Holly Park
Seattle

SAIC
From Science to Solutions

November 16, 2009

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

Subject: **Third Quarter 2009 Groundwater Monitoring Report**
Former Tidewater Service Station No. 30-3189
7301 MLK Jr. Way South
Seattle, Washington

Dear Ms. Skance:

Science Applications International Corporation (SAIC), on behalf of Chevron Environmental Management Company (Chevron), has prepared this letter summarizing the latest groundwater monitoring and sampling results from the above referenced site in Seattle, Washington. The third quarter 2009 groundwater monitoring and sampling event was conducted by Gettler-Ryan Inc. on August 12, 2009.

Groundwater elevation and analytical data are presented along with field data sheets and a laboratory analytical report in the Gettler-Ryan Inc. *Groundwater Monitoring and Sampling Report*, which is included as Attachment A.

1.0 FIELD ACTIVITIES

Depth-to-groundwater measurements were collected from each of the three monitoring wells (MW-1, MW-2 and MW-3) present on the property. Each monitoring well was also checked for the presence of separate-phase hydrocarbon (SPH). SPH was not detected in any of the monitoring wells gauged during this event.

At the time of this monitoring event, groundwater elevations ranged from 95.53 feet in monitoring well MW-3 to 90.87 feet in monitoring well MW-2, based on an arbitrary benchmark elevation of 100.00 feet. Groundwater flow at the time of this event was towards the northeast at an approximate gradient of 0.08 feet per foot (ft/ft), and groundwater elevation had decreased an average of 1.69 feet since the previous groundwater monitoring event performed in April 2009. Figure 1 of the enclosed Attachment A depicts groundwater elevations and well locations.

Groundwater samples were collected from each of the three monitoring wells on the property and submitted to Lancaster Laboratories of Lancaster, Pennsylvania for the following analyses:

- Gasoline-range hydrocarbons by Washington State Department of Ecology (WDOE) Method NWTPH-Gx;
- Diesel- and heavy oil-range hydrocarbons by WDOE Method NWTPH-D extended; and

Science Applications International Corporation
18912 North Creek Parkway | Suite 101 / Bothell, WA 98011 / tel: (425) 485-5800 / fax: (425) 485-5566 | saic.com

- Benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8260B.

2.0 ANALYTICAL RESULTS

The following petroleum analytes were detected where indicated at concentrations exceeding their respective Model Toxics Control Act (MTCA) Method A cleanup levels (CULs).

- Gasoline-range hydrocarbons, benzene, ethylbenzene, and total xylenes in monitoring well MW-2; and

- Diesel-range hydrocarbons in monitoring well MW-3.

None of the other constituents analyzed for were present at concentrations exceeding their respective MTCA Method A CULs. Groundwater analytical results are summarized in Table 1 of Attachment A.

3.0 SUMMARY

Groundwater sampling results appear to be consistent with data collected during the previous two sampling events, performed at the property. The concentrations of gasoline-range hydrocarbons and benzene in monitoring well MW-2 are likely due to residual soil impacts related to the former underground storage tanks (USTs) located upgradient from this well. Diesel-range hydrocarbons detected in monitoring well MW-3 may be due to impacts from an off property heating oil tank. Increases in gasoline- and diesel-range hydrocarbons and benzene concentrations during this sampling event, are likely the result of low seasonal groundwater conditions. Future groundwater sampling data will confirm trends in analyte concentrations. The next groundwater sampling event at this site is scheduled for November 2009.

Please contact the below undersign if you have any questions or comments about the information provided herein 425-482-3321 or at catterallp@saic.com.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Peter Catterall
Project Manager

Enclosures:

Attachment A: Gettler-Ryan Inc. - *Groundwater Monitoring & Sampling Report*, Event of August 12, 2009, Former Tidewater Service Station No. 30-3189, 7301 MLK Jr. Way South, Seattle, Washington

cc: Ms. Donna Muse, WDOE, Northwest Regional Office, Toxics Cleanup Program
Mr. Larry Hard, Seattle Housing Authority
File

Accession#:16102.20090917.001

Attachment A:
Gettler-Ryan Inc. – Groundwater Monitoring and Sampling Report
Event of August 12, 2009, Former Tidewater Service Station No. 30-3189
7301 MLK Jr. Way South, Seattle, Washington

GETTLER-RYAN INC.

