



Chevron

January 24, 1995

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

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 :

During this sampling event, all monitoring wells detected relatively low levels of dissolved hydrocarbons. All wells will continue to be monitored and sampled on a quarterly basis.

Please refer to the enclosed report from Sierra Environmental Services dated January 20, 1995. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

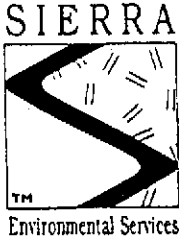
Kenneth Kan
Engineer

LKAN/MacFile 9-1740R16

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.



January 20, 1995

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

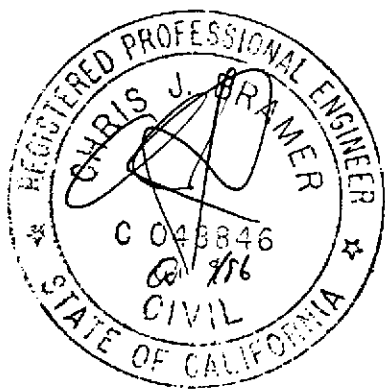
Dear Mr. Kan:

This report presents the results of the quarterly ground water sampling for the fourth quarter of 1994 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 December 6, 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 December 6, 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

Richard E. (Rick) Hilton
Staff Environmental Scientist

Chris J. Bramer
Professional Engineer #C48846

REH/CJB/lmo
22104QM.JA5

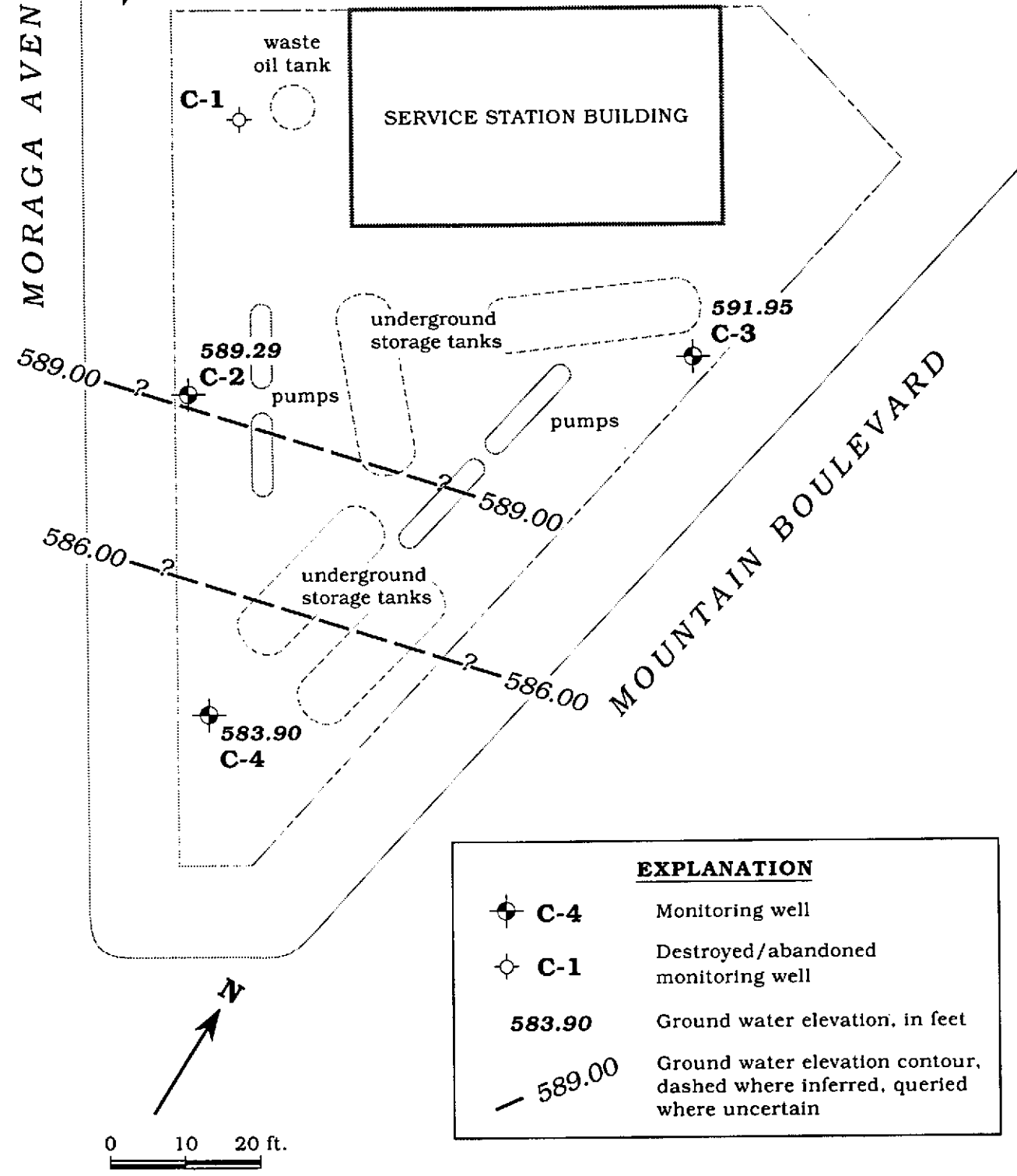
- Attachments: Figure
Table
SES Standard Operating Procedure
Field Water Sampling Forms
Chain of Custody Document and Laboratory Analytic Reports



SIERRA

MORAGA AVENUE

Approximate ground water flow direction at a gradient of 0.12 ft/ft



EXPLANATION	
	C-4 Monitoring well
	C-1 Destroyed/abandoned monitoring well
583.90	Ground water elevation, in feet
	589.00 Ground water elevation contour, dashed where inferred, queried where uncertain

Base map after Pacific Environmental Group, Inc.

