Chevron 9-0636
Seattle
LUST 393280

SAIC
From Science to Solutions

Science Applications International Corporation
18912 North Creek Parkway, Suite 101
Bothell, Washington 98011

December 1, 2008

Ms. Olivia Skance
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3636
San Ramon, CA 94583

Re: Third Quarter 2008 Groundwater Monitoring Report
Chevron Service Station #9-0636
5940 East Marginal Way
Seattle, Washington

Dear Ms. Skance:

Science Applications International Corporation (SAIC), on behalf of Chevron Environmental Management Company (Chevron), has prepared this Groundwater Monitoring Report for the Chevron Service Station Site #9-0636 in Seattle, Washington. The third quarter 2008 groundwater monitoring and sampling event was conducted by Gettler-Ryan Inc. on August 15, 2008. A copy of the Gettler-Ryan Inc. *Groundwater Monitoring and Sampling Report* has been included as Attachment A.

Field Activities

Prior to sample collection, depth to groundwater measurements were taken at each of the four onsite monitoring wells. At the time of this monitoring event, the groundwater elevation (based on an arbitrary benchmark elevation of 100.00 feet) ranged from 90.87 feet in monitoring well MW-3 to 91.03 feet in monitoring well MW-1. Groundwater elevations had decreased an average of 0.19 feet since the previous groundwater monitoring event on August 22, 2007. The direction of groundwater flow at the time of this event was to the southwest at a gradient of 0.002 feet per foot (ft/ft).

At the same time that groundwater elevation data was collected, each monitoring well was also checked for the presence separate-phase hydrocarbons (SPH). SPH was not observed in any of the four monitoring wells gauged during this event. Additionally, each monitoring well was inspected for condition and security, and no problems or concerns were noted by Gettler-Ryan, Inc.

Groundwater samples were collected from all four of the monitoring wells and submitted to Lancaster Laboratories for the following analyses:

- Gasoline-range hydrocarbons by Washington State Department of Ecology (WDOE) Method NWTPH-G

- Diesel- and oil-range hydrocarbons by WDOE Method NWTPH-D with silica gel cleanup
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021B
- Methyl tertiary butyl ether (MTBE) by EPA Method 8021B

Groundwater Analytical Results

Total Petroleum Hydrocarbons (TPH) – Gasoline-range hydrocarbons were detected in both MW-1 and MW-4 but did not exceed the Model Toxics Control Act (MTCA) Method A Cleanup Level (CUL) of 800 µg/l.

Diesel-range hydrocarbons were detected in both monitoring wells MW-3 and MW-4, but only the 640 µg/l concentration reported in monitoring well MW-4 was above the MTCA Method A CUL of 500 µg/l.

Oil-range hydrocarbons were only detected in monitoring well MW-4 at a concentration of 260 µg/l, which was below the MTCA Method A CUL of 500 µg/l.

BTEX – Benzene, and ethylbenzene were detected in monitoring wells MW-3 and MW-4 but were below their respective MTCA Method A CULs. Toluene was also found in MW-4 but was well below its respective MTCA Method A CUL of 1,000 µg/l.

MTBE – Metyl tertiary butyl ether was not detected in any of the four monitoring wells sampled during this event.

Summary

Groundwater elevations are consistent with historical elevations reported at the Site. Analytical results from the current groundwater monitoring event are also consistent with historic site data. Groundwater concentrations appear to be stable and generally decreasing. Additionally, with the exception of TPH-D in monitoring well MW-4, all constituents have been below their respective MTCA Method A CULs for two consecutive annual sampling events.

Based on these findings, monitoring wells MW-1 and MW-2 will be removed from the sampling schedule, but will continue to be monitored. Monitoring wells MW-3 and MW-4 will be monitored and sampled on a **semi-annual/quarterly** basis beginning first quarter 2009.

If you have any questions regarding this letter, please contact the undersigned at 425-482-3321 or at Catterallp@saic.com.