TRANSMITTAL

September 11, 2009
G-R #385862

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

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

RE: Chevron Facility
#303189
(Former Tidewater Service Stn.)
7301 MLK Jr. Way South
Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
4	September 1, 2009	Groundwater Monitoring and Sampling Report **Event of August 12, 2009**

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, Ste. 3636, San Ramon, CA 94583
Mr. Larry Hard, Seattle Housing Authority, P.O. Box 19028, Seattle, Washington 98109-1028
Washington State Department of Ecology, Northwest Region, Toxics Cleanup Program, 3190 160th Avenue SE, Bellevue, WA 98008

☑ *Current Site Check List included.*

Enclosure

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	**Chevron #303189** Date: 8-12-09
Address:	**7301 Martin Luther King Jr. Way South**
City/St.:	**Seattle,WA**
Status of Site:	VACANT LOT

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

#	Description	Condition	Labeling	Contents	Location
	NO DRUMS				

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	OK	OK	OK	
MW-2	↓	↓	↓	↓	
MW-3	↓	↓	↓	↓	

Additional Comments/Observations:

GETTLER-RYAN INC.

September 1, 2009
Job #386795

Ms. Olivia Skance
Chevron Environmental Management Company
P.O. Box 6012, Room 3636
San Ramon, CA 94583

RE: Event of August 12, 2009
Groundwater Monitoring & Sampling Report
Chevron Facility (Former Tidewater) #303189
7301 Martin Luther King Jr. Way South
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

EXPLANATION

- Groundwater monitoring well
- 99.99 — Groundwater elevation in feet referenced to Mean Sea Level
- 99.99 — Groundwater elevation contour, dashed where inferred

SOUTH OTHELLO STREET

MARTIN LUTHER KING JR. WAY SOUTH

Utility Vault

Former Building

Former USTs

Sidewalk

Parking Lot

Former Station Building

Former Canopy / Pump Island

Former Restaurant

Former Building

Former Building

MW-1 95.42

MW-2 90.87

MW-3 95.53

91.00

92.00

93.00

94.00

95.00

Approximate groundwater flow direction at a gradient of 0.06 Ft./Ft.

N

0 20

Scale in Feet

Source: Figure modified from drawing provided by SAIC, Site Map, Figure 1, Dated: 01/11/08..

FIGURE 1

POTENTIOMETRIC MAP
Chevron Facility (Former Tidewater) #303189
7301 Martin Luther King Jr. Way South
Seattle, Washington

DATE August 12, 2009

REVISED DATE

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

PROJECT NUMBER 385862

REVIEWED BY

FILE NAME: P:\Enviro\Chevron\303189\009-303189.dwg | Layout Tab: Pot3

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Facility (Former Tidewater) #303189

7301 Martin Luther King Jr. Way South

Seattle, Washington

WELL ID/ DATE		TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	T. LEAD (µg/L)
MW-1													
08/31/07[1]		--	--	--	930	190	<50	<0.5	<0.5	<0.5	<1.5	--	0.052
04/24/09	PER	99.66	2.36	97.30	650	<76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09	**PER**	**99.66**	**4.24**	**95.42**	**370**	**<67**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**
MW-2													
08/31/07[1]		--	--	--	2,100	1,200	26,000	3,200	190	1,400	3,300	--	--
04/24/09	PER	99.05	7.34	91.71	--[2]	--[2]	16,000	4,100	99	1,500	2,000	<3	--
08/12/09	**PER**	**99.05**	**8.18**	**90.87**	--[2]	--[2]	**27,000**	**4,000**	**100**	**1,300**	**1,900**	**<3**	**--**
MW-3													
08/31/07[1]		--	--	--	120	<100	<50	<0.5	<0.5	<0.5	<1.5		0.055
04/24/09	PER	100.00	2.13	97.87	58	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09	**PER**	**100.00**	**4.47**	**95.53**	**620**	**170**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**
B-9													
05/01/02[1]		--	--	--	0.660	0.310	32	530	<100	1,600	4,300	--	--
B-10													
05/01/02[1]		--	--	--	5.10	<0.0630	26	240	110	240	330	--	--
TRIP BLANK													
QA													
04/24/09		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09		--	--	--	--	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**

