

Attachments
Figure
Table
SES Standard Operating Procedure
Field Water Sampling Forms
Chain of Custody Document and Laboratory Analytic Reports

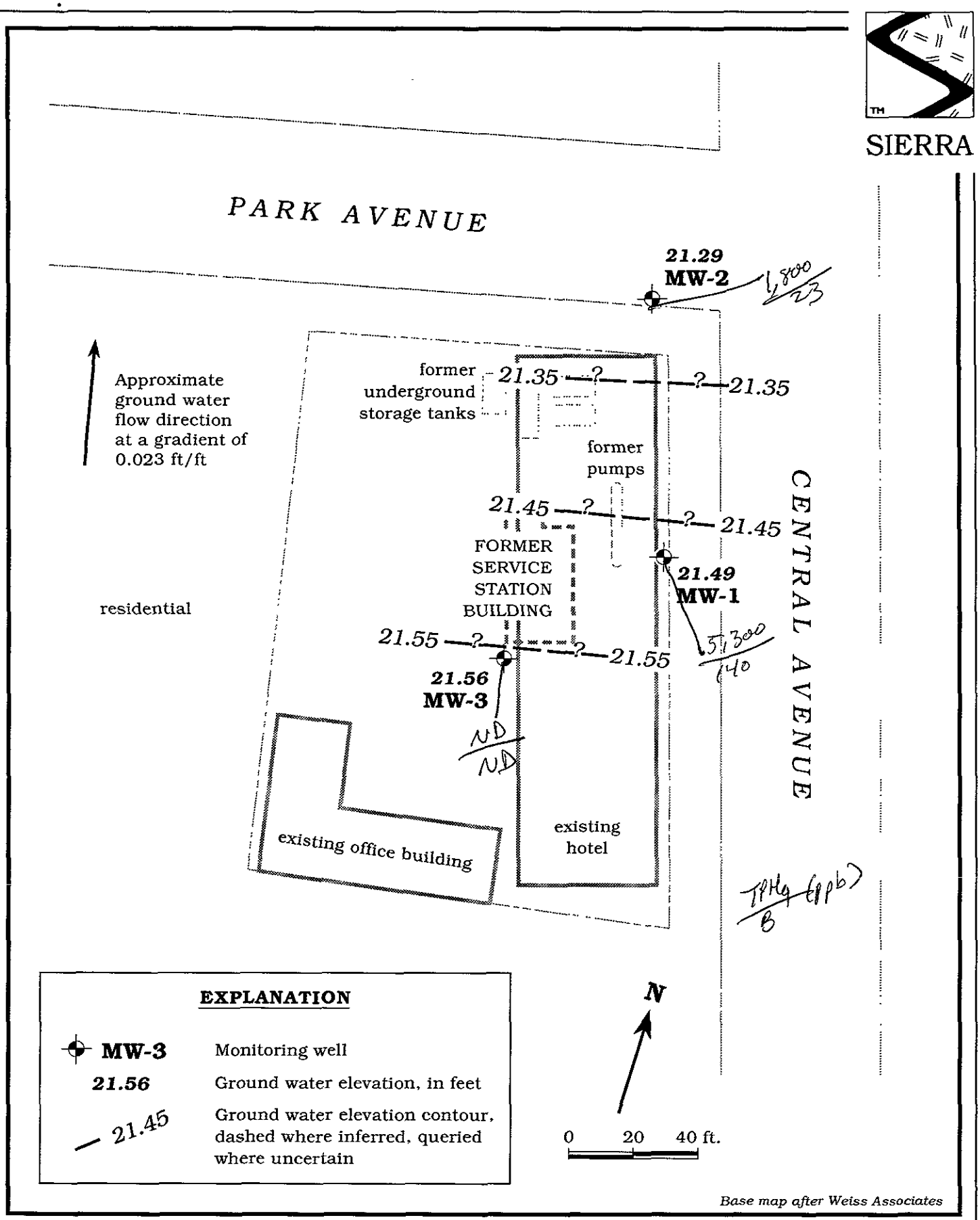

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - June 21, 1994 - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

