

R0256



GETTLER-RYAN INC.

TRANSMITTAL

January 11, 2002

G-R #386507

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

RE: **Chevron Service Station**
#9-1740
~~9550 Moraga Avenue~~
Oakland, California

655D

JAN 25 2002

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 31, 2001	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of September 5, 2001

COMMENTS:

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **January 22, 2002**, at which time the final report will be distributed to the following:

- cc: Mr. Greg Gurs, Gettler-Ryan Inc., 3140 Gold Camp Drive, Suite 170, Rancho Cordova, CA 95670
- ~~Susan Hugo, Alameda County Health Care Services, Dept. of Environmental Health, 1151 Harbor Bay Parkway, Suite 230, Alameda, CA 94502-6877~~
- Mr. Eddie So, RWQCB-San Francisco Bay Region, 1515 Clay St., Suite 1400, Oakland, CA 94612

Enclosures

trans/9-1740-BH



GETTLER-RYAN INC.

October 31, 2001
G-R Job #386507

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

RE: Second Semi-Annual Event of September 5, 2001
Groundwater Monitoring & Sampling Report
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

Dear Mr. Bauhs:

This report documents 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. Dissolved Oxygen Concentrations are presented in Table 2. 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.

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

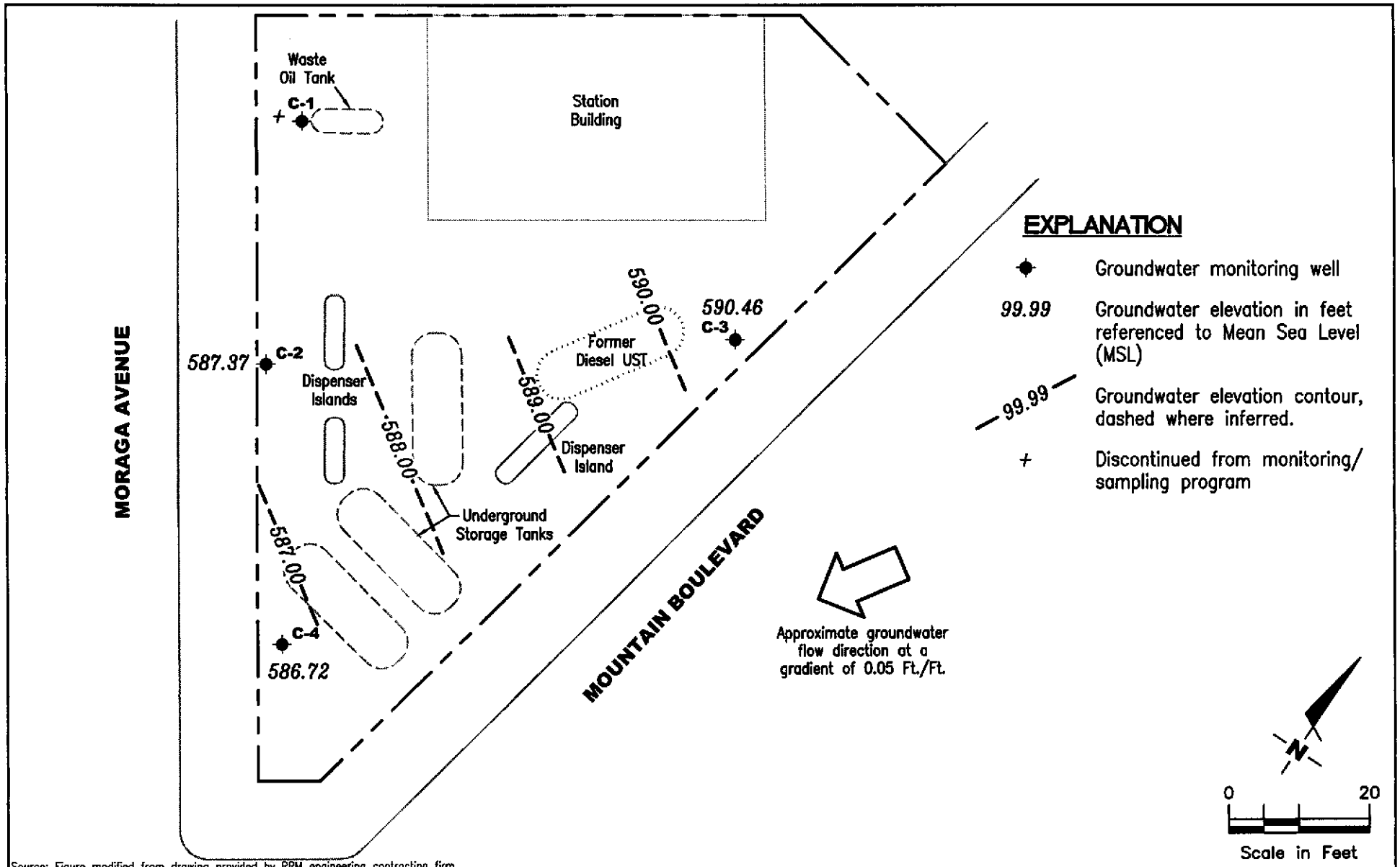
Sincerely,

Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734



Figure 1: Potentiometric Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by RRM engineering contracting firm.

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
 Chevron Service Station #9-1740
 6550 Moraga Avenue
