

NOV 0 6 2001

October 22, 2001 G-R #386383

TO:

Mr. James Brownell

Delta Environmental Consultants, Inc. 3164 Gold Camp Drive, Suite 200 Rancho Cordova, California 95670

CC: Mr. Thomas Bauhs

Chevron Products Company

P.O. Box 6004

San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

Chevron Service Station RE:

#9-4800

1700 Castro Street Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 5, 2001	Groundwater Monitoring and Sampling Report Third Quarter - Event of September 5, 2001

COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to November 5, 2001, at which time the final report will be distributed to the following:

Soite 25th Alameda, CA 74302-6577

Dept. of Engineering Health

Mr. Greg Gurss, Gettler-Ryan Inc., 3140 Gold Camp Drive, Suite 170, Rancho Cordova, CA 95670

Enclosures

trans/9-4800-TB

October 5, 2001 G-R Job #386383

Mr. Thomas Bauhs Chevron Products Company P.O. Box 6004 San Ramon, CA 94583

RE: Third Quarter Event of September 5, 2001

Groundwater Monitoring & Sampling Report

Chevron Service Station #9-4800

1700 Castro Street Oakland, California

Dear Mr. Bauhs:

This report documents the well development and the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

No. 6882

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

Deanna L. Harding Project Coordinator

Douglas MLee

Senior Geologist, R.G. No. 6882

Figure 1:

Potentiometric Map

Table 1:

Groundwater Monitoring Data and Analytical Results

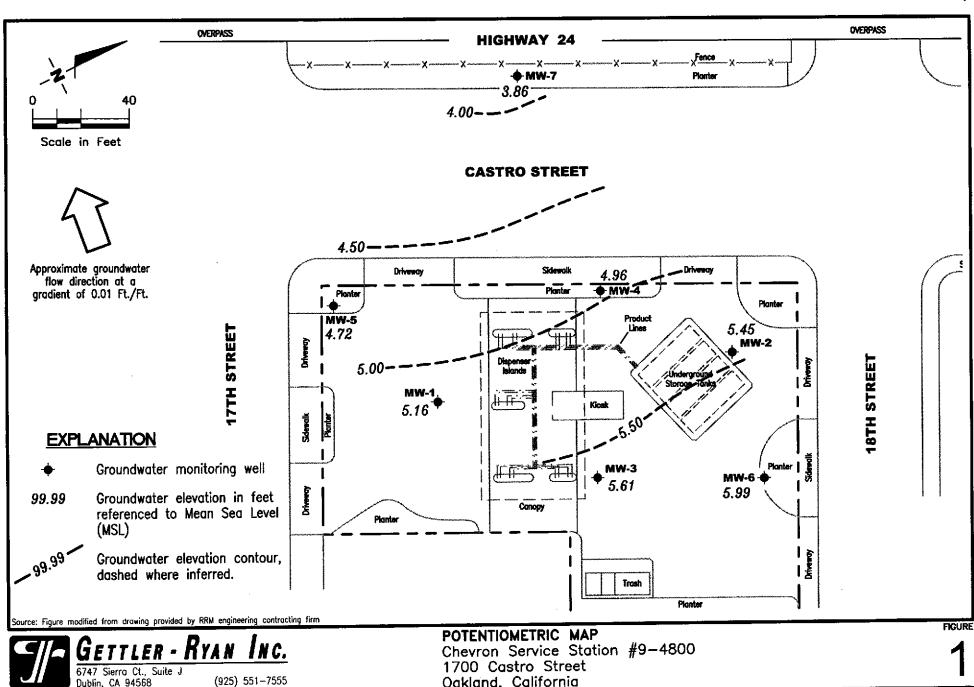
Table 2:

Groundwater Analytical Results - Oxygenate Compounds Standard Operating Procedure - Groundwater Sampling

Attachments: Standard Operatin Field Data Sheets

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Chain of Custody Document and Laboratory Analytical Reports



386383

PROJECT NUMBER

FILE NAME: P:\ENVIRO\CHEVRON\9-4800\QQ1-9-4800.DWG | Loyout Tob: Pot3

REVIEWED BY

REVISED DATE

Oakland, California

DATE

September 5, 2001

Table 1
Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-4800 1700 Castro Street Oakland, California

WELL ID/	TOC*	GWE	DTW	TPH-D	TPH-G	B	T	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ррь)	(ppb)	(pph)	(pph)	(ppb)	(pph)	(ppb)
MW-1										
06/04/97	30.75	4.39	25.82	711	890	100	110	29	150	<10
09/16/97	30.75	4.85	25.90	75 ¹	1,600	210	210	60	250	<10
12/17/97	30.75	4.88	25.87	65 ¹	940	120	100	41	160	<25
03/18/98	30.75	5.90	24.85	77 ¹	530	91	39	22	65	6.8
06/28/98	30.75	5.92	24.83	140'	1,100	220	140	37	120	14
09/07/98	30.75	5.56	25.19	280 ^t	1,700	530	86	84	240	49
12/09/98	30.75	5.10	25.65	240 ¹	1,700	240	130	100	270	32
03/11/99	30.75	5.30	25.45	981	353	53.9	28.6	20.5	56.1	14.1
06/17/99	30.75	5.39	25.36	217 ¹	810	270	150	95	340	15
09/29/99	30.75	5.13	25.62	153 ¹	659	76	49.7	35.1	118	12.6
12/14/99	30.75	5.07	25.68	188 ^{1.2}	2,760	287	199	139	502	<12.5
03/09/003	30.75	5.54	25.21	166 ¹	1,590	238	94.9	72.2	247	22.3
06/10/00	30.75	5.73	25.02		1,460	242	47.8	83.8	151	97.3
09/30/00	30.75	5.30	25.45	240 ⁷	650 ⁶	130	49	69	190	21
12/22/00	30.75	5.05	25.70	200^{9}	640 ⁶	110	33	58	160	68
03/01/01	30.75	5.25	25.50	2117	1,500 ⁶	210	67.9	109	320	87.3
05/04/01	30.75	5.41	25.34	130 ⁷	991	127	32.6	73.0	137	95.4
09/05/01	30.75	5.16	25.59	SAMPLED SEMI		**		••	••	••
	•									
MW-2										
06/04/97	30.00	5.13	24.87	4,000 ¹	13,000	790	30	420	1,700	4000
09/16/97	30.00	5.06	24.94	$2,200^{1}$	4,000	360	9.7	210	460	1500
12/17/97	30.00	5.18	24.82	2,100 ¹	4,100	380	<10	200	460	2100
03/18/98	30.00	6.43	23.57	3,700 ¹	8,400	1,800	<50	350	630	13,000
06/28/984	30.00	6.21	23.79	4,400 ¹	9,300	740	340	710	2,300	3800
09/07/98	30.00	5.78	24.22	3,1001	9,900	1,000	150	640	1,800	4500/4100 ⁵
12/09/98	30.00	5.31	24.69	1,900 [†]	8,500	860	74	610	960	2600/2600 ⁵
03/11/99	30.00	5.79	24.21	2,700 [†]	12,500	1,520	42.2	645	2,250	3400/5050 ⁵
06/17/99	30.00	5.69	24.31	7,150 ¹	27,000	2,200	260	1500	5,900	4700
09/29/99	30.00	5.45	24.55	3,030 [†]	6910	582	11,1	491	1,170	1970

