4-10-09
☑ Further Action Required
☑ Report Satisfactory
4-13-09 KR

AECOM's CHECKLIST FOR QUALITY REVIEW OF GROUNDWATER MONITORING REPORTS BY GETTLER-RYAN

AECOM

Report title: GWM Report, Event of February 9, 2009 Report Date: March 12, 2009 Date of Review: April 10, 2009

Reviewed by: Kinga Kozlowska AECOM Project No.: 01231-911 Chevron Site No.: 352300

Analytical QC Items to Check:	**Yes**	**No**	**N/A**	**Comments (initials if different from reviewer listed above):**
Are the site activities of Gettler-Ryan personnel (as documented on the Site Checklist and Chain of Custody) consistent with what was requested by AECOM on the Site Information Sheet?	☑	☐	☐	
Are the analyses performed by the laboratory consistent with the analyses requested on the Chain of Custody?	☑	☐	☐	
Were the samples delivered to the laboratory analyzed within the required holding times, and received within required temperature limits?	☑	☐	☐	
Do the data in the analytical tables agree with the laboratory report?	☑	☐	☐	
If there are re-analyses or flagged data in the analytical report, are these properly identified in the tables?	☑	☐	☐	
Are the analyte concentrations consistent with historical data trends?	☑	☐	☐	List if No:
If figures show any laboratory analytical data, do those data agree with the tables?	☐	☐	☑	
Does/do the electronic data file(s) agree with the hard copy laboratory report? Check at least 5% of the data to confirm that these are all reports for the same site and sampling event.	☐	☐	☑	

Groundwater QC Items to Check:				
Are the groundwater depths (DTW) and elevations (GWE) in Table 1 generally consistent with previous data for the site?	☑	☐	☐	
Do the DTW documented on the field data sheet(s) agree with those listed in Table 1?	☑	☐	☐	
Do the GWE in the appropriate figure agree with those listed in Table 1?	☑	☐	☐	
Were the groundwater elevations in Table 1 correctly calculated (relative to the benchmark)?	☑	☐	☐	
If LNAPL is present on groundwater, have the GWE been correctly adjusted to account for the weight of the LNAPL?	☐	☐	☑	

CHECKLIST FOR QUALITY REVIEW OF GROUNDWATER MONITORING REPORTS SUBMITTED BY GETTLER-RYAN FOR CHEVRON EMC

AECOM

Report Text QC Items to Check:	**Yes**	**No**	**N/A**	
Does site information in the subject line of the transmittal and cover letter match site information on the table(s), figure(s), and laboratory analytical report submitted with the cover letter?	☑	☐	☐	
At a minimum, does the report contain a transmittal letter, cover letter, Chevron-site checklist, Figure 1 (Groundwater Elevation Map), tables with all analytical data, groundwater sampling SOP, field data sheets, COC, and laboratory report?	☑	☐	☐	List missing:
If any additional tables, figures, or documents were included in the report, other than those discussed above, are they properly identified?	☐	☐	☑	List if No:
Is all of the factual information (i.e., event date, discussion of separate phase hydrocarbons, discussion of the data, table and figure numbers, and list of attachments) in the cover letter correct?	☑	☐	☐	
Check Field Data Sheet for anomalous field data. Are all anomalies discussed in text?	☐	☐	☑	List if No:
Is the report readable, with no obvious errors of grammar/spelling/organization?	☑	☐	☐	
Was the report cover letter signed and stamped by a Gettler-Ryan registered geologist or professional engineer?	☑	☐	☐	

Additional comments: 5 out of 7 wells were not sampled, because they were covered with ice and snow

Analytical methods reported in Tables 1 & 3 ~~are~~ were not correct. ✓ KK

Uploading and Distribution Status (initials/date after each entry if different from reviewer and review date, along with any additional data required)

Report location in AECOM project files (file path name): J:\Projects\Chevron - Unocal\0231-411 Tekoa, WA\2009\GWM\Q1

Report uploaded to STRATA activity events file (date of upload): 4-13-09

EIM data status (likely responses: not able to access/reviewed/approved): 4-13-09

Report distribution list (name and affiliation): Brett Hunter, Chevron EMC

GETTLER-RYAN INC.

TRANSMITTAL

March 16, 2009
G-R #385853

TO: Ms. Ashley Lunde
ENSR
9521 Willows Road NE
Redmond, Washington 98052-3422

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

RE: Chevron Facility #352300
(Former Standard Oil Bulk Plant #1001152)
State Route 274
Tekoa, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
2	March 12, 2009	Groundwater Monitoring and Sampling Report **Event of February 9, 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:**

Mr. Brett Hunter, Chevron EMC, 6111 Bollinger Canyon Rd., Room 3628, San Ramon, CA 94583

☑ Current Site Check List included.

Enclosure
trans/352300-BH

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	**Chevron #352300**	Date: 2-9-09
Address:	**State Route 274**	
City/St.:	**Tekoa,WA**	
Status of Site:	VACANT LOT EAST OF TEKOA	

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				
MW-2	BURIED BY	ICE &	SNOW		
MW-3	↓	↓	↓	↓	
MW-4	↓	↓	↓	↓	
MW-5	OK				
MW-6	BURIED BY	ICE &	SNOW		
MW-7	↓	↓	↓	↓	

Additional Comments/Observations:

GETTLER-RYAN INC.

March 12, 2009
Job #385853

Mr. Brett Hunter
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3628
San Ramon, CA 94583

RE: Event of February 9, 2009
Groundwater Monitoring & Sampling Report
Chevron Facility #352300
(Former Standard Oil Bulk Plant #1001152)
State Route 274
Tekoa, Washington

Dear Mr. Hunter:

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 any well. Static water level data and groundwater elevations are presented in Table 1. A Groundwater Elevation 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 filtering the water 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

