



August 30, 1994

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

Marketing – Northwest Region Phone 510 842 9500

Mr. Scott Seery Alameda County Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Re: Former Chevron Station # 9-5607, 5269 Crow Canyon Road, Castro Valley, CA Attached groundwater monitoring report (GTI, 5/20/94)

Dear Mr. Seery:

Attached is a report dated May 20, 1994, which was prepared by Chevron's consultant, Groundwater Technology Inc. (GTI), to describe quarterly groundwater monitoring performed at the subject site on April 18, 1994.

The measured direction of groundwater flow in April was toward the west-southwest. Ten of the site monitoring wells were sampled and analyzed for the presence of TPHGas and BTEX constituents. The detected levels of dissolved hydrocarbons were consistent with those detected during previous site monitoring events.

If you have any questions or comments, I can be reached at (510) 842-8695.

Sincerely,

Brett L. Hunter

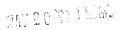
Environmental Engineer

Brett L. Thut

Site Assessment and Remediation

Attachment

cc: Rich Hiett, San Francisco Bay RWQCB, Oakland, CA Kevin Hinckley, 5269 Crow Canyon Road, Castro Valley, CA 94546 Bette Owen, Chevron USA, Products Company, San Ramon, CA (w/o attachment)





4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

May 20, 1994

Project No. 02010 4228

Mr. Brett Hunter Chevron U.S.A. Products Company 2410 Camino Ramon San Ramon, CA 94583-0804

SUBJECT:

Quarterly Monitoring and Sampling Activities

Chevron Service Station No. 9-5607

5269 Crow Canyon Road Castro Valley, California

Dear Mr. Hunter:

Groundwater Technology, Inc. presents the quarterly groundwater monitoring and sampling data collected on April 18, 1994. Fifteen groundwater monitoring wells were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase petroleum hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. A potentiometric surface map and a summary of groundwater monitoring data are presented in Attachments 1 and 2, respectively. After measuring DTW, quarterly monitoring wells C-1, C-3, C-6, C-8, C-10A, C-10B, C-11 C-12, C-15 and C-16 were purged and sampled. Groundwater monitoring and sample collection protocol and field data sheets are presented in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons-as-gasoline (TPH-G). Laboratory reports and chain-of-custody records are included in Attachment 4. Monitoring well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

Groundwater Technology, Inc. is pleased to assist Chevron on this project. If you have any questions or comments please call our Concord office at (510) 671-2387.

Sincerely,

Groundwater Technology, Inc.

Written/Submitted by

Tim Watchers Project Manager

PR KJ

Attachment 1

Figure

Attachment 2

Table

Attachment 3

Protocol and Field Data Sheets

Attachment 4 Laboratory Report

For:

Wendell W. Lattz

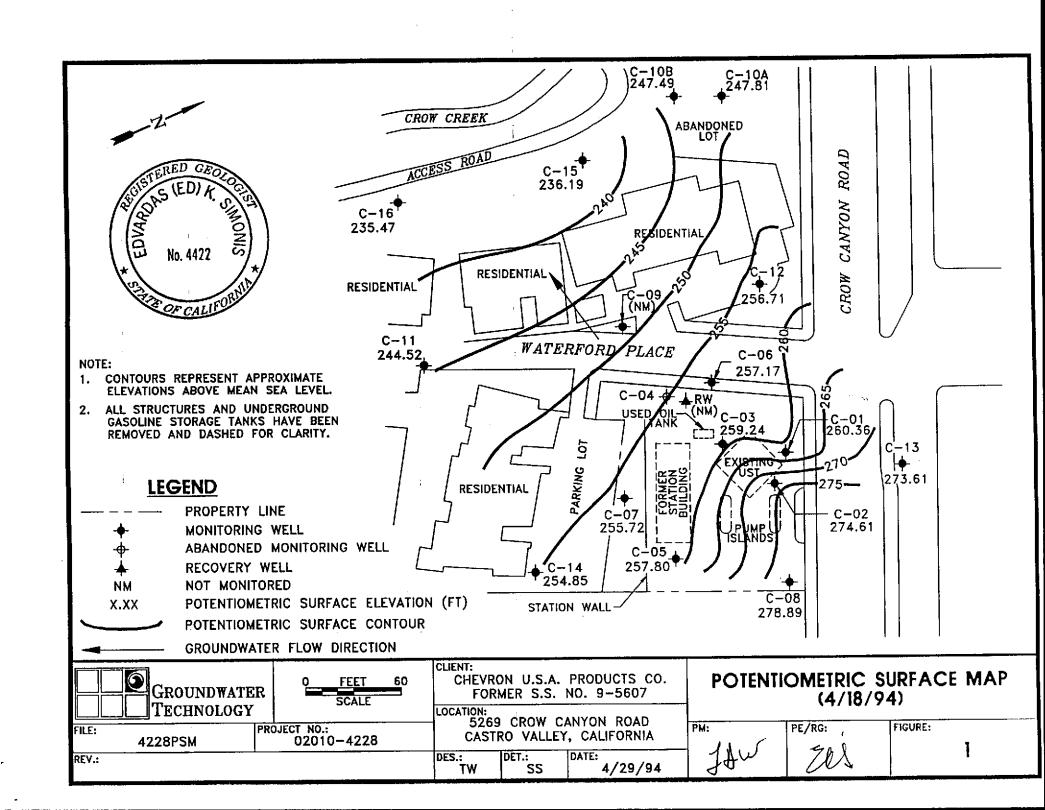
Vice President, General Manager

West Region

ATTACHMENT 1

Figure





ATTACHMENT 2

Table



FORMER CHEVRON SERVICE STATION NO. 9-5607
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