Table 1
Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-4800 1700 Castro Street Oakland, California

WELL ID/	TOC*	GWE	DTW	TPH-D	TPH-G	В	Ť	E		MTBE
DATE	(ft.)	(msl)	(ft.)	(pph)	(ppb)	(pph)	(pph)	(pph)	(ppb)	(ррб)
MW-2 (cont)										
12/14/99	30.00	5.39	24.61	615 ^{1,2}	4230	282	12.3	284	690	631
03/09/00 ³	30.00	6.08	23.92	$3,300^{1}$	15,300	1,110	39.4	1,040	3.030	2,470
06/10/00	30.00	6.13	23.87		7,360	560	40.7	627	1,280	1,260
09/30/00	30.00	5.67	24.33	1,8007	3,600 ⁶	280	<10	420	430	290
12/22/00	30.00	5.39	24.61	870°	1,500 ⁶	100	<1.3	160	59	380
03/01/01	30.00	5.79	24.21	1,3207	2,340 ⁶	171	< 5.00	238	157	864
05/04/01	30.00	5.83	24.17	$3,100^7$	11,900	199	33.9	1,420	290	3,890
09/05/01	30,00	5.45	24.55	2,200	3,300	170	1.7	310	110	1,100
MW-3										
06/04/97	31.32	5.27	26.05	<50	190	26	20	1.5	16	8.2
09/16/97	31.32	5.17	26.15	<50	270	58	53	6.1	30	21
12/17/97	31.32	5.22	26.10	<50	290	50	54	8.1	37	21
03/18/98	31.32	6.42	24.90	<50	390	140	33	4.6	30	94
06/28/98	31.32	6.39	24.93	<50	290	90	11	1.6	13	150
09/07/98	31.32	5.97	25.35	<50	170	46	20	4.3	19	120
12/09/98	31.32	5.41	25.91	55 ¹	660	120	93	22	72	150
03/11/99	31.32	5.85	25.47	<50	653	136	69.5	13.7	63.8	144
06/17/99	31.32	5.90	25.42	103 ^t	530	190	110	24	88	210
09/29/99	31.32	5.61	25.71	2321	433	97.8	61.4	16.9	56.6	156
12/14/99	31.32	5.55	25.77	$<50^{2}$	8650	1040	795	212	800	995
03/09/00 ³	31.32	6.14	25.18	74.6 ¹	1170	304	103	25.2	114	539
06/10/00	31.32	6.29	25.03		359	63.8	27.8	10.5	35.4	393
09/30/00	31.32	5.79	25.53	1008	2206	42	33	12	38	67
12/22/00	31.32	5.52	25.80	1109	370 ⁶	96	48	18	58	180
03/01/01	31.32	5.75	25.57	144 ⁷	912 ⁶	218	89.0	36.0	110	310
05/04/01	31.32	5.96	25.36	<50	1,260	146	79.6	38.2	101	1,070
09/05/01	31.32	5.61	25.71	SAMPLED SEM	1I-ANNUALLY					7-

