



Chevron

SIERRA ENVIRONMENTAL SERVICES
SAMPLED FOR QMS

November 21, 1994

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

**Re: Chevron Service Station #9-2506
2630 Broadway, Oakland, CA**

Dear Ms. Eberle:

Enclosed is the quarterly Ground Water Sampling report dated October 14, 1994, prepared by our consultant Sierra Environmental Services for the above referenced site. Ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Dissolved concentrations of these constituents observed during this sampling event are consistent with historical results. Depth to ground water was measured at approximately 6.3 to 11.2 feet below grade and the direction of flow is to the north.

Our consultant, RESNA Industries, has recently installed the additional ground water monitor wells as proposed in our work plan of November 18, 1993. We anticipate forwarding a report documenting field activities by the end of the month.

Chevron will continue to monitor and sample all wells at 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) 842-8134.

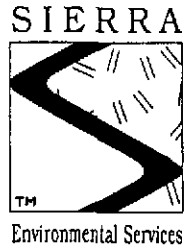
Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY


Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. S.A. Willer

File: 9-2506 QMS



October 14, 1994

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

Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, California
SES Project #1-364-04

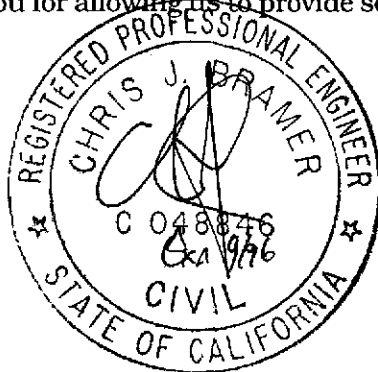
Dear Mr. Miller:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-2506, located at 2630 Broadway in Oakland, California. Eight wells, B-1 through B-8, were sampled (Figure 1).

On September 15, 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 checked. 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 September 15, 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. Please call if you have any questions.



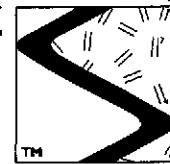
Sincerely,
Sierra Environmental Services

Argy Leyton
Staff Geologist

Chris J. Bramer
Professional Engineer #C48846

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



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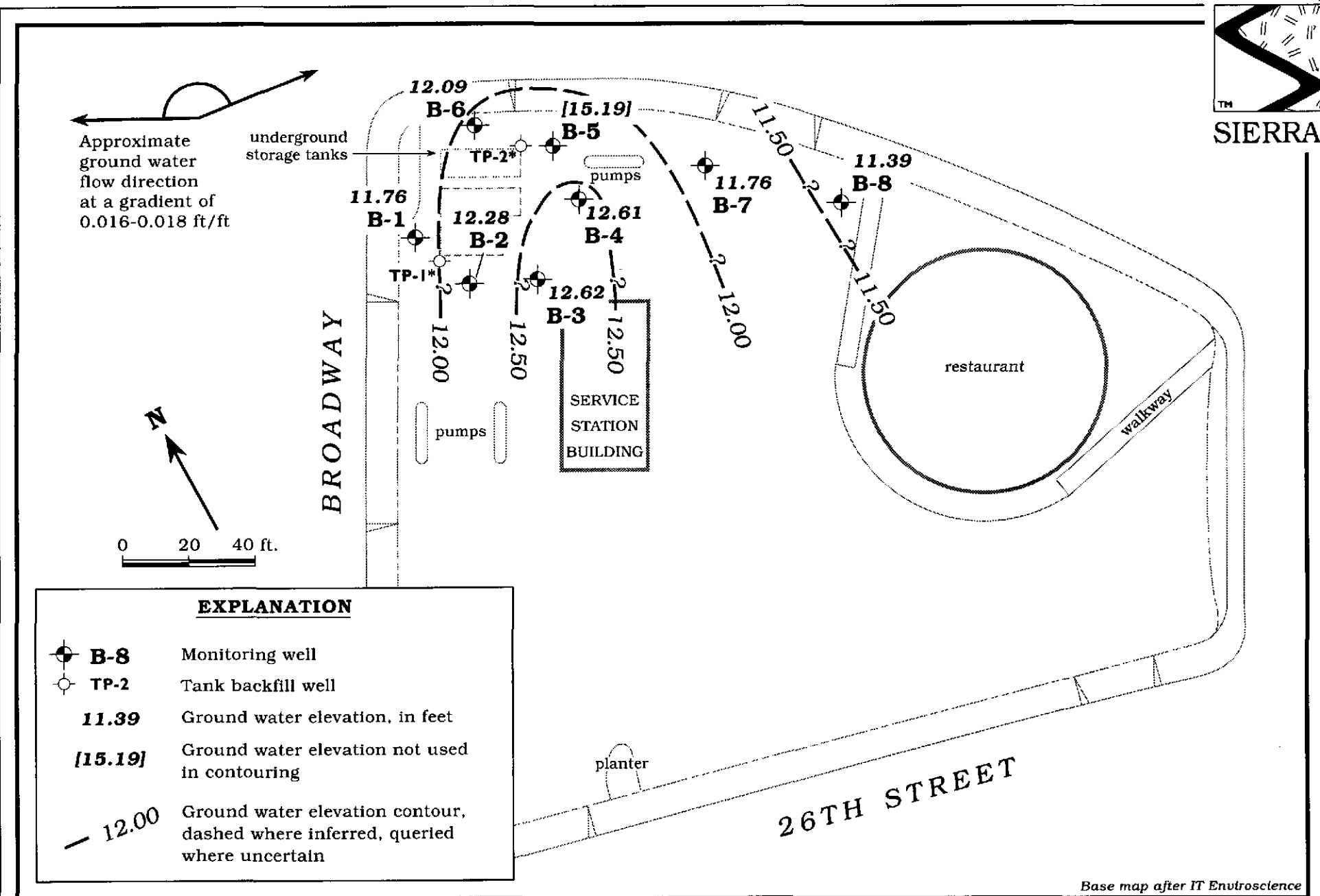