	5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA												
100000000000000000000000000000000000000	LL ID/				ETHYL-			ORGANIC					
 Kontrovenskom und 	'ATION		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WTE		
	OC)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)		
C-1	000.46	ANIOCIOE							22.02	0.00	260.62		
	283.46	03/26/85 07/03/86		laat ootoo I	1900 - Julius II				22.83 23.58	0.00	260.63 259.88		
		03/26/87		-	-				20.50	0.00	262.96		
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		05/08/89 06/05/89		igara e la sege la e <u>sc</u>				######################################	22.68 24.66	0.00 0.00	260.78 258.80		
		07/12/90						-	25.56	0.00	257.90		
		08/10/90 09/13/89	3,600	1,100	1,000	3,500	22,000		25.89 26.55	0.00	257.57 256.91		
		10/04/89							25.24	0.00	258.22		
		11/03/89 12/04/89	2,000	550	610	1,600	13,000		25.03 26.37	0.00 0.00	258.43 257.09		
		03/07/90							22.48	0.00	260.98		
		03/09/90 06/12/90	3,500	1,400	840	4,000	21,000	***	24.35	0.00	259.11		
		09/20/90	2,100	1,200	860	5,000	23,000	-	26.27	0.00	257.19		
]		12/20/90 03/27/91	760	410	260	1,100	8,200		22.59 19.08	0.00	260.87 264.38		
		06/18/91	-						27.11	0.00	256.35		
		09/12/91 01/23/92	***************************************	iii ii ee alaana y	analis e e e e e	₩			28.22 26.65	0.00 0.00	255.24 256.81		
		04/13/92	3,100		850	3,100	38,000		22.16	0.00	261,30		
		08/03/92 10/22/92	1,300 3,500	470 1,400	550 1,500	1,600 4,300	13,000 24,000	ND	26.15 26.79	0.00 0.00	257.31 256.67		
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		10/25/93	2,000		790	2,300	14,000	***	24.66	0.00	258.80		
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		04/03/89			**************************************	-		8 88 88 8 8 8 8 8 21	14.26	0.00	270.11 265.95		
		05/08/89 06/05/89			 	_ 			18.42 20.09		264.28		
		07/12/90	<u> </u>		<u> </u>			200000000000000000000000000000000000000	20.79	0.00	263.58		
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		10/22/92							23.03		261.34 269.51		
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		10/25/93	- X		<u> </u>		49 000	†	19.65				
		01/21/94	5,100	1,800	2,000	6,800	43,000	<u> </u>	9.76		age 1 of		



FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

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	03/26/87	_				-	-	25.64	0.00	260.34
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	03/10/89							22.78	0.00	263.20
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	09/13/89	1,400	6,800	2,300	10,000	60,000		29.33	0.00	256.65
	10/04/89			** 49 **				28.97	0.00	257.01
	11/03/89			_				28.72	0.00	257.26
	12/04/89	1,300	3,300	1,400	2,700	56,000		29.01 27.69	0.00 0.00	256.97 258.29
	03/07/90 03/09/90	1,100	5,700	1,600	7,900	42,000	in i delices e	27.69	0.00	258.29
	06/12/90	1,100 1,400	7,100	3,400	16,000	160,000		28.09	0.00	257.89
	09/24/90	850	7,700	2,000		53,000	one or each	29.18	0.00	256.80
	12/20/90	1,200	5,400	5,400	33,000	520	_	28.27	0.00	257.71
	03/27/91	1,300	3,100	1,200	11,000	92,000	AA TARAHAMAA	24.80	0.00	261.18
	06/18/91							30.84	0.00	255.14
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	08/03/92	1,300	2,800	3,100	17,000	220,000	ND	30.00	0.00	255.98
	10/22/92e	SP	SP	SF				30.62	0.03	255.38
	01/18/93	2,400	5,300	10,000	61,000	1,000,000	-	23.91	0.00	262.07
	04/19/93	33,000	22,000	1,600		94,000		25.00	0.00	260.98
	07/21,22/93	2,600	5,500	1,300	6,900	44,000	_	26.55	0.00	259.43
	10/25/93	3,900	2,400	1,100		35,000		28.72 29.66	0.00	257.26 256.32
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	03/09/90	20,000	2,300	2,800				17.20		
	06/12/90	21,000	2,400	4,000	16,000	82,000		16.66		
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Page 2 of 8



FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELLID/		14111	ng sepagaan in Alaysi A	ETHYL-		reserve reserve a	ORGANIC		FF 1.83	
ELEVATION		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WTE
(TOC)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
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	10/04/89		-					31,48	0,00	256.47
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	09/24/90	ND	ND	ND				31.78	0.00	256.17
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İ	01/21/94	ND	NE	ND	ND	ND	•	31.91	0.00	256.04
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	03/09/90	23,000	5,900	3,400	17,000	73,000		18.39	0.00	256.89
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1	10/22/92 01/18/93	7,400 13,000	1,600	1,800 2,700	12,000	77,000		15.44		259.84
	04/19/93	14.000	1.100	2.400	9.100	56,000		9,25	0.00	266.03
	07/21,22/93	6,600	610	1,500	5,800	38,000		17.35 21.03	0.00	
	10/25/93 01/21/94	11,000	800 940	2,200 2,300	8,200 9,800	42,000 57,000		21.03		
	04/18/94	11,000 9,800	830	1,900	7,500	48,000	los mais de la comp	18.11	0.00	257.17
									P	age 3 of 8



FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

W	ELL ID/			5269 CROW CA	ETHYL-			ORGANIC			
1. 5. 2. 5. 2. 5. 2.	VATION	San Herry Taun sejeti	BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WITE
(TOC)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
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}		04/03/89		86.4 48.9%) \$			seruch-b-		9.14	0.00 0.00	261,56 258,79
		05/08/89 06/05/89				galaxoverenii		. yr engas	11.91 11.54	0.00	259.16
		07/12/90 08/10/90							13.45 13.37	0.00	257.25 257.33
		09/13/89	1.3	ND	10	NO	410		14.60	0.00	256.10
	į	10/04/89 11/03/89						nsku oprasi j	15,17 15,28	0.00 0.00	255.53 255.42
	,	12/04/89	1	NO.	5	NC	1,000		15.70	0.00	
		03/07/90 03/09/90	2.8	2.4	3.5	2	590		14.22 14.22	0.00	256.48
		06/12/90	ND	5	8.2	3.2	1,200 400		14.18 15.44	0.00 SHEEN	256.52 255.26
		09/24/90 09/24/90D	1.4 ND	1.9 2.4	1.4 1.4	2.2 1.5	580		15.44	SHEEN	255.26
		12/20/90 03/27/91	ND ND	6.5 2.4	4.7 9.1	9.3	2,300 980		17,08 12.65	0.00	253.62 258.05
		06/18/91				Griodelleiteler <u>+</u>		- didirilini	16,44	0.00	254.26 253.65
		09/12/91 01/23/92	ND	3.1 	6.5	2.7 	1,200c		17.05 16.92	0.00	253.78
		04/13/92	ND	1	7.8	1.2	830	A 18 1 30 VA 43 A	13.00	0.00	257.70
		08/03/92 10/22/92b						_	[17] J. (200 A	. 10 100 100 100 100	
		01/18/93b 04/19/93b		-	<u> </u>				-	. Transportation (197 4) —	#excom/ ==
		07/21,22/93	0.9	3	4	4	890	1655534 (46753)	12.94		
		10/25/93 01/21/94	- ND	- 6	 1	- 3	660	- ::::::::: <u>-</u>	14.83 15.94	0.00	
<u></u>	,	04/18/94	-		-	-		-	14.98	0.00	
C-8		22.00.10.5							8.68		_
	288.40	03/26/85 07/03/86				######################################			13.89	0.00	
		03/26/87 03/28/88				901 : 900 : 800 : 000 : 000 : 100 :	ese succione enes.	or aspers a secondary	6.01 10.66	0.00	
ļ		03/10/89	. 1 : 4:10:77	temen etan sanadarea	-				6.61	0.00	281.79
		04/03/89 05/08/89		-	-	-	 	-	6.46 8.97	0.00	279.43
		06/05/89	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(1900 (190) (1900 (190) (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900)(1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900)(1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900)(1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900 (1900 (1900 (1900 (1900 (1900 (190) (1900 (1900 (190) (1900 (190)(190) (1900 (1900 (1900 (1900 (1900 (1900 (1900 (1900 (÷				10.88 12.15	0.00	
		07/12/90 08/10/90				_	1		12.46	0.00	275.94
		09/13/89	ND	NC	NC	NE) ND		12.78 12.51		
		10/04/89 11/03/89		5 (30.000 + 1.000 (30.000 + 1.000				* ** ** * * * * * * * * * * * * * * *	14.63	0.00	273.77
		12/04/89 03/07/90	0.6	0,6	NE	_	64		9.59 8.80		
		03/09/90	ND	NE	NE	N) NE 120)	8.80 8.94	0.00 0.00	
1		06/12/90 09/24/90	2.5	1.2	-	1.4	120		13.54	0,00	274.86
		12/20/90	0.7	NE	0.7	1.9	- 54		9.33 6.10		279.07 282.30
ļ		03/27/91 06/18/91	-	_					11.96	0.00	276.44
		09/12/91 09/12/91D	ND ND) NE) NE) NI NI))	13.60 13.60		274.80 274.80
		01/23/92	1000 <u>0.</u>			<u>4</u> n. doga (1004) ki 1730 (1744) <u>1</u>	is The second deficition (CA) is the contract of the contract	100000000000000000000000000000000000000	24.20 8.35	0.00	264.20
		04/13/92 08/03/92	ND ND) NE) NE) NI) NE) NE	12.58	0.00	275.82
		10/22/92) ND	NE NE	NI K) Ni) NE	- (13.10 6.12	0.00	275.30
		01/18/93 04/19/93	ND ND) NE) NE) NI) NE) -	7.05	0.00	281.35
		07/21,22/93 10/25/93	NC NC) NE) NI) NI) NE	} -	11.35 12.85	6 0.00 6 0.00	
		01/21/94	NE) NE) NI) NI) NE)	10.55	0.00	277.85
<u>Ļ</u>		04/18/94	1.2	0.9	I N	<u>1.6</u>	<u>NE</u>	<u> </u>	9.51		278.89 age 4 of

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FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/			88900000000000000000000000000000000000	ETHYL-			ORGANIC			
ELEVATION		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	WTO	SPT	WTE
(TOC)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
		(PPPX		V-F-X						
C-9	27/20/22							13.89	0.00	254.57
268.46	07/03/86	1		 10 - 10 - 11 - 12 - 12 - 12 - 12 - 12 -				13.74	0.00	
	03/26/87					Main sajamin,		14.99	0.00	253.47
	03/28/88		 Balaka kan las la bahasi	9-1991-9-1-199-9-1-1	er ar akturr e Pussa <u>ia</u>	o is beened	ataa ka a meessa <mark>.</mark>	13.39	0.00	
	03/10/89	The state of the s				reers ener I		12.84	0.00	255.62
	04/03/89 05/08/89	. 11 - 11 - 1 - 1				e initiation diame	erina eritare	14.38	0.00	
	06/05/89			gregorija, iz izglati a dalo 📆				15.36	0.00	253.10
	07/12/90	attu sastemb	per waanir d <u>u</u>	ara radiga di J	granali aleman		stujušin šitn i	15.65	0.00	
	08/10/90		riigh - Shillin II I I I I I I I I I I I I I I I I I	Alan Alin Nai			-	15.80	0.00	252.66
:	09/13/89	14,000	1,100	2,800	4,200	42,000		16.53	0.00	251.93
	10/04/89			A COLOR DE COMPANS DE	errere e l'elle militaire	rijek eriji erek i kultuurken. •••		16.52	0.00	
	11/03/89	1 Jan 1 Jan 2010 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ggtmyskoğ jurayi ldi.		. 389 (91) - 1038 (103) (1			16.51	0.00	
	12/04/89	11,000	670	2,500	3,800	36,000	-	16.79	0.00	251.67
	03/07/90			er generalistiski bir e r			(2) (21 k.) - Prins 원운	16.22		
	03/09/90	12,000	940	3,000	4,700	28,000	-	16.22	0.00	
	06/12/90	11,000	1,600	2,300	4,800	39,000		14.88		
	09/24/90	13,000	1,600	3,700	6,800	120,000		16.30		
	12/20/90	9,300	560	2,800	3,300	51,000		17.23		
	12/20/90D	12,000	580	2,800	3,500	44,000		17.23 13.78	0.00	
	03/27/91	3,400	5,000	1,600	5,600	56,000		18.64	0.00	
	06/18/91	2	energia de la composición dela composición de la composición de la composición dela composición dela composición dela composición de la composición dela				10.04	0.00	240.0	
	09/12/91d	1000						34, 340,8100044	**************************************	B10180003
C-10A										2442
264.84	03/07/90		•	-				20.21	0.00	244.6
	03/09/90	1.6	0.7	8.0	3.5				A 0.0	245.1
	06/12/90	ND	ND		ND			19.70		
	09/24/90	ND	ND		NĐ			19.54 19.84		
	12/20/90	ND	ND	ND	ND	ND	40 11 11 11 11 11 11 11	18.01	1	
	03/27/91		•		ND	ND	er janne sommen	20.16	A CONTRACTOR OF STREET	or a construction of
	06/18/91	ND	ND	ND ND				20.57		
	09/12/91	ND	ND ND	ND ND	ND			20.67		
	01/23/92	ND 0.9	1.3	ND ND		53		19.40	1	
	04/13/92 08/03/92	ND	1.5 ND	ND ND						
	10/22/92	- SECOND						19.83		
	01/18/93	ND	ND		ND			17.04		
	04/19/93	ND				1		17,77		
}	04/19/93	ND	ND		ND			17.56	0.00	
	10/25/93	ЙĎ						17.77		
	01/21/94	ND			464466 to commonante Managamen	NC	-	17,91		
	04/18/94	3.0	3.0	1.4	5.5			17.03	0.00	247.8

