

ALSO
HAZMAT
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Chevron U.S.A. Products Company
6001 Bollinger Canyon Rd., Bldg. L
P.O. Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation Group
Phone (510) 842-9500

October 11, 1994

Ms. Susan Hugo
Alameda County Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-1740
6550 Moraga Avenue, Oakland, CA 94611

Dear Ms. Hugo :

For the latest information, please refer to the enclosed report from Sierra Environmental Services dated July 8, 1994 . All monitoring wells show a decrease in dissolved hydrocarbons. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN/MacFile 9-1740R15

Enclosure

cc: Mr. Eddy So
RWQCB-S.F. Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Steve Willer
Chevron U.S.A. Products Co.



October 7, 1994

Kenneth Kan
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

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

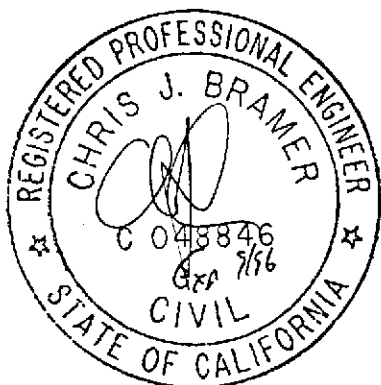
Dear Mr. Kan:

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. Three wells, C-2 through C-4 were sampled (Figure 1).

On September 7, 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 site wells. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

Ground water samples were collected on September 7, 1994 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). The field water sampling forms for this event are included. All analyses were performed by Superior Precision Analytical, Inc. of Martinez, 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 USA. Please call if you have any questions.



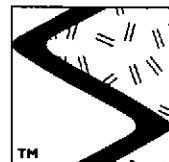
Sincerely,
Sierra Environmental Services

Argy Leyton
Argy Leyton
Staff Geologist

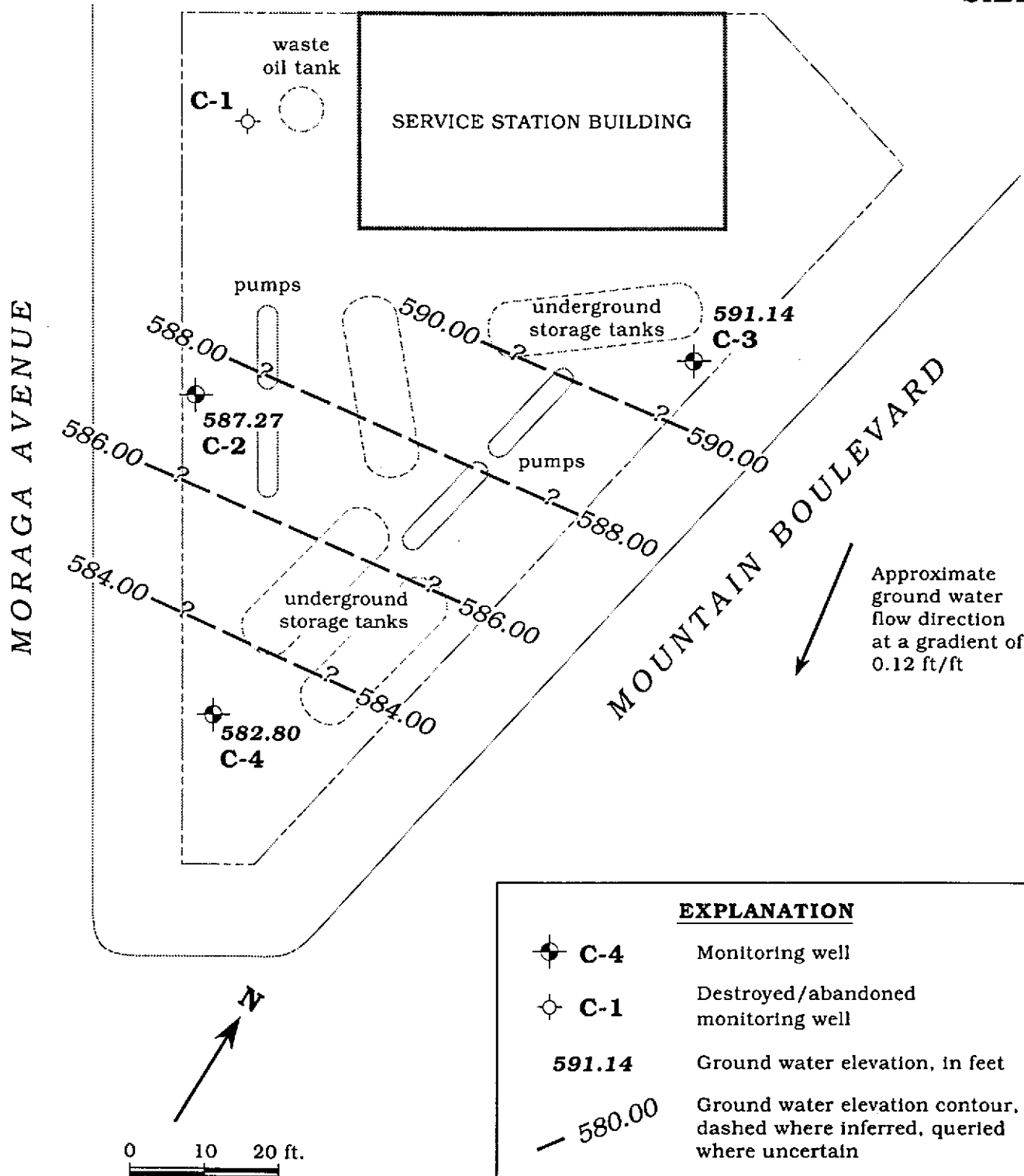
Chris J. Bramer
Chris J. Bramer
Professional Engineer #C48846