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - September 15, 1994 - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California



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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) B T E X				
						-----ppb----->				
B-1/ 23.00 ¹	3/18/82	7.81	15.19	0	---	---	---	---	---	---
	3/25/82	8.67	14.33	0	---	---	---	---	---	---
	5/21/82	9.30	13.70	0	---	---	---	---	---	---
	5/26/82	10.18	12.82	0	---	---	---	---	---	---
	6/24/82	9.92	13.08	0	---	---	---	---	---	---
	9/9/93	9.90	13.10	0	8015/8020	8,800 ²	240	280	<2.5	<7.5
	12/2/93	9.10	13.90	0	8015/8020	1,100	100	7.9	3.4	3.9
	3/17/94	9.41	13.59	0	8015/8020	1,600	370	13	13	26
	6/10/94	9.89	13.11	0	8015/8020	1,400	270	24	18	78
9/15/94	11.24	11.76	0	8015/8020	4,100 ↑	740 ↑	<5	270	300	
B-2/ 22.28 ¹	3/18/82	3.83	18.45	0	---	---	---	---	---	---
	3/25/82	5.79	16.49	0	---	---	---	---	---	---
	5/21/82	4.85	17.43	0	---	---	---	---	---	---
	5/26/82	8.53	13.75	0	---	---	---	---	---	---
	6/24/82	8.40	13.88	0	---	---	---	---	---	---
	9/9/93	6.46	15.82	0	8015/8020	4,700	470	630	180	590
	12/2/93	5.41	16.87	0	8015/8020	2,200	59	27	110	350
	3/17/94	7.44	14.84	0	8015/8020	1,800	52	33	97	320
	6/10/94	8.15	14.13	0	8015/8020	1,200	37	48	20	93
9/15/94	10.00	12.28	0	8015/8020	4,900 ↑	710 ↑	12	340	450	
B-3/ 21.78 ¹	3/18/82	5.65	16.13	0	---	---	---	---	---	---
	3/25/82	5.75	16.03	0	---	---	---	---	---	---
	5/21/82	5.58	16.20	0	---	---	---	---	---	---
	5/26/82	7.99	13.79	0	---	---	---	---	---	---
	6/24/82	7.68	14.10	0	---	---	---	---	---	---
	9/9/93	5.99	15.79	0	8015/8020	7,800	500	760	180	720
	12/2/93	5.70	16.08	0	8015/8020	9,800	790	870	380	1,500
	3/17/94	6.50	15.28	0	8015/8020	2,400	88	55	74	270
	6/10/94	7.23	14.55	0	8015/8020	2,300	110	95	84	240
9/15/94	9.16	12.62	0	8015/8020	5,000 ↑	670 ↑	9.3	340	410	