 Oakland, California

FIGURE

1

PROJECT NUMBER
 386507

REVIEWED BY

DATE
 September 5, 2001

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-1											
03/25/91	595.82	592.54	3.28	--	--	54	0.7	<0.5	<0.5	2.0	--
07/01/91	595.82	592.39	3.43	--	--	730	250	3.0	16	4.8	--
09/25/91	595.82	591.67	4.15	--	--	160	68	1.3	6.1	1.3	--
12/23/91	595.82	592.11	3.71	--	--	170	70	1.6	3.5	2.4	--
03/24/92	595.82	592.80	3.02	--	--	60	39	4.4	3.9	9.1	--
06/23/92	595.82	592.06	3.76	--	--	60	19	1.1	1.1	1.0	--
NOT MONITORED/SAMPLED											
C-2											
03/25/91	594.57	571.68	22.89	--	--	<50	1.0	<0.5	<0.5	2.0	--
07/01/91	594.57	587.20	7.37	--	--	660	190	2.5	28	22	--
09/25/91	594.57	587.59	6.98	--	--	110	200	1.9	21	1.7	--
12/23/91	594.57	589.56	5.01	--	--	<50	1.2	1.2	<0.5	1.8	--
03/24/92	594.57	577.30	17.27	--	--	100	5.9	7.9	4.0	14	--
06/23/92	594.57	590.75	3.82	--	--	190	45	4.5	9.5	10	--
09/30/92	594.57	580.56	14.01	--	--	240	99	2.3	11	6.1	--
12/16/92	594.57	580.05	14.52	--	--	280	160	6.2	7.4	5.0	--
03/30/93	594.57	583.49	11.08	--	--	110	21	<0.5	0.8	<1.5	--
06/10/93	594.57	583.08	11.49	--	--	180	53	2.6	8.0	5.8	--
09/02/93	594.57	580.49	14.08	--	--	51	18	0.8	4.4	<1.5	--
12/06/93	594.57	579.87	14.70	--	--	<50	20	1.3	2.7	<0.5	--
03/02/94	594.57	579.70	14.87	--	--	<50	9.9	1.6	<0.5	0.8	--
06/03/94	594.57	579.35	15.22	--	--	440	300	2.7	61	2.1	--
09/07/94	594.57	587.27	7.30	--	--	80	30	<0.5	1.6	<0.5	--
12/06/94	594.57	589.29	5.28	--	--	120	51	<0.5	4.7	<0.5	--
03/31/95	594.57	589.13	5.44	--	--	770	250	<5.0	74	<5.0	--
06/15/95	594.57	589.62	4.95	--	--	240	76	<1.0	26	<1.0	--
09/25/95	594.57	587.78	6.79	--	--	<50	1.2	<0.5	<0.5	<0.5	--
12/19/95	594.57	588.94	5.63	--	--	<250	23	<2.5	<2.5	<2.5	860
03/31/97	594.57	589.74	4.83	--	--	<500	48	<5.0	<5.0	<5.0	2,900