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-4800

evron Service Station #9-1700 Castro Street Oakland, California

					Outline, Ca					
WELL ID/	TOC*	GWE	DTW	TPH-D	трн-С	B SHO	T.	E	X	MTBE
DATE	(ft.)	(msl)	(ft,)	(pph)	(pph)	(pph)	(pph)	(ppb)	(ppb)	(pph)
MW-4										
04/08/99	30.13				130	3.1	<0.5	<0.5	7.7	4,700
06/17/99	30.13	5.19	24.94	3,780 ¹	590	58	< 5.0	<5.0	160	6.200
09/29/99	30.13	4.96	25.17	1,130 ¹	692	10.7	<2.5	5.51	236	7,840
12/14/99	30.13	4.91	25.22	571 ^{1.2}	625	<10	3.83	<10	94.6	4,470
03/09/003	30.13	5.45	24.68	600 ¹	402	3.76	1.18	< 0.5	71.4	3,140
06/10/00	30.13	5.53	24.60		<1,000	13.2	<10.0	<10.0	97.8	3,080
09/30/00	30.13	5.09	25.04	1,400 ⁷	280 ⁶	21	0.67	6.3	60	3,300
12/22/00	30.13	4.90	25.23	740°	240 ⁶	2.2	< 0.50	1.3	25	2,200
03/01/01	30.13	5.15	24.98	6617	193	2.31	< 0.500	1.34	12.1	1,220
05/04/01	30.13	5.25	24.88	1,100 ⁷	722	12.0	< 5.00	17.1	89.4	2,390
09/05/01	30.13	4.96	25.17	2,500	1,400	2.3	2.2	19	260	2,300
MW-5										
04/08/99	30.93			<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/17/99	30.93	4.93	26.00	53.8 ¹	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/29/99	30.93	4.73	26.20	<50	<50	<0.5	< 0.5	<0.5	<0.5	<2.5
12/14/99	30.93	4.61	26.32	<50 ²	<50	<0.5	< 0.5	<0.5	<0.5	0.598
03/09/003	30.93	5.00	25.93	<50	<50	<0.5	< 0.5	< 0.5	<0.5	<2.5
06/10/00	30.93	5.21	25.72		<50.0	<0,500	< 0.500	< 0.500	< 0.500	<2.50
09/30/00	30.93	4.79	26.14	130 ⁸	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
12/22/00	30.93	4.60	26.33	250 ⁸	<50	< 0.50	< 0.50	< 0.50	< 0.50	9.1
03/01/01	30.93	4.77	26.16	77,4 ⁷	<50.0	< 0.500	< 0.500	< 0.500	< 0.500	<2.50
05/04/01	30.93	4.89	26.04	NOT SAMPLED	DUE TO INSUF	FICIENT WATER	₹			
09/05/01	30.93	4.72	26.21	SAMPLED SEM	I-ANNUALLY					
11371131112										
MW-6									6	
04/08/99	30.58				<50	<0.5	<0.5	<0.5	<0.5	4.5
06/17/99	30.58	5.99	24.59	<50	<50	< 0.5	<0.5	<0.5	< 0.5	<2.5
09/29/99	30.58	5.81	24.77	<50	<50	< 0.5	<0.5	<0.5	< 0.5	4.46

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-4800

hevron Service Station #9-480 1700 Castro Street Oakland, California

					Oukland, Call					
WELL ID/	TOC*	GWE	DTW	TPH-D	TPH-G	В	т	E	X	MTBE
DATE	(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-6 (cont)										
12/14/99	30.58	5.74	24.84	<50 ²	<50	<0.5	<0.5	<0.5	< 0.5	4.13
03/09/00 ³	30.58	6.49	24.09	<50	<50	<0.5	<0.5	<0.5	< 0.5	2.82
06/10/00	30.58	6.58	24.00		<50.0	< 0.500	< 0.500	< 0.500	< 0.500	<2.50
09/30/00	30.58	6.00	24.58	1108	<50	< 0.50	< 0.50	< 0.50	< 0.50	7.3
12/22/00	30.58	5.75	24.83	1008	<50	< 0.50	< 0.50	< 0.50	< 0.50	4.5
03/01/01	30.58	6.07	24.51	141 ⁷	<50.0	< 0.500	< 0.500	< 0.500	< 0.500	7.52
05/04/01	30.58	6.26	24.32	<50	<50.0	< 0.500	<5.00	<5.00	<5.00	2.74
09/05/01	30.58	5.99	24.59	SAMPLED SEM	II-ANNUALLY					**
MW-7										14
05/04/0111	31.90	4.03	27.87	<50	<50.0	< 0.500	<5.00	<5.00	< 5.00	567/470 ¹²
09/05/01	31.90	3.86	28.04	<50	<50	<0.50	<0.50	<0.50	<1.5	1,400/1,300 ¹²
TRIP BLANK										
06/04/97					<50	<0.5	<0.5	<0.5	< 0.5	<2.5
09/16/97					<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/17/97					<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/18/98					<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/28/98					<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/07/98					<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/09/98					<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/11/99					<50	<0.5	<0.5	<0.5	<0.5	<5.0
06/17/99					<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/14/99					<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/09/003		'			<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/00					<50.0	< 0.500	< 0.500	< 0.500	<0.500	<2.50
					<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5

Table 1 Groundwater Monitoring Data and Analytical Results Chevron Service Station #9-4800

on Service Station #9-4 1700 Castro Street Oakland, California

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[ji.]	(msl)	(ft.)	(ppb)	(ppb)	(pph)	(ppb)	(ppb)	(ppb)	(pph)
it)									
			*-	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
				<50.0	< 0.500	< 0.500	< 0.500	< 0.500	< 2.50
				<50.0	< 0.500	< 5.00	< 5.00	<5.00	< 0.500
				<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5
	 	it)	 		<50 <50.0 <50.0	<50 <0.50 <50.0 <0.500 <50.0 <0.500	< <50 <0.50 <0.50 <0.50 < < < < < < < < < <-	< < < < < < < < <	< <50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 < < < < < < < < < <-

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-4800 1700 Castro Street Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to June 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

-- = Not Measured/Not Analyzed

(ft.) = Feet

B = Benzene

(ppb) = Parts per Billion

GWE = Groundwater Elevation

T = Toluene

(msl) = Mean sea level

E = Ethylbenzene

DTW = Depth to Water

X = Xylenes

TPH-D = Total Petroleum Hydrocarbons as Diesel

MTBE = Methyl tertiary butyl ether

- * TOC elevation was surveyed on April 11, 2001, by Virgil Chavez Land Surveying. The benchmark for the survey was the top of curb at the south end of the return at the southeast corner of Castro Street and 18th Street. (Benchmark Elevation = 29.65 feet, msl).
- 1 Chromatogram pattern indicates an unidentified hydrocarbon.
- Sample was extracted outside EPA recommended holding time.
- ³ TPH-G, B, T, E, X and MTBE was analyzed outside EPA recommended holding time.
- EPA Method 8240.
- 5 Confirmation run.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- 8 Laboratory report indicates unidentified hydrocarbons >C16.
- 9 Laboratory report indicates unidentified hydrocarbons C9-C40.
- Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.
- Well development performed.
- 12 MTBE by EPA Method 8260.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

Chevron Service Station #9-4800 1700 Castro Street Oakland, California

WELL ID/ DATE	ETHANOL (ppb)	TBA (ppb)	МТВЕ (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-4 04/08/99	<25,000	<5000	5400	<100	<100	<100
MW-5	<500	<100	<2.0	<2.0	<2.0	<2.0
04/08/99 MW-6	<300	<100	<2.0	72.0	V2.0	\L .0
04/08/99	<500	<100	5.6	<2.0	<2.0	<2.0
MW-7			470	-2.0	-20	11
05/04/01 09/05/01	<500 < 500	57 <100	470 1,300	<2.0 <2	<2.0 <2	32

EXPLANATIONS:

Groundwater laboratory analytical results prior to May 4, 2001, were compiled from reports prepared by Blaine Tech Services, Inc.