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - December 6, 1994 - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California



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-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
	12/6/94	5.28	589.29	0	8015/8020	120	51	<0.5	4.7	<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



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-3 (cont)	12/6/93	5.76	591.38	0	8015/8020	<50	<0.5	0.6	<0.5	<0.5
	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
	12/6/94	5.19	591.95	0	8015/8020	<50	<0.5	0.8	<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
	12/6/94	9.20	583.90	0	8015/8020	980	270	21	12	38
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
TB-LB	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
	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	



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----->				
TB-LB (cont)	12/6/94	---	---	---	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
	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
	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

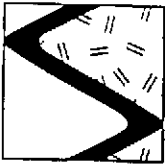
ANALYTIC METHODS:

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.



SIERRA

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.



WATER SAMPLING DATA

Job Name 6550 MORAGA AVE OAKLAND Job Number 1-221-04
 Well Number TB Date 12-6-94
 Sample Point Location/Description _____
 Depth to Water (static) _____ Well Depth (sounded) _____
 Initial height of water in casing _____ Volume _____ gallons
 Volume to be purged _____ gallons
 Purged With PUMP Sampled With DISP BAY
 Pumped or Bailed Dry? Yes No Time _____ After _____ gallons
 Water level at sampling _____ Percent Recovery _____

Sampler DB
 Well Diameter 2"
 Well Depth (spec.) _____

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
 2.48 gal/ft^2
 $V_{2"} \text{ casing} = 0.163 \text{ gal/ft}$
 $V_{3"} \text{ casing} = 0.367 \text{ gal/ft}$
 $V_{4"} \text{ casing} = 0.653 \text{ gal/ft}$
 $V_{4.5"} \text{ casing} = 0.826 \text{ gal/ft}$
 $V_{6"} \text{ casing} = 1.47 \text{ gal/ft}$
 $V_{8"} \text{ casing} = 2.61 \text{ gal/ft}$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
/							
/							
/							
/							
/							
/							

SAMPLES COLLECTED Time _____ Total volume purged (gal.) _____
 Water color _____ Odor _____
 Description of sediments or material in sample: _____
 Additional Comments: TRIP BLANK

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
TB	2	1	-	HCl	YES	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 6550 MORAGA AVE OAKLAND Job Number 1.221.04

 Well Number C-3 Date 12.6.94

 Sample Point Location/Description NORTH ALLOT

 Depth to Water (static) 5.19 Well Depth (sounded) 24

 Initial height of water in casing 18.81 Volume 3.06 gallons

 Volume to be purged 9 gallons

 Purged With PUMP Sampled With DISP BAILED

 Pumped or Bailed Dry? Yes No Time After gallons

 Water level at sampling Percent Recovery

 Sampler DB.

 Well Diameter 2"

 Well Depth (spec.)

Formulas/Conversions

 $r = \text{well radius in ft}$
 $h = \text{ht of water col. in ft}$
 $\text{vol. in cyl.} = \pi r^2 h$
 7.48 gal/ft^3
 $V_p \text{ casing} = 0.163 \text{ gal/ft}$
 $V_p \text{ casing} = 0.367 \text{ gal/ft}$
 $V_p \text{ casing} = 0.653 \text{ gal/ft}$
 $V_p \text{ casing} = 0.826 \text{ gal/ft}$
 $V_p \text{ casing} = 1.47 \text{ gal/ft}$
 $V_p \text{ casing} = 2.61 \text{ gal/ft}$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
9:29							
	9:30	3	3	6.43	65°	1.01	X 1,000
	9:31	3	6	6.46	65°	1.05	1
	9:32	3	9	6.46	65°	1.07	1

 SAMPLES COLLECTED Time 9:29

 Total volume purged (gal.) 9

 Water color CLEAR TURBIDITY

 Odor NO

 Description of sediments or material in sample:

 Additional Comments:

Sample ID	# of Cont.	Container Type	Filtered (size. u)	Preservative (type)	Refrig. (Y/N)	Lab (init)	Analysis Requested
C-3	2	1	-	HCl	YES	SPT	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 6550 MORAGA AVE OAKLAND Job Number 1-221-04
 Well Number C-7 Date 12-10-94
 Sample Point Location/Description WEST ON LOT
 Depth to Water (static) 5.28 Well Depth (sounded) 28.
 Initial height of water in casing 22.72 Volume 3.70 gallons
 Volume to be purged 11 gallons
 Purged With PUMP Sampled With DISP BAILO
 Pumped or Bailed Dry? Yes No Time After gallons
 Water level at sampling Percent Recovery

Sampler DB.
 Well Diameter 2'
 Well Depth (spec.)

