Chevron

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

December 9, 1994

Ms. Eva Chu
Alameda County Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: Chevron Station # 9-5542, 7007 San Ramon Valley Blvd., Dublin, CA
Attached groundwater monitoring report (Sierra, 11/3/94)

Dear Ms. Chu:

Attached you will find a report dated November 3, 1994, which was prepared by Chevron's consultant, Sierra Environmental Services (Sierra), to describe groundwater monitoring performed at the subject site on September 22, 1994.

During their September site visit Sierra gauged and sampled all nine site-related wells. The measured direction of groundwater flow was generally toward the east. The groundwater samples were analyzed for the presence of TPHG and BTEX constituents. In addition, samples from well MW-4 were analyzed for oil and grease. Except for well MW-5, all site-related wells contained detectable concentrations of dissolved hydrocarbons.

Prior to sending out their report, Sierra notified me of anomalous detections at well MW-8. Sierra was asked to resample the well and include the confirmatory results in this report. As you can see, results from the resampling of well MW-8 on October 14, 1994 rendered the previous results (9/22/94) invalid. Upon my review of Sierra's report, it was recognized that during the September sampling event well MW-9 was sampled out of sequence. This discovery suggested that the equipment used to purge well MW-9 was not properly decontaminated before sampling well MW-8 and as a result, introduced detectable concentrations of hydrocarbons into an otherwise clean well. Findings of my review also suggest that well MW-7 was similarly contaminated during September. Unfortunately, well MW-7 was not resampled in time for this report. The validity of September's results at MW-7 will be verified by December's sampling results.

Sierra has consistently provided quality groundwater monitoring service to Chevron. The lapse of QA/QC measures during the September site event has been recognized as an isolated occurrence. As such, we are confident that Sierra will resume groundwater monitoring efforts in accordance with regulatory and Chevron standards. If you have any questions or comments, I can be reached at (510) 842-8695.

Sincerely,

Brett L. Hunter

Brett L. Hunter
Environmental Engineer
Site Assessment and Remediation

Attachment

cc: Richard Hiett, San Francisco Bay RWQCB, Oakland, CA
Mary Diamond, See's Candy, 3423 S. La Cienega Blvd., Los Angeles, CA 90016-4401
Kenneth Chait, Ardenbrook, Inc., 4725 Thornton Ave., Fremont, CA 94536
See's Real Estate, 210 El Camino Real, S. San Francisco, CA 94080 (w/o attachment)

SIERRA
Environmental Services

November 3, 1994

Brett Hunter
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-5542
7007 San Ramon Road
Dublin, California
SES Project #1-214-04

Dear Mr. Hunter:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-5542, located at 7007 San Ramon Road in Dublin, California. Nine wells, MW-1 through MW-9, were sampled (Figure 1).

On September 22, 1994 and October 14, 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 September 22, 1994 and October 14, 1994, in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). The field waer sampling forms for this event are included. All analyses were performed by GTEL of Concord, 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
CIVIL
STATE OF CALIFORNIA