AML/CJB/lmo
22104QM.JL4

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



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Base map after Pacific Environmental Group, Inc.

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - September 7, 1994 - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California



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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B T E X			
							-----ppb----->			
C-1/										
595.82	3/25/91	3.28	592.54	0	8015/8020/503E ^{4,5}	54	0.7	<0.5	<0.5	2
	7/1/91	3.43	592.39	0	8015/8020	730	250	3.0	16	4.8
	9/25/91	4.15	591.67	0	8015/8020	160	68	1.3	6.1	1.3
	12/23/91	3.71	592.11	0	8015/8020	170	70	1.6	3.5	2.4
	3/24/92	3.02	592.80	0	8015/8020	60	39	4.4	3.9	9.1
	6/23/92	3.76	592.06	0	8015/8020	60	19	1.1	1.1	1.0
	9/30/92 ¹	---	---	---	---	---	---	---	---	---
C-2/										
594.57	3/25/91	22.89	571.68	0	8015/8020 ⁴	<50	1	<0.5	<0.5	2
	7/1/91	7.37	587.20	0	8015/8020	660	190	2.5	28	22
	9/25/91	6.98	587.59	0	8015/8020	110	200	1.9	21	1.7
	12/23/91	5.01	589.56	0	8015/8020	<50	1.2	1.2	<0.5	1.8
	3/24/92	17.27	577.30	0	8015/8020	100	5.9	7.9	4	14
	6/23/92	3.82	590.75	0	8015/8020	190	45	4.5	9.5	10
	9/30/92	14.01	580.56	0	8015/8020	240	99	2.3	11	6.1
	12/16/92	14.52	580.05	0	8015/8020	280	160	6.2	7.4	5.0
	3/30/93	11.08	583.49	0	8015/8020	110 ²	21	<0.5	0.8	<1.5
	6/10/93	11.49	583.08	0	8015/8020	180	53	2.6	8.0	5.8
	9/2/93	14.08	580.49	0	8015/8020	51	18	0.8	4.4	<1.5
	12/6/93	14.70	579.87	0	8015/8020	<50	20	1.3	2.7	<0.5
	3/2/94	14.87	579.70	0	8015/8020	<50	9.9	1.6	<0.5	0.8
	6/3/94	15.22	579.35	0	8015/8020	440	300	2.7	61	2.1
	9/7/94	7.30	587.27	0	8015/8020	80	30	<0.5	1.6	<0.5
C-3/										
597.14	3/25/91	5.16	591.98	0	8015/8020 ⁴	<50	<0.5	<0.5	<0.5	0.5
	7/1/91	5.84	591.30	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/25/91	5.94	591.20	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/23/91	5.94	591.20	0	8015/8020	<50	1.0	<0.5	<0.5	1.5
	3/24/92	4.77	592.37	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/23/92	5.67	591.47	0	8015/8020	<50	0.9	1.1	0.5	1.6
	9/30/92	6.30	590.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/16/92	5.57	591.57	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/30/93	5.06	592.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	6/10/93	5.29	591.85	0	8015/8020	<50	0.6	1.9	0.6	3.5
	9/2/93	5.92	591.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/6/93	5.76	591.38	0	8015/8020	<50	<0.5	0.6	<0.5	<0.5