Sincerely,
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Peter Catterall
Senior Project Manager

Attachments: Gettler – Ryan Inc. Groundwater Monitoring & Sampling Report

cc: Mr. John Wietfeld, WDOE Northwest Region, Toxics Cleanup Program

Limitation of use:
SAIC cannot guarantee the accuracy or interpretation from previous site investigations. Because the current investigation consisted of evaluating a limited supply of information, SAIC may not have identified all potential items of concern and, therefore, SAIC warrants only that the project activities under this contract have been performed within the parameters and scope communicated by Chevron Environmental Management Company and reflected in the contract. This report is intended to be used in its entirety; taking or using excerpts from this report is not permitted and any party doing so does at its own risk.

GETTLER-RYAN INC.

TRANSMITTAL

September 30, 2008
G-R #386789

TO: Mr. Peter Catterall
SAIC
18912 North Creek Parkway, Suite 101
Bothell, Washington 98011

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron Service Station
#9-0636
5940 East Marginal Way
Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
3	September 24, 2008	Groundwater Monitoring and Sampling Report **Event of August 15, 2008**

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced report for **your use and distribution to the following:**

Ms. Olivia Skance, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, Room 3636, San Ramon, CA 94583
Mr. John Wietfeld, WDOE Northwest Region, Toxics Cleanup Program, 3190 160th Avenue S.E., Bellevue, WA 98008

☐ Current Site Check List included.

Enclosure

trans/9-0636-BH

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#: **Chevron #9-0636**	Date: 8.15.08
Address: **5940 East Marginal Way**	
City/St.: **Seattle, WA**	
Status of Site: Active Chevron	

DRUMS: Please list below ALL DRUMS @ site: i.e., drum description, condition, labeling, contents, location of drum:

#	Description	Condition	Labeling	Contents	Location
1	55 Gallon	OK	HAZ Waste	RQ Waste	Near Storage
2	"	↓	↓	↓	↓
3	30 Gallon	↓	↓	↓	↓

WELLS: Please check the condition of ALL WELLS @ site: i.e., well box condition, well plug, well lock, etc.:

Well ID	Well Box	Bolts	Well Plug	Well Lock	Other
MW-1	OK	2 Stripped	OK	OK	
MW-2	↓	OK	↓	↓	
MW-3	↓	↓	↓	↓	
MW-4	↓	↓	↓	↓	

Additional Comments/Observations:

GETTLER-RYAN INC.

September 24, 2008
Job #386789

Ms. Olivia Skance
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3636
San Ramon, CA 94583

RE: Event of August 15, 2008
Groundwater Monitoring & Sampling Report
Chevron Service Station #9-0636
5940 East Marginal Way
Seattle, Washington

Dear Ms. Skance:

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. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are presented in 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. Purge water was treated by filtration through granular activated carbon and was subsequently discharged. The chain of custody document and laboratory analytical reports are attached.