	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE	T. LEAD
Standard Laboratory Reporting Limits:	--	--	50	0.5	0.5	0.5	0.5	1	--
MTCA Method A Cleanup Levels:	500	500	800/1,000	5	1,000	700	1,000	0.5	15
Current Method:	NWTPH-Dx + Extended		NWTPH-Gx and EPA 8021B/8260B						EPA 7421

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Facility (Former Tidewater) #303189

7301 Martin Luther King Jr. Way South

Seattle, Washington

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to April 24, 2009, were compiled for wells MW-1, MW-2, and MW-3 by Science Application International Corporation prior. Results for wells B-9 and B-10 were provided by GeoEngineers.

TOC = Top of Casing
(ft.) = Feet
DTW = Depth to Water
GWE = Groundwater Elevation
TPH = Total Petroleum Hydrocarbons
DRO = Diesel Range Organics
HRO = Oil Range Organics

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl Tertiary Butyl Ether
(µg/L) = Micrograms per liter
PER = Peristaltic Pump

< = The analyte was not detected at or above the reported value.
-- = 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.

ANALYTICAL METHOD:

Prior to April 24, 2009, Benzene, Toluene, Ethylbenzene, Xylene Analysis by USEPA 8021
Gasoline-range hydrocarbons (TPH-GRO) Method NWTPH-Gx.
Diesel- and lube oil-range hydrocarbons (TPH-DRO) by Method NWTPH-Dx.
TPH-DRO and TPH-HRO analyzed with silica gel cleanup
BTEX and MTBE Analysis by Method 8260B

[1] Data provided by SAIC.
[2] Not sampled due to insufficient water.

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.

Standard Operating Procedure, Low-Flow Purging and Sampling

This procedure is designed to assist the user in taking representative groundwater samples from groundwater monitoring wells. Samples will be collected using low-flow (minimal drawdown) purging and sampling methods as discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures."

The field sampler's objective is to purge and sample the well so that the water that is discharged from the pump, and subsequently collected, is representative of the formation water from the aquifer's identified zone of interest.

The wells to be sampled are equipped with QED Well Wizard™ bladder (squeeze-type) pumps or Peristaltic Pumps Each bladder pump or the suction inlet tubing of the peristaltic pump is positioned with its inlet located within the screened interval of the well. The down well equipment includes a bladder pump or Teflon-lined PE (polyethylene) tubing.

Initial Pump Flow Test Procedures

If possible, the optimum flow rate for each well will be established during well development or redevelopment, or in advance of the actual sampling event. The monitoring well must be gauged for Static Water Level (SWL) prior to the installation of the pump and before pumping of any water from the well. The measurement will be documented on a Low Flow Ground Water Sample Collection Record, or field data sheet.

After pump installation, and confirmation that the SWL has returned to its original level (as determined prior to pump installation), the bladder pump or peristaltic pump should be started at a discharge rate between 100 ml to 300 ml per minute without any in-line flow cell connected. The water level in the well casing must be monitored continuously for any change from the original measurement. If significant drawdown is observed, the pump's flow rate should be incrementally reduced until the SWL drawdown ceases and stabilizes. Total drawdown from the initial (static) water level should not exceed 25% of the distance between pump inlet location and the top of the well screen. (For example, if a well has a 10-foot screen zone and the pump inlet is located mid-screen; the maximum drawdown should be 1.25 feet.) In any case, the water level in the well should not be lowered below the top of the screen/intake zone of the well.

Once the specific well's optimum discharge rate, without an in-line flow cell connected, has been determined and documented, the in-line flow cell system to be used is connected to the well discharge and the control settings required to achieve the well's optimum discharge rate are determined with the in-line flow cell connected. (Due to the system's back-pressure, the discharge rate will be decreased by 10-20%). All control settings are to be documented on the gauging and sampling sheet as specific to that particular well's ID and will be utilized for its subsequent purging and sampling events.