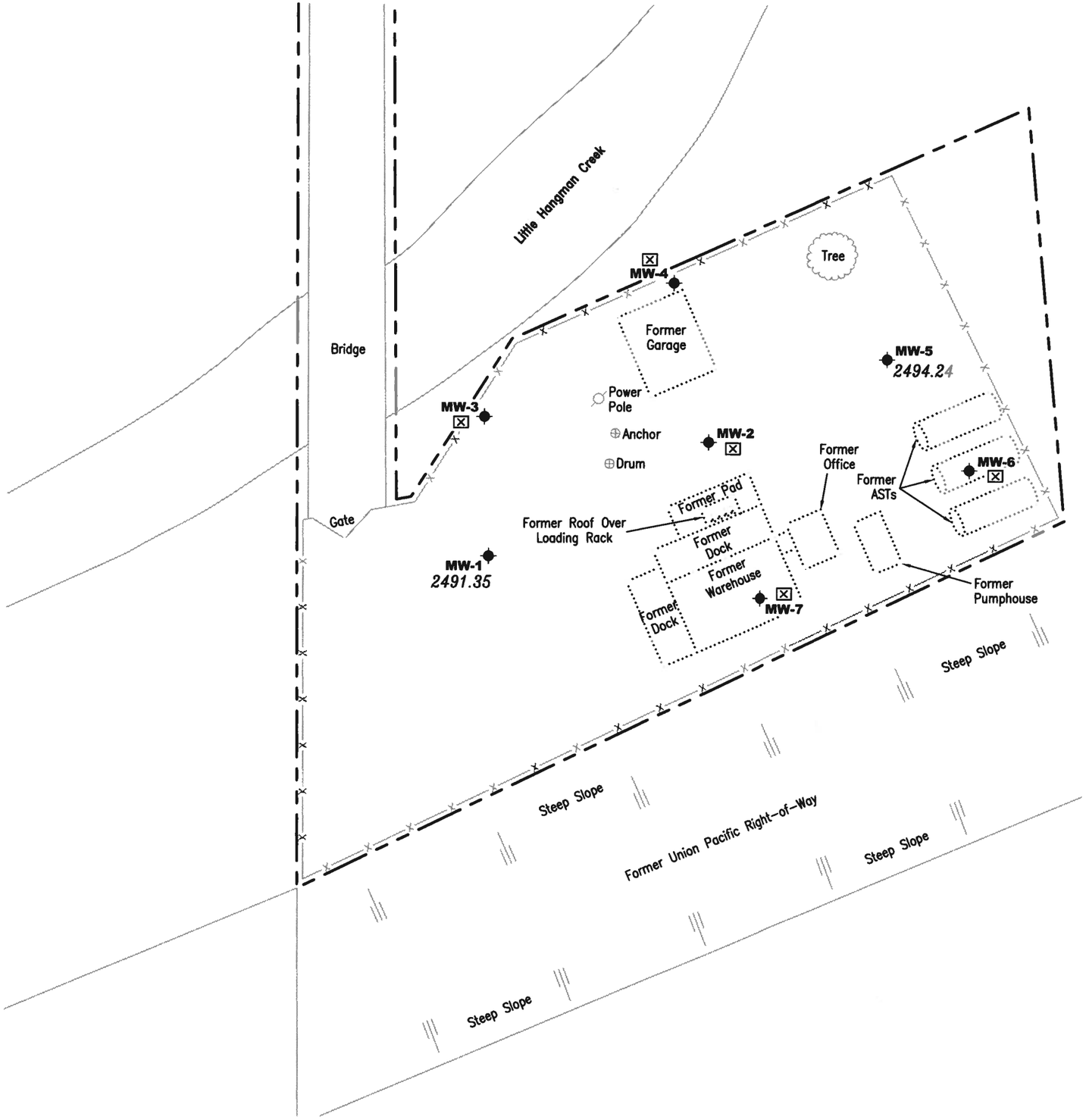
State of Washington
2660
Licensed Geologist
Douglas J. Lee

Figure 1: Groundwater Elevation Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - PAHs
Table 3: Groundwater Analytical Results - VOCs
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

6747 Sierra Court, Suite J • **Dublin**, CA 94568 • (925) 551-7555 • Fax (925) 551-7888
3140 Gold Camp Drive, Suite 170 • **Rancho Cordova**, CA 95670 • (916) 631-1300 • Fax (916) 631-1317
1364 N. McDowell Blvd., Suite B2 • **Petaluma**, CA 94954 • (707) 789-3255 • Fax (707) 789-3218

EXPLANATION

- Groundwater monitoring well
- *99.99* Groundwater elevation in feet referenced to Mean Sea Level
- Inaccessible



Source: Figure modified from drawing provided by ENSR, Site Plan, Figure 2, Dated: 11/13/08.

N

0 40

Scale in Feet

GROUNDWATER ELEVATION MAP
Chevron Facility #352300
(Former Standard Oil Bulk Plant #1001152)
State Route 274
Tekoa, Washington

FIGURE 1

DATE February 9, 2009

REVISED DATE

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

PROJECT NUMBER 385853

REVIEWED BY

FILE NAME: P:\Enviro\Chevron\352300\009-352300.dwg | Layout Tab: Pdf1

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, 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)	D. LEAD (µg/L)	T. LEAD (µg/L)
MW-1														
11/10/08	PER	2494.59	6.13	2488.46	170	<73	140[1]	0.6[1]	<0.5	<0.5	<1.0	<0.5	<0.050	2.8
02/09/09	**PER**	**2494.59**	**3.24**	**2491.35**	**47[1]**	**<66**	**82[1]**	**<0.5**	**<0.5**	**<0.5**	**<1.0**	**<0.5**	**<0.050**	**0.36[1]**
MW-2														
11/10/08	PER	2495.26	6.74	2488.52	2,500	420	2,400	0.9[1]	<0.5	2[1]	4.8[1]	<0.5	--[2]	--[2]
02/09/09		**2495.26**	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--
MW-3														
11/10/08	PER	2493.95	6.40	2487.55	400	100[1]	170[1]	<0.5	<0.7	<0.8	<1.6	<0.5	<0.050	54.2
02/09/09		**2493.95**	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--
MW-4														
11/10/08	PER	2494.10	6.53	2487.57	360	77[1]	230[1]	1[1]	<0.5	<0.5	<1.0	<0.5	<0.050	57.7
02/09/09		**2494.10**	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--
MW-5														
11/10/08	PER	2495.16	6.63	2488.53	1,700	1,600	240[1]	0.6[1]	<0.5	<0.5	<1.0	<0.5	--[2]	--[2]
02/09/09	**PER**	**2495.16**	**0.92**	**2494.24**	**180**	**230[1]**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.0**	**<0.5**	**0.093[1]**	**1.6**
MW-6														
11/10/08	PER	2496.04	5.66	2490.38	570	140[1]	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--[2]	649
02/09/09		**2496.04**	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--
MW-7														
11/10/08	PER	2495.66	5.12	2490.54	2,500	400	4,400	2[1]	2[1]	25	49	<0.5	0.063[1]	95.2
02/09/09		**2495.66**	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, 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)	D. LEAD (µg/L)	T. LEAD (µg/L)
TRIP BLANK													
QA													
11/10/08	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
02/09/09	--	--	--	--	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	--	--	--