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

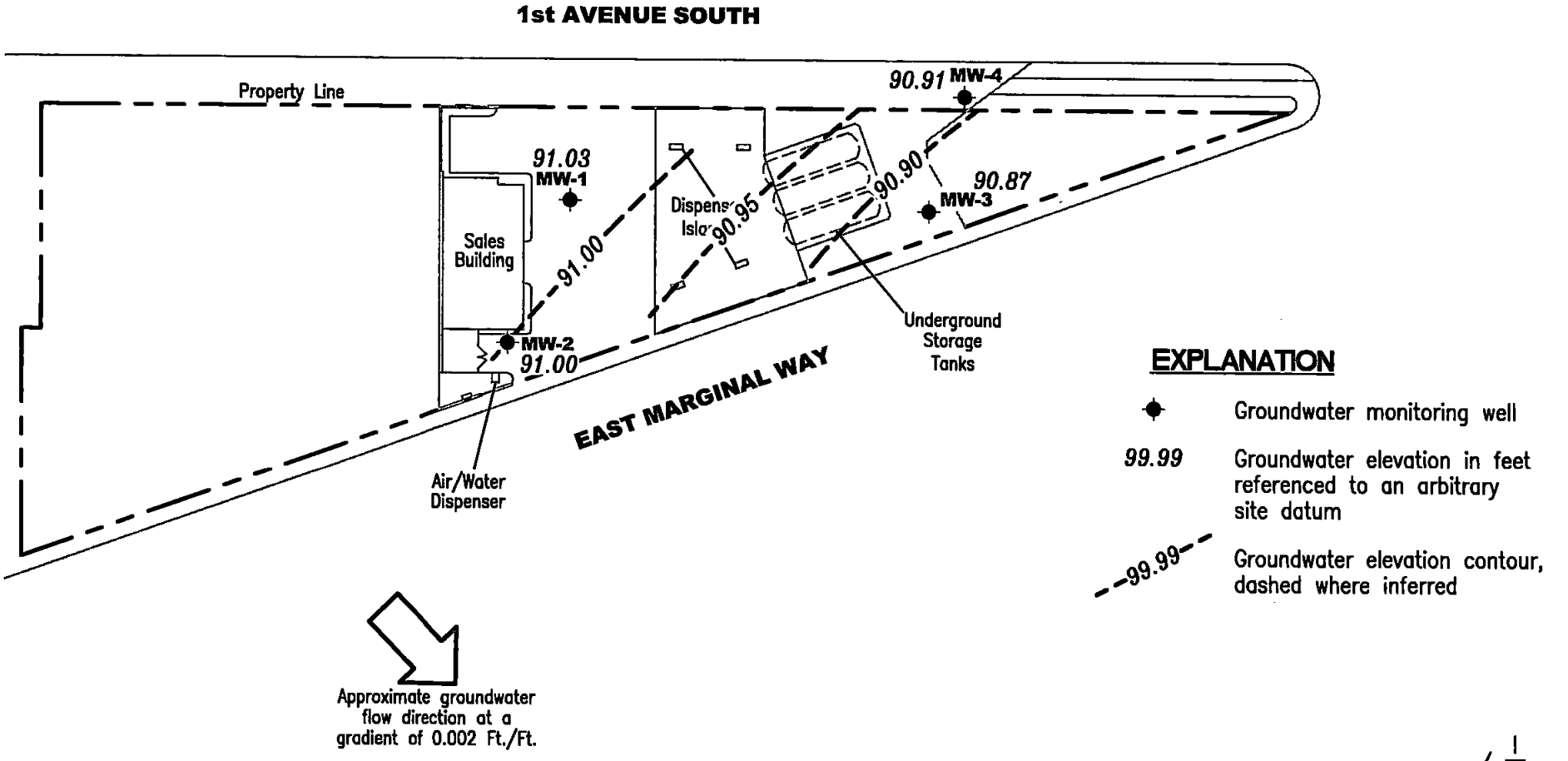
Sincerely,

Deanna L. Harding
Project Coordinator

Douglas J. Lee
Senior Geologist, L.G. No. 2660

State of Washington
2660
Licensed Geologist
Douglas J. Lee

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



Source: Figure modified from drawing provided by SAIC Figure 2 Site Plan dated 09-03-03

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

POTENTIOMETRIC MAP
Chevron Service Station #9-0636
5940 East Marginal Way
Seattle, Washington