Purge and Sampling Events

Prior to the initiation of purging a well, the SWL will be measured and documented. The pump will be started utilizing its documented control settings and its discharge rate will be confirmed by volumetric discharge measurement with the in-line flow cell connected. If necessary, any minor modifications to the control settings to achieve the well's optimum discharge rate will be documented on the gauging sheet. When the optimum pump flow rate has been established, the SWL draw down has stabilized within the required range and at least one pump system volume (bladder volume + discharge tubing volume) has been purged, begin taking field measurements for pH, temperature (T), conductivity (Ec), oxygen reduction potential (ORP) and dissolved oxygen (DO) using a "QED" Model MP-20 in-line flow cell, or other multi-parameter meter. All water chemistry field measurements will be documented on the field data sheet. Measurements should be taken every three to five minutes until stabilization has been achieved. Stabilization is achieved after all parameters have stabilized for three consecutive readings. In lieu of measuring all five parameters, a minimum subset would include pH, conductivity and dissolved oxygen. Three consecutive measurements indicating stability should be within:

Temperature	± 10%
pH	± 0.1 units
Conductance	± 03

When water quality parameters have stabilized, and there has been no change in the stabilized SWL (ie. No continuous draw down), sample collection may begin.

Equipment List

The following equipment is needed to conduct low flow purging and sampling:

- Bladder pump installed within the well's screened interval
- Pump controller and air source set to operate at the specific well's documented optimum discharge rate
- In-line flow cell and meter(s) with connection fittings and tubing to measure water quality
- Water level probe or installed dedicated water level measurement system
- Sample containers appropriate for the analytical requirements
- Low Flow Ground Water Sample Collection Record, or field data sheets
- 300-500 milliliter graduated cylinder or measuring cup
- 5 gallon bucket(s) for collecting purge water
- Wristwatch with second hand or stopwatch
- Sufficient cleaning and decontamination supplies if portable water level probe is utilized
- Peristaltic pump & tubing, in place of bladder pump, if applicable
- Multi-parameter meter, in place of in-line flow cell, if applicable

Procedure QED Bladder Pumps

1. Calibrate all field instruments at the start of each day's deployment per the instrument manufacturer's instructions. Record calibration data on the "Field Instruments Calibration Documentation Form."
2. Drive to the first well scheduled to be sampled (typically the least contaminated). Make notes in the field logbook, describing the well condition and activity in the vicinity of the well. Decontaminate the portable water gauging probe by washing with phosphate-free detergent, rinsing with potable water.
3. Measure the depth to water from the surveyed reference mark on the wellhead and record the measurement on the gauging and sampling sheet. Lock the water level meter in place so that the level can be monitored during purging and sampling. When placing the probe in the well, take precautions to not disturb or agitate the water.
4. Connect the compressed air source's airline to the pump controller's "AIR IN" connection (If utilizing a gas-engine operated compressor, locate the compressor at least 25 feet, down wind from the wellhead).
5. Connect the pump controller "AIR OUT" air-line to the bladder pump's air supply fitting at the wellhead.
6. Connect the pump discharge line to the in-line flow cell's "IN" fitting.
7. Connect the flow cell's "OUT" line and secure to drain the purge water into the purge water collection container.
8. Start the air supply to the pump. Set the pump controller settings to the documented settings for the specific well. Confirm the flow rate is equal to the well's established optimum flow rate. Modify as necessary (documenting any required modifications).
9. Monitor the water level and confirm that the SWL draw down has stabilized within the well's allowable limits.
10. After a single pump-system's volume (bladder volume + discharge tubing volume) has been adequately purged, read and record water quality field measurements every three to five minutes until all parameters have stabilized within their allowable ranges for at least three consecutive measurements. When stabilization has been achieved, sample collection may begin.
11. Disconnect the flow cell, and it's tubing, from the pump discharge line before collecting samples. Decrease the pump rate to 100 milliliters per minute or less by lowering the controller's air pressure setting prior to collecting samples for volatiles. Utilize the QED Model 400 Controller's 'MANUAL SAMPLE' button to ensure minimized sample exposure to the ambient air. Refer to

the task instructions for the correct order and procedures for filling sample containers. Place the samples in a cooler with enough ice to keep them at 4 degrees Centigrade.