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FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/				ETHYL-			ORGANIC		38.29	
ELEVATION		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WTE
(тос)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
C-10B										
264.85	03/07/90				_			21.44	0.00	243.41
20 1.00	06/12/90	ON	DИ	ND	ND	ND		19,94	0.00	244.91
	09/24/90	ND	ND	ND	ND	ND	-	19.77	0.00	245.08
	12/20/90	ND	NO	ND	ND	ND		20.00	0.00	244.85
	03/27/91		······································		() () () () () () () () () () () () () (18.23	0.00	246.62
	06/18/91	0.088.44	Situa, pipita tukuj u					20,44	0.00	
	09/12/91	ND	ND	ND	ND	ND		20.82	0.00	244.03
:	01/23/92	ND	ND	ND	ND	ND		20.92	0.00	
	04/13/92	ND	ND	ND	ND	ND		19.68	0.00	245.17
	08/03/92	ND	ND	ND	ND		ND	20.07	0.00	
	10/22/92	ND	ND	ND	ND	ND	-	20.12	0.00	244.73
	01/18/93	3.3	11	2.1	8.9	60	-	17.36	0.00	
	04/19/93	ND	ND	ND	ND	ND		17.90	0.00	246.95
	07/21,22/93	ND	ND	NO	ND			17.86	0.00	
	10/25/93	ND	ND	ND	ND	ND	100000000000000000000000000000000000000	18.10	0.00	246.75 246.99
	01/21/94	ND	ND	ND	ND			18.23 17.36	0.00 0.00	
	04/18/94	ND	ND	ND	0.5	ND		17.30	0.00	247.48
C-11										
265.30	03/07/90						-	22.74	0.00	242.56
ľ	03/09/90	1.2	0.7		1.4		-	· · · · · · · · · · · · · · · · · · ·	872020	
Į.	06/12/90	ND	ND	ND	ND	ND		21.98	0.00	243.32
	09/24/90	ND	ND	ND	ND			21.88	0.00	
l l	12/20/90	ND	ND	ND	ND	ND		23.18	0.00	242.12 243.78
ļ	03/27/91	ND	ND	ND	1.5	ND		21,52 21,90	0,00 0.00	243.40
1.	06/18/91		CONTRACTOR SOURCE CONTRACTOR		-	 		21.90	0.00	
ľ	09/12/91	ND	ND		ND ND			23.46	0.00	
	01/23/92	ND ND	ND ND	ND ND	ND ND			21,57	0.00	
	04/13/92	ND ND	ND ND	ND	ND				0.00	
:	08/03/92 10/22/92	ND ND	ND DN	ND	ND			23.29	0.00	
	01/18/93	ND	1.2	ND	2.2	ND		21.36	0.00	
	04/19/93	เทือ	ÖN	ND	ND			19.97	0.00	
ŀ	07/21,22/93	ND	ND	ND	ND			20.65	0.00	
:	10/25/93	ND	ND	ND	ND			20.75	0.00	1
	01/21/94	ND	ND	ND	ND			21.61	0.00	243.69
	04/18/94	ND	ND	NO	ND			20.78	0.00	244.57
C-12										
269.66	03/07/90			<u>.</u> .				14.92	0.00	254.74
203.00	03/09/90	230	140	33	180	1,400	800000000000 - 48 <u>0</u>	W-1450000000X	100110000000000000000	800000
ľ	06/12/90	190	71	18	73	720		14.79	0.00	254.87
+	09/24/90	ำำ	ŃĎ	ND	0.6			15.72	0.00	
	12/20/90	210	26	8.2	23	810		15.26	0.00	254.40
·	03/27/91	350	220	52	210		<u></u>	12.11		
ĺ	06/18/91				-		-	16.38	0.00	
	09/12/91	59	12	4.5				17.55		
	01/23/92	110	31	7.9	22	450		17.11	0.00	
	04/13/92	1,100	76	100	200			14.40		
	08/03/92	200	21	13	25	520	NC NC			
	10/22/92	310	66	35	56	1,300	.	16.14	0,00	
	01/18/93	1,200	430	220	610	5,600		11.70		
	04/19/93	600	99	96	170	2,000	•	13.05		A STATE OF STATE OF THE STATE O
:		1 2 2 2 1								
:	07/21,22/93	95	36	18	56	540		12.84		
		95 90 73	36 29 18	18 20 14	56 50 37	350	-	12.84 14.03 14.15	0.00	255.6