Sincerely,
Sierra Environmental Services

L. Chernyak

Luda Chernyak
Staff Technician

Chris J. Bramer
Professional Engineer #C48846

LAC/CJB/lmo
21404QM.NO4

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

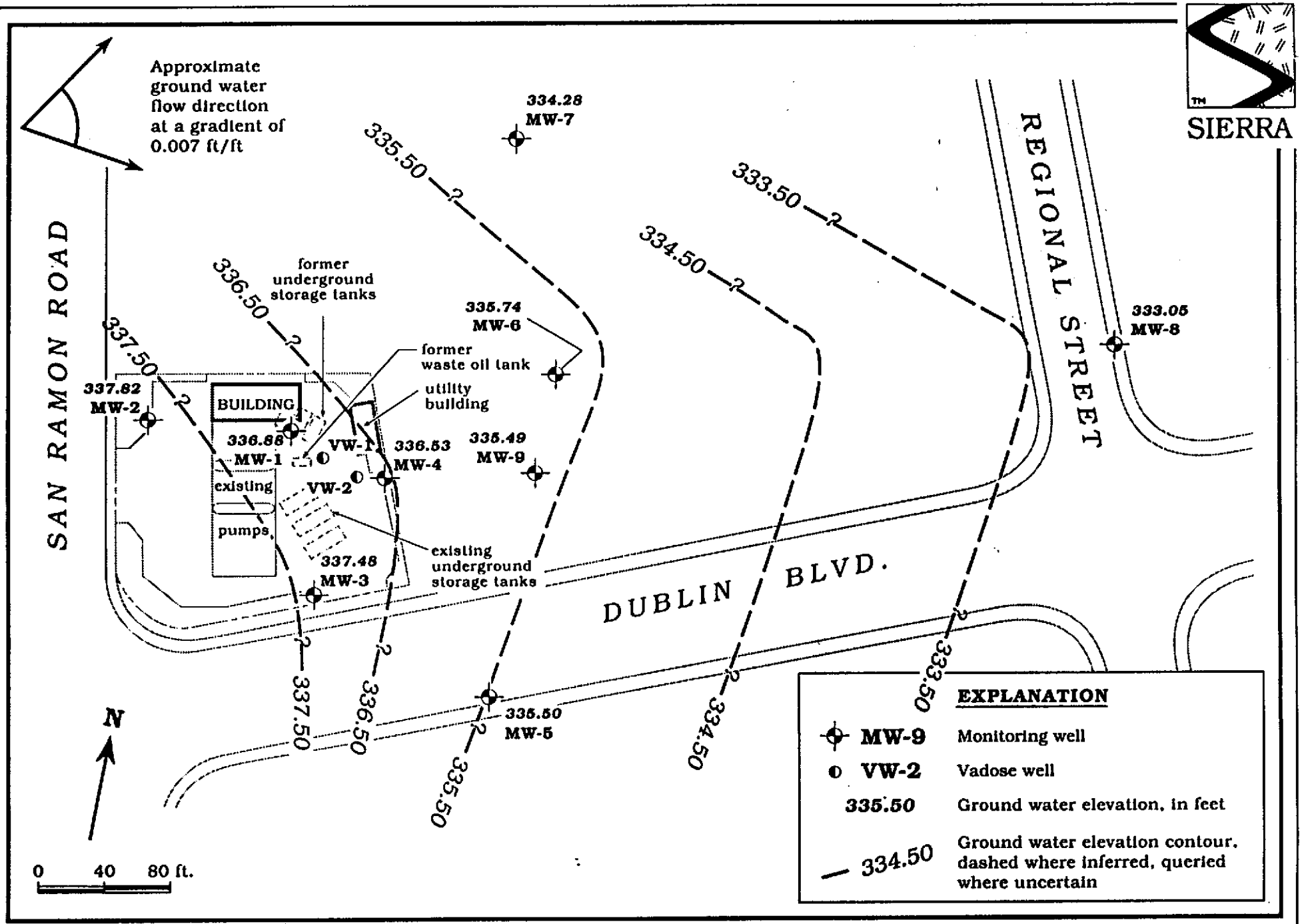

Figure 1. Monitoring Well Location and Ground Water Elevation Contour Map - September 22, 1994 - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California