12. Once samples for volatiles have been collected, re-establish pump flow rate to the original purge flow rate by inputting the documented controller settings for the well without the in-line flow cell connected and collect remaining samples.
13. When all sample containers have been filled, make a final measurement of the well's SWL and record the measurement on the gauging and sampling sheet. If the well has a "QED" dedicated bottom sounder, measure the well's total depth and record the measurement, as well.
14. Measure and record total purge volume collected. Consolidate generated purge water.
15. Remove and decontaminate the portable water level probe with phosphate-free detergent, rinsing with potable water.
16. Disconnect the controller air supply to the pump.
17. Secure the pump's discharge line/discharge adapter in the wellhead.
18. Secure the wellhead cover and secure with its lock. Move equipment to next well to be sampled.
19. At the end of each day, post calibrate all field instruments and record the measurements on the "Field Calibration Documentation Form".
20. Clean and decontaminate the in-line flow cell with phosphate-free detergent, rinsing with potable water.

Procedure Peristaltic Pump

1. Record all depth to water readings on field data sheets
2. Calibrate all field instruments according to manufacturer's directions.
3. Setup pump and install silicone tubing in the roller head.
4. Place suction tubing at desired intake level in well, (mid screen) and attach to the intake side of the pump roller head.
5. Attach tubing at discharge side of pump head and place in collection container.
6. Start pump and adjust flow rate to achieve flow without depressing water level more than necessary (approx. 0.30').
7. Record parameter readings after parameters have stabilized (3 consecutive readings that fall within the acceptance criteria).
8. Decrease the flow rate of the pump to achieve approximately 100ml/min. when collecting samples.
9. Change all tubing between wells and repeat procedure.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #303189** Job Number: **385862**

Site Address: **7301 Martin Luther King Jr. Way S** Event Date: 8-12 (inclusive)

City: **Seattle,WA** Sampler: ML

Well ID **MW-1** Date Monitored: 8-12

Well Diameter **.75** in.

Total Depth 11.52 ft.

Depth to Water 4.24 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.

7.28 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

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

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	X
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): 0850 Weather Conditions: Rainy

Sample Time/Date: 0920 / 8-12 Water Color: Clear Odor: Y / N

Approx. Flow Rate: 100 ml/ gpm. Sediment Description: None

Did well de-water? NO If yes, Time: ___ Volume: ___ gal. DTW @ Sampling: 4.98

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm / mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0900	1	6.75	921	18.0			5.96
0903	1.3	6.78	925	18.1			6.01
0906	1.6	6.78	927	18.1			6.05

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg

COMMENTS: ___

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #303189 Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S Event Date: 8-12 (inclusive)
City: Seattle,WA Sampler: ML

Well ID MW-2 Date Monitored: 8-12
Well Diameter .75 in.
Total Depth 9.42 ft.
Depth to Water 8.18 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.

1.24 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

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

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

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Discrete Bailer
Peristaltic Pump X
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): 0730 Weather Conditions: Cloudy
Sample Time/Date: 1000 18.12 Water Color: Clear Odor: Y / N
Approx. Flow Rate: 100 ml gpm. Sediment Description: None
Did well de-water? YES If yes, Time: 0733 Volume: 300 ml gal. DTW @ Sampling: 8.36

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0733							

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	~~x 1 liter ambers~~	~~YES~~	~~HCL~~	~~LANCASTER~~	NWTPH-Dx w/sg

COMMENTS: ONLY ABLE TO COLLECT (6) VOA'S BECAUSE OF INSUFFICIENT WATER.

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #303189** Job Number: **385862**

Site Address: **7301 Martin Luther King Jr. Way S** Event Date: 8-12 (inclusive)

City: **Seattle,WA** Sampler: ML

Well ID **MW-3** Date Monitored: 8-12

Well Diameter **.75** in.

Total Depth 9.49 ft.

Depth to Water 4.47 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.

5.02 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

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

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	X
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): 0800 Weather Conditions: Cloudy

Sample Time/Date: 0825 / 8-12 Water Color: Clear Odor: Y / N

Approx. Flow Rate: 100 ml/min. Sediment Description: None

Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 5.10

Time (2400 hr.)	Volume (mL) L	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0810	1	6.84	709	18.5			5.51
0813	1.3	6.78	698	18.7			5.50
0816	1.6	6.75	695	18.7			5.52

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg

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.