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion

STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

ntl .	0 4683		Job#: _	386383	
ility # Chevi	200 9-4800		Date: -	9-5-01	
1700	CASTRO SI.		_	FB	
. OAK	AND		Sampler: .		
				OK	
	mw-1	Well Condition:		0 -	
Well ID	2			Amount Bailed	<i>a</i>
Il Diameter	in	Hydrocarbon Thickness:	<u> </u>		1
al Depth	29.95 n	Volume	2" = 0.17	3° = 0.38 = 1.50 12°	4" = 0.66 = 5.80
	25.59 1	Factor (VF)			
pth to Water				. The and Burns	Volume:(oal.)
	X VF		X 3 (case volun	ue) = Espinatec Laide	
	Disposable Bailer	Sa	mpli ng	Disposable Bailer	
orge juipment:	Bailer	Eq	uipment:	Bailer	
, c., p	Stack Suction			Pressure Bailer Grab Sample	
	Grundtos		Oth	Jel: ————	
	Other:				<u> </u>
		Weather	Conditions:		
tarting Time:		Water C	olor:		Odor:
ampling Time:			nt Descriptio	n:	
	te:on		Time:	Volume	
Did well de-wate	Volume pH	Conductivity	7 empers	ture D.O.	ORP Alkalinity (mV) (ppm)
) line	(gal.)	ишижен			
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	1	LABORATOR	y INFORMÁT	TION / LABORATORY	ANALYSES
SAMPLE ID	(#) - CONTAINER	1	ERY TYPE	. /	TPHG BEEX MIDE
	X VDA VIAL	H H	<u> </u>		
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		<u>.</u>			
COMMENTS:	_moniter	-onry			
			_		

٤	- 1						
	even) 9-4800		Job#:	386			
dress: 170	O CASTRO	ST	Date:		5-0/		
			Sample	er: <i>F/</i>	<u>s</u>	. 	<u></u>
ty: OAKL	<u> </u>						
				OK			
Well ID	nwa	Well (Condition: —	<u>UFS</u>			
'ell Diameter	<u>in</u> _	•	ness:		unt Bailed		(gal.)
otal Depth	29.75 m	Volu		7 3* 6* = 1.50	= 0.38 12	4" " = 5.80	- 0.66
epth to Water	24.55 .	racu				<u> </u>	
Pur ge quipment:	Disposable Bailer Bailer Stack Suction	****	= XX (case v Sampling Equipment:	Disposa Bailer Pressur	able Bailer e Bailer ample		·
	Grundfos Other:	_		Other:		·	
Starting Time: Sampling Time: Purging Flow Rate Did well de-wate	Other:	<u>. </u>	Weather Condition Water Color: Sediment Descrip If yes; Time:	Other:	0)dor: <i>N</i>	
Sampling Time: Purging Flow Rat Did well de-wate	Other:	m. Cond	Weather Condition Water Color: Sediment Descrip If yes; Time:	Other:	0		
Sampling Time: Purging Flow Rat Did well de-wate	Other:	Conductor	Weather Condition Water Color: Sediment Descrip If yes; Time: Iuctivity Temphos/cm	Other: Si Lean tion:	Volume:	ORP	(cal.)
Purging Time: Purging Flow Rate Did well de-wate Time 1458 1503	Other: 1455 1512 1e:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: Illuctivity hos/cm C 7 C 9 C 9 C 9 RATORY INFORM	Other: Sins: Sins: Lean tion:	Volume: D.O. (mg/L)	ORP (mV)	(cal.)
Sampling Time: Purging Flow Rate Did well de-wate Time 1458 1501 1503	Other:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: luctivity Temp hos/cm C 7	other: Sins: S	Volume: D.C. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-wate Time 1458 1503 SAMPLE ID	Other: 1455 1512 18:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: Illuctivity hos/cm C 7 C 9 C 9 C 9 RATORY INFORM	other: Sins: Cean tion:	Volume: D.C. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-wate Time 1458 1501 1503	Other:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: ductivity hos/cm C 7 C 9 C 9 RATORY INFORM/ PRESERV. TYPE:	other: Is: Si Lean tion: Tion: ATION LABORAT Linicaste	Volume: D.C. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-wate Time 1458 1503 SAMPLE ID	Other: 1455 1512 18:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: ductivity hos/cm C 7 C 9 C 9 RATORY INFORM/ PRESERV. TYPE:	other: Is: Si Lean tion: Tion: ATION LABORAT Linicaste	Volume: D.C. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-wate Time 1458 1503 SAMPLE ID	Other: 1455 1512 18:	Condumb	Weather Condition Water Color: Sediment Descrip If yes; Time: ductivity hos/cm C 7 C 9 C 9 RATORY INFORM/ PRESERV. TYPE:	other: Is: Si Lean tion: Tion: ATION LABORAT Linicaste	Volume: D.C. (mg/L)	ORP (mV)	Alkalinity (ppm)

lient/ acility #Che ddress: 170a city: OAKLA	D CASTRO SI ND	<u>00 </u>	Job#: - Date: - Sampler:	386383 9-5-01 FB	
Well ID Well Diameter Total Depth Depth to Water	MW-3 2 in 29.40 n 25.71 n	Well Condition Hydrocarbon Thickness: Volume Factor (VF)	2° = 0.17		
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	Sa Eq	mpli ng uipment:	Disposable Bailer Bailer Pressure Bailer Grab Sample	
Did well de-wate	e:	Water Co	Conditions: olor: t Description Time: Temperatu	· Volume	Odor:
SAMPLE ID	(#) - CONTAINER	LABORATORY REFRIG. PRESE	AV. TYPE:	LABORATORY	ANALYSES
COMMENTS: -	moviter	ONLY		:	