1-214-04 10/20/94

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<----------				ppb					---------->
MW-1/	4/3-4/90	---	---	---	8015/602/504	46,000	---	8,400	7,400	860	5,600	---	---	1.04	---
(D)	4/3-4/90	---	---	---	8015/602/504	43,000	---	8,400	7,200	840	5,200	---	---	1.1	---
363.98[1]	5/31/91	25.67	338.31	0	8015/8020/8010	31,000	---	7,400	2,500	630	2,100	ND[6]	2	---	---
	5/31/91	---	---	---	503E	---	<5,000	---	---	---	---	---	---	---	---
	6/21/91	26.23	337.75	0	---	---	---	---	---	---	---	---	---	---	---
	7/17/91	26.53	337.45	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020/8010	31,000	---	3,000	2,800	610	3,100	ND[6]	0.6	---	---
	10/4/91	27.90	336.08	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	28.12	335.86	0	8015/8020/8010	20,000	---	5,200	1,700	560	2,000	ND[6]	3.3	---	---
	3/19/92	24.63	339.35	0	8015/8020/8010	30,000	---	8,500	3,600	590	2,400	ND[6]	2.7	---	---
364.32[2]	6/19/92	26.23	338.09	0	8015/8020	25,000	---	1,100	2,000	520	1,800	---	---	---	---
	9/22/92	27.73	336.59	0	8015/8020	21,000	---	8,000	3,500	670	2,900	---	---	---	---
	12/18/92	26.76	337.56	0	8015/8020	79,000	---	12,000	12,000	1,600	8,500	---	---	---	---
	3/10/93[8,13]	---	---	---	8015/8020	45,000	---	16,000	14,000	1,100	5,500	---	---	---	---
	3/22/93[4]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/93[4]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	7/25/93[4]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/23/93[4]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/21/94	26.16	338.16	0	8015/8020	5,900	---	1,600	560	140	330	---	---	---	---
	7/6/94	27.20	337.12	0	---	---	---	---	---	---	---	---	---	---	---
	8/26/94	---	---	---	8015/8020	20,000	---	5,300	4,900	610	2,900	---	---	---	---
	9/22/94	**27.44**	**336.88**	**0**	**8015/8020**	**42,000**	**---**	**10,000**	**8,300**	**1,000**	**4,900**	**---**	**---**	**---**	**---**
MW-2/	4/3-4/90	---	---	---	8015/602/504	<50	---	<0.3	<0.3	<0.3	<0.6	---	---	<0.02	---
364.19[1]	5/31/91	25.51	338.68	0	8015/8020/8010	100	---	3.1	4.2	0.7	2.0	ND[6]	<0.5	---	---
	5/31/91	---	---	---	503E	---	<5,000	---	---	---	---	---	---	---	---
	6/21/91	26.13	338.06	0	---	---	---	---	---	---	---	---	---	---	---
	7/17/91	26.46	337.73	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020	68	---	1.3	1.6	0.8	3.0	---	---	---	---
	10/4/91	27.79	336.40	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	28.06	336.13	0	8015/8020	<50	---	0.6	1.2	0.8	2.5	---	---	---	---
	3/19/92	24.46	339.73	0	8015/8020	<50	---	2.5	2.0	1.1	2.4	---	---	---	---
364.64[2]	6/19/92	26.10	338.54	0	8015/8020	<50	---	<0.5	0.6	0.7	1.2	---	---	---	---
	9/22/92	27.60	337.04	0	8015/8020	200	---	16	42	6.1	32	---	---	---	---
	12/18/92	26.32	338.32	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/22/93	21.39	343.29	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/14/93	25.15	339.49	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	24.52	340.12	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	25.63	339.01	0	8015/8020	72	---	12	4	6	8	---	---	---	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<----------			ppb						---------->
MW-2	12/22/93	26.34	338.30	0	8015/8020	1,600	---	25	<0.5	3.8	4.8	---	---	---	---
(cont)	3/21/94	25.83	338.81	0	8015/8020	<50	---	0.7	3.3	<0.5	1.9	---	---	---	---
	6/29/94	---	---	---	8015/8020	52	---	0.8	0.9	0.8	1.9	---	---	---	---
	7/6/94	26.70	337.94	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**26.82**	**337.82**	**0**	**8015/8020**	**<50**	**---**	**0.7**	**<0.5**	**<0.5**	**0.6**	**---**	**---**	**---**	**---**
MW-3/	4/3-4/90	---	---	---	8015/602/504	2,200	---	36	5	6	17	---	---	<0.02	---
361.92[1]	5/31/91	23.20	338.72	0	8015/8020/8010	2,200	---	130	11	31	78	ND[8]	19	---	---
	5/31/91	---	---	---	503E	---	<5,000	---	---	---	---	---	---	---	---
	6/21/91	24.13	337.79	0	---	---	---	---	---	---	---	---	---	---	---
	7/17/91	24.59	337.73	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	25.98	335.94	0	8015/8020	2,200	---	190	6.0	24	32	---	---	---	---
	12/19/91	26.24	335.68	0	8015/8020	640	---	73	27	17	56	---	---	---	---
	3/19/92	22.46	339.46	0	8015/8020	4,500	---	1,000	15	91	240	---	---	---	---
362.26[2]	6/19/92	24.32	337.94	0	8015/8020	1,100	---	89	3.3	9.1	13	---	---	---	---
	9/22/92	25.84	336.42	0	8015/8020	1,400	---	81	51	15	49	---	---	---	---
	12/18/92	24.40	337.86	0	8015/8020	1,100	---	2.0	1.1	53	38	---	---	---	---
	3/22/93	19.72	342.54	0	8015/8020	1,600	---	96	9	14	91	---	---	---	---
	6/14/93	23.52	338.74	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	23.21	339.05	0	8015/8020	1,200	---	19	6	2	5	---	---	---	---
	9/23/93	24.02	338.24	0	8015/8020	1,500	---	35	<0.5	5	13	---	---	---	---
	12/22/93	24.67	337.59	0	8015/8020	1,500	---	26	<0.5	3.9	4.9	---	---	---	---
	3/21/94	24.05	338.21	0	8015/8020	1,400	---	22	14	1.1	5.3	---	---	---	---
	6/29/94	---	---	---	8015/8020	1,700	---	90	6.1	20	81	---	---	---	---
	7/6/94	25.08	337.18	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**24.78**	**337.48**	**0**	**8015/8020**	**2,600**	**---**	**72**	**7.6**	**110**	**370**	**---**	**---**	**---**	**---**
MW-4/	4/3-4/90	---	---	---	8015/413.1/602/504	43,000	18,000	4,000	5,000	790	5,500	---	---	<0.02	---
	4/3-4/90	---	---	---	624**	---	---	6,000	8,200	1,500	---	---	---	---	---
362.70[1]	5/31/91	24.67	338.03	0	8015/8020/8010	34,000	---	2,900	2,900	680	3,300	ND[8]	<0.5	---	---
	5/31/91	---	---	---	503E	<5,000	---	---	---	---	---	---	---	---	---
	6/21/91	25.31	337.39	0	---	---	---	---	---	---	---	---	---	---	---
	7/17/91	25.73	336.97	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020/8010	37,000	---	4,000	3,200	580	3,000	ND[8]	9.2	---	---
	10/4/91	27.08	335.62	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	27.24	335.46	0	8015/8020/8010	41,000	---	5,500	4,900	1,000	4,400	ND[8]	17	---	---
	3/19/92	23.66	339.04	0	8015/8020/8010	21,000	---	3,800	2,900	500	3,200	ND[9]	15	---	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<----------				ppb					---------->
MW-4 (cont)															
363.07[2]	6/19/92	25.33	337.74	0	8015/5520/8020	27,000	<5,000	1,800	1,600	570	1,900	---	---	---	---
	9/22/92	26.90	336.17	0	8015/5520/8020	20,000	<5,000	4,100	2,700	670	3,200	---	---	---	---
	12/18/92	25.62	337.45	0	8015/5520/8020	15,000	<5,000	2,200	2,000	370	1,600	---	---	---	---
	3/22/93	20.80	342.27	0	8015/5520/8020	41,000	5,000	3,900	5,100	840	4,500	---	---	---	---
	6/14/93	25.73	337.34	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	24.02	339.05	0	8015/5520/8020	94,000	<5,000	18,000	30,000	2,400	14,000	---	---	---	---
	9/23/93	25.00	338.07	0	8015/5520/8020	23,000	<5,000	4,700	2,000	900	4,600	---	---	---	---
	12/22/93	25.72	337.35	0	8015/5520/8020	18,000	<5,000	2,800	1,300	420	1,700	---	---	---	---
	3/21/94	25.09	337.98	0	8015/413.1/8020	21,000	<5,000	2,800	1,700	540	1,900	---	---	---	---
	6/29/94	---	---	---	8015/413.1/8020	25,000	<5,000	4,000	2,600	960	3,300	---	---	---	---
	7/6/94	26.11	336.96	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**26.54**	**336.53**	**0**		**45,000**	**<5,000**	**11,000**	**8,800**	**1,000**	**5,100**	**---**	**---**	**---**	**---**
MW-5/															
359.95[1]	6/21/91	23.17	336.78	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/21/91	---	---	---	8010/LUFT	---	---	---	---	---	---	ND[9]	<0.5	---	<4,000
	7/17/91	23.68	336.27	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020	170[10]	---	0.8	0.9	<0.5	1.5	---	---	---	---
	10/4/91	25.20	334.75	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	25.20	334.75	0	8015/8020	<50	---	0.7	0.7	<0.5	1.4	---	---	---	---
	3/19/92	21.21	338.74	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
360.28[2]	6/19/92	23.42	336.86	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/22/92	24.97	335.31	0	8015/8020	150	---	13	34	5.0	26	---	---	---	---
	12/18/92	23.52	336.76	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/10/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/22/93	19.10	341.18	0	---	---	---	---	---	---	---	---	---	---	---
	6/14/93	22.71	337.57	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	21.99	338.29	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	23.48	336.80	0	8015/8020	<50	---	3	1	1	2	---	---	---	---
	12/22/93	23.98	336.30	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/21/94	23.18	337.10	0	8015/8020	<50	---	2.4	1.4	<0.5	2	---	---	---	---
	6/29/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	1.0	---	---	---	---
	7/6/94	24.41	335.87	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**24.78**	**335.50**	**0**	**8015/8020**	**<50**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**---**	**---**	**---**