For Lancaster Laboratories use only
Acct. #: 112600 Sample #: 5748475-78 SCR#:

Group# 1157473

Facility #: SS#303189-OML G-R#385862
Site Address: 7301 Martin Luther King Jr. Way South, SEATTLE, WA
Chevron PM: OS 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:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (Potable ☐ NPDES ☐)	Matrix: Oil ☐ Air ☐	Total Number of Containers	Analyses Requested / Preservation Codes: BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates	TPH G	TPH D ☐ Extended Ring. ☐ Silica Gel Cleanup	Lead Total ☐ Diss. ☐ Method	VPH/EPH	NWTPH H HCID ☐ quantification
QA	8-12		X			X		2	X			X	X			
MW-1		0920	X			X		8	X			X	X			
MW-2		1000	X			X		6	X			X				
MW-3	↓	0825	X			X		8	X			X	X			

Preservation Codes: H

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

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:	8-13	1800	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by: Kristin Engle	8-13-09	0905

Temperature Upon Receipt 2.5-4.5 C°
Custody Seals Intact? ✓Yes No

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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

August 25, 2009

SAMPLE GROUP

The sample group for this submittal is 1157473. Samples arrived at the laboratory on Thursday, August 13, 2009. The PO# for this group is 0015045667 and the release number is SKANCE.

Client Description	Lancaster Labs Number
QA Water Sample	5748475
MW-1 Grab Water Sample	5748476
MW-2 Grab Water Sample	5748477
MW-3 Grab Water Sample	5748478

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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

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Analysis Report

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5748475

Group No. 1157473
WA

QA Water Sample
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way S-Seattle, WA

Collected: 08/12/2009

Account Number: 11260

Submitted: 08/13/2009 09:05
Reported: 08/25/2009 at 08:36
Discard: 09/25/2009

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

LUTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		ug/l	ug/l	
06054	Benzene	71-43-2	N.D.	0.5	1
06054	Ethylbenzene	100-41-4	N.D.	0.5	1
06054	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
06054	Toluene	108-88-3	N.D.	0.5	1
06054	Xylene (Total)	1330-20-7	N.D.	0.5	1
ECY 97-602 NWTPH-Gx	**GC Volatiles**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

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 Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z092292AA	08/17/2009 10:27	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z092292AA	08/17/2009 10:27	Ginelle L Feister	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	09229B20A	08/18/2009 12:03	Tyler O Griffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	09229B20A	08/18/2009 12:03	Tyler O Griffin	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5748476

Group No. 1157473
WA

MW-1 Grab Water Sample
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way S-Seattle, WA

Collected: 08/12/2009 09:20 by ML

Account Number: 11260

Submitted: 08/13/2009 09:05
Reported: 08/25/2009 at 08:36
Discard: 09/25/2009

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

LUTM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06054	Benzene	71-43-2	N.D.	0.5	1
06054	Ethylbenzene	100-41-4	N.D.	0.5	1
06054	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
06054	Toluene	108-88-3	N.D.	0.5	1
06054	Xylene (Total)	1330-20-7	N.D.	0.5	1
ECY 97-602 NWTPH-Gx	**GC Volatiles**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
ECY 97-602 NWTPH-Dx modified	**GC Extractable TPH w/Si Gel**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	370	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

General Sample Comments

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 Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z092292AA	08/17/2009 10:53	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z092292AA	08/17/2009 10:53	Ginelle L Feister	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	09229B20A	08/18/2009 12:47	Tyler O Griffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	09229B20A	08/18/2009 12:47	Tyler O Griffin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	092310026A	08/21/2009 06:47	Diane V Do	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	092310026A	08/20/2009 09:15	Karen R Rettew	1

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Analysis Report

Lancaster Laboratories Sample No. WW 5748477

Group No. 1157473
WA

MW-2 Grab Water Sample
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way S-Seattle, WA