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) -----ppb-----				
						B	T	E	X	
C-3 (cont)	3/2/94	5.17	591.97	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/3/94	5.40	591.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/7/94	6.00	591.14	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
C-4/ 593.10	3/25/91	4.45	588.65	0	8015/8020	2,700 ⁴	240	16	<0.5	350
	7/1/91	5.33	587.77	0	8015/8020	7,900	1,500	230	340	350
	9/25/91	5.50	587.60	0	8015/8020	3,200	850	160	150	220
	12/23/91	4.92	588.18	0	8015/8020	4,100	390	52	42	340
	3/24/92	4.19	589.06 ³	0.19	---	---	---	---	---	---
	6/23/92	4.91	588.43 ³	0.30	---	---	---	---	---	---
	9/30/92	8.66	584.44	0	8015/8020	450	97	14	12	29
	12/16/92	9.80	583.30	0	8015/8020	590	130	18	5.6	29
	3/30/93	10.00	583.20 ³	0.12	---	---	---	---	---	---
	6/10/93	9.64	583.46	0	8015/8020	1,300	290	36	17	73
	9/2/93	10.08	583.02	0	8015/8020	630	97	12	6.6	21
	12/6/93	10.25	582.85	0	8015/8020	1,900	600	68	27	130
	3/2/94	8.74	584.36	0	8015/8020	2,600	1,200	110	43	180
	6/3/94	9.83	583.27	0	8015/8020	780	180	13	8.5	26
	9/7/94	10.30	582.80	0	8015/8020	<50	14	<0.5	0.7	<0.5
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
	12/23/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/24/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
TB-LB	6/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/30/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/16/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	6/10/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	9/2/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/6/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/2/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/3/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/7/94	---	---	---	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



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) ←-----	-----→ ppb			
							B	T	E	X
BB	9/25/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
(cont)	12/23/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/24/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/30/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/16/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	6/10/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	9/2/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/6/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/2/94	---	---	---	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
 O&G = Oil and Grease
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes
 ppb = Parts per billion
 --- = Not analyzed/Not applicable

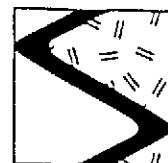
ANALYTIC METHODS:

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

NOTES:

Water level data, top of casing elevations, and analytic results 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.

- * Product thickness measurements prior to July 1, 1991 were measured with a clear teflon bailer. Measurements made since July 1, 1991 used an MMC flexi-dip interface probe.
- ¹ Monitoring well abandoned during excavation activities.
- ² Gasoline range concentration reported. The chromatogram shows only a single peak in the gasoline range.
- ³ GWE corrected for presence of free-phase hydrocarbons using the formula: [TOC - DTW] + product thickness x 0.80 (assumed specific gravity of free-phase hydrocarbons).
- ⁴ TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
- ⁵ O&G was also analyzed but not detected at detection limits of 5,000 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.

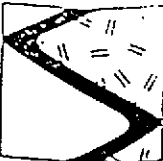
Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed $\pm 0.5^{\circ}\text{F}$, 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 1-221-04 Job Number M05242 well Sampler L.C
 Well Number C-2 Date 09/07/94 Well Diameter 20
 Sample Point Location/Description South of from C-4 Well Depth (spec.) _____
 Depth to Water (static) 7.30 Well Depth (sounded) 27.60
 Initial height of water in casing 20.3 Volume 3.3 gallons
 Volume to be purged 10 gallons
 Purged With Sub pump Sampled With Disp. Carter
 Pumped or Bailed Dry? Yes 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. = $\pi r^2 h$
 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
11:40	11:42	3	3	7.6	70	146	
	11:44	3	6	7.6	71	147	
	11:48	4	10	7.8	71	147	

SAMPLES COLLECTED Time 12.00 Total volume purged (gal.) 10.00
 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
C-2	3	1	—	HEX	Y	SPT	G/ATEX

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 _____



①

WATER SAMPLING DATA

Job Name 1-221-04 Job Number morayo well Sampler LIC
 Well Number C-3 Date 07/07/94 Well Diameter 2 1/4"
 Sample Point Location/Description N/E side of the lot Well Depth (spec.) _____
 Depth to Water (static) 6.00 Well Depth (sounded) 24.30
 Initial height of water in casing 18.3 Volume 2.9 gallons
 Volume to be purged _____ gallons
 Purged With Sub pump Sampled With Disp. Bailer
 Pumped or Bailed Dry? Yes 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
12:20	12:22	3	3	7.9	69	111	
	12:24	3	6	8.0	70	115	
	12:26	3	9	7.9	71	116	