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
386789		August 15, 2008	

FILE NAME: P:\Enviro\Chevron\9-0636\Q08-9-0636.dwg | Layout Tab: Pot3

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0636

5940 East Marginal Way

Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-1											
08/20/03[1]	101.01	9.85	91.16	210[2]	<100[2]	330	<0.5	<0.5	<0.5	<1.5	<2.5
02/25/04	101.01	8.82	92.19	<250[2]	<250[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
05/15/04	101.01	9.62	91.39	<250[2]	<250[2]	98	<0.5	<0.5	<0.5	<1.5	<2.5
08/05/04	101.01	9.90	91.11	<250[2]	<250[2]	99	<0.5	<0.5	<0.5	<1.5	<2.5
11/12/04	101.01	9.86	91.15	SAMPLED ANNUALLY		--	--	--	--	--	--
02/11/05	101.01	9.43	91.58	SAMPLED ANNUALLY		--	--	--	--	--	--
06/06/05	101.01	9.39	91.62	SAMPLED ANNUALLY		--	--	--	--	--	--
08/10/05	101.01	9.89	91.12	<250[2]	<250[2]	60	<0.5	<0.5	<0.5	<1.5	<2.5
10/14/05	101.01	10.02	90.99	SAMPLED ANNUALLY		--	--	--	--	--	--
02/23/06	101.01	9.08	91.93	SAMPLED ANNUALLY		--	--	--	--	--	--
08/22/07	101.01	9.75	91.26	110[2]	<99[2]	53	<0.5	<0.5	<0.5	<1.5	<2.5
08/15/08	**101.01**	**9.98**	**91.03**	**<78[2]**	**<98[2]**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**<2.5**
MW-2											
08/20/03[1]	101.18	10.02	91.16	<76[2]	<95[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
02/25/04	101.18	9.04	92.14	<250[2]	<250[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
05/15/04	101.18	9.82	91.36	<250[2]	<250[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
08/05/04	101.18	10.09	91.09	<250[2]	<250[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
11/12/04	101.18	10.06	91.12	SAMPLED ANNUALLY		--	--	--	--	--	--
02/11/05	101.18	9.63	91.55	SAMPLED ANNUALLY		--	--	--	--	--	--
06/06/05	101.18	9.61	91.57	SAMPLED ANNUALLY		--	--	--	--	--	--
08/10/05	101.18	10.02	91.16	<250[2]	<250[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
10/14/05	101.18	10.18	91.00	SAMPLED ANNUALLY		--	--	--	--	--	--
02/23/06	101.18	9.29	91.89	SAMPLED ANNUALLY		--	--	--	--	--	--
08/22/07	101.18	9.96	91.22	83[2]	<97[2]	<50	<0.5	<0.5	<0.5	<1.5	<2.5
08/15/08	**101.18**	**10.18**	**91.00**	**<79[2]**	**<99[2]**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**<2.5**
MW-3											
08/20/03[1]	100.30	9.40	90.90	320[2]	<95[2]	2,400	3.9	<2	13	46	<2.5
02/25/04	100.30	8.34	91.96	1,100[2]	<250[2]	5,000	3.5	0.7	20	31	<2.5
05/15/04	100.30	9.11	91.19	490[2]	<250[2]	1,000	4.3	<0.5	4.6	2.4	<2.5
08/05/04	100.30	9.36	90.94	<250[2]	<250[2]	640	2.7	<0.5	1.9	10	<2.5
11/12/04	100.30	9.34	90.96	450[2]	<500[2]	5,700	20	6.4	120	130	<2.5
02/11/05	100.30	8.89	91.41	340[2]	<250[2]	1,800	8.7	1.7	3.8	<6.0	<2.5