Formulas/Conversions
 r = well radius in ft
 h = ht of water col. in ft
 vol. in cyl. = $\pi r^2 h$
~~2.48 gal/ft~~
 V_{1"} casing = 0.163 gal/ft
 V_{1.5"} casing = 0.367 gal/ft
 V_{2"} casing = 0.653 gal/ft
 V_{2.5"} casing = 0.826 gal/ft
 V_{3"} casing = 1.47 gal/ft
 V_{3.5"} casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp ^F	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
9:53							
	9:55	4	4	7.21	66°	1.16	x 1,000
	9:57	4	8	7.29	66°	1.46	1
	9:59	3	11	7.42	66°	1.53	↓

SAMPLES COLLECTED Time 10:10 Total volume purged (gal.) 11
 Water color CLEAR TURBIDITY Odor SLIGHT SWEET ODEUR
 Description of sediments or material in sample:
 Additional Comments:

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
C-2	2	1	-	HCl	YES	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 6550 MORAGA AVE DAKOTA Job Number 1.221.04

Sampler DB

Well Number C-4 Date 12.6.94

Well Diameter 2"

Sample Point Location/Description SOUTH ON LOT

Well Depth (spec.) _____

Depth to Water (static) 9.20 Well Depth (sounded) 250

Initial height of water in casing 158 Volume 2.57 gallons

Volume to be purged _____ gallons

Purged With PUMP Sampled With DISP BAILO

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. = $\pi r^2 h$
 ~~$V_{1.8}$ casing = 7.18 gal/ft~~
 $V_{0.5}$ casing = 0.163 gal/ft
 $V_{1.0}$ casing = 0.367 gal/ft
 $V_{1.5}$ casing = 0.653 gal/ft
 $V_{2.0}$ casing = 0.826 gal/ft
 $V_{2.5}$ casing = 1.47 gal/ft
 $V_{3.0}$ 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
10:20							
	10:21	3	3	7.70	66	1.19	X 1,000
	10:23	3	6	7.59	66	1.29	↓
	10:24	2	8	7.51	66	1.37	↓

SAMPLES COLLECTED Time 10:30

Total volume purged (gal.) 8

Water color CLEAR TURBIDITY _____

Odor HYDROCARBON

Description of sediments or material in sample: _____

Additional Comments: WELL UNDER REPAIR

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
C-4	2	1	-	HCl	YES	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 _____



Superior Precision Analytical, Inc.

A member of ESSECON Environmental Support Service Consortium

Sierra Environmental
Attn: ED MORALES

Project 1-221-04
Reported on December 12, 1994

TOTAL PETROLEUM HYDROCARBONS

LAB #	Sample ID	Sampled	Analyzed	Matrix
80198-01	TB	12/06/94	12/08/94	Water
80198-02	C-2	12/06/94	12/08/94	Water
80198-03	C-3	12/06/94	12/08/94	Water
80198-04	C-4	12/06/94	12/08/94	Water

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

Laboratory Number:	80198-01	80198-02	80198-03	80198-04
Gasoline_Range	ND<50	120	ND<50	980
Benzene	ND<0.5	51	ND<0.5	270
Toluene	ND<0.5	ND<0.5	0.8	21
Ethyl Benzene	ND<0.5	4.7	ND<0.5	12
Total Xylenes	ND<0.5	ND<0.5	ND<0.5	38
Concentration:	ug/L	ug/L	ug/L	ug/L

Certified Laboratories

825 Arnold Dr., Suite 114
Martinez, California 94553
(510) 229-1512 / fax (510) 229-1526

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

309 S. Cloverdale St., Suite B-24
Seattle, Washington 98108
(206) 763-2992 / fax (206) 763-8429



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

CERTIFICATE OF ANALYSIS

TOTAL PETROLEUM HYDROCARBONS

QA/QC Information

Laboratory Number: 80198

NA - Analysis NOT required

ND - Not Detected above quantitation limit

ug/L = parts per billion (ppb)

EPA SW-846 Method 5030/8015M/8020 Total Volatile Petroleum Hydrocarbons/BTXE

Minimum Quantitation Limit for Gasoline in water: 50 ug/L

Minimum Quantitation Limit for BTXE in water: 0.5 ug/L

Matrix: Water

Analyte	Spike Recovery	RPD	Control Limits
Gasoline_Range	85/78	9	65-135
Benzene	83/88	6	65-135
Toluene	89/94	5	65-135
Ethyl Benzene	93/98	5	65-135
Total Xylenes	100/103	3	65-135

Michael R. Vernon

Senior Chemist
Account Manager

Page 2 of 2

Certified Laboratories

825 Arnold Dr., Suite 114
Martinez, California 94553
(510) 229-1512 / fax (510) 229-1526

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

309 S. Cloverdale St., Suite B-24
Seattle, Washington 98108
(206) 763-2992 / fax (206) 763-8429