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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) B T E X				
						-----ppb----->				
B-4/ 21.35 ¹	3/18/82	4.65	16.70	0	---	---	---	---	---	---
	3/25/82	5.08	16.27	0	---	---	---	---	---	---
	5/21/82	---	---	2.5	---	---	---	---	---	---
	5/26/82	9.21	12.14	---	---	---	---	---	---	---
	6/24/82	8.22	13.13	0.5	---	---	---	---	---	---
	9/9/93	6.09	15.26	0	8015/8020	88,000	3,200	16,000	2,000	9,500
	12/2/93	5.54	15.81	0	8015/8020	110,000	3,600	25,000	2,800	15,000
	3/17/94	6.00	15.35	0	8015/8020	60,000	1,400	16,000	1,800	8,900
	6/10/94	6.87	14.48	0	8015/8020	25,000	770	880	190	1,100
9/15/94	8.74	12.61	0	8015/8020	3,300 ↓	800 ↑	8.0	300	350	
B-5/ 21.53 ¹	3/18/82	5.13	16.40	0	---	---	---	---	---	---
	3/25/82	5.27	16.26	0	---	---	---	---	---	---
	5/21/82	4.40	17.13	0	---	---	---	---	---	---
	5/26/82	7.55	13.98	0	---	---	---	---	---	---
	6/24/82	7.27	14.26	0	---	---	---	---	---	---
	9/9/93	6.45	15.08	0	8015/8020	110,000	1,800	1,800	6,300	25,000
	12/2/93	5.13	16.40	0	8015/8020	81,000	4,400	3,800	6,700	28,000
	3/17/94	6.55	14.98	0	8015/8020	38,000	2,100	3,100	1,800	9,100
	6/10/94	7.34	14.19	0	8015/8020	110,000	5,100	7,000	5,400	27,000
9/15/94	6.34	15.19	0	8015/8020	2,700 ↓	770 ↓	15	240	320	
B-6/ 22.03 ¹	3/18/82	7.56	14.47	0	---	---	---	---	---	---
	3/25/82	6.08	15.95	0	---	---	---	---	---	---
	5/21/82	4.85	17.18	0	---	---	---	---	---	---
	5/26/82	8.31	13.72	0	---	---	---	---	---	---
	6/24/82	8.03	14.00	0	---	---	---	---	---	---
	9/9/93	8.12	13.91	0	8015/8020	6,800 ²	<0.5	<0.5	<0.5	<1.5
	12/2/93	7.06	14.97	0	8015/8020	320	29	<0.5	<0.5	<0.5
	3/17/94	7.57	14.46	0	8015/8020	570	130	6.2	4.7	14
	6/10/94	8.21	13.82	0	8015/8020	1,500	100	81	51	240
9/15/94	9.94	12.09	0	8015/8020	6,400 ↑	900 ↑	24	490	620	



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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) B T E X				
						-----ppb----->				
B-7/ 19.54 ¹	3/18/82	4.08	15.46	0	---	---	---	---	---	---
	3/25/82	4.00	15.54	0	---	---	---	---	---	---
	5/21/82	3.00	16.54	0	---	---	---	---	---	---
	5/26/82	4.96	14.58	0	---	---	---	---	---	---
	6/24/82	4.90	14.64	0	---	---	---	---	---	---
	9/9/93	6.54	13.00	0	8015/8020	230	1.3	2.3	0.6	2.1
	12/2/93	6.20	13.34	0	8015/8020	190	4.7	<0.5	1.1	1.9
	3/17/94	5.19	14.35	0	8015/8020	320	15	3.3	1.0	3.0
	6/10/94	5.97	13.57	0	8015/8020	210	6.1	5.7	2.3	5.8
	9/15/94	7.78	11.78	0	8015/8020	<50 ↓	<0.5 ↓	<0.5	<0.5	<0.5
B-8/ 18.49 ¹	3/18/82	4.27	14.22	0	---	---	---	---	---	---
	3/25/82	4.06	14.43	0	---	---	---	---	---	---
	5/21/82	4.86	13.63	0	---	---	---	---	---	---
	5/26/82	4.96	13.53	0	---	---	---	---	---	---
	6/24/82	4.87	13.62	0	---	---	---	---	---	---
	9/9/93	5.20	13.29	0	8015/8020	<50	3.4	<0.5	<0.5	<1.5
	12/2/93	5.31	13.18	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/17/94	4.87	13.62	0	8015/8020	<50	1.7	0.5	<0.5	0.6
	6/10/94	5.63	12.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/15/94	7.10	11.39	0	8015/8020	<50 -	<0.5 ✓	<0.5	<0.5	<0.5
TP-1/ ---	9/9/93	7.33	---	0	8015/8020	8,500	770	890	120	590
TP-2/ ---	9/9/93	6.18	---	0	8015/8020	13,000	2,400	3,200	380	1,900
Trip-Lab Blank TB-LB	9/9/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/17/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/10/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/15/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) <-----ppb----->	B	T	E	X
Bailer Blank										
BB	9/9/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/17/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	0.6

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
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes
 ppb = Parts per billion
 --- = Not analyzed/Not applicable

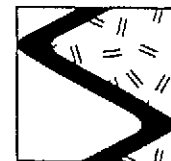
NOTES:

Water level data prior to September 9, 1993, compiled from IT Enviroscience Progress Report, prepared for Chevron, August 2, 1982.

- * Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.
- ¹ Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.
- ² Laboratory indicates a non-typical gasoline pattern.

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
 8020 = EPA Method 8020 for BTEX



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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.



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C
 Well Number B-1 Date 09/14/94 Well Diameter 2 1/2
 Sample Point Location/Description East from the tanks Well Depth (spec.) _____
 Depth to Water (static) 11.24 Well Depth (sounded) 21.00
 Initial height of water in casing 17.76 Volume 2.89 gallons
 Volume to be purged 8.7 gallons
 Purged With fold purap Sampled With Disp. Butler
 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/ft^3
 $V_{2\text{ casing}} = 0.163 \text{ gal/ft}$
 $V_{3\text{ casing}} = 0.367 \text{ gal/ft}$
 $V_{4\text{ casing}} = 0.653 \text{ gal/ft}$
 $V_{5\text{ casing}} = 0.826 \text{ gal/ft}$
 $V_{6\text{ casing}} = 1.47 \text{ gal/ft}$
 $V_{7\text{ casing}} = 2.61 \text{ gal/ft}$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	µmhos/cm
14.10	14.12	3	3	6.8	79	102	
	14.15	2	5	6.9	80	101	
	14.17	3	8	7.0	80	101	

SAMPLES COLLECTED Time 14.25 Total volume purged (gal.) 8
 Water color cloudy Odor slight odor
 Description of sediments or material in sample: _____
 Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, µ)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
B-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 _____; G = Other _____

5



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C
 Well Number B-2 Date 09/14/94 Well Diameter 21
 Sample Point Location/Description East from the B-3 Well Depth (spec.) _____
 Depth to Water (static) 10.00 Well Depth (sounded) 17.8
 Initial height of water in casing 7.18 Volume 1.12 gallons
 Volume to be purged 3.5 gallons
 Purged With Sub pump Sampled With Disp. Bottle
 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
 $vol. in cyl. = \pi r^2 h$
 $7.48 gal/ft^3$
 $V_{casing} = 0.163 gal/ft$
 $V_{casing} = 0.357 gal/ft$
 $V_{casing} = 0.653 gal/ft$
 $V_{casing} = 0.826 gal/ft$
 $V_{casing} = 1.47 gal/ft$
 $V_{casing} = 2.61 gal/ft$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
14.35	14.37	1	1	6.3	79	110	
	14.39	1	2	6.3	78	112	
	14.41	1	3	6.2	79	112	

SAMPLES COLLECTED Time 14.45 Total volume purged (gal.) 3
 Water color Cloudy 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
B-2	3	1	—	HCL	Y	SQA	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 1-364-04 Job Number Dadland Sampler L.C.
 Well Number B-3 Date 09/14/94 Well Diameter 2"
 Sample Point Location/Description N/E from service station Well Depth (spec.) _____
 Depth to Water (static) 9.16 Well Depth (sounded) 15.10
 Initial height of water in casing 5.94 Volume 2.46 gallons
 Volume to be purged 7.3 gallons
 Purged With Sub pump Sampled With Disp. Bottle
 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
 $vol. in cyl. = \pi r^2 h$
 $7.48 gal/ft^3$
 $V_{1/2} casing = 0.163 gal/ft$
 $V_{1/3} casing = 0.367 gal/ft$
 $V_{1/4} casing = 0.653 gal/ft$
 $V_{1/5} casing = 0.926 gal/ft$
 $V_{1/6} casing = 1.47 gal/ft$
 $V_{1/8} casing = 2.61 gal/ft$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
14.50	14.52	2	2	6.7	79	100	
	14.54	2	4	6.7	78	110	
	14.56	3	7	6.5	79	110	

SAMPLES COLLECTED Time 15.00 Total volume purged (gal.) 7
 Water color Cloudy Odor Strong
 Description of sediments or material in sample: _____
 Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Inst)	Analysts Requested
B-3	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/polycarbonate cap (specify size);
 5 = Other _____; 6 = Other _____; 7 = Other _____