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0636

5940 East Marginal Way

Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-3 (cont)											
06/06/05	100.30	8.81	91.49	2,100[2]	<250[2]	4,800	15	3.9	64	29	<2.5
08/10/05	100.30	9.25	91.05	1,100[2,3]	<250[2]	4,500	<10	1.9	35	24	<2.5
10/14/05	100.30	9.49	90.81	1,000[2,3]	110[2]	3,600	7.2	1.5	9.5	7.6	<2.5
02/23/06	100.30	8.60	91.70	620[2]	<100[2]	1,700	8.2	<1.0	1.0	2.0	<2.5
08/22/07	100.30	9.31	90.99	380[2]	<97[2]	360	4.1	0.7	<2.0	<5.0	<2.5
08/15/08	**100.30**	**9.43**	**90.87**	**260[2]**	**<99[2]**	**200**	**1.5**	**<0.5**	**0.6**	**<5.0[5]**	**<2.5**
MW-4											
08/20/03[1]	100.00	9.02	90.98	<160[2]	<200[2]	1,300	<2	<2	7.9	<10	<2.5
02/25/04	100.00	8.00	92.00	400[2]	<250[2]	2,300	<5.0	1.8	13	15	<10
05/15/04	100.00	8.76	91.24	540[2]	<250[2]	1,900	<2.0	1.3	5.5	6.3	<2.5
08/05/04	100.00	8.99	91.01	680[2]	<250[2]	1,500	<2.0	1	6.0	8.9	<2.5
11/12/04	100.00	9.00	91.00	420[2]	<250[2]	2,000	<5.0	<2.0	11	17	<2.5
02/11/05	100.00	8.52	91.48	850[2]	300[2]	2,600	<5.0	<5.0	8.4	<15	<2.5
06/06/05	100.00	8.52	91.48	3,800[2]	<250[2]	4,400	<5.0	2.1	24	15	<2.5
08/10/05	100.00	8.91	91.09	980[2,3]	<250[2]	1,800	<5.0	<1.0	18	17	<2.5
10/14/05	100.00	9.16	90.84	940[2,4]	170[2]	2,000	<5.0	1.0	18	9.8	<10
02/23/06	100.00	8.13	91.87	580[2]	<99[2]	2,700	<2.5	<2.5	12	9.5	<13
08/22/07	100.00	8.92	91.08	860[2]	210[2]	530	<2.0	0.8	1.7	4.2	<2.5
08/15/08	**100.00**	**9.09**	**90.91**	**640[2]**	**260[2]**	**720**	**1.2**	**1.1**	**1.6**	**<10[5]**	**<2.5**
TRIP BLANK											
QA											
02/25/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
05/15/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
08/05/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
11/12/04	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
02/11/05	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
06/06/05	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
08/10/05	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
10/14/05	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0636

5940 East Marginal Way

Seattle, Washington

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-D (µg/L)	TPH-O (µg/L)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
QA (cont)											
02/23/06	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5
08/22/07	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
08/15/08	--	--	--	--	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**<2.5**

	TPH-D	TPH-O	TPH-G	B	T	E	X	MTBE
Standard Laboratory Reporting Limits:	**250**	**250**	**50**	**0.5**	**0.5**	**0.5**	**1.5**	**2.5**
MTCA Method A Cleanup Levels:	**500**	**500**	**800/1,000**	**5**	**1,000**	**700**	**1,000**	**20**
Current Method:	**NWTPH-D + Extended**		**NWTPH-G and EPA 8021B**					

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-0636

5940 East Marginal Way

Seattle, Washington

EXPLANATIONS:

TOC = Top of Casing
(ft.) = Feet
DTW = Depth to Water
GWE = Groundwater Elevation
TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-O = Total Petroleum Hydrocarbons as Oil
TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether
(µg/L) = Micrograms per liters
-- = Not Measured/Not Analyzed
QA = Quality Assurance/Trip Blank
MTCA = Model Toxics Control Act Cleanup Regulations [WAC 173-340-720(2)(a)(I), as amended 02/01].

* TOC elevations are expressed in feet relative to an arbitrary datum.

1 Data provided by SAIC.

2 TPH-D and TPH-O with silica gel cleanup.

3 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range earlier than #2 fuel.

4 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range earlier and later than #2 fuel.