Collected: 08/12/2009 10:00 by ML

Account Number: 11260

Submitted: 08/13/2009 09:05
Reported: 08/25/2009 at 08:36
Discard: 09/25/2009

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

LUTM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06054	Benzene	71-43-2	4,000	25	50
06054	Ethylbenzene	100-41-4	1,300	25	50
06054	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	3	5
06054	Toluene	108-88-3	100	3	5
06054	Xylene (Total)	1330-20-7	1,900	3	5
ECY 97-602 NWTPH-Gx	**GC Volatiles**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	27,000	500	10

General Sample Comments

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 Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z092292AA	08/17/2009 11:43	Ginelle L Feister	5
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z092292AA	08/17/2009 12:08	Ginelle L Feister	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z092292AA	08/17/2009 11:43	Ginelle L Feister	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z092292AA	08/17/2009 12:08	Ginelle L Feister	50
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	09229B20A	08/18/2009 14:57	Tyler O Griffin	10
01146	GC VOA Water Prep	SW-846 5030B	1	09229B20A	08/18/2009 14:57	Tyler O Griffin	10

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Analysis Report

Lancaster Laboratories Sample No. WW 5748478

Group No. 1157473
WA

MW-3 Grab Water Sample
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way S-Seattle, WA

Collected: 08/12/2009 08:25 by ML

Account Number: 11260

Submitted: 08/13/2009 09:05
Reported: 08/25/2009 at 08:36
Discard: 09/25/2009

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

LUTM3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**ug/l**	**ug/l**	
06054	Benzene	71-43-2	N.D.	0.5	1
06054	Ethylbenzene	100-41-4	N.D.	0.5	1
06054	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
06054	Toluene	108-88-3	N.D.	0.5	1
06054	Xylene (Total)	1330-20-7	N.D.	0.5	1
ECY 97-602 NWTPH-Gx	**GC Volatiles**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
ECY 97-602 NWTPH-Dx modified	**GC Extractable TPH w/Si Gel**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	620	30	1
02211	HRO C24-C40 w/Si Gel	n.a.	170	70	1

General Sample Comments

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 Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	Z092292AA	08/17/2009 12:33	Ginelle L Feister	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z092292AA	08/17/2009 12:33	Ginelle L Feister	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	09229B20A	08/18/2009 13:08	Tyler O Griffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	09229B20A	08/18/2009 13:08	Tyler O Griffin	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	092310026A	08/21/2009 07:08	Diane V Do	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	092310026A	08/20/2009 09:15	Karen R Rettew	1

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Analysis Report

Quality Control Summary

Client Name: Chevron
Group Number: 1157473
Reported: 08/25/09 at 08:36 AM

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: Z092292AA	Sample number(s): 5748475-5748478							
Benzene	N.D.	0.5	ug/l	105	102	80-116	3	30
Ethylbenzene	N.D.	0.5	ug/l	106	103	80-113	3	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105	102	78-117	3	30
Toluene	N.D.	0.5	ug/l	107	105	80-115	2	30
Xylene (Total)	N.D.	0.5	ug/l	106	104	81-114	2	30
Batch number: 09229B20A	Sample number(s): 5748475-5748478							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 092310026A	Sample number(s): 5748476,5748478							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	68	66	61-106	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

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: Z092292AA	Sample number(s): 5748475-5748478 UNSPK: 5748476								
Benzene	108		80-126						
Ethylbenzene	111		77-125						
Methyl Tertiary Butyl Ether	103		72-126						
Toluene	112		80-125						
Xylene (Total)	110		79-125						
Batch number: 09229B20A	Sample number(s): 5748475-5748478 UNSPK: P747383								
NWTPH-Gx water C7-C12	127		48-140						

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: BTEX+MTBE by 8260B
Batch number: Z092292AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5748475	93	91	94	85

*- 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
Reported: 08/25/09 at 08:36 AM

Group Number: 1157473

Surrogate Quality Control

5748476	93	90	95	85
5748477	90	86	95	88
5748478	94	90	93	84
Blank	93	90	95	84
LCS	93	91	94	89
LCSD	93	90	93	89
MS	92	90	93	87
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 09229B20A

	Trifluorotoluene-F
5748475	100
5748476	99
5748477	135
5748478	99
Blank	100
LCS	122
LCSD	122
MS	132
Limits:	63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 092310026A

	Orthoterphenyl
5748476	109
5748478	113
Blank	85
LCS	104
LCSD	98
Limits:	50-150

*- 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.