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness[4] (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<----------ppb---------->									
MW-6/															
360.22[1]	6/21/91	23.55	336.67	0	8015/8020	3,700	---	50	2.6	150	340	---	---	---	---
	6/21/91	---	---	---	8010/LUFT	---	---	---	---	---	---	ND[5]	<0.5	---	<4,000
	7/17/91	24.00	336.22	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020	3,200	---	28	<0.5	140	100	---	---	---	---
	10/4/91	25.29	334.93	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	25.34	334.88	0	8015/8020	380	---	2.7	4.0	15	10	---	---	---	---
	3/19/92	22.05	338.17	0	8015/8020	3,400	---	57	4.5	330	360	---	---	---	---
360.58[2]	6/19/92	23.52	337.06	0	8015/8020	980	---	11	4.2	57	38	---	---	---	---
	9/22/92	25.60	334.98	0	8015/8020	1,100	---	22	41	77	58	---	---	---	---
	12/18/92	24.18	336.40	0	8015/8020	1,900	---	3.2	1.3	58	47	---	---	---	---
	3/10/93	---	---	---	8015/8020	1,400	---	30	9	8	22	---	---	---	---
	3/22/93	19.36	341.22	0	---	---	---	---	---	---	---	---	---	---	---
	6/14/93	23.48	337.10	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	22.30	338.28	0	8015/8020	83[11]	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	23.20	337.38	0	8015/8020	200	---	6	2	3	3	---	---	---	---
	12/22/93	23.91	336.67	0	8015/8020	130	---	<0.5	1.8	1.2	1.5	---	---	---	---
	3/21/94	23.27	337.31	0	8015/8020	290	---	3	10	1.6	4.7	---	---	---	---
	6/29/94	---	---	---	8015/8020	300	---	0.6	1.2	2.4	4.6	---	---	---	---
	7/6/94	24.27	336.31	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**24.84**	**335.74**	**0**	**8015/8020**	**2,300**	**---**	**58**	**3.6**	**100**	**290**	**---**	**---**	**---**	**---**
MW-7/															
360.63[1]	6/21/91	23.45	337.18	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/21/91	---	---	---	8010/LUFT	---	---	---	---	---	---	ND[5]	<0.5	---	<4,000
	7/17/91	23.90	336.73	0	---	---	---	---	---	---	---	---	---	---	---
	9/20/91	---	---	---	8015/8020	69	---	4.4	3.3	1.2	3.9	---	---	---	---
	10/4/91	25.03	335.60	0	---	---	---	---	---	---	---	---	---	---	---
	12/19/91	25.10	335.53	0	8015/8020	<50	---	0.9	2.8	1.7	5.9	---	---	---	---
	3/19/92	22.74	337.89	0	8015/8020	<50	---	1.1	0.6	0.9	2.5	---	---	---	---
360.99[2]	6/19/92[3]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/22/92[3]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12/18/92[3]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3/22/93[5]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	6/14/93[5]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	7/25/93[5]	---	---	---	---	---	---	---	---	---	---	---	---	---	---
361.68[6]	12/23/93	23.67	338.01	0	8015/8020	<50	---	0.9	0.5	<0.5	<0.5	---	---	---	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<---ppb--->									
MW-7	3/21/94	24.13	337.55	0	8015/8020	<50	---	0.5	1.1	<0.5	1.4	---	---	---	---
(cont)	6/29/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	7/6/94	26.45	335.23	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**27.40**	**334.28**	**0**	**8015/8020**	**11,000**	dirty bailer?	**1,900**	**230**	**310**	**970**	---	---	---	---
MW-8/															
---	12/12/91	22.54	---	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
354.89[2]	6/19/92	20.47	334.42	0	8015/8020	<50	---	1.2	1.4	0.5	2.9	---	---	---	---
	9/22/92	29.80	325.09	0	8015/8020	180	---	17	42	6.0	31	---	---	---	---
	12/18/92	21.18	333.71	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/10/93	---	---	---	8015/8020	<50	---	0.8	2	<0.5	2	---	---	---	---
	3/22/93	16.91	337.98	0	---	---	---	---	---	---	---	---	---	---	---
	6/14/93	24.30	330.59	0	---	---	---	---	---	---	---	---	---	---	---
	7/25/93	23.77	331.12	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	20.40	334.49	0	8015/8020	<50	---	1	0.9	0.7	1	---	---	---	---
	12/22/93	20.92	333.97	0	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/21/94	20.19	334.70	0	8015/8020	<50	---	0.9	1.5	<0.5	2	---	---	---	---
	6/29/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	0.8	---	---	---	---
	7/6/94	21.05	333.84	0	---	---	---	---	---	---	---	---	---	---	---
	9/22/94	**21.84**	**333.05**	**0**	**8015/8020**	**9,600**	dirty bailer?	**1,600**	**180**	**260**	**840**	---	---	---	---
	10/14/94	**21.84**	**333.05**	**0**	**8015/8020**	**<50**	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---	---	---	---
MW-9/															
361.23[7]	7/6/94	25.15	336.08	0	---	---	---	---	---	---	---	---	---	---	---
	8/26/94	---	---	---	8015/8020	12,000	---	1,700	240	410	1,400	---	---	---	---
	9/22/94	**25.74**	**335.49**	**0**	**8015/8020**	**10,000**	---	**1,900**	**290**	**320**	**1,200**	---	---	---	---
Trip Blank															
MW-AA	5/31/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/21/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/20/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	12/19/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/19/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
TB-LB	6/19/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/22/92	---	---	---	8015/8020	92[13]	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	12/18/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/10/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	O&G	B	T	E	X	Other HVOCs	1,2-DCA	EDB	OL
						<--------				ppb					-------->
TB-LB (cont)	3/22/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	7/25/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	12/22/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/21/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/29/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	7/1/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	7/6/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/22/94	**---**	**---**	**---**	**8015/8020**	**<50**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**---**	**---**	**---**
Baller Blank															
MW-BB	5/31/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/21/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/20/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	12/19/91	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/19/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	6/19/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/22/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	0.8	---	---	---	---
	12/21/92	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/10/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/22/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	0.6	---	---	---	---
	7/25/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	9/23/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	12/22/93	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---
	3/21/94	---	---	---	8015/8020	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