5 Laboratory report indicates due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize. Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used for all samples. 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0636 Job Number: 386789
Site Address: 5940 East Marginal Way Event Date: 8-15-08 (inclusive)
City: Seattle, WA Sampler: ML

Well ID MW- 1 Date Monitored: 8-15-08
Well Diameter 2 in.
Total Depth 14.86 ft.
Depth to Water 9.98 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

4.88 xVF .17 = 0.8 x3 case volume = Estimated Purge Volume: 2.4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.95

Purge Equipment:
Disposable Bailer X
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0930 Weather Conditions: Sunny
Sample Time/Date: 0955 8-15-08 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: light
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 10.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0934	1	6.96	1161	17.6		
0938	2	6.90	1170	17.5		
0941	2.5	6.90	1172	17.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 1	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx(8015)/BTEX/MTBE(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc(8015)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0636 Job Number: 386789
Site Address: 5940 East Marginal Way Event Date: 8-15-08 (inclusive)
City: Seattle, WA Sampler: ML

Well ID MW-2 Date Monitored: 8-15-08
Well Diameter 2 in.
Total Depth 15.28 ft.
Depth to Water 10.18 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.10 xVF 0.17 = 0.8 x3 case volume = Estimated Purge Volume: 2.4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.20

Purge Equipment:
Disposable Bailer X
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1015 Weather Conditions: Sunny
Sample Time/Date: 1040 / 8-15-08 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 10.30

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1019	1	6.76	969	17.9		
1023	2	6.80	974	17.8		
1026	2.5	6.83	976	17.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx(8015)/BTEX/MTBE(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc(8015)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0636 Job Number: 386789
Site Address: 5940 East Marginal Way Event Date: 8-15-08 (inclusive)
City: Seattle, WA Sampler: ML

Well ID MW-3 Date Monitored: 8-15-08
Well Diameter 2 in.
Total Depth 15.10 ft.
Depth to Water 9.43 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.67 xVF .17 = 0.9 x3 case volume = Estimated Purge Volume: 2.7 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.56

Purge Equipment:
Disposable Bailer X
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1100 Weather Conditions: Sunny
Sample Time/Date: 1130 8-15-08 Water Color: Clear Odor: (Y) / N
Approx. Flow Rate: — gpm. Sediment Description: light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 9.67

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1104	1	7.11	1116	18.0		
1108	2	7.14	1121	17.8		
1112	2.75	7.12	1124	17.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx(8015)/BTEX/MTBE(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc(8015)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-0636 Job Number: 386789
Site Address: 5940 East Marginal Way Event Date: 8-15-08 (inclusive)
City: Seattle, WA Sampler: ML

Well ID MW- 4 Date Monitored: 8-15-08
Well Diameter 2 in.
Total Depth 14.44 ft.
Depth to Water 9.09 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.35 xVF .17 = 0.9 x3 case volume = Estimated Purge Volume: 2.7 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.16

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1150 Weather Conditions: Sunny
Sample Time/Date: 1220 18-1508 Water Color: Clear Odor: (Y) / N
Approx. Flow Rate: ~ gpm. Sediment Description: light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 9.27

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1154	1	7.22	1170	17.6		
1158	2	7.24	1178	17.5		
1202	2.75	7.24	1178	17.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 4	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx(8015)/BTEX/MTBE(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc(8015)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

Chevron Northwest Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

Acct. #: 11260 For Lancaster Laboratories use only Sample #: 5443232-36 SCR#: 8/16/08 (3)
G# H0579 1105762

Facility #:	SS#9-0636 QML G-R#386789
Site Address:	5940 East Marginal Way, SEATTLE, WA
Chevron PM:	BH
Lead Consultant:	SAICPC
Consultant/Office:	G-R, Inc., 6747 Sierra Court, Suite J, Dublin, Ca. 94568
Consultant Prj. Mgr.:	Deanna L. Harding (deanna@grinc.com)
Consultant Phone #:	925-551-7555
Fax #:	925-551-7899
Sampler:	Mike Lombard
Service Order #:	☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Water	Oil ☐ Air ☐	Total Number of Containers	BTEX + MTBE 8021 ☒ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates	TPH G	TPH D Ext. Rng. ☐ Silica Gel Cleanup ☒	Lead Total ☐ Diss. ☐ Method ____	VPH/EPH	NWTPH H HCID ☐ quantification	
QA	8-15-08		X			X		2	X			X	"				
MW-1		0955	X			X		5	X			X	X				
MW-2		1040	X			X		5	X			X	X				
MW-3		1130	X			X		5	X			X	X				
MW-4	↓	1220	X			X		5	X			X	X				

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required) **EDF/EDD**
QC Summary Type I - Full
Type VI (Raw Data) Disk / EDD
WIP (RWQCB) Standard Format
Disk ____ Other.