Constituent:	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE	D. LEAD	T. LEAD
Standard Laboratory Reporting Limits:	--	--	--	0.5	0.5	0.5	0.5	0.5	0.050	0.050
MTCA Method A Cleanup Levels:	500	500	800/1,000	5	1,000	700	1,000	20	--	15
Current Method:	NWTPH-Dx Extended		NWTPH-Gx	EPA Method 8260					EPA 6020	EPA 6020

Table 1

Groundwater Monitoring Data and Analytical Results

Chevron Service Station #352300
(Former Standard Oil Bulk Plant #1001152)
State Route 274
Tekoa, Washington

EXPLANATIONS:

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

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl Tertiary Butyl Ether
D. LEAD = Dissolved Lead
T. LEAD = Total Lead
(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed
PER = Peristaltic Pump
QA = Quality Assurance/Trip Blank
MTCA = Model Toxics Control Act Cleanup Regulations
[WAC 173-340-720(2)(a)(I), as amended 02/01].

ANALYTICAL METHODS:

TPH-DRO and TPH-HRO w/silica gel by ECY 97-602 NWTPH-Dx modified
TPH-GRO by ECY 97-602 NWTPH-Gx modified
BTEX and MTBE by EPA Method 8260.
Total Lead and Dissolved Lead by SW-846-6020

* TOC elevations were provided on August 14, 2008 by Statewide Land Surveying Inc. Vertical Datum is NAVD88.

1 Laboratory report indicates estimated value.

2 Not sampled due to insufficient water.

Table 2

Groundwater Analytical Results - PAHs

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, Washington

WELL ID / DATE	NAPHTHALENE (µg/L)	ACENAPHTHYLENE (µg/L)	ACENAPHTHENE (µg/L)	FLUORENE (µg/L)	PHENANTHRENE (µg/L)	ANTHRACENE (µg/L)	FLUORANTHENE (µg/L)	PYRENE (µg/L)	BENZO (a) ANTHRACENE (µg/L)	CHRYSENE (µg/L)	BENZO (b) FLUORANTHENE (µg/L)	BENZO (k) FLUORANTHENE (µg/L)	BENZO (a) PYRENE (µg/L)	INDENO (1,2,3-cd) PYRENE (µg/L)	DIBENZ (a,h) ANTHRACENE (µg/L)	BENZO (g,h,i) PERYLENE (µg/L)
MW-1																
11/10/08[2]	<0.12[3]	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
02/09/09	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**	**<0.010**
MW-2																
11/10/08[2]	12	<0.011	0.041[1]	0.058	0.018[1]	0.049[1]	0.020[1]	0.016[1]	<0.011	0.013[1]	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
02/09/09	**INACCESSIBLE**		–	–	–	–	–	–	–	–	–	–	–	–	–	–
MW-3																
11/10/08[2]	<0.17[3]	<0.011	0.013[1]	<0.011	0.014[1]	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
02/09/09	**INACCESSIBLE**		–	–	–	–	–	–	–	–	–	–	–	–	–	–
MW-4																
11/10/08[2]	0.089	<0.011	<0.011	<0.011	0.017[1]	0.016[1]	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
02/09/09	**INACCESSIBLE**		–	–	–	–	–	–	–	–	–	–	–	–	–	–
MW-5																
11/10/08[2]	0.29	0.31	0.044[1]	0.064	0.98	0.29	1.5	1.2	0.63	0.92	2.0	0.62	1.2	0.67	0.20	0.64
02/09/09	**<0.010**	**0.013[1]**	**<0.010**	**<0.010**	**0.020[1]**	**0.037[1]**	**0.024[1]**	**0.017[1]**	**0.011[1]**	**0.013[1]**	**0.018[1]**	**0.014[1]**	**0.014[1]**	**0.017[1]**	**<0.010**	**0.021[1]**

Table 2

Groundwater Analytical Results - PAHs

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, Washington

WELL ID / DATE	NAPHTHALENE (µg/L)	ACENAPHTHYLENE (µg/L)	ACENAPHTHENE (µg/L)	FLUORENE (µg/L)	PHENANTHRENE (µg/L)	ANTHRACENE (µg/L)	FLUORANTHENE (µg/L)	PYRENE (µg/L)	BENZO (a) ANTHRACENE (µg/L)	CHRYSENE (µg/L)	BENZO (b) FLUORANTHENE (µg/L)	BENZO (k) FLUORANTHENE (µg/L)	BENZO (a) PYRENE (µg/L)	INDENO (1,2,3-cd) PYRENE (µg/L)	DIBENZ (a,h) ANTHRACENE (µg/L)	BENZO (g,h,i) PERYLENE (µg/L)
MW-6																
11/10/08[2]	0.12	0.055	<0.011	0.020[1]	0.15	0.029[1]	0.21	0.20	0.044[1]	0.079	0.13	0.057	0.12	0.076	0.020[1]	0.090
02/09/09	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7																
11/10/08	6.7	<0.040[4]	0.18	0.33	0.057	0.041[1]	0.010[1]	0.014[1]	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
02/09/09	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2

Groundwater Analytical Results - PAHs

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, Washington

EXPLANATIONS

(µg/L) = Micrograms per liter

PAHs = Polynuclear Aromatic Hydrocarbons

ANALYTICAL METHODS:

PAHs by EPA Method 8270C

[1] Laboratory report indicates estimated value.

[2] Laboratory report indicates due to insufficient sample, the reporting limits for the GC/MS semivolatile compounds were raised.

[3] Laboratory report indicates due to the presence of an interferent near the retention time of naphthalene, the reporting limit was raised. This was due to the fact that the interferent had a significant abundance of ions at or near the mass of naphthalene.

[4] Laboratory report indicates due to the presence of an interferent near the retention time of acenaphthylene, the reporting limit was raised. This was due to the fact that the interferent had a significant abundance of ions at or near the mass of acenaphthylene.