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C.
 Well Number B-4 Date 09/14/94 Well Diameter 21
 Sample Point Location/Description S/E from B-5 Well Depth (spec.) _____
 Depth to Water (static) 8.74 Well Depth (sounded) 16.42
 Initial height of water in casing 7.68 Volume 1.25 gallons
 Volume to be purged 3.75 gallons
 Purged With Sub Pump Sampled With Disp. Bottle
 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 gal. = $\pi r^2 h$
 V_1 casing = 0.163 gal/ft
 V_2 casing = 0.367 gal/ft
 V_3 casing = 0.653 gal/ft
 V_4 casing = 0.926 gal/ft
 V_5 casing = 1.47 gal/ft
 V_6 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
13:50	13:52	1	1	7.5	80	106	
	13:54	1	2	7.9	79	105	
	13:56	2	4	7.4	79	105	

SAMPLES COLLECTED Time 14:00 Total volume purged (gal.) _____
 Water color cloudy Odor slight odor
 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
B-4	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/polycarbonate cap (specify size);
 5 = Other _____ : G = Other _____

4



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C
 Well Number B-5 Date 09/14/94 Well Diameter 2"
 Sample Point Location/Description N/W from B-7 Well Depth (spec.) _____
 Depth to Water (static) 6.35 Well Depth (sounded) 18.7
 Initial height of water in casing 12.35 Volume 2.01 gallons
 Volume to be purged 6 gallons
 Purged With Sub Pump Sampled With Drip Bottle
 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
 $vol. in cyl. = \pi r^2 h$
 $7.48 gal/ft^3$
 $V_{1/2} casing = 0.163 gal/ft$
 $V_{1/4} casing = 0.367 gal/ft$
 $V_{3/8} casing = 0.653 gal/ft$
 $V_{1/2} casing = 0.926 gal/ft$
 $V_{3/4} casing = 1.47 gal/ft$
 $V_{1} casing = 2.61 gal/ft$

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
13:30	13:32	2	2	7.6	82	108	
	13:34	2	4	7.5	81	103	
	13:36	2	6	7.4	81	110	

SAMPLES COLLECTED Time 13.45 Total volume purged (gal.) 6
 Water color Cloudy Odor Slight odor
 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 (Inst)	Analysts Requested
B-5	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/polychethylene cap (specify size);
 5 = Other _____; 6 = Other _____



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C.
 Well Number B-6 Date 09/14/94 Well Diameter 21
 Sample Point Location/Description North from the U.S.T. Well Depth (spec.) _____
 Depth to Water (static) 9.94 Well Depth (sounded) 19.30
 Initial height of water in casing 9.36 Volume 1.52 gallons
 Volume to be purged 4.57 gallons
 Purged With Sub Pump Sampled With Disp. Meter
 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
 V₁ casing = 0.163 gal/ft
 V₂ casing = 0.367 gal/ft
 V₃ casing = 0.653 gal/ft
 V₄ casing = 0.826 gal/ft
 V₅ casing = 1.47 gal/ft
 V₆ 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
15.10	15.12	1	1	2	80	101	
	15.14	1	2	4	79	102	
	15.16	2	4	7	79	102	

SAMPLES COLLECTED Time 15.25 Total volume purged (gal.) 4
 Water color Cloudy 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 (intl)	Analysts Requested
B-6	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/polycarbonate cap (specify size);
 5 = Other _____; G = Other _____

8



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C.
 Well Number B-7 Date 09/14/94 Well Diameter 2"
 Sample Point Location/Description N/W from B-8 Well Depth (spec.) _____
 Depth to Water (static) 7.78 Well Depth (sounded) 19.35
 Initial height of water in casing 11.57 Volume 1.88 gallons
 Volume to be purged 5.6 gallons
 Purged With Sub Pump Sampled With Disp. Bottle
 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_{10} casing = 0.163 gal/ft
 V_{20} casing = 0.367 gal/ft
 V_{30} casing = 0.653 gal/ft
 V_{40} casing = 0.926 gal/ft
 V_{50} casing = 1.47 gal/ft
 V_{60} casing = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	µmhos/cm
13.00	13.02	2	2	7.6	73	100	
	13.04	2	4	7.5	71	101	
	13.06	2	6	7.5	71	101	