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-2 (cont)											
06/23/97	594.57	589.98	4.59	--	--	1200	240	<10	<10	<10	4,900
09/02/97	594.57	590.02	4.55	--	--	1400	340	<5.0	54	6.9	2,500
12/15/97	594.57	590.26	4.31	--	--	540	100	<2.5	8.7	<2.5	2,400
03/10/98	594.57	590.00	4.57	--	--	<500	<5.0	<5.0	<5.0	<5.0	3,000
06/16/98	594.57	589.99	4.58	--	--	120	6.6	<1.0	<1.0	<1.0	2,500
08/25/98	594.57	589.67	4.90	--	--	140	<0.5	<0.5	<0.5	<0.5	2,600
12/29/98	594.57	589.77	4.80	--	--	1830	17.7	<10.0	<10.0	14.9	4,600/4,890 ¹
03/09/99	594.57	590.21	4.36	--	--	120	16	<1.0	<1.0	<1.0	3,400
06/23/99 ²	594.57	589.92	4.65	--	--	--	--	--	--	--	--
09/28/99	594.57	585.99	8.58	--	--	<50	<0.5	<0.5	<0.5	<0.5	1,250
02/29/00	594.57	586.59	7.98	--	--	122	<0.5	<0.5	<0.5	<0.5	249
08/29/00	594.57	587.52	7.05	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	390
03/27/01	594.57	587.73	6.84	0.00	--	<50.0	<0.500	<0.500	<0.500	<0.500	9.72
09/05/01 ⁴	594.57	587.37	7.20	0.00	58 ⁵	360	<0.50	<0.50	<0.50	<1.5	1,300/1,000 ¹
C-3											
03/25/91	597.14	591.98	5.16	--	--	<50	<0.5	<0.5	<0.5	0.5	--
07/01/91	597.14	591.30	5.84	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	597.14	591.20	5.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	597.14	591.20	5.94	--	--	<50	1.0	<0.5	<0.5	1.5	--
03/24/92	597.14	592.37	4.77	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	597.14	591.47	5.67	--	--	<50	0.9	1.1	0.5	1.6	--
09/30/92	597.14	590.84	6.30	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	597.14	591.57	5.57	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	597.14	592.08	5.06	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	597.14	591.85	5.29	--	--	<50	0.6	1.9	0.6	3.5	--
09/02/93	597.14	591.22	5.92	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	597.14	591.38	5.76	--	--	<50	<0.5	0.6	<0.5	<0.5	--
03/02/94	597.14	591.97	5.17	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	597.14	591.74	5.40	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (mst)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-3 (cont)											
09/07/94	597.14	591.14	6.00	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	597.14	591.95	5.19	--	--	<50	<0.5	0.8	<0.5	<0.5	--
03/31/95	597.14	592.04	5.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/15/95	597.14	591.78	5.36	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	597.14	591.04	6.10	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	597.14	591.46	5.68	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/31/97	597.14	590.65	6.49	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	597.14	590.63	6.51	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/02/97	597.14	591.07	6.07	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/15/97	597.14	590.86	6.28	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/10/98	597.14	590.89	6.25	--	--	<50	<0.5	<0.5	<0.5	<0.5	4
06/16/98	597.14	590.80	6.34	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
08/25/98	597.14	590.61	6.53	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/29/98	597.14	590.59	6.55	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
03/09/99	597.14	591.20	5.94	--	--	<50	<0.5	<0.5	<0.5	<0.5	3
09/28/99	597.14	590.26	6.88	--	SAMPLED ANNUALLY		--	--	--	--	--
02/29/00	597.14	591.56	5.58	--	--	<50	<0.5	<0.5	<0.5	<0.5	10
08/29/00	597.14	590.53	6.61	0.00	--	--	--	--	--	--	--
03/27/01	597.14	591.00	6.14	0.00	--	264	<2.50	<2.50	<2.50	<2.50	870
09/05/01	597.14	590.46	6.68	0.00	--	--	--	--	--	--	--/ <2 ¹
C-4											
03/25/91	593.10	588.65	4.45	--	--	2700	240	16	<0.5	350	--
07/01/91	593.10	587.77	5.33	--	--	7900	1500	230	340	350	--
09/25/91	593.10	587.60	5.50	--	--	3200	850	160	150	220	--
12/23/91	593.10	588.18	4.92	--	--	4100	390	52	42	340	--
03/24/92	593.10	589.06**	4.19	0.19	--	--	--	--	--	--	--
06/23/92	593.10	588.34**	4.91	0.30	--	--	--	--	--	--	--
09/30/92	593.10	584.44	8.66	--	--	450	97	14	12	29	--
12/16/92	593.10	583.30	9.80	--	--	590	130	18	5.6	29	--