Table 3

Groundwater Monitoring Data and Analytical Results - VOCs

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, Washington

WELL ID/ DATE	1,1-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	Chloroform (µg/L)	1,1,1-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Bromodichloromethane (µg/L)	Tetrachloroethene (µg/L)	Isopropylbenzene (µg/L)	n-Propylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	tert-Butylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	sec-Butylbenzene (µg/L)	p-Isopropyltoluene (µg/L)	n-Butylbenzene (µg/L)	Naphthalene (µg/L)
MW-1																	
11/10/08[1]	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	<1	<1	<1	<1	<1	<1	<1	<1	<1
02/09/09	**<0.8**	**<0.8**	**<0.8**	**<0.8**	**<0.8**	**<1**	**<1**	**<0.8**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
MW-2																	
11/10/08	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	17	22	39	<1	130	7	10	2[2]	16
02/09/09	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3																	
11/10/08[3]	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	<1	<1	<1	<1	<1	1[2]	<1	<1	<1
02/09/09	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4																	
11/10/08	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	<1	<1	<1	<1	<1	<1	<1	<1	<1
02/09/09	**INACCESSIBLE**		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5																	
11/10/08	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	<1	<1	<1	<1	<1	<1	<1	<1	<1
02/09/09	**<0.8**	**<0.8**	**<0.8**	**<0.8**	**<0.8**	**<1**	**<1**	**<0.8**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**

Table 3

Groundwater Monitoring Data and Analytical Results - VOCs

Chevron Service Station #352300

(Former Standard Oil Bulk Plant #1001152)

State Route 274

Tekoa, Washington

WELL ID/ DATE	1,1-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	Chloroform (µg/L)	1,1,1-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Bromodichloromethane (µg/L)	Tetrachloroethene (µg/L)	Isopropylbenzene (µg/L)	n-Propylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	tert-Butylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	sec-Butylbenzene (µg/L)	p-Isopropyltoluene (µg/L)	n-Butylbenzene (µg/L)	Naphthalene (µg/L)
MW-6																	
11/10/08	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	<1	<1	<1	<1	<1	<1	<1	<1	<1
02/09/09	**INACCESSIBLE**		–	–	–	–	–	–	–	–	–	–	–	–	–	–	
MW-7																	
11/10/08[4]	<0.8	<0.8	<0.8	<0.8	<0.8	<1	<1	<0.8	29	38	59	1[2]	150	11	13	5	12
02/09/09	**INACCESSIBLE**		–	–	–	–	–	–	–	–	–	–	–	–	–	–	

Table 3

Groundwater Monitoring Data and Analytical Results - VOCs

Chevron Service Station #352300
(Former Standard Oil Bulk Plant #1001152)
State Route 274
Tekoa, Washington

EXPLANATIONS

(µg/L) = Micrograms per liter
VOC = Volatile Organic Compounds

♦ **All other VOCs by EPA Method 8260B were less than the reporting limit unless noted.**

[1] Laboratory report indicates Carbon Disulfide was detected at 1 µg/L (estimated value).
[2] Laboratory report indicates estimated value.
[3] Laboratory report indicates Carbon Disulfide was detected at 2 µg/L (estimated value).
[4] Laboratory report indicates 1,2 - Dichloroethane was detected at 4 µg/L and Acetone was detected at 23 µg/L.

ANALYTICAL METHODS:

VOCs by EPA Method 8260B

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 #352300 Job Number: 385853
Site Address: State Route 274 Event Date: 2-9-09 (inclusive)
City: Tekoa,WA Sampler: ML

Well ID MW-1 Date Monitored: 2-9-09
Well Diameter 2 in.
Total Depth 9.13 ft.
Depth to Water 3.24 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.

5.89 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): 1015 Weather Conditions: SNOW
Sample Time/Date: 1045 12-9-09 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: 3.35

Time (2400 hr.)	Volume (gal.) L	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1030	1.5	7.33	336	2.1			3.32
1033	1.8	7.30	340	2.1			3.34
1036	2.1	7.31	339	2.1			3.35

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	2 x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	1 x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: PUMP SET DEPTH - 6 feet

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #352300 Job Number: 385853
Site Address: State Route 274 Event Date: 2-9-09 (inclusive)
City: Tekoa,WA Sampler: MC

Well ID MW-2 Date Monitored: —
Well Diameter 2 in.
Total Depth 8.46 ft.
Depth to Water — 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.

— 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
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- 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): Weather Conditions:
Sample Time/Date: / Water Color: Odor: Y / N
Approx. Flow Rate: gpm. Sediment Description:
Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: BURIED BY ICE & SNOW

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: **Chevron #352300** Job Number: **385853**

Site Address: **State Route 274** Event Date: 2-9-09 (inclusive)

City: **Tekoa,WA** Sampler: MH

Well ID **MW-3** Date Monitored: —

Well Diameter **2** in.

Total Depth **9.67** ft.

Depth to Water — 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.

— 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
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- 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):
Sample Time/Date: /
Approx. Flow Rate: gpm.
Did well de-water? If yes, Time: Volume: gal.

Weather Conditions:
Water Color: Odor: Y / N
Sediment Description:
DTW @ Sampling:

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: Buried Under Ice & SNOW

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #352300 Job Number: 385853
Site Address: State Route 274 Event Date: 2-9-09 (inclusive)
City: Tekoa,WA Sampler: ML

Well ID MW-4 Date Monitored: —
Well Diameter 2 in.
Total Depth 10.32 ft.
Depth to Water — 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.

— 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
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
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):
Sample Time/Date: /
Approx. Flow Rate: gpm.
Did well de-water? If yes, Time: Volume: gal.

Weather Conditions:
Water Color: Odor: Y / N
Sediment Description:
DTW @ Sampling:

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: BURIED UNDER ICE & SNOW

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: **Chevron #352300** Job Number: **385853**
Site Address: **State Route 274** Event Date: 2-9-09 (inclusive)
City: **Tekoa,WA** Sampler: ML

Well ID MW-5 Date Monitored: 2-9-09
Well Diameter 2 in.
Total Depth 8.81 ft.
Depth to Water 0.92 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

7.89 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): 1130 Weather Conditions: SNOW
Sample Time/Date: 1230 12-9-09 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: 0.96

Time (2400 hr.)	Volume (gal.) L	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1145	1.5	7.20	524	0.7			0.95
1148	1.8	7.22	520	0.7			0.95
1151	2.1	7.21	521	0.8			0.96

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	2 x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	1 x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: Pump Set Depth - 5 feet

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #352300 Job Number: 385853
Site Address: State Route 274 Event Date: 2909 (inclusive)
City: Tekoa,WA Sampler: M

Well ID MW-6 Date Monitored: 2909
Well Diameter 2 in.
Total Depth 9.74 ft.
Depth to Water — 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.