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
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
HVOCs = Halogenated Volatile Organic Compounds
1,2-DCA = 1,2-Dichloroethane
EDB = Ethylene dibromide
OL = Organic lead
ppb = Parts per billion
D = Duplicate sample
ND = Not detected (see notes)
--- = Not available/not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
602 = EPA Method 602 for BTEX
504 = EPA Method 504 for EDB
8020 = EPA Method 8020 for BTEX
8010 = EPA Method 8010 for HVOCs
503E = Standards Methods Method 503E for O&G

ANALYTIC METHODS: (continued)

413.1 = EPA Method 413.1 for total O&G
624 = EPA Method 624 for BTEX and VOCs
5520 = Standard Methods Method 5520 for O&G
LUFT = DHS LUFT Manual Method for OL

NOTES:

Analytic data was compiled from a draft report prepared by Chempro, undated.

* Product thickness was measured with an MMC flexd-dip interface probe.
1 Top of casing elevations for monitoring wells MW-1 through MW-7 were surveyed by Ron Miller, Professional Engineer #15816 on June 26, 1991.
2 Top of casing elevations for monitoring wells MW-1 through MW-8 were surveyed by Kier & Wright of Pleasanton, California on December 12, 1991. Survey data received by SES on April 30, 1992.
3 Well could not be located on this date due to surface conditions from recent discing.
4 Monitoring well part of remediation system.
5 Monitoring well not located since March 1992 sampling event.
6 Top of casing elevation surveyed by Ron Miller, PE #15816, on January 13, 1994.
7 Monitoring well surveyed by Ron Miller, PE #15816, on July 5, 1994.
8 Other HVOCs were not detected at detection limits ranging from 0.5 to 1 ppb.
9 Chloroform and bromodichloromethane were detected at 1.3 and 0.9 ppb, respectively. Other HVOCs were not detected at detection limits ranging from 0.5 to 1 ppb.
10 A non-standard gasoline pattern was observed in the chromatogram.
11 Uncategorized compound not included in gasoline total.
12 Gasoline range concentration reported. The chromatogram shows only a single peak in the gasoline range.
13 Analytic results provided by Chevron Project Manager.

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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 San. Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-1 Date 09/22/94 Well Diameter 4"

Sample Point Location/Description S/E corner of the Building Well Depth (spec.) _____

Depth to Water (static) 27.44 Well Depth (sounded) 52.10

Initial height of water in casing 24.66 Volume 16.10 gallons

Volume to be purged 48 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
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft
V₈" 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
14.30	14.35	10	10	7.9	66	120	
	14.45	20	30	7.5	67	121	
	14.55	20	40	7.5	67	122	

SAMPLES COLLECTED Time 15.00

Water color Very clear Total volume purged (gal.) _____

Odor Slight Hydrocarbon 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 (Intl)	Analysis Requested
MW-1	3	1	—	HCL	Y	GTEL	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 _____

SIERRA

WATER SAMPLING DATA

Job Name San Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-2 Date 09/22/94 Well Diameter

Sample Point Location/Description West from the Building Well Depth (spec.)

Depth to Water (static) 26.82 Well Depth (sounded) 38.64

Initial height of water in casing 11.82 Volume 1.92 gallons

Volume to be purged 5.8 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
2" casing = 0.163 gal/ft
3" casing = 0.367 gal/ft
4" casing = 0.653 gal/ft
5" casing = 0.826 gal/ft
6" casing = 1.47 gal/ft
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	2	7.8	64	970	
	12.44	2	4	7.6	65	980	
	12.46	2	6	7.4	65	980	

SAMPLES COLLECTED Time 12.50

Water color Cloudy Total volume purged (gal.) 6

Odor None

Description of sediments or material in sample: Light Brown, Fine Sediments

Additional Comments: ___

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-2	3	1	—	HCL	Y	GTEL	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 ___

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WATER SAMPLING DATA

Job Name San. Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-3 Date 09/22/94 Well Diameter

Sample Point Location/Description S/W from MW-4 Well Depth (spec.)

Depth to Water (static) 24.78 Well Depth (sounded) 35.00

Initial height of water in casing 10.22 Volume 1.66 gallons

Volume to be purged 4.99 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
13.30	13.32	2	2	7.3	65	120	
	13.34	2	4	7.2	66	110	
	13.36	1	5	7.2	66	110	

SAMPLES COLLECTED Time 13.50

Water color Cloudy Total volume purged (gal.) 5

Odor None

Description of sediments or material in sample: Light Brown Sediments

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	GTEL	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 ___

6

SIERRA

WATER SAMPLING DATA

Job Name San Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-4 Date 09/22/94 Well Diameter

Sample Point Location/Description N/E from MW-3 Well Depth (spec.)