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-4 (cont)											
03/30/93	593.10	583.25**	10.00	0.12	--	--	--	--	--	--	--
06/10/93	593.10	583.46	9.64	--	--	1300	290	36	17	73	--
09/02/93	593.10	583.02	10.08	--	--	630	97	12	6.6	21	--
12/06/93	593.10	582.85	10.25	--	--	1900	600	68	27	130	--
03/02/94	593.10	584.36	8.74	--	--	2600	1200	110	43	180	--
06/03/94	593.10	583.27	9.83	--	--	780	180	13	8.5	26	--
09/07/94	593.10	582.80	10.30	--	--	<50	14	<0.5	0.7	<0.5	--
12/06/94	593.10	583.90	9.20	--	--	980	270	21	12	38	--
03/31/95	593.10	582.86	10.24	--	--	1500	450	25	11	49	--
06/15/95	593.10	582.78	10.32	--	--	960	250	15	4.5	37	--
09/25/95	593.10	584.72	8.38	--	--	<500	18	<5.0	<5.0	<5.0	--
12/19/95	593.10	582.94	10.16	--	--	<500	32	<5.0	<5.0	<5.0	2,400
03/31/97	593.10	588.42	4.68	--	--	3400	960	51	64	140	2,100
06/23/97	593.10	588.36	4.74	--	--	1600	580	19	8.2	27	2,300
09/02/97	593.10	588.33	4.77	--	--	6900	1400	59	130	410	3,100
12/15/97	593.10	588.60	4.50	--	--	3300	1200	37	74	130	3,700
03/10/98	593.10	588.92	4.18	--	--	1100	250	19	13	62	4,000
06/16/98	593.10	586.53	6.57	--	--	1200	350	<10	12	39	4,500
08/25/98	593.10	586.30	6.80	--	--	290	24	0.72	0.87	1.9	3,600
12/29/98	593.10	586.80	6.30	--	--	3190	957	<25	<25	<25	8,100/8,500 ¹
03/09/99	593.10	585.87	7.23	--	--	2200	850	15	35	56	5,900
06/23/99 ²	593.10	585.60	7.50	--	--	--	--	--	--	--	--
09/28/99	593.10	586.15	6.95	--	--	1390	7.85	<5.0	<5.0	<5.0	4,190
02/29/00	593.10	586.09	7.01	--	--	<50	1.35	<0.5	<0.5	<0.5	310
08/29/00	593.10	586.58	6.52	0.00	--	150 ³	60	<0.50	0.79	0.78	570
03/27/01	593.10	587.29	5.81	0.00	--	986	27.2	<2.50	3.25	4.11	252
09/05/01 ⁴	593.10	586.72	6.38	0.00	3,800 ⁵	330	140	0.84	<0.50	<1.5	580/520 ¹

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TRIP BLANK											
03/25/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/24/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/30/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/02/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/02/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/07/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/15/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/02/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/15/97	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/10/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/16/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
08/25/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/29/98	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
03/09/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/28/99	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	SPHT (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TRIP BLANK (cont)											
02/29/00	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/29/00	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
03/27/01	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500
09/05/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to August 29, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Mean sea level

DTW = Depth to Water

SPHT = Separate Phase Hydrocarbon Thickness

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

* TOC elevations are referenced to msl.

** GWE corrected for the presence of Separate Phase Hydrocarbons (SPH), correction factor: $[(TOC-DTW)+(SPHT \times 0.80)]$.

¹ Confirmation run.

² ORC installed.

³ Laboratory report indicates unidentified hydrocarbons C6-C12.

⁴ ORC in well.

⁵ Although requested on the Chain of Custody; Laboratory did not perform TPH-D analysis with silica-gel cleanup.