— 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
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
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):
Sample Time/Date: /
Approx. Flow Rate: gpm.
Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

Weather Conditions:
Water Color: Odor: Y / N
Sediment Description:

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: BURIED UNDER ICE & SNOW

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #352300 Job Number: 385853
Site Address: State Route 274 Event Date: 2-9-09 (inclusive)
City: Tekoa,WA Sampler: ML

Well ID MW-7 Date Monitored: 2-9-09
Well Diameter 2 in.
Total Depth 10.18 ft.
Depth to Water 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.

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
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
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): Weather Conditions:
Sample Time/Date: / Water Color: Odor: Y / N
Approx. Flow Rate: gpm. Sediment Description:
Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

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

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/FULL LIST(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc
	x 1 liter ambers	YES	Na2S2O3	LANCASTER	PAH's (8270)
	x 500ml poly	YES	HNO3	LANCASTER	TOTAL LEAD (ICP/MS 6020)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (ICP/MS 6020)

COMMENTS: BURIED UNDER ICE & SNOW

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. #: 1218 — For Lancaster Laboratories use only — Sample #: 5597376 - 80 — SCR#: — Group# 1131757

Facility #: SS#352300-OML G-R#385853
Site Address: State Route 274, TEKOA, WA
Chevron PM: BH — Lead Consultant: ENSRAL
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	Water	Oil ☐ Air ☐	Total Number of Containers	BTEX + Naphth ☐ 8021 ☐ 8260 ☐	8260 full scan	Oxygenates	TPH G	TPH D	Extended Rng. ☐ Silica Gel Cleanup ☐	Lead Total ☒ Diss. ☐ Method (Lab to Field)	VPH/EPH	NWTPH HCID ☐ quantification	PAHs (8270 SIM)	Dissolved Lead (6020 10 µg/L)
QA	2-9-09		X			X		2	X			X							
MW-1	↓	1045	X			X		12		X		X	X		X			X	X
MW-5	↓	1200	X			X		12		X		X	X		X			X	X

Preservation Codes: H | H | H | N | N | O

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

"DISSOLVED LEAD SAMPLES TO BE LAB FILTERED PRIOR TO PRESERVING WITH HNO3."

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.

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	2-10-09	1600			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by: [signature]	2/10/09	940
Temperature Upon Receipt 3.0 °C			Custody Seals Intact? (Yes) No		

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

Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron
6001 Bollinger Canyon Rd 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 1131757. Samples arrived at the laboratory on Wednesday, February 11, 2009. The PO# for this group is 0015034915 and the release number is HUNTER.

Client Description	Lancaster Labs Number
QA Water Sample	5597376
MW-1 Grab Water Sample	5597377
MW-1 Filtered Grab Water Sample	5597378
MW-5 Grab Water Sample	5597379
MW-5 Filtered Grab Water Sample	5597380

ELECTRONIC COPY TO	Gettler Ryan	Attn: Cheryl Hansen
ELECTRONIC COPY TO	AECOM	Attn: Ashley Lunde

Lancaster Laboratories

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Analysis Report

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

Respectfully Submitted,

Max E. Snavely
Senior Specialist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597376 WW Group No. 1131757

QA Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
08273	NWTPH-Gx water C7-C12						
01645	NWTPH-Gx water C7-C12	n.a.	N.D.	50	250	ug/l	1
06053	BTEX by 8260B						
05401	Benzene	71-43-2	N.D.	0.5	1	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	1	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	1	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	1	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
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	02/13/2009 15:00	Carrie E Youtzy	1
06053	BTEX by 8260B	SW-846 8260B	1	02/13/2009 03:06	Kelly E Brickley	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/13/2009 15:00	K. Robert Caulfeild-James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/13/2009 03:06	Kelly E Brickley	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597377 WW Group No. 1131757

MW-1 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 10:45 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM1

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
06035	Lead	7439-92-1	0.36	J	0.050	1.0	ug/l	1
02211	NWTPH-Dx water w/Si Gel							
10376	DRO C12-C24 w/Si Gel	n.a.	47	J	28	94	ug/l	1
10377	HRO C24-C40 w/Si Gel	n.a.	N.D.		66	230	ug/l	1
08273	NWTPH-Gx water C7-C12							
01645	NWTPH-Gx water C7-C12	n.a.	82	J	50	250	ug/l	1
08357	PAHs in waters by SIM							
08362	Naphthalene	91-20-3	N.D.		0.010	0.052	ug/l	1
08365	Acenaphthylene	208-96-8	N.D.		0.010	0.052	ug/l	1
08366	Acenaphthene	83-32-9	N.D.		0.010	0.052	ug/l	1
08368	Fluorene	86-73-7	N.D.		0.010	0.052	ug/l	1
08369	Phenanthrene	85-01-8	N.D.		0.010	0.052	ug/l	1
08370	Anthracene	120-12-7	N.D.		0.010	0.052	ug/l	1
08372	Fluoranthene	206-44-0	N.D.		0.010	0.052	ug/l	1
08373	Pyrene	129-00-0	N.D.		0.010	0.052	ug/l	1
08374	Benzo(a)anthracene	56-55-3	N.D.		0.010	0.052	ug/l	1
08375	Chrysene	218-01-9	N.D.		0.010	0.052	ug/l	1
08376	Benzo(b)fluoranthene	205-99-2	N.D.		0.010	0.052	ug/l	1
08377	Benzo(k)fluoranthene	207-08-9	N.D.		0.010	0.052	ug/l	1
08378	Benzo(a)pyrene	50-32-8	N.D.		0.010	0.052	ug/l	1
08379	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.010	0.052	ug/l	1
08380	Dibenz(a,h)anthracene	53-70-3	N.D.		0.010	0.052	ug/l	1
08381	Benzo(g,h,i)perylene	191-24-2	N.D.		0.010	0.052	ug/l	1
05382	EPA SW846/8260 (water)							
05384	Dichlorodifluoromethane	75-71-8	N.D.		2	5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1	5	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1	5	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1	5	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1	5	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.		2	5	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5597377 WW Group No. 1131757