1-381-04 7/25/94

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Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<----------ppb---------->				
MW-1/	3/10/94	6.79	22.44	0	8015/8020[1,2]	7,400	120	120	33	72
29.23	**6/21/94**	**7.74**	**21.49**	**0**	**8015/8020**	**5,300**	**140**	**60**	**21**	**43**
MW-2/	3/10/94	6.94	22.24	0	8015/8020[2,3]	6,400	<5	64	58	17
29.18	**6/21/94**	**7.89**	**21.29**	**0**	**8015/8020**	**1,800**	**23**	**12**	**6.9**	**32**
MW-3/	3/10/94	7.30	22.79	0	8015/8020[2,4]	<50	<0.5	<0.5	<0.5	<0.5
30.09	**6/21/94**	**8.53**	**21.56**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Trip Blank	3/10/94	---	---	---	8015/8020	<50	<0.5	0.7	<0.5	<0.5
TB-LB	**6/21/94**	**---**	**---**	**---**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
EDB = Ethylene Dibromide
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015 for TPPH(G)
8020 = EPA Method 8020 for BTEX

NOTES:

March 10, 1994 water level data and groundwater analytic results were compiled from the Subsurface Investigation Report prepared for Chevron by Weiss Associates, April 13, 1994.

* Product thickness was measured on and after June 21,1994 with a MMC Flexi-Dip interface probe.

1 TPH(D) was also analyzed and detected at 840 ppb. However, chromatogram does not match typical diesel pattern.
2 Organic lead and EDB were also analyzed but not detected at detection limts of 4 and 0.02 ppb, respectively.
3 TPH(D) was also analyzed and detected at 920 ppb. However, chromatogram does not match typical diesel pattern.
4 TPH(D) was also analyzed but not detected at detection limits of 50 ppb.

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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 three 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 taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with Chevron designated disposable 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) 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 accompanies each sampling set, or 5% trip blanks are included for sets of greater than 20 samples. The trip blank is analyzed for some or all of the same compounds as the ground water samples.

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WATER SAMPLING DATA

Job Name Central Ave. Blvd. Job Number 1-391-04 Page 16

Well Number MW-1 Date 6/20/94 Well Diameter 2"

Sample Point Location/Description 34 Central Well Depth (spec.)

Depth to Water (static) 7.74 Well Depth (sounded) 25

Initial height of water in casing 18 Volume 3 gallons

Volume to be purged 9 gallons

Purged With sub pump Sampled With disposable

Pumped or Bailed Dry? ___ Yes X No Time ___ After ___ gallons

Water level at sampling ___ Percent Recovery ___

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V_8" casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
2:23	2:25	3	3	7.38	19	320	
	2:27	3	6	7.40	19	380	
	2:29	3	9	7.40	19	340	

SAMPLES COLLECTED Time 2:40 Total volume purged (gal.) 9

Water color clear Odor none

Description of sediments or material in sample: none

Additional Comments: —

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-1	3	1	—	HCL	Y	SPA	g/btex

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size); 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size); 5 = Other ___ ; 6 = Other ___

WATER SAMPLING DATA

Job Name: Central Ave. Needs Job Number: 1-381-04 Page: 16

Well Number MW-2 Date 6/20/94 Well Diameter 2"

Sample Point Location/Description Park St. Well Depth (spec.) _____

Depth to Water (static) 7.89 Well Depth (sounded) 25

Initial height of water in casing 18 Volume 3 gallons

Volume to be purged 9 gallons

Purged With sub pump Sampled With disposable bailer

Pumped or Bailed Dry? ___ Yes X No Time ____ After _____ gallons

Water level at sampling _____ Percent Recovery _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V_8" casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
2:06	2:08	3	3	7.05	20	1020	
	2:10	3	6	6.96	20	1010	
	2:12	3	9	6.95	19	920	