Depth to Water (static) 26.54 Well Depth (sounded) 35.76

Initial height of water in casing 9.22 Volume 1.5 gallons

Volume to be purged 4.5 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. = πr²h
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
15.20	15.22	1	1	6.8	66	110	
	15.24	2	3	6.7	65	110	
	15.26	2	5	6.6	65	120	

SAMPLES COLLECTED Time 15.40

Water color clear Total volume purged (gal.) 5

Odor slight odor

Description of sediments or material in sample: none

Additional Comments: ____

Sample ID	# of Cont.	Container Type	Filtered (Y/N)	Preservative (type)	Refrig. (Y/N)	Lab (Intl)	Analysis Requested
MW-4	3	1	—	HCL	Y	GTEL	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 ____

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WATER SAMPLING DATA

Job Name San Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-5 Date 09/22/94 Well Diameter 2"

Sample Point Location/Description On Dublin Blvd Well Depth (spec.) _____

Depth to Water (static) 24.78 Well Depth (sounded) 35.84

Initial height of water in casing 11.09 Volume 1.8 gallons

Volume to be purged 5.42 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 gal. = $\pi r^2 h$
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	7.5	65	950	
	13.04	2	4	7.6	64	960	
	13.06	2	6	7.6	64	950	

SAMPLES COLLECTED Time 13.20

Water color Cloudy Total volume purged (gal.) _____

Odor None

Description of sediments or material in sample: Fine Sediments

Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (name)	Analysis Requested
MW-5	3	1	—	HCL	Y	GTEL	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 _____

5

SIERRA

WATER SAMPLING DATA

Job Name San. Ramon Rd Job Number 1-214-04 Sampler L.C
Well Number MW-6 Date 09/22/94 Well Diameter
Sample Point Location/Description N/E front MW-4 Well Depth (spec.)
Depth to Water (static) 24.84 Well Depth (sounded) 34.00
Initial height of water in casing 9.16 Volume 1.49 gallons
Volume to be purged 4.47 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 gal. = $\pi r^2 h$
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
14.10	14.02	1	1	7.3	65	120	
	14.04	1	2	7.2	66	130	
	14.06	2	4	7.1	66	140	

SAMPLES COLLECTED Time 14.20 Total volume purged (gal.) 4
Water color Cloudy Odor None
Description of sediments or material in sample: Fine grey sediments
Additional Comments:

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW6	3	1	—	HCL	Y	GTEL	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); (7)
5 = Other ____; 6 = Other ____

SIERRA

WATER SAMPLING DATA

Job Name San. Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-7 Date 09/22/94 Well Diameter

Sample Point Location/Description North from MW-6 Well Depth (spec.)

Depth to Water (static) 27.40 Well Depth (sounded) 36.34

Initial height of water in casing 8.94 Volume 1.45 gallons

Volume to be purged 4.37 gallons

Purged With Sub Pump Sampled With Disp. Bailer

Pumped or Bailed Dry? ___ Yes V 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
11.40	11.42	2	2	7.0	65	140	
	11.44	2	4	6.8	66	130	
	11.46	2	6	6.7	66	120	

SAMPLES COLLECTED Time 12.00.

Water color Cloudy Total volume purged (gal.) 6

Odor None

Description of sediments or material in sample: —

Additional Comments: None

Sample ID	# of Cont.	Container Type	Filtered (size, y)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-7	3	1	—	HCL	Y	GTEL	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 ___

SIERRA

WATER SAMPLING DATA

Job Name San Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-8 Date 09/22/94 Well Diameter 2"

Sample Point Location/Description On Regianke Street Well Depth (spec.) _____

Depth to Water (static) 21.84 Well Depth (sounded) 33.76

Initial height of water in casing 11.92 Volume 1.94 gallons

Volume to be purged 5.82 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_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
12.10	12.15	2	2	6.8	66	120	
	12.17	2	4	6.8	65	130	
	12.20	2	6	6.9	65	130	

SAMPLES COLLECTED Time 12.30

Water color Cloudy Total volume purged (gal.) _____

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-8	3	1	—	HCL	Y	GTEL	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 _____

(3)

SIERRA

WATER SAMPLING DATA

Job Name 7007 San Ramon Rd. Job Number 1-214-04 Sampler D.B.

Well Number MW-8 Date 10.14.94 Well Diameter 2"

Sample Point Location/Description EAST OF GRAND AUTO Well Depth (spec.) _____

Depth to Water (static) 21.89 Well Depth (sounded) 31.5

Initial height of water in casing 9.61 Volume 1.56 gallons

Volume to be purged 5 gallons

Purged With Disp. Bailer 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
9:29							
	9:34	2	2	6.68	66.5	1.23	x 1,000
	9:38	2	4	6.72	67.1	1.24	↓
	9:41	1	5	6.74	67.4	1.24	↓

SAMPLES COLLECTED Time 9:45 Total volume purged (gal.) 5

Water color BROWN Odor NONE

Description of sediments or material in sample: LIGHT SEDIMENT

Additional Comments: REPLACED WELL CAP.

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-8	3	1	—	HCl	YES		

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 _____

SIERRA

WATER SAMPLING DATA

Job Name San. Ramon Rd Job Number 1-214-04 Sampler L.C

Well Number MW-9 Date 09/22/94 Well Diameter 2"

Sample Point Location/Description S/W from MW-6 Well Depth (spec.) _____

Depth to Water (static) 25.74 Well Depth (sounded) 33.20

Initial height of water in casing 7.46 Volume 1.21 gallons

Volume to be purged 3.6 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. = πr²h
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft
V₈" 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
10.40	10.42	1	1	7.5	66	150	
	10.44	1	2	7.4	67	150	
	10.46	2	4	7.2	68	151	

SAMPLES COLLECTED Time 11.00 Total volume purged (gal.) 4

Water color Cloudy Odor None

Description of sediments or material in sample: Fine gray sediments

Additional Comments: _____

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Intl)	Analysis Requested
MW-9	3	1	—	HCL	Y	GTEL	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 _____

(1)