MW-1 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 10:45 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
05391	Methylene Chloride	75-09-2	N.D.	2	5	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	5	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1	5	ug/l	1
05394	2,2-Dichloropropane	594-20-7	N.D.	1	5	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	5	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	5	ug/l	1
05397	Bromochloromethane	74-97-5	N.D.	1	5	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	5	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1	5	ug/l	1
05400	1,1-Dichloropropene	563-58-6	N.D.	1	5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	4	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	0.5	4	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1	5	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1	5	ug/l	1
05405	Dibromomethane	74-95-3	N.D.	1	5	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1	5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	4	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	5	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	5	ug/l	1
05410	1,3-Dichloropropane	142-28-9	N.D.	1	5	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1	5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	0.5	4	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	5	ug/l	1
05414	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	4	ug/l	1
05416	m+p-Xylene	179601-23-1	N.D.	0.5	4	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.5	4	ug/l	1
05418	Styrene	100-42-5	N.D.	1	5	ug/l	1
05419	Bromoform	75-25-2	N.D.	1	5	ug/l	1
05420	Isopropylbenzene	98-82-8	N.D.	1	5	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	5	ug/l	1
05422	Bromobenzene	108-86-1	N.D.	1	5	ug/l	1
05423	1,2,3-Trichloropropane	96-18-4	N.D.	1	5	ug/l	1
05424	n-Propylbenzene	103-65-1	N.D.	1	5	ug/l	1
05425	2-Chlorotoluene	95-49-8	N.D.	1	5	ug/l	1
05426	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	5	ug/l	1
05427	4-Chlorotoluene	106-43-4	N.D.	1	5	ug/l	1
05428	tert-Butylbenzene	98-06-6	N.D.	1	5	ug/l	1
05429	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5597377 WW Group No. 1131757

MW-1 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 10:45 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
05430	sec-Butylbenzene	135-98-8	N.D.	1	5	ug/l	1
05431	p-Isopropyltoluene	99-87-6	N.D.	1	5	ug/l	1
05432	1,3-Dichlorobenzene	541-73-1	N.D.	1	5	ug/l	1
05433	1,4-Dichlorobenzene	106-46-7	N.D.	1	5	ug/l	1
05434	n-Butylbenzene	104-51-8	N.D.	1	5	ug/l	1
05435	1,2-Dichlorobenzene	95-50-1	N.D.	1	5	ug/l	1
05436	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	5	ug/l	1
05437	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	5	ug/l	1
05438	Hexachlorobutadiene	87-68-3	N.D.	2	5	ug/l	1
05439	Naphthalene	91-20-3	N.D.	1	5	ug/l	1
05440	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	5	ug/l	1
08202	EPA SW 846/8260 - Water						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	4	ug/l	1
06302	Acetone	67-64-1	N.D.	6	20	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1	5	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3	10	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	5	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	5	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3	10	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3	10	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
06035	Lead	SW-846 6020	1	02/13/2009 22:27	Choon Y Tian	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	02/19/2009 00:38	Diane V Do	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	02/13/2009 16:57	Carrie E Youtzy	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	02/13/2009 11:09	Timothy J Trees	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597377 WW Group No. 1131757

MW-1 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 10:45 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM1

05382	EPA SW846/8260 (water)	SW-846 8260B	1	02/12/2009 23:38	Nicholas P Riehl	1
08202	EPA SW 846/8260 - Water	SW-846 8260B	1	02/12/2009 23:38	Nicholas P Riehl	1
00813	BNA Water Extraction	SW-846 3510C	1	02/12/2009 09:45	Olivia I Santiago	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/13/2009 16:57	K. Robert Caulfeild-James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/12/2009 23:38	Nicholas P Riehl	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	02/17/2009 16:45	Timothy J Attenberger	1
06050	ICP/MS SW-846 Water	SW-846 3010A modified	1	02/13/2009 09:35	Denise K Conners	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597378 WW Group No. 1131757

MW-1 Filtered Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 10:45 by ML

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Account Number: 12181

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
06035	Lead	7439-92-1	N.D.	0.050	1.0	ug/l	1

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved metals.

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
06035	Lead	SW-846 6020	1	02/13/2009 22:30	Choon Y Tian	1
06050	ICP/MS SW-846 Water	SW-846 3010A modified	1	02/13/2009 09:35	Denise K Conners	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597379 WW Group No. 1131757

MW-5 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 12:00 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM5

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
06035	Lead	7439-92-1	1.6		0.050	1.0	ug/l	1
02211	NWTPH-Dx water w/Si Gel							
10376	DRO C12-C24 w/Si Gel	n.a.	180		32	110	ug/l	1
10377	HRO C24-C40 w/Si Gel	n.a.	230	J	74	260	ug/l	1
08273	NWTPH-Gx water C7-C12							
01645	NWTPH-Gx water C7-C12	n.a.	N.D.		50	250	ug/l	1
08357	PAHs in waters by SIM							
08362	Naphthalene	91-20-3	N.D.		0.010	0.050	ug/l	1
08365	Acenaphthylene	208-96-8	0.013	J	0.010	0.050	ug/l	1
08366	Acenaphthene	83-32-9	N.D.		0.010	0.050	ug/l	1
08368	Fluorene	86-73-7	N.D.		0.010	0.050	ug/l	1
08369	Phenanthrene	85-01-8	0.020	J	0.010	0.050	ug/l	1
08370	Anthracene	120-12-7	0.037	J	0.010	0.050	ug/l	1
08372	Fluoranthene	206-44-0	0.024	J	0.010	0.050	ug/l	1
08373	Pyrene	129-00-0	0.017	J	0.010	0.050	ug/l	1
08374	Benzo(a)anthracene	56-55-3	0.011	J	0.010	0.050	ug/l	1
08375	Chrysene	218-01-9	0.013	J	0.010	0.050	ug/l	1
08376	Benzo(b)fluoranthene	205-99-2	0.018	J	0.010	0.050	ug/l	1
08377	Benzo(k)fluoranthene	207-08-9	0.014	J	0.010	0.050	ug/l	1
08378	Benzo(a)pyrene	50-32-8	0.014	J	0.010	0.050	ug/l	1
08379	Indeno(1,2,3-cd)pyrene	193-39-5	0.017	J	0.010	0.050	ug/l	1
08380	Dibenz(a,h)anthracene	53-70-3	N.D.		0.010	0.050	ug/l	1
08381	Benzo(g,h,i)perylene	191-24-2	0.021	J	0.010	0.050	ug/l	1
05382	EPA SW846/8260 (water)							
05384	Dichlorodifluoromethane	75-71-8	N.D.		2	5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1	5	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1	5	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1	5	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1	5	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.		2	5	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5597379 WW Group No. 1131757