Table 2
Dissolved Oxygen Concentrations
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
C-2	08/29/00	1.97	--
	03/27/01	3.60	--
	09/05/01	2.80	--
C-4	08/29/00	2.11	--
	03/27/01	2.90	--
	09/05/01	2.30	--

EXPLANATIONS:

(mg/L) = Milligrams per liter

-- = Not Measured

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
C-2	09/05/01	<100	1,000	<2	240	30	<2	<2
C-3	09/05/01	<100	<2	<2	<2	<2	<2	<2
C-4	09/05/01	<100	520	<2	<2	15	<2	<2

EXPLANATIONS:

TBA = Tertiary butyl alcohol
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromoethane
(ppb) = Parts per billion

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

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.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Chevron
 Facility # 9-1740 Job #: 386507
 Address: 6550 Moraga Ave. Date: 9.5.01
 City: Oakland, CA Sampler: T.C.

Well ID C-2 Well Condition: o.k.
 Well Diameter 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 26.66 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 7.20 ft. Factor (VF) 6" = 1.50 12" = 5.80

19.46 x VF .17 = 3.3 x 3 (case volume) = Estimated Purge Volume: 10.0 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____
 Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1227 Weather Conditions: SUNNY
 Sampling Time: 1240 Water Color: clear Odor: u
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? N If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1230</u>	<u>3.5</u>	<u>7.38</u>	<u>722</u>	<u>69.7</u>	<u>2.8</u>		
<u>1232</u>	<u>7.0</u>	<u>7.18</u>	<u>681</u>	<u>69.4</u>			
<u>1235</u>	<u>10.0</u>	<u>7.24</u>	<u>658</u>	<u>69.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-2</u>	<u>6X VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHIGI/btex/mtbe</u>
				<u>LANCASTER</u>	<u>7)oxys 8600</u>
<u>C-2</u>	<u>2X AMBER</u>	<u>u</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>PH-D w/ silica gel</u>

COMMENTS: ORC IN well / pre-purge D.O = 2.8

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Chevron
 Facility # 9-1740
 Address: 6550 Moraga Ave.
 City: Oakland, CA

Job#: 386507
 Date: 9-5-01
 Sampler: T.C

Well ID C-3 Well Condition: o.k

Well Diameter 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed Ø (Gallons)
 Total Depth 18.49 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 6.68 ft. Factor (VF) 6" = 1.50 12" = 5.80

11.81 X VF .17 = 2.0 X 3 (case volume) = Estimated Purge Volume: 6.0 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1258 Weather Conditions: Sunny
 Sampling Time: 1312 Water Color: _____ Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? N If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1301</u>	<u>2.0</u>	<u>7.29</u>	<u>621</u>	<u>69.4</u>			
<u>1304</u>	<u>4.0</u>	<u>7.33</u>	<u>640</u>	<u>68.8</u>			
<u>1308</u>	<u>6.0</u>	<u>7.25</u>	<u>610</u>	<u>68.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-3</u>	<u>3X VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>LANCASTER (7) OxyS 82.60</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Chevron 9-1740 Job#: 386507
 Address: 6550 Moraga Ave. Date: 9.5.01
 City: Oakland, CA Sampler: T.C

Well ID C-4 Well Condition: o.k
 Well Diameter 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed: 0 (Gallons)
 Total Depth 24.58 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 6.38 ft. Factor (VF) 6" = 1.50 12" = 5.80
18.20 x VF .17 = 3.0 x 3 (case volume) = Estimated Purge Volume: 9.0 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 1200 Weather Conditions: Sunny
 Sampling Time: 1210 Water Color: clear/slight Odor: 9
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? N If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1202</u>	<u>3.0</u>	<u>7.42</u>	<u>822</u>	<u>70.4</u>	<u>2.3</u>		
<u>1204</u>	<u>6.0</u>	<u>7.31</u>	<u>783</u>	<u>69.8</u>			
<u>1206</u>	<u>9.0</u>	<u>7.36</u>	<u>751</u>	<u>69.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-4</u>	<u>6x VOAVIAL</u>	<u>Y</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH(GI)/btex/mtbe</u>
<u>C-4</u>	<u>2x AMBER</u>	<u>Y</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-D/w/silica gel</u>

COMMENTS: ORC IN well / pH - purge D.O = 2.3

Chevron California Region Analysis Request/Chain of Custody



050901-007

For Lancaster Laboratories use only
 Acct. #: 10905 Sample #: 3082033-36 SCR#: _____