ddress: <u>170</u> ity: <u>OAKL</u>	9-4800 00 CASTRO AND	ST	Job# Date Sam	:	(638) 9-5-c	,	
Well ID	mw.4	Well	Condition: _	0(
/ell Diameter	in_		ness:		mount Baile preduct/weter	# N	<u>(pal.)</u>
otal Depth	28.27 1	Volu		0.17 6* = 1.5	3° = 0.38	4° = 12° = 5.80	0.66
Furge	3.10 x Disposable Bailer	vr 17	Sempling		stimeted Purp cosable Bail		<u>5</u> (0=1)
quipment:	Bailer Stack Suction Grundfos Other:		Equipme	Bail Pre	er ssure Bailer b Sample		.
Starting Time: Sampling Time: Purging Flow Ra Did well de-wate	<i>i</i> 10		Weather Condit Water Color: _ Sediment Desc If yes; Time:	ription:	· · · · · · · · · · · · · · · · · · ·	Odor: <u>/</u> <i>C</i>	
Time	Volume pH (gal.)		ductivity Te hos/cm	mperature •C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1419 1	.50 7-31 .00 7.34 1.50 7.35	6	97 6	9.0			
			RATORY INFOR	MATION E LABO	PATORY	ANAL	YSES
SAMPLE ID	(#) - CONTAINER	REFRIG.	Her		istru-	TPHG BTE	MIDE
mw-4	3 x VDA VIAL 2 x Amber	Ÿ	#cc_	11		TPH-2)	
		 					
	<u> </u>						

Client/ CK- acility # Address: 17-C City: OAKL	O CASTIR	57	Job#: Date: Sample:	38638 9-5-0 : FB		
Well ID Well Diameter Total Depth 274 Depth to Water	Mu-5 2 in 26.21 in	Well Conk Hydrocarl Thickness Volume Factor (V	2° = 0.17	Amount Baile in (product/water 3° = 0.38 6° = 1.50 ume) = Estimated Pure	12" = 5.80	(gal.) 0.66
Furge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Semplin g Equipme nt:	Disposable Bail Bailer Pressure Bailer Grab Sample ther:	er	
	ie:a	Wat	ether Conditions ter Color: liment Descripti es; Time:	on:	Odor:	
	Volume pH (gal.)	Conducti µmhos/c	vity Temper		ORP (mV)	Alkalinity (ppm)
	= ===================================	#			\neq	
SAMPLE ID	(#) - CONTAINER	LABORAT	ORY INFORMATESERV. TYPE		TPHG BTEX	/SES
COMMENTS:	moniter	only				

Client/ Ch. Facility # Address: <u>170</u>	eveon 9-4800 00 CASTRO	ST.	_ Job#: _ Date:	<u> 38638</u> <u>9-5</u>	<u>.</u>	
City: OAKL			Sample			
Well ID	mw-6	Weil Co	_/	Amount E	ailed 🔏	
Well Diameter Total Depth Depth to Water	28.03 n 24.59n	Volume Factor	ess: 2° = 0.1 (VF)	in (product/w 7 3° = 0.3 6° = 1.50	ster);	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	vf <u>*{</u> * -	Sampling Equipment:	Disposable E Baller Pressure Bai Grab Sample Other:	ler	(0.24)
Starting Time: Sampling Time: Purging Flow Bat	e:	_ w	eather Condition ater Color:	tion:	Odor:	
Did well de-wate		_ If	yes; Time:	 -	ORP	licalinity
	/olume pH (gal.)	Conduc	vcm -	(mg/L)	(mV)	(bbw)
	(# CONTAINED		TORY INFORMA	TION LABORATORY	ANALYSE	6
SAMPLE ID	W - CONTAINER	*	НСЬ		TPHG BTE X /	110E
COMMENTS: _	moniter	OUL				
		/				

	•	FIELD DATA	SHEET			
acility # Address: 17	1601001 9-4800 00 CASTIZO LAND	57	Job#: 3° Date:	86383 9-5-01 FB		
Well ID	mw.7	Well Condition:		<u> </u>		
Well Diameter	<u> 2</u> is	Hydrocarbon Thickness:	Ø in	Amount Bailed (product/weter):	<u> </u>	<u>loal.</u>
Total Depth	29.97 .	Volume Factor (VF)	2" = 0.17 6" = 1.1	3" = 0.38 50 12'	* = 5.80	0.66
Depth to Water		vr .17 = .32 x	3 (case volume) =	Estimated Purge	Volume: 1	(O)
Purge Equipment: <u></u>	Disposable Bailer Bailer Stack Suction Grundfos Other:		Bai	sposable Bailer iller essure Bailer rab Sample	>	·
Starting Time: Sampling Time: Purging Flow R Did well de-wa	late:	Water Co Sediment	Conditions: lor: Description: ime:33	SiLT Volume:)dor:NO	(gal.)
Time	Volume pH (gal.)	Conductivity	Temperature •C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1331 1332 1346	.33 5.99 .66 5.98 1.00 599	906	72.9 72.4 72.5			
		LABORATORY I	NFORMATION V. TYPE LAB	ORATORY	ANALY	
mw-7	B × VOA VIAL	Y Hee	. LAN			IMTOE (5) OX)
mw-7	2 x Amber	Y Acc	_ 11		TA4-D	
				·		
COMMENTS:			<u> </u>			

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Chevron Northwest Region Analysis Request/Chain of Custody



060901-007

Acct. #: 10905	For Lancaster Laboratories use only Sample #: 3080051-4	SCR#:

											A	naly	ses	Requ	ested						
Facility #: 9-4800 Jo	b# 386383	1			Matrix						Р	rese	rvat	on C	odes		,		Preserv	ative Cod	es
Site Address: 1700 Castro St., Oakland, CA Chevron PM: Thomas Bauhs Lead Cons		· ·					ŀ	had D	+	०७७									H = HCl N = HNO ₃ S = H ₂ SO ₄	T = Thio: B = NaO O = Othe	Н
Consultant/Office: G-R Inc., 6747 Sierra Ct., S Consultant Prj. Mgr.:	Dea x #: 925-5	ublin, CA			Water Potable	Oil Oil Air	X 1	BTEX+MTBE 8021 🔁 8260 🗆 Naphth 🗇	i	ites + Ethanal by	(_ l	TPH D Extended Rng.	Lead Total Diss. Method	VPH/EPH					J value repo	owest detect 8260 compo onfirmation BE + Naphth nest hit by 8 hits by 8260 ky s on high	ion limits ounds nalene 260 est hit
	5-01			Ì	×	١.	2	ХÌ		>	Z				1				Comments /	Remarks	
mw-2 9.	5-01	1512	X		Z		5	メ		>		×									
		1431	X		×		5	X				<u> </u>				_					
mw.7 9-	5-01	1355	<u> </u>		٧	1	8	×		X ?	<u>入</u>	4		_	\perp	_					
				1		\top	1				7										i
Turnaround Time Requested (TAT) (please circle) STD. TAT 72 hour 48 hour 24 hour 4 day 5 day		Relinquis Relinquis	shed by	W.	Val	ad)		ate 0/0	16		R.	geived (VV) geiveg	10 Ke	XXXX	Zi	Phy-	7/6/0 9/6/0	Time 15:U5 Time 16:48
Data Package Options (please circle if required) QC Summary Type I - Full Relinquished by				χη Commo	1	1		_				10		Re	celved Celved		Sø	<u>Ş</u>) 	9/10/01 Date	Time
Type VI (Raw Data) WIP (RWQCB) Disk Disk Other.		UPS Tempera	F	dEx)	Othe		C°					-		9 E I	<u> </u>	り Intac	17	O? Yes No	Milita	Øß



ANALYTICAL RESULTS

Prepared for:

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904 925-842-8582

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

RECENVED

901 10 700

GRADER-RYAN INC.

SAMPLE GROUP

The sample group for this submittal is 777623. Samples arrived at the laboratory on Tuesday, September 11, 2001. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description		<u>Lancaster Labs Number</u>
TPBK Grab	Water	3684051
MW-2 Grab	Water	3684052
MW-4 Grab	Water	3684053
MW-7 Grab	Water	3684054

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

Delta C/O Gettler-Ryan

Attn: Deanna L. Harding





Questions? Contact your Client Services Representative Teresa M. Lis at (717) 656-2300.

Respectfully Submitted,

Robert E. Mellinger

Sr Chemist/Coordinator



Page 1 of 1

Lancaster Laboratories Sample No. WW 3684051

Collected:09/05/2001 00:00

Account Number: 10905

Submitted: 09/11/2001 09:15 Reported: 10/03/2001 at 13:59 Chevron Products Company 6001 Bollinger Canyon Road

Discard: 10/11/2001

Building L PO Box 6004

TPBK

Grab Water San Ramon CA 94583-0904

Facility# 9-4800

TPBK 1700 Castro St Oakland

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor			
01729	TPH-GRO N. California (waters)								
01730	TPH-GRO N. California (waters) n.a. N.D. 50. ug/l 1 The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.								
08214	BTEX, MTBE (8021)								
00776 00777 00778 00779 00780	Benzene Toluene Ethylbenzene Total Xylenes Methyl tert-Butyl Ether A site-specific MSD sample was a was performed to demonstrate pre		N.D. N.D. for the project.		ug/1 ug/1 ug/1 ug/1 ug/1	1 1 1 1			

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State of California Lab Certification No. 2116

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Laboratory	CHEOHICA	ᄔ

		nanoracory	CILLO.	111010		
CAT				Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/13/2001 21:03	Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/13/2001 21:03	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	09/13/2001 21:03	Melissa-Ann S. McAlpine	n.a.



Chevron Products Company

Building L PO Box 6004

As Received

San Ramon CA 94583-0904

6001 Bollinger Canyon Road



Page 1 of 2

Lancaster Laboratories Sample No. WW 3684052

Collected:09/05/2001 15:12 by FHB Account Number: 10905

Water

Submitted: 09/11/2001 09:15 Reported: 10/03/2001 at 13:59

Discard: 10/11/2001

MW-2

Facility# 9-4800 x

Grab

1700 Castro St Oakland MW-2

CAS-2

				As Received						
CAT			As Received	Method		Dilution				
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor				
05553	TPH - DRO CA LUFT (Waters)	n.a.	2,200.	190.	ug/l	10				
		According to the California LUFT Protocol, the quantitation for Diesel								
	Range Organics was performed by									
	to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).									
	Sufficient sample volume was not	available to	perform a MS/MSI	for this						
	analysis. Therefore, a LCS/LCSD	was performed	to demonstrate p	precision and						
	accuracy at a batch level.									
	The reporting limits were raised									
	bring target compounds into the	calibration ra	inge of the syste	em.						
01729	TPH-GRO N. California (waters)									
01730	TPH-GRO N. California (waters)	n.a.	3,300.	50.	ug/l	1				
•	THE REPORTED COMMONMENT OF TH									
	gasoline constituents eluting prestart time.	cior to the C6	(n-hexane) TPH-0	GRO range						
	A site-specific MSD sample was r	ot submitted f	or the project	A TCG/TCGD						
	was performed to demonstrate pre									
08214	BTEX, MTBE (8021)									
00776	Benzene	71-43-2	170.	0.50	ug/l	1				
00777	Toluene	108-88-3	1.7	0.50	ug/1	1				
00778	Ethylbenzene	100-41-4	310.	0.50	ug/l	1				
00779	Total Xylenes	1330-20-7	110.	1.5	ug/l	1				
00780	Methyl tert-Butyl Ether	1634-04-4	1,100.	2.5	ug/l	5				
	A site-specific MSD sample was n	ot submitted f	or the project.	A LCS/LCSD						

State of California Lab Certification No. 2116



was performed to demonstrate precision and accuracy at a batch level.