MW-5 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 12:00 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
05391	Methylene Chloride	75-09-2	N.D.	2	5	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	5	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1	5	ug/l	1
05394	2,2-Dichloropropane	594-20-7	N.D.	1	5	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	5	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	5	ug/l	1
05397	Bromochloromethane	74-97-5	N.D.	1	5	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	5	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1	5	ug/l	1
05400	1,1-Dichloropropene	563-58-6	N.D.	1	5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	4	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	0.5	4	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1	5	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1	5	ug/l	1
05405	Dibromomethane	74-95-3	N.D.	1	5	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1	5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	4	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	5	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	5	ug/l	1
05410	1,3-Dichloropropane	142-28-9	N.D.	1	5	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1	5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	0.5	4	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	5	ug/l	1
05414	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	4	ug/l	1
05416	m+p-Xylene	179601-23-1	N.D.	0.5	4	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.5	4	ug/l	1
05418	Styrene	100-42-5	N.D.	1	5	ug/l	1
05419	Bromoform	75-25-2	N.D.	1	5	ug/l	1
05420	Isopropylbenzene	98-82-8	N.D.	1	5	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	5	ug/l	1
05422	Bromobenzene	108-86-1	N.D.	1	5	ug/l	1
05423	1,2,3-Trichloropropane	96-18-4	N.D.	1	5	ug/l	1
05424	n-Propylbenzene	103-65-1	N.D.	1	5	ug/l	1
05425	2-Chlorotoluene	95-49-8	N.D.	1	5	ug/l	1
05426	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	5	ug/l	1
05427	4-Chlorotoluene	106-43-4	N.D.	1	5	ug/l	1
05428	tert-Butylbenzene	98-06-6	N.D.	1	5	ug/l	1
05429	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	5	ug/l	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. 5597379 WW Group No. 1131757

MW-5 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 12:00 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
05430	sec-Butylbenzene	135-98-8	N.D.	1	5	ug/l	1
05431	p-Isopropyltoluene	99-87-6	N.D.	1	5	ug/l	1
05432	1,3-Dichlorobenzene	541-73-1	N.D.	1	5	ug/l	1
05433	1,4-Dichlorobenzene	106-46-7	N.D.	1	5	ug/l	1
05434	n-Butylbenzene	104-51-8	N.D.	1	5	ug/l	1
05435	1,2-Dichlorobenzene	95-50-1	N.D.	1	5	ug/l	1
05436	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	5	ug/l	1
05437	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	5	ug/l	1
05438	Hexachlorobutadiene	87-68-3	N.D.	2	5	ug/l	1
05439	Naphthalene	91-20-3	N.D.	1	5	ug/l	1
05440	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	5	ug/l	1
08202	EPA SW 846/8260 - Water						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	4	ug/l	1
06302	Acetone	67-64-1	N.D.	6	20	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1	5	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3	10	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	5	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	5	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3	10	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3	10	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
06035	Lead	SW-846 6020	1	02/13/2009 22:33	Choon Y Tian	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	02/23/2009 12:49	Diane V Do	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	02/13/2009 17:21	Carrie E Youtzy	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	02/13/2009 11:41	Timothy J Trees	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. 5597379 WW Group No. 1131757

MW-5 Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 12:00 by ML

Account Number: 12181

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

TEKM5

05382	EPA SW846/8260 (water)	SW-846 8260B	1	02/13/2009 00:01	Nicholas P Riehl	1
08202	EPA SW 846/8260 - Water	SW-846 8260B	1	02/13/2009 00:01	Nicholas P Riehl	1
00813	BNA Water Extraction	SW-846 3510C	1	02/12/2009 09:45	Olivia I Santiago	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/13/2009 17:21	K. Robert Caulfeild-James	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/13/2009 00:01	Nicholas P Riehl	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	02/17/2009 16:45	Timothy J Attenberger	1
06050	ICP/MS SW-846 Water	SW-846 3010A modified	1	02/13/2009 09:35	Denise K Conners	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. 5597380 WW Group No. 1131757

MW-5 Filtered Grab Water Sample
Facility# 352300 Job# 385853
State Route 274 - Tekoa, WA

Collected:02/09/2009 12:00 by ML

Submitted: 02/11/2009 09:40
Reported: 02/23/2009 at 17:06
Discard: 03/26/2009

Account Number: 12181

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Units	Dilution Factor
06035	Lead	7439-92-1	0.093 J	0.050	1.0	ug/l	1

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved metals.

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
06035	Lead	SW-846 6020	1	02/13/2009 22:35	Choon Y Tian	1
06050	ICP/MS SW-846 Water	SW-846 3010A modified	1	02/13/2009 09:35	Denise K Conners	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: Chevron
Reported: 02/23/09 at 05:06 PM