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

Chain-of-Custody-Record

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

Chevron Facility Number 9-5542
Facility Address 7007 San Ramon Rd, Dublin
Consultant Project Number 1-214-04
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) Brett Hunter
(Phone) 842-8695
Laboratory Name GTEL
Laboratory Release Number 223620
Samples Collected by (Name) L. Chernyak
Collection Date 09/22/94
Signature L. Chernyak

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)	Analyses To Be Performed: 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	01	2	W	G		HCL	Y	✓												
MW-1	02	3			15.00															
MW-2	03				12.50															
MW-3	04				13.50															
MW-4	05				15.40					✓										
MW-5	06				13.20															
MW-6	07				14.20															
MW-7	08				12.00															
MW-8	09				12.30															
MW-9	10	↓	↓	↓	11.00	↓	↓	↓												

Note:
Do Not Bill
TB-LB Samples
3°

Analyze if necessary

C4090381

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
L. Chernyak	SES	9-23-94 13:15	Joan Weber	GTEL	9-23-94 13:15
Joan Weber	GTEL	9-23-94 1800			
			Received For Laboratory By (Signature)		Date/Time
			K. G. McBrandon		9-23-94 1800

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

JG

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

Chain-of-Custody-Record

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

Chevron Facility Number 9-5142
Facility Address 7007 San Ramon Rd, Dublin
Consultant Project Number 1-214-04
Consultant Name Sierra Environmental Services
Address P.O Box 2546, Martinez CA 94553
Project Contact (Name) Ed Morales
(Phone) 510-370-1280 (Fax Number) 510-370-7553

Chevron Contact (Name) Brent Hunter
(Phone) 842-9625
Laboratory Name GTEL
Laboratory Release Number 235620
Samples Collected by (Name) L. Chesnyak
Collection Date 09/22/94
Signature L. Chesnyak

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,Ni,Zn (TCLP or AA)					Remarks
TB/LB	001	2	W	G		HCL	Y	✓												Analyze if necessary
MW-1	02	3			15.00		Y													
MW-2	03				12.50															
MW-3	04				13.50															
MW-4	~~05~~ 01				15.40					✓										
MW-5	06				13.20															
MW-6	07				14.20															
MW-7	08				12.00															
MW-8	09				12.30															
MW-9	10				11.00															

Note:
Do Not Bill
TB-LB Samples
(3°)

RUSH

NEW: C4100245
OLD: C4090381

TOC SAMPLE RECEIVED 10/13/94 @ 5°C

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
L. Chesnyak	SES	9-23-94 13:15	Joan Weber	GTEL	9-23-94 13:15
Joan Weber	GTEL	9-23-94 1800			
			Received For Laboratory By (Signature)		Date/Time 1800

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

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

Chain-of-Custody-Reco

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

Chevron Facility Number 9-5542
Facility Address 7007 San Ramon Valley Blvd.
Consultant Project Number 1-214-09
Consultant Name SIERRA ENVIRONMENTAL SERVICES
Address P.O. BOX 2546 MARTINEZ, CA 94553
Project Contact (Name) ED MORALES
(Phone) 370-1280 (Fax Number) 370-7959

Chevron Contact (Name) BRENT HUNTER
(Phone) 842-8695
Laboratory Name SRA
Laboratory Release Number 5464460
Samples Collected by (Name) D. BERRSLEY
Collection Date 10-14-94
Signature

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
MW-8		3	W	G	9:45	HCl	Y	L												
TB		2	W	G	—	HCl	Y	L												

Analyses To Be Performed

Note:
Do Not Bill
TB-LB Sample

Remarks
ANALYSIS

	Organization	Date/Time		Organization	Date/Time
Relinquished By (Signature)	SES	10/14 12:1C	Received By (Signature)		
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

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

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

October 5, 1994

Ed Morales
Sierra Environmental Services
P.O. 2546
Martinez, CA 94553

RE: GTEL Client ID: SIE01CHV08
Login Number: C4090381
Project ID (number): 1-214-04
Project ID (name): CHEVRON/#9-5542, Dublin, CA

Dear Ed Morales:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 09/23/94.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the Department of Health Service under Certification Number E1075.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Rashmi Shah
Laboratory Director

GTEL Client ID: SIE01CHV08 ANALYTICAL RESULTS
Login Number: C4090381 Volatile Organics
Project ID (number): 1-214-04 Method: EPA 8020
Project ID (name): CHEVRON/#9-5542, Dublin, CA Matrix: Aqueous

GTEL Sample Number	C4090381-01	C4090381-02	C4090381-03	C4090381-04
Client ID	TB/LB	MW-1	MW-2	MW-3
Date Sampled	09/22/94	09/22/94	09/22/94	09/22/94
Date Analyzed	10/01/94	10/03/94	10/01/94	10/01/94
Dilution Factor	1.00	100.	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	10000	0.7	72.
Toluene	0.5	ug/L	< 0.5	8300	< 0.5	7.6
Ethylbenzene	0.5	ug/L	< 0.5	1000	< 0.5	110
Xylenes (total)	0.5	ug/L	< 0.5	4900	0.6	370
TPH as GAS	50.	ug/L	< 50.	42000	< 50.	2600
BFB (Surrogate)	--	%	104.	101.	106.	116.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

"Test Methods for Evaluating Solid Waste, Physical and Chemical Methods, SW-846", Third Edition, Revision 1, US EPA November 1986. Acceptability limits for recovery in the Bromofluorobenzene (BFB) surrogate is 62-129%. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual protocols, May 1988 revision.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client ID: SIE01CHV08
Login Number: C4090381
Project ID (number): 1-214-04
Project ID (name): CHEVRON/#9-5542, Dublin, CA