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FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/				ETHYL-		THE THERE DES	ORGANIC		(0.00)	35
ELEVATION		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WTE
(TOC)	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
		GF-7	anner (a. 186) et 1966 American			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
C-13 284.32	03/07/90				_		_	11.18	0.00	273.14
204.32	03/09/90	15	3.7	######################################	6.2	ND			100000000000	- PC -
	06/12/90	2.6		ND				10.70	0.00	273.62
	09/24/90	2.4	ND	ND	NO			11.60		272.72
	12/20/90	1.6	ND	ND	N□	 Control of the control /li>		10.16	0.00	274.16
	03/27/91			·				7.64 11.32	0.00 0.00	276.68 273.00
	06/18/91 09/12/91	ND	 ND	 NO	n. ND	ND		11.84		272.48
	01/23/92	110				-	-	10.55	0.00	273.77
	04/13/92	113	NO	ND	ND	ND		10.96	0.00	273.36
	08/03/92	ND		ND		ND	ND	10.90	0.00	273.42
	10/22/92	1.00				246		11,18	0.00 0.00	273.14 276.92
	01/18/93	54	10	5.4	12	290		7.40 8.93	0.00	275.39
·	04/19/93	ND	ND	NC	NC	ND		10.75	0.00	273.57
	07/21,22/93 10/25/93	IND				un jakanaa hy <mark>i</mark>	a raiq	10.85	0.00	273.47
	01/21/94	ND	NC	ND	NE	ND	-	11.05	0.00	273.27
	04/18/94	10.73. <u>22.</u>		03888000000000000000000000000000000000				10.71	0.00	273.61
C-14										
270.74	03/07/90			_	<u>.</u>		-	15.18	0.00	255.56
2.5	03/09/90	ND	NC							
	06/12/90	ND	NE					13.42	المستفادة والمستعددة الأستناء	257.32
	09/24/90	ND						12.84 16.72	0.00	257.90 254.02
	12/20/90	1.7						8.00	1	262.74
	03/27/91 06/18/91	ND	NE.	econos escasos de INL	*************************** **			15.21	0.00	
	09/12/91	ND	NE	NC) NE	ND		15,61		
	01/23/92]	-	_	-		_	24.64	0.00	246.10
	04/13/92	ND	NE					12.21		258.53
İ	08/03/92	ND	NC	N N C) NC) ND	NC	14.64 16.94	At a second	256.10 253.80
,	10/22/92	ND	NE	NE	, NE) ND	Genti recessos o	5.10	Programme and the second	265.64
	01/18/93 04/19/93	ND	I NL	, INL 1818 - I				6.88		
	07/21,22/93	ND	NE) NE) NC) NC	-	11.16		
	10/25/93	1.00 %					in in the second	13.87		
	01/21/94	NO	NE) NE) NE) ND) 	15.32		
	04/18/94			7	-			15.89	0.00	254.85
C-15										
246.15	03/07/90		<u>-</u>				- 	11.10	0.00	235.05
	03/09/90	NE				A Committee of the comm		10.78	0.00	235.37
1	06/12/90	11 NC	NE 13					10.93		
	09/24/90 12/20/90	NC 1.3				tage in the contrata to the first of the contrata to the contr		11.08		4 1111
	03/27/91	4.6						8,50	0.09	237.65
	06/18/91	NC	1.	1 NI) NI			10.83		
	06/18/91D	. N€						10.83		
1	09/12/91	NC						11.05 10.80		
	01/23/92	NE 1.2) (0.) 2 (0.)) NI NI	The state of the second of the		10.80		
<u> </u>	01/23/92D 04/13/92	4.8) IN			9.58		236.5
	08/03/92	NE NE			7 1.	3 640	NI	11:21	0.00	
	10/22/92	NE) NI	NI K)			11.69		
	01/18/93	7.0	3.0	2.9				7.12		
	04/19/93	6.0		0.7				8.93 9.78		
	07/21,22/93	NE NE						9.7		
	10/25/93 01/21/94	0.6						10.3		235.78
	04/18/94	1.0						9.96	0.00	236.19
<u> </u>			-							age 7 of

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FORMER CHEVRON SERVICE STATION NO. 9-5607 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELLII	D)/				ETHYL-			ORGANIC			A.: 0006 -
ELEVATI	an in Contract of		BENZENE	TOLUENE	BENZENE	XYLENES	TPH-G	LEAD	DTW	SPT	WTE
(TOC)	A 537 257	DATE	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(feet)	(feet)	(feet)
		PAIL	(рри)	(PPP)	(FPP)	Arr-V	,	N. F. J.			
C-16								i	18.50	0.00	228.19
24	6.69	03/07/90	-		en e tanto e entanta e en es istence	ND ND	 ND	aansin yana 🛚	10.30	U.UU	220.19
		03/09/90	ND ND	ND ND	ND ND	ND			11.42	0.00	235.27
		06/12/90 09/24/90	ND:	ND	ND	NO		Raine League	11.39	0.00	235.30
	ŀ	12/20/90	ND	ND	ND	0.7	ND	F	11.57	0.00	235.12
		03/27/91	ND	ND	NO	1.3			8.76	0,00	237.93
		03/27/91D	ND	ND	ND	1.2	ND		8.76	0.00	237.93
		06/18/91	ND	ND					11.18	0.00	235.51
		09/12/91	ND	ND	ND			erserr tue eur it in it i	11.95	0.00	234.74 234.28
Ī	ŀ	01/23/92	ND	ND	ND				12.41 10.69	0.00	236.00
	1	04/13/92	ND	ND	ND ND	ND ND				0.00	234,49
		08/03/92 10/22/92	ND ND	ND ND	ND ND				12.60	0.00	234.09
		01/18/93	ND	ND New Selection of the Color o					9.00	0.00	
	- 1	04/19/93	ND	ND	ND	ND			9.89	0.00	236.80
		07/21,22/93	ND	ND	ND	ND	ND		10.25	0.00	
	ľ	10/25/93	ND	ND	ND				10.96	0.00	235.73
		01/21/94	ND	0.7	ND		A service and the first first		11.76	0.00	
		04/18/94	ND	ND	ND	ND	ND		11.22	0.00	235.47
RW		12/04/89	29,000	1,700	1,800	8,800	62,000			-	-
27	4.52	03/07/90				eria establica d		Aller Stiff	18.50		
		06/12/90	15,000	2,000	560	3,100	31,000	es non en en en en en	18.49	0.00	256.03
		09/24/90	· 설립				18000 18000 180	MOD Francis	18801818010-1987		-
	Ì	12/20/90	0.5	ND	ND	1.2	ND	sasa Muut koa maga			10 R o C 500 A C
		03/27/91 06/18/91	1. 7			-	(1989/89/45/198/30000 <u>1</u>		630300000000000000000000000000000000000	(1960, parameters)	•
		09/12/91a		a e teate a talaa	S-4, 5 47 8 8 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			libelië - jan 👍		1000 - 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		01/23/92a	· · · · · · · · · · · · · · · · · · ·	ar kari bili kacamatan 1997 				-		_	•
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Explanation

Top of casing and groundwater elevations are expressed as feet above mean sea level.