Facility #: <u>9-1740</u> Job # <u>386507</u> Site Address: <u>6550 MORAGA AVE., OAKLAND, CA</u> Chevron PM: <u>Tom Bauls</u> Lead Consultant: <u>Delta/G-R</u> Consultant/Office: <u>G-R, Inc., 8747 Sierra Court, Dublin, Ca 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding</u> (Deanna@grinc.com) Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>Tony Camarda</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____				Matrix <input type="checkbox"/> Potable Water <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Air		Analyses Requested <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="10">Preservation Codes</th> </tr> <tr> <td>BTEX + MTBE 8260</td> <td><input type="checkbox"/> 8021</td> <td>TPH 8015 MOD GRO</td> <td>TPH 8015 MOD DRO</td> <td>Silica Gel Cleanup</td> <td>8260 full scan</td> <td>Oxygenates 8260</td> <td>Lead 7420</td> <td><input type="checkbox"/> 7421</td> <td></td> <td></td> </tr> </table>										Preservation Codes										BTEX + MTBE 8260	<input type="checkbox"/> 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates 8260	Lead 7420	<input type="checkbox"/> 7421			Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits	
Preservation Codes																																						
BTEX + MTBE 8260	<input type="checkbox"/> 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates 8260	Lead 7420	<input type="checkbox"/> 7421																														
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates 8260	Lead 7420	<input type="checkbox"/> 7421	Comments / Remarks																		
<u>TB-LB</u>								X			2	X	X																									
<u>C-2</u>			<u>9-5-01</u>	<u>1240</u>				X			8	X	X	X			X																					
<u>C-3</u>			<u>9-5-01</u>	<u>1312</u>				X			3						X																					
<u>C-4</u>			<u>9-5-01</u>	<u>1210</u>				X			8	X	X	X			X																					
Turnaround Time Requested (TAT) (please circle) STD. TAT <u>24</u> hour 72 hour 48 hour 24 hour 4 day 5 day			Relinquished by: <u>[Signature]</u> Date: <u>9/5/01</u> Time: <u>1440</u> Relinquished by: <u>[Signature]</u> Date: <u>9/5/01</u> Time: <u>16:45</u>		Received by: <u>[Signature]</u> Date: <u>9/5/01</u> Time: <u>15:30</u> Received by: <u>[Signature]</u> Date: <u>9/5/01</u> Time: <u>16:45</u>																																	
Data Package Options (please circle if required) QC Summary Type I — Full Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk			Relinquished by: <u>[Signature]</u> Date: <u>9/6/01</u> Time: <u>1140</u> Relinquished by Commercial Carrier: UPS FedEx Other _____		Received by: <u>[Signature]</u> Date: <u>9/6/01</u> Time: _____ Received by: <u>[Signature]</u> Date: <u>9/7/01</u> Time: _____																																	
			Temperature Upon Receipt <u>2.5</u> °C		Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																	



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

SAMPLE GROUP

The sample group for this submittal is 777204. Samples arrived at the laboratory on Friday, September 07, 2001. The PO# for this group is 99011184 and the release number is BAUHS.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
TB-LB	Grab Water	3682033
C-2	Grab Water	3682034
C-3	Grab Water	3682035
C-4	Grab Water	3682036

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



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories

Where quality is a science.

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

Respectfully Submitted,

Robert E. Mellinger
Sr. Chemist/Coordinator



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 3682033

Collected: n.a.

Account Number: 10905

Submitted: 09/07/2001 09:15
 Reported: 10/01/2001 at 20:44
 Discard: 10/09/2001
 TB-LB

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

Grab Water

Facility# 9-1740 x
 6550 Moraga Ave Oakland x TB-LB

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	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	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

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/13/2001 20:28	Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/13/2001 20:28	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	09/13/2001 20:28	Melissa-Ann S. McAlpine	n.a.