SAMPLES COLLECTED Time 12:40 Total volume purged (gal.) 9.00
 Water color Clear Odor None
 Description of sediments or material in sample: _____
 Additional Comments: None

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
C-3	3	1	—	HEX	Y	SPA	G/ATEX

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 1-221-04 Job Number M0242 well Sampler L.C
 Well Number C-4 Date 07/07/94 Well Diameter 2"
 Sample Point Location/Description South corner of the lot Well Depth (spec.) _____
 Depth to Water (static) 10.30 Well Depth (sounded) 24.50
 Initial height of water in casing 14.20 Volume 2.3 gallons
 Volume to be purged 7.0 gallons
 Purged With Sub pump Sampled With Disp. Bailer
 Pumped or Bailed Dry? Yes 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
13.00	13.02	2	2	7.6	70	112	
	13.04	3	5	7.7	71	113	
	13.06	2	7	7.8	71	113	

SAMPLES COLLECTED Time 13.20 Total volume purged (gal.) 7.0
 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
C-4	3	1	—	HEX	Y	SPT	G/ATX

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = 13 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

15775

Chain-of-Custody-Record

Chevron Facility Number: 9-1740 6550 Matilda ave
 Facility Address: Oakland
 Consultant Project Number: 9-1740 1-221-04
 Consultant Name: Sierra Environmental Services
 Address: P.O. Box 2546, Martinez, CA 94553
 Project Contact (Name): Ed Holz
 (Phone) 510-370-1280 (Fax Number) 510-370-7959

Chevron Contact (Name): Ken Kau
 (Phone): 842-8752
 Laboratory Name: SPT
 Laboratory Release Number: 4600980
 Samples Collected by (Name): L.C.
 Collection Date: 09/07/94
 Signature: L. Chelnyk

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analysis To Be Performed											Remarks					
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (8020)	Pesticide Herbicides (8010)	Pesticide Aromatics (8020)	Pesticide Organics (8020)	Extractable Organics (8070)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)									
TB/LB		2	W	G		HCL	Y	✓															Analyze	
C-2		3			12.00																			
C-3					12.40																			
C-4					13.20																			

Please Initial: AS 40C
 Samples Stored in Ico.
 Appropriate containers
 Samples preserved
 VOA's without headspace
 Comments: _____

Note:
 Do Not Bill
 TB-LB Samples

Relinquished By (Signature): <u>L. Chelnyk</u>	Organization: <u>SEP</u>	Date/Time: _____	Received By (Signature): _____	Organization: _____	Date/Time: _____
Relinquished By (Signature): _____	Organization: _____	Date/Time: _____	Received By (Signature): _____	Organization: _____	Date/Time: _____
Relinquished By (Signature): _____	Organization: _____	Date/Time: _____	Received For Laboratory Use (Signature): <u>Abdul Sala</u>	Organization: _____	Date/Time: <u>9/7/94 3:00 AM</u>

Turn Around Time (Circle Choice)

24 Hrs.
 48 Hrs. 9/7/94
 5 Days
 10 Days
 As Contracted (H)



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Sierra Environmental Services
Attn: Ed Morales

Project 1-221-04
Reported 09/16/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
15775- 1	TB-LB	09/07/94	09/08/94 Water
15775- 2	C-2	09/07/94	09/08/94 Water
15775- 3	C-3	09/07/94	09/08/94 Water
15775- 4	C-4	09/07/94	09/08/94 Water

RESULTS OF ANALYSIS

Laboratory Number: 15775- 1 15775- 2 15775- 3 15775- 4

Gasoline_Range:	ND<50	80	ND<50	ND<50
Benzene:	ND<0.5	30	ND<0.5	14
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	1.6	ND<0.5	0.7
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L



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CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 15775

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

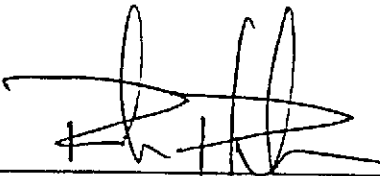
OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

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:	103/98	5%	56-117
Benzene:	84/82	2%	59-149
Toluene:	94/92	2%	59-149
Ethyl Benzene:	89/86	3%	59-149
Total Xylenes:	98/96	2%	59-149


9/16/94
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Account Manager

Certified Laboratories

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