SAMPLES COLLECTED Time 13.15 Total volume purged (gal.) 6
 Water color Clear Odor None
 Description of sediments or material in sample: None
 Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, µ)	Preservative (type)	Refrig. (Y/N)	Lab (Inst)	Analysts Requested
B-7	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 _____; G = Other _____

②



WATER SAMPLING DATA

Job Name 1-364-04 Job Number Oakland Sampler L.C.
 Well Number B-8 Date 09/14/94 Well Diameter 2"
 Sample Point Location/Description N/w from the restaurant Well Depth (spec.) _____
 Depth to Water (static) 7.1 Well Depth (sounded) 77.86
 Initial height of water in casing 10.72 Volume 1.74 gallons
 Volume to be purged 5.24 gallons
 Purged With Sub Pump Sampled With Disp. Bottle
 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
 $V_{5"}$ 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
12.40	12.42	2		7.8	70	101	
	12.44	2		7.6	71	102	
	12.46	1		7.5	72	103	

SAMPLES COLLECTED Time 12.50 Total volume purged (gal.) 5
 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 (Inst)	Analysts Requested
B-8	3	1	—	HCL	Y	SPA	G/B/TEK

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/polycarbonate cap (specify size);
 5 = Other _____; G = Other _____

1

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

30761

Chain-of-Custody-Record

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

Chevron Facility Number 9-2506
Facility Address 2630 Broadway, Oakland
Consultant Project Number 1-364-04
Consultant Name Sierra Environmental Services
Address P.O. Box 2546, Martinez, CA 94553
Project Contact (Name) Ed Morz
(Phone) 510-370-1280 (Fax Number) 510-370-7959

Chevron Contact (Name) Mark Miller
(Phone) 842-8134
Laboratory Name SPA
Laboratory Release Number 8842480
Sample Collected by (Name) L. Cerny
Collection Date 09/15/94
Signature L. Cerny

Note:
Do Not Bill
TB-LB Samples

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)	Analytes To Be Performed										Remarks	
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)				
TB-LB		2	W	G		HCL	Y	✓											Analyze
B-1		3			14.25														
B-2					14.45														
B-3					15.00														
B-4					14.00														
B-5					13.45														
B-6					15.25														
B-7					13.15														
B-8					12.50														

P7
E7
Cold (Cold)

Relinquished By (Signature) <u>L. Cerny</u>	Organization <u>SES</u>	Date/Time <u>09/15/94</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>[Signature]</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>[Signature]</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>[Signature]</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>[Signature]</u>	Received For Laboratory By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>9.15.94</u>

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

JG



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Sierra Environmental
Attn: ED MORALES

Project 1-364-04
Reported 09/27/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30761- 1	TB-LB	09/15/94	09/23/94 Water
30761- 2	B-1	09/15/94	09/23/94 Water
30761- 3	B-2	09/15/94	09/23/94 Water
30761- 4	B-3	09/15/94	09/23/94 Water
30761- 5	B-4	09/15/94	09/23/94 Water
30761- 6	B-5	09/15/94	09/26/94 Water
30761- 7	B-6	09/15/94	09/23/94 Water
30761- 8	B-7	09/15/94	09/23/94 Water
30761- 9	B-8	09/15/94	09/23/94 Water

RESULTS OF ANALYSIS

Laboratory Number: 30761- 1 30761- 2 30761- 3 30761- 4 30761- 5

Gasoline:	ND<50	4100	4900	5000	3300
Benzene:	ND<0.5	740	710	670	800
Toluene:	ND<0.5	ND<5	12	9.3	8.0
Ethyl Benzene:	ND<0.5	270	340	340	300
Total Xylenes:	ND<0.5	300	450	410	350

Concentration: ug/L ug/L ug/L ug/L ug/L

Laboratory Number: 30761- 6 30761- 7 30761- 8 30761- 9

Gasoline:	2700	6400	ND<50	ND<50
Benzene:	770	900	ND<0.5	ND<0.5
Toluene:	15	24	ND<0.5	ND<0.5
Ethyl Benzene:	240	490	ND<0.5	ND<0.5
Total Xylenes:	320	620	ND<0.5	ND<0.5

Concentration: ug/L ug/L ug/L ug/L

Regis Laboratoris

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



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

Page 2 of 2
QA/QC INFORMATION
SET: 30761

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:	100/95	5%	56-117
Benzene:	100/104	4%	59-149
Toluene:	102/107	5%	59-149
Ethyl Benzene:	98/101	3%	59-149
Total Xylenes:	106/104	2%	59-149

Handwritten signature: Alan Schiz 9/27/04

Certified Laboratory Chemist