Lancaster Laboratories, Inc.
 2425 New Holland Pike
 PO Box 12425
 Lancaster, PA 17605-2425
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. **WW 3682034**

Collected: 09/05/2001 12:40 by TC

Account Number: 10905

Submitted: 09/07/2001 09:15
 Reported: 10/01/2001 at 20:45
 Discard: 10/09/2001

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

C-2 Grab Water

Facility# 9-1740 x
 6550 Moraga Ave Oakland x C-2

C-240

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05553	TPH - DRO CA LUFT (Waters) According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern 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/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.	n.a.	58. J	50.	ug/l	1
01729	TPH-GRO N. California (waters)					
01730	TPH-GRO N. California (waters) 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.	n.a.	360.	50.	ug/l	1
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether 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.	1634-04-4	1,300.	3.0	ug/l	10
01594	BTEX + Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	1,000.	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	240.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	30.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1



Lancaster Laboratories, Inc.
 2425 New Holland Pike
 PO Box 12425
 Lancaster, PA 17605-2425



Lancaster Laboratories Sample No. WW 3682034

Collected: 09/05/2001 12:40 by TC

Account Number: 10905

Submitted: 09/07/2001 09:15
 Reported: 10/01/2001 at 20:45
 Discard: 10/09/2001

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

C-2 Grab Water

Facility# 9-1740 x
 6550 Moraga Ave Oakland x C-2

C-240

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
05402	1,2-Dichloroethane	107-06-2	N.D.		2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.		2.	ug/l	1

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

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	09/11/2001 12:05		Tracy A. Cole	1
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/14/2001 13:43		Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 11:24		Melissa-Ann S. McAlpine	10
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 13:43		Melissa-Ann S. McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/10/2001 12:23		Rachel K. Reese	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/10/2001 18:57		Rachel K. Reese	10
01146	GC VOA Water Prep	SW-846 5030B	1	09/14/2001 11:24		Melissa-Ann S. McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/10/2001 12:23		Rachel K. Reese	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	09/10/2001 16:00		Elia R. Botrous	1



Lancaster Laboratories, Inc.
 2425 New Holland Pike
 PO Box 12425
 Lancaster, PA 17605-2425
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 3682035

Collected: 09/05/2001 13:12 by TC

Account Number: 10905

Submitted: 09/07/2001 09:15
 Reported: 10/01/2001 at 20:45
 Discard: 10/09/2001

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

C-3 Grab Water

Facility# 9-1740 x
 6550 Moraga Ave Oakland x C-3

C-340

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01594	BTEX + Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
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	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

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

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/12/2001 17:16	Trent S. Sprenkle	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/12/2001 17:16	Trent S. Sprenkle	n.a.



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 PO Box 12425
 Lancaster, PA 17605-2425
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Lancaster Laboratories Sample No. WW 3682036

Collected: 09/05/2001 12:10 by TC

Account Number: 10905

Submitted: 09/07/2001 09:15
Reported: 10/01/2001 at 20:45
Discard: 10/09/2001Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

C-4 Grab Water

Facility# 9-1740 x
6550 Moraga Ave Oakland x C-4

C-440

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05553	TPH - DRO CA LUFT (Waters)	n.a.	3,800.	94.	ug/l	5
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern 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/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
The reporting limits were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.						
01729	TPH-GRO N. California (waters)					
01730	TPH-GRO N. California (waters)	n.a.	330.	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	Benzene	71-43-2	140.	0.50	ug/l	1
00777	Toluene	108-88-3	0.84 J	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	580.	2.5	ug/l	5
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.						
01594	BTEX + Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	520.	3.	ug/l	5
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1

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Collected: 09/05/2001 12:10 by TC

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

C-4 Grab Water

Facility# 9-1740 x
 6550 Moraga Ave Oakland x C-4

C-440

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
02013	Ethyl t-butyl ether	637-92-3	N.D.		2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	15.		2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.		100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.		2.	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	09/11/2001 18:29		Tracy A. Cole	5
01729	TPH-GRO N. California (waters)	N. CALIF. LUFT Gasoline Method	1	09/14/2001 14:18		Melissa-Ann S. McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 11:59		Melissa-Ann S. McAlpine	5
08214	BTEX, MTBE (8021)	SW-846 8021B	1	09/14/2001 14:18		Melissa-Ann S. McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/10/2001 13:15		Rachel K. Reese	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	09/10/2001 19:24		Rachel K. Reese	5
01146	GC VOA Water Prep	SW-846 5030B	1	09/14/2001 11:59		Melissa-Ann S. McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/10/2001 13:15		Rachel K. Reese	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	09/10/2001 16:00		Elia R. Botrous	1