	Date	Time		Date	Time
Relinquished by:	8-15-08	1600	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other ____			Received by:	8/16/08	1000
Temperature Upon Receipt 2.5-3.4 C°			Custody Seals Intact? Yes No		

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

925-842-8582

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 1105762. Samples arrived at the laboratory on Saturday, August 16, 2008. The PO# for this group is 0015024861 and the release number is SKANCE.

Client Description	Lancaster Labs Number
QA Water Sample	5443232
MW-1 Grab Water Sample	5443233
MW-2 Grab Water Sample	5443234
MW-3 Grab Water Sample	5443235
MW-4 Grab Water Sample	5443236

ELECTRONIC COPY TO SAIC c/o Gettler-Ryan Attn: Cheryl Hansen

Lancaster Laboratories

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Analysis Report

Questions? Contact your Client Services Representative
Lynn M Frederiksen at (717) 656-2300

Respectfully Submitted,

Barbara F. Reedy
Senior Specialist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW5443232 Group No. 1105762

QA Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected:08/15/2008

Account Number: 11260

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:12
Discard: 09/26/2008

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

EMSQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02159	BTEX, MTBE	SW-846 8021B	1	08/23/2008 20:45	Linda C Pape	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	08/23/2008 20:45	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030E	1	08/23/2008 20:45	Linda C Pape	1

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Analysis Report

Lancaster Laboratories Sample No. WW5443233 Group No. 1105762

MW-1 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected: 08/15/2008 09:55 by ML

Account Number: 11260

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

EMS01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	78.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	98.	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02159	BTEX, MTBE	SW-846 8021B	1	08/24/2008 02:00	Linda C Pape	1
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	08/20/2008 18:56	Glorines Suarez-Rivera	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	08/24/2008 02:00	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/24/2008 02:00	Linda C Pape	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	08/20/2008 00:35	Roman Kuropatkin	1

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Analysis Report

Lancaster Laboratories Sample No. WW5443234 Group No. 1105762

MW-2 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected: 08/15/2008 10:40 by ML

Account Number: 11260

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

EMS02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	79.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	99.	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02159	BTEX, MTBE	SW-846 8021B	1	08/24/2008 02:21	Linda C Pape	1
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	08/21/2008 03:27	Glorines Suarez-Rivera	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	08/24/2008 02:21	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/24/2008 02:21	Linda C Pape	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	08/20/2008 09:00	Kerrie A Freeburn	1

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Analysis Report

Lancaster Laboratories Sample No. WW5443235 Group No. 1105762

MW-3 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected:08/15/2008 11:30 by ML

Account Number: 11260

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

EMS03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02159	BTEX, MTBE					
02161	Benzene	71-43-2	1.5	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	0.6	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	5.0	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.					
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	260.	79.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	99.	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	200.	50.	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02159	BTEX, MTBE	SW-846 8021B	1	08/24/2008 02:41	Linda C Pape	1
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	08/21/2008 03:48	Glorines Suarez-Rivera	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	08/24/2008 02:41	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/24/2008 02:41	Linda C Pape	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	08/20/2008 09:00	Kerrie A Freeburn	1

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Analysis Report

Lancaster Laboratories Sample No. WW5443235 Group No. 1105762

MW-3 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected: 08/15/2008 11:30 by ML