Page 2 of 2

Lancaster Laboratories Sample No. WW 3684052

Collected:09/05/2001 15:12

by FHB

Account Number: 10905

Submitted: 09/11/2001 09:15

Reported: 10/03/2001 at 13:59

Discard: 10/11/2001

MW-2

Grab

Water

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004

San Ramon CA 94583-0904

Facility# 9-4800

1700 Castro St Oakland

MW-2

CAS-2

Laboratory Chronicle

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CAT		_		Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	09/17/2001 12:58	Tracy A. Cole	10
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/14/2001 16:02	Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 10:50	Melissa-Ann S. McAlpine	5
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 16:02	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	09/14/2001 10:50	Melissa-Ann S. McAlpine	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	09/13/2001 10:20	Amanda E. Wade	1



Page 1 of 2

Lancaster Laboratories Sample No. WW 3684053

Collected:09/05/2001 14:31 by FHB Account Number: 10905

Submitted: 09/11/2001 09:15 Chevron Products Company Reported: 10/03/2001 at 13:59 6001 Bollinger Canyon Road

Discard: 10/11/2001 Building L PO Box 6004 MW-4 Grab Water San Ramon CA 94583-0904

Facility# 9-4800 x

1700 Castro St Oakland x MW-4

CAS-4

			3 - B J 3	As Received		5 4744			
CAT No.	Analysis Name	CAS Number	As Received Result	Method Detection	Units	Dilution Factor			
10.	rate your name			Limit					
05553	TPH - DRO CA LUFT (Waters)	n.a.	2,500.	190.	ug/l	10			
	According to the California LUFT								
	Range Organics was performed by to that of our #2 fuel oil refer								
	hydrocarbons).	chec Brandard	(Decween CIV and	020 1101 1101					
	Sufficient sample volume was not	available to	perform a MS/MSD	for this					
	analysis. Therefore, a LCS/LCSD	was performed	to demonstrate pr	recision and					
	accuracy at a batch level.								
	The reporting limits were raised	l because campl	o dilution was no	cecesmi to					
	bring target compounds into the	-		-					
01729	TPH-GRO N. California (waters)								
	TPH-GRO N. California (waters)		1.400.	50.	ug/l	1			
01730	The reported concentration of TE	n.a. PH-GRO does not	-· •		ug/1	1			
	gasoline constituents eluting pr								
	start time.			_					
	A site-specific MSD sample was r								
	was performed to demonstrate pre	cision and acc	uracy at a batch	level.					
08214	BTEX, MTBE (8021)								
00214	BIBA, MIDE (0022)								
00776	Benzene	71-43-2	23.	0.50	ug/l	1			
00777	Toluene	108-88-3	2.2	0.50	ug/l	1			
00778	Ethylbenzene	100-41-4	19.	0.50	ug/l	1			
00779	Total Xylenes	1330-20-7	260.	1.5	ug/l	1			
00780	Methyl tert-Butyl Ether	1634-04-4	2,300.	6.0	ug/l	20			
	A site-specific MSD sample was n					•			
	was performed to demonstrate precision and accuracy at a batch level.								

State of California Lab Certification No. 2116





Page 2 of 2

Lancaster Laboratories Sample No. WW 3684053

Collected:09/05/2001 14:31 by FHB Account Number: 10905

Submitted: 09/11/2001 09:15 Chevron Products Company Reported: 10/03/2001 at 13:59 6001 Bollinger Canyon Road

Discard: 10/11/2001 Building L PO Box 6004 MW-4 Grab Water San Ramon CA 94583-0904

Facility# 9-4800 x

Facility# 9-4800 1700 Castro St Oakland x MW-4

CAS-4

Laboratory Chronicle

C	CAT				Analysis		Dilution
ľ	io.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
C	5553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	09/17/2001 13:20	Tracy A. Cole	10
C	1729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/14/2001 14:53	Melissa-Ann S. McAlpine	1
C	8214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 12:34	Melissa-Ann S. McAlpine	20
C	8214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 14:53	Melissa-Ann S. McAlpine	1
C	1146	GC VOA Water Prep	SW-846 5030B	1	09/14/2001 12:34	Melissa-Ann S. McAlpine	n.a.
C	7003	Extraction - DRO (Waters)	TPH by CA LUFT	1	09/13/2001 10:20	Amanda E. Wade	1



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Page 1 of 2

Lancaster Laboratories Sample No. WW 3684054

Collected:09/05/2001 13:55

by FHB

Account Number: 10905

Submitted: 09/11/2001 09:15 Reported: 10/12/2001 at 07:36

Discard: 10/20/2001

MW-7

Grab

Water

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Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Facility# 9-4800