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Quality Control Summary

Client Name: Chevron Products Company
 Reported: 10/01/01 at 08:45 PM

Group Number: 777204

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 012530008A TPH - DRO CA LUFT (Waters)	Sample number(s): 3682034,3682036 26. J	50.	ug/l	110	100	54-120	10	20
Batch number: 01256A56	Sample number(s): 3682033-3682034,3682036							
Benzene	N.D.	0.5	ug/l	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/l	114	110	79-127	3	30
TPH-GRO N. California (waters)	N.D.	50.	ug/l	101	100	76-119	1	20
Batch number: U012531AA	Sample number(s): 3682034,3682036							
Methyl t-butyl ether	N.D.	2.	ug/l	84	85	77-127	2	30
di-Isopropyl ether	N.D.	2.	ug/l	94	91	74-125	3	30
Ethyl t-butyl ether	N.D.	2.	ug/l	87	86	74-120	1	30
t-Amyl methyl ether	N.D.	2.	ug/l	89	90	77-118	2	30
t-Butyl alcohol	N.D.	100.	ug/l	94	91	58-147	3	30
1,2-Dichloroethane	N.D.	2.	ug/l	101	98	84-131	3	30
1,2-Dibromoethane	N.D.	2.	ug/l	94	93	84-119	1	30
Batch number: U012551AA	Sample number(s): 3682035							
Methyl t-butyl ether	N.D.	2.	ug/l	98	100	77-127	1	30
di-Isopropyl ether	N.D.	2.	ug/l	101	103	74-125	2	30
Ethyl t-butyl ether	N.D.	2.	ug/l	101	100	74-120	1	30
t-Amyl methyl ether	N.D.	2.	ug/l	109	113	77-118	4	30
t-Butyl alcohol	N.D.	100.	ug/l	120	113	58-147	6	30
1,2-Dichloroethane	N.D.	2.	ug/l	110	113	84-131	2	30
1,2-Dibromoethane	N.D.	2.	ug/l	104	103	84-119	1	30

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 01256A56	Sample number(s): 3682033-3682034,3682036							
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: U012531AA	Sample number(s): 3682034,3682036							
Methyl t-butyl ether	90		69-134					
di-Isopropyl ether	102		75-128					
Ethyl t-butyl ether	93		73-123					
t-Amyl methyl ether	95		69-126					
t-Butyl alcohol	100		50-157					

- *- 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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Quality Control Summary

Client Name: Chevron Products Company
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Group Number: 777204

Sample Matrix Quality Control

Analysis Name	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup
	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>
								<u>Max</u>
1,2-Dichloroethane	147*		75-141					
1,2-Dibromoethane	99		78-120					
Batch number: U012551AA		Sample number(s): 3682035						
Methyl t-butyl ether	97		69-134					
di-Isopropyl ether	104		75-128					
Ethyl t-butyl ether	101		73-123					
t-Amyl methyl ether	109		69-126					
t-Butyl alcohol	110		50-157					
1,2-Dichloroethane	113		75-141					
1,2-Dibromoethane	107		78-120					

Surrogate Quality Control

Analysis Name: TPH - DRO CA LUFT (Waters)
 Batch number: 012530008A
 Orthoterphenyl

3682034	103
3682036	118
Blank	110
LCS	118
LCSD	109
Limits:	59-157

Analysis Name: TPH-GRO N. California (waters)
 Batch number: 01256A56
 Trifluorotoluene-F Trifluorotoluene-P

3682033	106	102
3682034	105	103
3682036	103	102
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: U012531AA
 Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

3682034	97	97	105	99
3682036	100	99	103	103
Blank	97	97	105	103
LCS	98	99	102	102

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
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Quality Control Summary

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Group Number: 777204

Surrogate Quality Control

LCSD	99	96	103	103
MS	103	98	102	102
Limits:	86-118	80-120	88-110	86-115
Analysis Name: BTEX + Oxygenates by 8260B				
Batch number: U012551AA				
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3682035	105	97	96	104
Blank	102	102	99	106
LCS	104	100	97	101
LCSD	105	104	98	102
MS	102	101	99	104
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.
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