TPH-G = Total petroleum hydrocarbons as gasoline

SP = Separate-phase petroleum hydrocarbons

DTW = Depth to water

SPT = Separate-phase hydrocarbon thickness

WTE = Water table elevation

(adjusted WTE = well elevation - (DTW-(SPT X 0.8))

TOC = Top of casing

ppb = parts per billion

ND = Not detected at or above the minimum quantitation limit

– = Not analyzed

NOTE: See laboratory reports for minimum quantitation limits.

D = Duplicate

a = Not sampled due to insufficient water in well

b = C-4: Well destroyed, C-7: Well could not be located c = Typical gasoline chromatographic pattern not present

d = Not sampled: Well adapted for on-site remediation system

e = Groundwater elevation corrected assuming 0.8 specific gravity for gasoline

f = Uncategorized compound is not included in gasoline hydrocarbon total

Sampling frequency: Quarterly: C-1, C-3, C-4, C-6, C-8, C-10A, C-10B,

C-11, C-12, C-15, and C-16.

Semi-annually (1st & 3rd quarters): C-5, C-7, C-13, and C-14.

Annually (1st quarter): C-2.

Page 8 of 8



ATTACHMENT 3

Groundwater Monitoring and sample collection protocol and Field Data Sheets



GROUNDWATER TECHNOLOGY GROUNDWATER MONITORING AND SAMPLE COLLECTION PROTOCOL

Groundwater Monitoring

Groundwater monitoring is accomplished using a INTERFACE PROBE™ Well Monitoring System. The INTERFACE PROBE™ Well Monitoring System is a hand held, battery operated device for measuring the depth to separate-phase hydrocarbons and depth to water. The INTERFACE PROBE™ Well Monitoring System consists of a dual-sensing probe which utilizes an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products.

Monitoring is accomplished by measuring from the surveyed top of well casing or grade to groundwater and separate-phase hydrocarbons if present. The static water elevation is then calculated for each well and a potentiometric surface map is constructed. If separate-phase hydrocarbons are detected the water elevation is adjusted by the following calculation:

(Product thickness) x (0.8) + (Water elevation) = Corrected water elevation

Groundwater monitoring wells are monitored in order of wells with lowest concentrations of volatile organic compounds to wells with the highest concentrations, based upon historical concentrations. If separate-phase hydrocarbons are encountered in a well, the product is visually inspected to confirm and note color, amount, and viscosity. Monitoring equipment is washed with laboratory grade detergent and rinsed with distilled or deionized water before monitoring each well.

Groundwater Sampling

Before groundwater samples are collected, sufficient water is purged from each well to ensure representative formation water is entering the well. Wells are purged and sampled in the same order as monitoring, from wells with the lowest concentrations of volatile organic compounds to wells with the highest concentrations. Wells are purged using either a polyvinyl chloride (PVC) baller fitted with a check valve or with a stainless steel submersible Grundfos pump. The purge equipment is decontaminated before use in each well by washing with laboratory grade detergent and tripled rinsing with deionized or distilled water. A minimum of 3 well-casing volumes of water are removed from each well while pH, electrical conductivity, and temperature are recorded to verify that "fresh" formation water is being sampled and the parameters have stabilized. If the well is low yielding, it may be purged dry and sampled before 3 casing volumes are purged. The wells are then allowed to recharge to approximately 80 percent of the initial water level before a sample is collected.

Groundwater samples are collected from each well using a new, prepackaged disposable bailer and string. The water sample is decanted from the bailer into laboratory-provided containers (appropriate for the analyses required) so that there is no headspace in the containers. Samples collected for benzene, toluene, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH)-as-gasoline analyses are collected in 40-milliliter vials fitted with Teflon® septum lids. Samples are preserved with hydrochloric acid (HCL) to a pH of less than 2. Dissolved metals samples are filtered through a 0.45-micron paper filter in the field and preserved as required before submitting to the laboratory for analyses. All samples are labeled immediately upon collection and logged on the chain-of-custody record. Sample label and chain-of-custody recorded information includes the project name and number, sample identification, date and time of collection, analyses requested, and the sampler's name. Sample bottles are placed in plastic bags (to protect the bottles and labels) and on ice (frozen water) in an insulated cooler and are shipped under chain-of-custody protocol to the laboratory.

The chain-of-custody record documents who has possession of the samples until the analyses is performed. Other pertinent information is also noted for the laboratory use on the chain-of-custody record.

Trip blanks (TBLBs) are used for each project as a quality assurance/quality control measure. The TBLBs are prepared by the laboratory and are placed in the insulated cooler and accompany the field samples throughout the sampling event.