1700 Castro St Oakland

MW - 7

CAS-7

				As Received					
CAT			As Received	Method		Dilution			
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor			
05553	TPH - DRO CA LUFT (Waters)	n.a.	N.D.	50.	ug/l	1			
03333	According to the California LUFT	Protocol, the	e quantitation fo	or Diesel					
	Range Organics was performed by	peak area com	parison of the sa	ample pattern					
	to that of our #2 fuel oil refer	ence standard	(between C10 and	d C28 normal					
	hydrocarbons).		,						
	Sufficient sample volume was not	available to	perform a MS/MS	D for this					
	analysis. Therefore, a LCS/LCSD	was performed	to demonstrate	precision and					
	accuracy at a batch level.	was personmen		-					
	accuracy at a batton rever.								
01729	TPH-GRO N. California (waters)								
04.530	TPH-GRO N. California (waters)	n.a.	N.D.	50.	uq/l	1			
01730	The reported concentration of The		=	= -	٠,				
	qasoline constituents eluting pr								
	start time.	citor to the co	/II IICALIIC, 2444						
	A site-specific MSD sample was a	not submitted	for the project	A LCS/LCSD					
	was performed to demonstrate pre								
	was performed to demonstrate pre	ecision and ac	curacy at a sate	1 10,01,					
08214	BTEX, MTBE (8021)								
				0.50	ug/l	1			
00776	Benzene	71-43-2	N.D.	0.50	ug/1 ug/l	1			
00777	Toluene	108-88-3	N.D.	0.50		1			
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l ug/l	1			
00779	Total Xylenes	1330-20-7	N.D.	1.5	- .	10			
00780	Methyl tert-Butyl Ether	1634-04-4	1,400.	3.0	ug/l	10			
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD								
	was performed to demonstrate pro	ecision and ac	curacy at a batc	n ievel.					
01594	BTEX + Oxygenates by 8260B .				•				
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1			
02010	Methyl t-butyl ether	1634-04-4	1,300.	5.	ug/l	10			
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1			
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1			
02014	t-Amyl methyl ether	994-05-8	32.	2.	ug/l	1			
02014	52 -								



REPRINT



Page 2 of 2

Lancaster Laboratories Sample No. WW 3684054

Collected:09/05/2001 13:55

by FHB

Account Number: 10905

Submitted: 09/11/2001 09:15 Reported: 10/12/2001 at 07:36

Discard: 10/20/2001

MW-7

Grab

Water

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004

San Ramon CA 94583-0904

Facility# 9-4800

1700 Castro St Oakland

MW - 7

х

CAS-7

As Received Method Dilution As Received CAT Factor Result Detection Units CAS Number Analysis Name No. Limit ug/l N.D. 100. 75-65-0 02015 t-Butyl alcohol A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of California Lab Certification No. 2116

Laboratory Chronicle

		naboratory	CILLO.	111010		
CAT		_		Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	09/17/2001 11:11	Tracy A. Cole	1
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/14/2001 15:28	Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 13:09	Melissa-Ann S. McAlpine	10
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 15:28	Melissa-Ann S. McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/13/2001 18:30	Ryan V. Nolt	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/13/2001 22:23	Ryan V. Nolt	10
01146	GC VOA Water Prep	SW-846 5030B	1	09/14/2001 13:09	Melissa-Ann S. McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/13/2001 18:30	Ryan V. Nolt	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	09/13/2001 10:20	Amanda E. Wade	1



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Client Name: Chevron Products Company

Group Number: 777623

Reported: 10/03/01 at 01:59 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 012550019A	Sample num	ber(s): 30	584052-368	4054				
TPH - DRO CA LUFT (Waters)	N.D.	50.	ug/l	93	90	54-120	3	20
Batch number: 01256A56	Sample num	ber(s): 30	684051-368	34054				
Benzene	N.D.	0.5	ug/1	108	108	80-118	0	30
Toluene	N.D.	0.5	ug/l	107	105	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	102	100	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	104	103	82-120	1.	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/1	114	110	79-127	3	30
TPH-GRO N. California (waters)	N.D.	50.	ug/l	101	100	76-119	1	20
Batch number: U012561AA	Sample num	ber(s): 3	684054					
Ethanol	N.D.	500.	uq/1	112	92	70-130	20	30
di-Isopropyl ether	N.D.	2.	ug/l	101	97	74-125	4	30
Ethyl t-butyl ether	N.D.	2.	ug/l	100	99	74-120	1	30
t-Amyl methyl ether	N.D.	2.	ug/1	107	105	77-118	1	30
t-Butyl alcohol	N.D.	100.	ug/l	112	106	58-147	6	30
Batch number: U012561AB	Sample num	ber(s): 3	684054					
Methyl t-butyl ether	N.D.	2.	ug/l	96	95	77-127	1	30

Sample Matrix Quality Control

	MS	MSD	ms/msd		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	Limits	RPD	<u>xam</u>	Conc	Conc	RPD	Max
Batch number: 01256A56	Sample	number	(s): 36840!	51-36840	154				
Benzene	103		66-140						
Toluene	110		72-138						
Ethylbenzene	108		71-138						
Total Xylenes	109		69-140						
Methyl tert-Butyl Ether	107		60-145						
TPH-GRO N. California (waters)	104		74-132						
Batch number: U012561AA	Sample	number	(s): 36840	54					
Ethanol	122		70-130						
di-Isopropyl ether	109		75-128						
Ethyl t-butyl ether	109		73-123						
t-Amyl methyl ether	112		69-126						
t-Butyl alcohol	119		50-157						
Batch number: U012561AB	Sample	number	(s): 36840	54					
Methyl t-butyl ether	101		69-134						

Surrogate Quality Control

- *- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.

(2) The background result was more than four times the spike added.



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Client Name: Chevron Products Company

Reported: 10/03/01 at 01:59 PM

Group Number: 777623

Surrogate Quality Control

Analysis Name: TPH - DRO CA LUFT (Waters)

Batch number: 012550019A Orthoterphenyl

3684052	112
3684053	105
3684054	74
Blank	109
LCS	116
LCSD	106

Limits:

Analysis Name: TPH-GRO N. California (waters)

Batch number: 01256A56

	Trifluorotoluene-F	Trifluorotoluene-P
3684051	102	104
3684052	108	98
3684053	106	94
3684054	106	101
Blank	105	104
LCS	119	101
LCSD	122	102
MS	125	97
Limits:	65-137	72-134

Analysis Name: BTEX + Oxygenates by 8260B Batch number: U012561AA

Batch num	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3684054	105	103	96	101
Blank	102	100	96	100
LCS	106	98	96	102
LCSD	101	97	96	101
MS	106	103	95	99
Limits:	86-118	80-120	88-110	86-115

Analysis Name: BTEX + Oxygenates by 8260B

Batch number: U012561AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzen
Blank	104	102	94	103
LCS	106	98	96	102
LCSD	101	97	96	101
MS	106	103	95	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