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

EMS03

Account Number: 11260

Chevron
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Analysis Report

Lancaster Laboratories Sample No. WW5443236 Group No. 1105762

MW-4 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected:08/15/2008 12:20 by ML

Account Number: 11260

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

EMS04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02159	BTEX, MTBE					
02161	Benzene	71-43-2	1.2	0.5	ug/l	1
02164	Toluene	108-88-3	1.1	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	1.6	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	10.	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.					
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	640.	79.	ug/l	1
02096	Heavy Range Organics	n.a.	260.	99.	ug/l	1
08274	TPH by NWTPH-Gx waters					
01648	TPH by NWTPH-Gx waters	n.a.	720.	50.	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02159	BTEX, MTBE	SW-846 8021B	1	08/24/2008 03:02	Linda C Pape	1
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	08/21/2008 04:08	Glorines Suarez-Rivera	1
08274	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	08/24/2008 03:02	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	08/24/2008 03:02	Linda C Pape	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	08/20/2008 09:00	Kerrie A Freeburn	1

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW5443236 Group No. 1105762

MW-4 Grab Water Sample
Facility# 90636 Job# 386789
5940 East Marginal Way - Seattle, WA
Collected:08/15/2008 12:20 by ML

Submitted: 08/16/2008 10:00
Reported: 08/26/2008 at 14:13
Discard: 09/26/2008

EMS04

Account Number: 11260

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: Chevron
Group Number: 1105762
Reported: 08/26/08 at 02:13 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 082320016A	Sample number(s): 5443233							
Diesel Range Organics	N.D.	80.	ug/l	89	93	61-106	4	20
Heavy Range Organics	N.D.	100.	ug/l					
Batch number: 082320025A	Sample number(s): 5443234-5443236							
Diesel Range Organics	N.D.	80.	ug/l	88		61-106		
Heavy Range Organics	N.D.	100.	ug/l					
Batch number: 08237A54A	Sample number(s): 5443232-5443236							
TPH by NWTPH-Gx waters	N.D.	50.	ug/l	86	87	75-135	1	30
Benzene	N.D.	0.5	ug/l	113	108	86-119	5	30
Toluene	N.D.	0.5	ug/l	112	106	82-119	5	30
Ethylbenzene	N.D.	0.5	ug/l	108	103	81-119	6	30
Total Xylenes	N.D.	1.5	ug/l	112	106	82-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	99	99	82-124	1	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 082320025A	Sample number(s): 5443234-5443236					BKG: P443406			
Diesel Range Organics						N.D.	N.D.	0 (1)	20
Heavy Range Organics						N.D.	N.D.	0 (1)	20
Batch number: 08237A54A	Sample number(s): 5443232-5443236					UNSPK: P444560, P444561			
TPH by NWTPH-Gx waters	62*		63-154						
Benzene	116		78-131						
Toluene	115		78-129						
Ethylbenzene	112		75-133						
Total Xylenes	113		84-131						
Methyl tert-Butyl Ether	103		70-134						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH by NWTPH-Dx(water) w/SiGel
Batch number: 082320016A

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

Quality Control Summary

Client Name: Chevron
Group Number: 1105762
Reported: 08/26/08 at 02:13 PM

Surrogate Quality Control

	Orthoterphenyl
5443233	88
Blank	95
LCS	106
LCSD	111
Limits:	50-150

Analysis Name: TPH by NWTPH-Dx(water) w/SiGel
Batch number: 082320025A

	Orthoterphenyl
5443234	101
5443235	96
5443236	108
Blank	98
DUP	94
LCS	107
Limits:	50-150

Analysis Name: BTEX, MTBE
Batch number: 08237A54A

	Trifluorotoluene-P	Trifluorotoluene-F
5443232	91	77
5443233	89	80
5443234	90	78
5443235	89	80
5443236	81	77
Blank	87	79
LCS	89	69
LCSD	89	67
MS	90	68
Limits:	69-129	63-135

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

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.