Project Name:	Chevron -	Castro Valley		Dat	te: 416°	14
•		anyon Rd., Ca		Pa	ge(of_\O
Project Numbe	r: <u>020104228</u> .	0610		Pro	oject Manager:	Tim Watchers
Well ID: Well Diameter:	<u> </u>	llo ju	DTV Initia	V Measuremen al: harge:	ts: Calc Well Well Volu	Volume: 7. 6 gal me: 22. 9 gal
Gear Drive	All Lil	Depth		Hydac:	ts Used	Other:
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments
9:50	14.2	1 18	7 48	Ø		clar
9:54	16.1	1.16	7.76	7		
9;58	14.2	ا اله	7.77	14		Muddy
			DRLI			
		,				

Project Name: Site Address: Project Number	5269 Crow C	anyon Rd., Ca	stro Valley	Pa	ge 2 o	. 94 of 10 Tim Watchers
Well ID: Well Diameter:	C-11		Initia	V Measurement al: harge:	ts: Calc Well Well Volui	Volume: 4-85 gal me: 3 14.5 gal
Purge Method Peristaltic	Hand Air Lift	DepthBailed		Instrumen YSI: Hydac: Omega:	ts Used	Other:
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments
10:20	17.3	1.37	Lr.62	Ø		Clear
10:23	17.2	160	6.85	5		Clear
10:33	172	157	1.85	10	·	и
		00	4	IS		
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Project Name:	Chevron -	Castro Valley		Dat	e: 4·18	3.94
Site Address:	5269 Crow C	anyon Rd., Cas	stro Valley	Paç	ge <u> 3 </u>	f1O
Project Number	. 020104228.	0610		Pro	ject Manager:	Tim Watchers
Well ID: Well Diameter:)	DTV Initia Rec	V Measurement al: harge:		Volume: <u>(J. IO</u> gal me: <u>IB.3</u> gal
Purge Method Peristaltic Gear Drive Submersible	Pump Hand Air Lift Cother	Depth_ Bailed_	ft.	Instrument YSI: Hydac: Omega:	ts Used	Other:
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments
10:45	N.5	.645	7.18	Ø	-	Clear
10:48	17.4	.568	7.38	6		ď
10:58	n.6	.627	7.50	12		, U
		DRY		18		
		•				

•		Castro Valley anyon Rd., Ca			e: 4·18 je 4 c	
	: 020104228.			<u> </u>		Tim Watchers
Well ID: Well Diameter:	C-8 2"		 ,	V Measurement al: harge:		Volume: 2-5 gal me: 3 7-5 gal
Purge Method Peristaltic Gear Drive Submersible	Pump Hand Air Lift Other	Depth_ BailedX	ft.	Hydac:	ts Used	
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments
11:10	18.2	.839	7.71	Ø	-	Clear
11 -13	18.1	:867	7.25	3		. 51
11.23	18.1	931	7.23	6		L.
	-	D	RY_	7		
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Project Name:	Chevron -	Castro Valley		Da	Date: 4 6 4						
Site Address:	5269 Crow C	anyon Rd., Ca	stro Valley	Pa	ge <u> 5 </u>	10					
Project Number	:020104228.	0610		Pro	oject Manager:	Tim Watchers					
Well ID: Well Diameter:	C-100			V Measuremen al: harge:		Volume: 1-83 gal me: 3 - 5-4 gal					
Purge Method Peristaltic Gear Drive Submersible	Air Lif	t		Hydac:	ts Used X	Other:					
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments					
11.30	18.9	101	7.30	Ø		Clear					
11:33	18.9	1.13	7.28	2		Clear					
		DR	1	4-							
			(5							
				:							

Project Name:	Chevron -	Castro Valley			e:4\1						
Site Address:	5269 Crow C	anyon Rd., Cas	stro Valley	Pag	ge_ <i>【⊘</i> o	f_10					
Project Number:	020104228.	0610		Pro	ject Manager:	Tim Watchers					
Well ID:	C-15		DTV Initia Rec	V Measurement al: harge:	s: Calc Well Well Volur	Volume: 3.68 gal me: 3 - 11-01 gal					
Purge Method Pump Depth ft. Instruments Used Peristaltic Hand Bailed ✓ YSI: ✓ Gear Drive Air Lift Hydac: — Submersible Other Omega:											
Time	Temp C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments					
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A,03	[S,8]	1.24	7.50	. 4		1					
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Project Name: Chevron - Castro Valley Date: 4-18-94												
Site Address:	5269 Crow C	anyon Rd., Ca	stro Valley	Pag	je7c	of 10						
Project Number	: 020104228.	0610		Pro	ject Manager:	Tim Watchers						
Well ID:	C-12		DTV Initia Rec	V Measurement al: harge:	s: Calc Well Well Volu	Volume: 6.25 gal me: 3 - 18.7 gal						
Purge Method Pump Depth ft. Instruments Used Peristaltic Hand Bailed YSI: Other: Gear Drive Air Lift Hydac: Submersible Other Omega:												
Time	Temp <u>X</u> C F	Conductivity	pН	Purge Volume Gallons	Turbidity	Comments						
12:20	18.5	.980	7.26	ø		clear						
12:23	18.5	.963	7.83	C		Clogy						
1228	18.3	100	7.01	12		Coar						
1236	185	1,04	7.01	19		Cloar						
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Project Name:	Chevron -	Castro Valley		Dat	e:4· L	899			
Site Address:	5269 Crow C	anyon Rd., Ca	stro Valley	Pag	ge <u> </u>	f			
Project Number	020104228.	0610		Pro	ject Manager: _	Tim Watchers			
Well ID: Well Diameter:	<u>C-1</u>		DTV Initia	V Measurement al: harge:		Volume: 15.6 gal ne: 2 _46.8 gal			
Purge Method Peristaltic Gear Drive Submersible	Hand	Bailed 📆 📉		Instrument YSI: Hydac: Omega:	ts Used	Other:			
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments			
12:46	18.6	1.a.i	10.92	Ø		CCCov			
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Project Name: Chevron - Castro Valley Site Address: 5269 Crow Canyon Rd., Castro Valley Project Number: 020104228.0610 Well ID: C-3 Well Diameter: 4	stro Valley DTV Initia	Pro V Measurement al: harge:		Tim Watchers									
Project Number: 020104228.0610 Well ID: C-3 Well Diameter: 4 i'	DTV Initia Rec	Pro V Measurement al: harge:	oject Manager: _	Tim Watchers									
Well ID: C-3 Well Diameter: 4	Initia Rec	V Measurement al: harge:											
	Initia Rec	al: harge:	ts: Calc Well \ Well Volum	/olume: 8.85 gal ne: 3									
B D	ft.	Instrumen											
Purge Method Peristaltic Hand Bailed Gear Drive Air Lift Submersible Other		Instruments Used YSI: Other: Hydac: Omega:											
Time Temp Conductivity	рН	Purge Volume Gallons	Turbidity	Comments									
1:15 195 1.73	L.85	Ø	-	Clear									
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Project Name: Chevron - Castro Valley Date: 4-18-64													
Site Address:	5269 Crow C	anyon Rd., Ca	stro Valley	Paç	ge_1 <u>0</u> o	f 10							
Project Number	:020104228.	0610		Pro	ject Manager:	Tim Watchers							
Well ID: Well Diameter:		<i>p</i>		V Measurement al: harge:	ts: Calc Well Well Volui	Volume: <u>8 4 g</u> al me: 3 <u>75: 2 g</u> al							
Purge Method Pump Depth ft. Instruments Used Peristaltic Hand Bailed YSI: Other: Gear Drive Air Lift Hydac: Submersible Other Omega: Onega:													
Time	Temp X C F	Conductivity	рН	Purge Volume Gallons	Turbidity	Comments							
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			DRY	25									