SAMPLES COLLECTED Time 2:17 Total volume purged (gal.) 9

Water color opaque Odor none

Description of sediments or material in sample: none

Additional Comments: ___

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-	3	1	—	HCL	Y	SPA	gas/btex

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size); 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size); 5 = Other _____; 6 = Other _____

WATER SAMPLING DATA

Job Name: Central Ave Blends Job Number: 1-391-04 Init: JG

Well Number: MW-3 Date: 6/21/94 Well Diameter: 2"

Sample Point Location/Description: behind building Well Depth (spec.): ____

Depth to Water (static): 8.53 Well Depth (sounded): 25

Initial height of water in casing: 17 Volume: 2.8 gallons

Volume to be purged: 3 X 9 gallons

Purged With: Sub pump Sampled With: disposable bailer

Pumped or Bailed Dry? ___ Yes X No Time ____ After ____ gallons

Water level at sampling ____ Percent Recovery ____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V_8" casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
1:45	1:47	3	3	7.75	20	450	
1:4	1:49	3	6	7.75	20	490	
	1:51	3	9	7.71	20	540	

SAMPLES COLLECTED Time 2:00 Total volume purged (gal.) 9

Water color opaque Odor none

Description of sediments or material in sample: none

Additional Comments: ____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-3	3	1	—	HCL	Y	SPA	gas/btex

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);
3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);
5 = Other ____; 6 = Other ____

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No   15610

Chain-of-Custody-Record

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

Chevron Facility Number: 9-0100
Facility Address: 2428 Central Ave. Alameda
Consultant Project Number: 1-381-04
Consultant Name: Sierra Environmental Services
Address: P.O. Box 2546, Martinez, CA 94553
Project Contact (Name): Ed Morales
(Phone): 510-370-1280 (Fax Number): 510-370-7959

Chevron Contact (Name): Mark Miller
(Phone): 842-8134
Laboratory Name: Superior
Laboratory Release Number: 709440
Samples Collected by (Name): Jim Green
Collection Date: 6/21/94
Signature: Jim Green

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-LB		2	W	D	—	HCL	Y	✓												analyze
MW-1		3	↓	↓	2:40	↓	↓	✓												↓
MW-2		↓			2:17			✓												
MW-3		↓	↓	↓	2:00	↓	↓	✓												↓

Analyses To Be Performed

Note: Do Not Bill TB-LB Samples

Val
yes 5°C
None
yes

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Jim Green	SES	6/21/94 508pm			
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
			Val Ocampo		06/21/94 508pm

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

6/21/94

relinquished by Afsaneh Saki 6/22/94.
REC'D SPA SF 6/22/94 1745

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

Sierra Enviornmental Serv. mtz
Attn: Ed Morales

Project 1-381-04
Reported 06/28/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
15610- 1	TB-LB	06/21/94	06/27/94	Water
15610- 2	MW-1	06/21/94	06/27/94	Water
15610- 3	MW-2	06/21/94	06/27/94	Water
15610- 4	MW-3	06/21/94	06/28/94	Water

RESULTS OF ANALYSIS

Laboratory Number:	15610- 1	15610- 2	15610- 3	15610- 4
Gasoline Range:	ND<50	5300	1800	ND<50
Benzene:	ND<0.5	140	23	ND<0.5
Toluene:	ND<0.5	60	12	ND<0.5
Ethyl Benzene:	ND<0.5	21	6.9	ND<0.5
Total Xylenes:	ND<0.5	43	32	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L

Certified Laboratories
1555 Burke St., Unit 1 • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

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: 15610

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

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline_Range:	94/88	7%	61-134
Benzene:	88/86	2%	60-135
Toluene:	89/87	2%	60-135
Ethyl Benzene:	86/84	2%	60-135
Total Xylenes:	95/93	2%	60-135

6/29/94

Senior Chemist
Account Manager

Certified Laboratories
1555 Burke St., Unit 1 • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123