ANALYTICAL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	C4090381-05	C4090381-06	C4090381-07	C4090381-08
Client ID	MW-4	MW-5	MW-6	MW-7
Date Sampled	09/22/94	09/22/94	09/22/94	09/22/94
Date Analyzed	10/02/94	10/04/94	10/01/94	10/04/94
Dilution Factor	100.	1.00	1.00	25.0

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	11000	< 0.5	58.	1900
Toluene	0.5	ug/L	8800	< 0.5	3.6	230
Ethylbenzene	0.5	ug/L	1000	< 0.5	100	310
Xylenes (total)	0.5	ug/L	5100	< 0.5	290	970
TPH as GAS	50.	ug/L	45000	< 50.	2300	11000
BFB (Surrogate)	--	%	106.	93.7	111.	107.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

"Test Methods for Evaluating Solid Waste, Physical and Chemical Methods, SW-846", Third Edition, Revision 1, US EPA November 1986. Acceptability limits for recovery in the Bromofluorobenzene (BFB) surrogate is 62-129%. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual protocols, May 1988 revision.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client ID: SIE01CHV08
Login Number: C4090381
Project ID (number): 1-214-04
Project ID (name): CHEVRON/#9-5542, Dublin, CA

ANALYTICAL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	C4090381-09	C4090381-10	--	--	
Client ID	MW-8	MW-9	--	--	
Date Sampled	09/22/94	09/22/94	--	--	
Date Analyzed	10/02/94	10/02/94	--	--	
Dilution Factor	50.0	100.	--	--	

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	1600	1900	--	--
Toluene	0.5	ug/L	180	290	--	--
Ethylbenzene	0.5	ug/L	260	320	--	--
Xylenes (total)	0.5	ug/L	840	1200	--	--
TPH as GAS	50.	ug/L	9600	10000	--	--
BFB (Surrogate)	--	%	100.	98.2	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

"Test Methods for Evaluating Solid Waste, Physical and Chemical Methods, SW-846", Third Edition, Revision 1, US EPA November 1986. Acceptability limits for recovery in the Bromofluorobenzene (BFB) surrogate is 62-129%. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual protocols, May 1988 revision.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client ID: SIE01CHV08
Login Number: C4090381
Project ID (number): 1-214-04
Project ID (name): CHEVRON/#9-5542, Dublin, CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Method Blank Results

QC Batch No: G100194-5
Date Analyzed: 01-OCT-94

Analyte	Method: EPA 8020 Concentration: ug/L
Benzene	< 0.30
Toluene	< 0.30
Ethylbenzene	< 0.30
Xylenes (Total)	< 0.50
TPH as Gasoline	< 10.0

Notes:

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client ID: SIE01CHV08
Login Number: C4090381
Project ID (number): 1-214-04
Project ID (name): CHEVRON/#9-5542, Dublin, CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Matrix Spike and Matrix Spike Duplicate Results

Analyte	Original Concentration	Spike Amount	Matrix Spike Concentration	Matrix Spike Recovery, %	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery, %	RPD, %	Acceptability Limits RPD, %	Acceptability Limits Recovery, %
EPA 8020	GTEL Sample ID:C4090105-01		Spike ID:G100194-1		Dup. ID:G100194-2				
Units: ug/L	Analysis Date:16-SEP-94		01-OCT-94		01-OCT-94		Client ID:Batch QC		
Benzene	< 0.50	20.0	19.4	96.9	19.0	94.9	2	34	57.3-138%
Toluene	< 1.0	20.0	18.0	90.0	17.5	87.5	2.8	31	63-134%
Ethylbenzene	< 1.0	20.0	17.1	85.5	16.7	83.5	2.3	38	59.3-137%
Xylenes (Total)	< 2.0	60.0	52.2	87.0	51.3	85.5	1.7	31	59.3-144%

Notes:

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

Client Number: SIE01CHV08
Consultant Project Number: 1-214-04
Facility Number: 9-5542
Project ID: 7007 San Ramon Rd. Dublin
Work Order Number: C4-10-0245

October 14, 1994

Ed Morales
Sierra Environmental Services
P.O. Box 2546
Martinez, CA 94553

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 09/23/94.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Rashmi Shah
Laboratory Director

Client Number: SIE01CHV08
Consultant Project Number: 1-214-04
Facility Number: 9-5542
Project ID: 7007 San Ramon Rd. Dublin
Work Order Number: C4-10-0245

ANALYTICAL RESULTS

Total Oil and Grease in Water by Infrared Spectrometry

EPA Method 413.2[1] (SM 5520 C[2])

1. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-202, Revised March 1983, U.S. Environmental Protection Agency.
2. Standard Methods for the Examination of Water and Wastewater, 17th ed., 1989, American Public Health Association.

GTEL Sample Number		01	101494 TPH		
Client Identification		MW-4	METHOD BLANK		
Date Sampled		09/22/94	--		
Date Prepared		10/14/94	10/14/94		
Date Analyzed		10/14/94	10/14/94		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Total Oil and Grease	5000	5000	<5000		
Detection Limit Multiplier		1	1		

GTEL ENVIRONMENTAL LABORATORIES, INC

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QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
TPH/IR:	LCS	52.6	mg/L	95.8	96.1	0.3	70 - 130

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

Sierra Environmental Services
Attn: Ed Morales

Project 1-214-04
Reported 10/19/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
15872- 1	MW-8	10/14/94	10/19/94	Water
15872- 2	TB-LB	10/14/94	10/19/94	Water

RESULTS OF ANALYSIS

Laboratory Number: 15872- 1 15872- 2

Gasoline_Range:	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5
Concentration:	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

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: 15872

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:	94/96	2%	56-117
Benzene:	94/97	3%	59-149
Toluene:	95/97	2%	59-149
Ethyl Benzene:	86/89	3%	59-149
Total Xylenes:	90/92	2%	59-149

10/20/94

Senior Chemist
Account Manager