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ATTACHMENT 4

Laboratory Report





Northwest Region 4080 Pike Lane Suite C Concord, CA 94520 (510) 685-7852 (800) 544-3422 Inside CA FAX (510) 825-0720 Client Number: 020104228
Consultant Project Number: 020104228.0610
Facility Number: 9-5607
Project ID: 5269 Crow Canyon Rd.

Work Order Number: C4-04-0298

April 26, 1994

Tim Watchers
Groundwater Technology, Inc.
4057 Port Chicago Hwy.
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 04/19/94.

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

ANALYTICAL RESULTS

Aromatic Volatile Organics and

Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02	03	04				
Client Identification		TB-LB	C-10B						
Date Sampled		04/18/94 04/18/94 04/18/94 04/							
Date Analyzed		04/22/94 04/21/94 04/20/94 04/20/9							
Analyte	Detection Limit, ug/L								
Benzene	0.5	<0.5 <0.5 <0.5 <							
Toluene	0.5	<0.5	< 0.5	<0.5	<0.5				
Ethylbenzene	0.5	< 0.5	<0.5	<0.5	<0.5				
Xylene, total	0.5	<0.5	<0.5	<0.5	0.5				
TPH as Gasoline	50	<50 <50 <50 <50							
Detection Limit Multiplier	1	1	1	1					
BFB surrogate, % recovery		82.6	87.5						

Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.



ANALYTICAL RESULTS

Aromatic Volatile Organics and

Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		05	06	07	08				
Client Identification		C-8	C-10A	C-15	C-12				
Date Sampled		04/18/94	04/18/94	04/18/94	04/18/94				
Date Analyzed		04/20/94 04/20/94 04/20/94 04/22/94							
Analyte	Detection Limit, ug/L								
Benzene	0.5	1.2	3.0	1.0	70				
Toluene	0.5	0.9	3.0	4.6	21				
Ethylbenzene	0.5	< 0.5	1.4	0.6	12				
Xylene, total	0.5	1.6	5.5	<0.5	39				
TPH as Gasoline	50	50 <50 <50 550 370							
Detection Limit Multiplier	<u> </u>	1 1 1 1							
BFB surrogate, % recovery		89.3 89.4 90.2 85.2							

Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.



ANALYTICAL RESULTS

Aromatic Volatile Organics and

Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		09	10	11	Q042094-1				
Client Identification		C-1	C-3	C-6	METHOD BLANK				
Date Sampled		04/18/94	04/18/94	04/18/94					
Date Analyzed		04/23/94	04/23/94	04/21/94	04/20/94				
Analyte	Detection Limit, ug/L	Concentration, ug/L							
Benzene	0.5	3200	1200	9800	<0.5				
Toluene	0.5	1000	310	830	< 0.5				
Ethylbenzene	0.5	1000	520	1900	< 0.5				
Xylene, total	0.5	3100	00 2000 7500						
TPH as Gasoline	50	24000	29000	48000	<50				
Detection Limit Multiplier		50	1						
BFB surrogate, % recovery		92.1	92.1 93.4 86.7 95						

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.



QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery,	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	Q042094-2	20.0	ug/L	85.9	82.9	3.55	57.3 - 138
Toluene	Q042094-2	20.0	ug/L	84.5	82.5	2.40	63.0 - 134
Ethylbenzene	Q042094-2	20.0	ug/L	88.0	85.5	2.88	59.3 - 137
Xylene, total	Q042094-2	60.0	ug/L	88.3	85.1	3.69	59.3 - 144



Fax co	py of	Lab	Rep	ort.	and	COC to	Che	vron	Со	ntac)			Ch	ain-	-of-	-Cus	stody-Record
Chevron U.S P.O. BOX San Ramon, 6 FAX (415)8	5004 CA 94583 j	Consultant Project Number COON 4200 Consultant Project Number COON 4200 Consultant Nome Crown water Technology, Tric. Address 4057 Port Chicago Hivi, Concord, CA. 9450 Samples Collected by (Nome) MDRV CINCIN Collection Pat Allendary Collection Pat Allendary Collection Pat Analyses To Be Performed Analyses To Be Performed Consultant Project Number Consultant Project Number Consultant Project Consultant Proj																		
Songle Number	Leb Sample Number	Number of Contohners	Matrix S = Soll A = Alr K = Water C = Charcool	Type G m Grob C = Composite D = Discrete	Jim•	Sample Preservation	load (Yee or No)	6020 + 8015)	TPH Diesed (BO15)	Oil and Gream (5520)	Purpeable Holocarbons (8010)	Purpeable Aremotics (8020)	Purpeoble Organics 57 (8240)	Said:	Hetale C4.C2.Pb.Zn.Ni (ICAP or AA)	med				NOTE: DO NOT BILL TB-LB SAMPLES YOU Stals Intact Romorko
TBLB	0	2	W		8'(v) 2'.15	HEI	Y	X											_	
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C-8	<u> </u>	3			2:30			X					11	V						Bailers
C-109	06	3	- -	ļ	2:35	 : - 		X				4	wll		<u> </u>		_ _	<u> </u>		
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