Group Number: 1131757

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**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 09042WAF026	Sample number(s): 5597377,5597379								
Naphthalene	N.D.	0.010	0.050	ug/l	83	85	72-109	2	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	89	91	70-110	2	30
Acenaphthene	N.D.	0.010	0.050	ug/l	85	86	74-109	2	30
Fluorene	N.D.	0.010	0.050	ug/l	93	97	75-114	4	30
Phenanthrene	N.D.	0.010	0.050	ug/l	88	89	76-111	1	30
Anthracene	N.D.	0.010	0.050	ug/l	82	82	66-111	0	30
Fluoranthene	N.D.	0.010	0.050	ug/l	93	95	75-116	1	30
Pyrene	N.D.	0.010	0.050	ug/l	89	89	69-118	0	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	92	92	72-114	0	30
Chrysene	N.D.	0.010	0.050	ug/l	97	97	76-116	0	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	104	105	69-123	1	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	99	100	72-122	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	93	93	64-115	0	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	95	95	69-124	0	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	94	94	71-125	0	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	98	99	68-125	1	30
Batch number: 090436050002A	Sample number(s): 5597377-5597380								
Lead	N.D.	0.050	1.0	ug/l	98		90-115		
Batch number: 09044A54A	Sample number(s): 5597376-5597377,5597379								
NWTPH-Gx water C7-C12	N.D.	50.	250	ug/l	100	97	75-135	3	30
Batch number: 090480011A	Sample number(s): 5597377,5597379								
DRO C12-C24 w/Si Gel	N.D.	30.	100	ug/l	64	61	61-106	4	20
HRO C24-C40 w/Si Gel	N.D.	70.	250	ug/l					
Batch number: N090432AA	Sample number(s): 5597377,5597379								
Methyl Tertiary Butyl Ether	N.D.	0.5	4	ug/l	103		73-119		
Dichlorodifluoromethane	N.D.	2.	5	ug/l	101		45-158		
Chloromethane	N.D.	1.	5	ug/l	100		47-133		
Vinyl Chloride	N.D.	1.	5	ug/l	94		62-128		
Bromomethane	N.D.	1.	5	ug/l	92		50-128		
Chloroethane	N.D.	1.	5	ug/l	98		56-128		
Trichlorofluoromethane	N.D.	2.	5	ug/l	104		60-137		
1,1-Dichloroethene	N.D.	0.8	5	ug/l	109		76-122		
Methylene Chloride	N.D.	2.	5	ug/l	106		85-120		
trans-1,2-Dichloroethene	N.D.	0.8	5	ug/l	110		83-117		
1,1-Dichloroethane	N.D.	1.	5	ug/l	109		83-127		
2,2-Dichloropropane	N.D.	1.	5	ug/l	107		74-130		
cis-1,2-Dichloroethene	N.D.	0.8	5	ug/l	105		84-117		
Chloroform	N.D.	0.8	5	ug/l	106		77-125		
Bromochloromethane	N.D.	1.	5	ug/l	111		83-121		
1,1,1-Trichloroethane	N.D.	0.8	5	ug/l	106		83-127		
Carbon Tetrachloride	N.D.	1.	5	ug/l	104		77-130		
1,1-Dichloropropene	N.D.	1.	5	ug/l	105		84-116		

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(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: 1131757
Reported: 02/23/09 at 05:06 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	N.D.	0.5	4	ug/l	105		78-119		
1,2-Dichloroethane	N.D.	0.5	4	ug/l	106		69-135		
Trichloroethene	N.D.	1.	5	ug/l	106		87-117		
1,2-Dichloropropane	N.D.	1.	5	ug/l	106		80-117		
Dibromomethane	N.D.	1.	5	ug/l	105		87-117		
Bromodichloromethane	N.D.	1.	5	ug/l	102		83-121		
Toluene	N.D.	0.5	4	ug/l	106		85-115		
1,1,2-Trichloroethane	N.D.	0.8	5	ug/l	105		86-113		
Tetrachloroethene	N.D.	0.8	5	ug/l	107		76-118		
1,3-Dichloropropane	N.D.	1.	5	ug/l	106		84-119		
Dibromochloromethane	N.D.	1.	5	ug/l	104		78-119		
1,2-Dibromoethane	N.D.	0.5	4	ug/l	105		81-114		
Chlorobenzene	N.D.	0.8	5	ug/l	109		85-115		
1,1,1,2-Tetrachloroethane	N.D.	1.	5	ug/l	104		83-114		
Ethylbenzene	N.D.	0.5	4	ug/l	106		82-119		
m+p-Xylene	N.D.	0.5	4	ug/l	106		83-113		
o-Xylene	N.D.	0.5	4	ug/l	105		83-113		
Styrene	N.D.	1.	5	ug/l	107		82-111		
Bromoform	N.D.	1.	5	ug/l	102		69-118		
Isopropylbenzene	N.D.	1.	5	ug/l	105		80-113		
1,1,2,2-Tetrachloroethane	N.D.	1.	5	ug/l	107		72-119		
Bromobenzene	N.D.	1.	5	ug/l	109		82-110		
1,2,3-Trichloropropane	N.D.	1.	5	ug/l	110		78-117		
n-Propylbenzene	N.D.	1.	5	ug/l	108		78-119		
2-Chlorotoluene	N.D.	1.	5	ug/l	105		78-115		
1,3,5-Trimethylbenzene	N.D.	1.	5	ug/l	107		78-116		
4-Chlorotoluene	N.D.	1.	5	ug/l	104		80-112		
tert-Butylbenzene	N.D.	1.	5	ug/l	106		74-114		
1,2,4-Trimethylbenzene	N.D.	1.	5	ug/l	107		78-117		
sec-Butylbenzene	N.D.	1.	5	ug/l	106		72-120		
p-Isopropyltoluene	N.D.	1.	5	ug/l	105		72-118		
1,3-Dichlorobenzene	N.D.	1.	5	ug/l	107		81-114		
1,4-Dichlorobenzene	N.D.	1.	5	ug/l	108		84-116		
n-Butylbenzene	N.D.	1.	5	ug/l	103		75-120		
1,2-Dichlorobenzene	N.D.	1.	5	ug/l	107		81-112		
1,2-Dibromo-3-chloropropane	N.D.	2.	5	ug/l	104		65-121		
1,2,4-Trichlorobenzene	N.D.	1.	5	ug/l	107		65-114		
Hexachlorobutadiene	N.D.	2.	5	ug/l	94		62-119		
Naphthalene	N.D.	1.	5	ug/l	105		61-116		
1,2,3-Trichlorobenzene	N.D.	1.	5	ug/l	100		67-114		
Acetone	N.D.	6.	20	ug/l	114		40-200		
Carbon Disulfide	N.D.	1.	5	ug/l	97		69-119		
2-Butanone	N.D.	3.	10	ug/l	107		63-157		
trans-1,3-Dichloropropene	N.D.	1.	5	ug/l	103		79-114		
cis-1,3-Dichloropropene	N.D.	1.	5	ug/l	106		78-114		
4-Methyl-2-pentanone	N.D.	3.	10	ug/l	107		63-126		
2-Hexanone	N.D.	3.	10	ug/l	104		61-140		
Batch number: P090433AA	Sample number(s): 5597376								
Benzene	N.D.	0.5	1	ug/l	97		78-119		
Toluene	N.D.	0.5	1	ug/l	85		85-115		
Ethylbenzene	N.D.	0.5	1	ug/l	84		82-119		
Xylene (Total)	N.D.	0.5	1	ug/l	85		83-113		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(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: 02/23/09 at 05:06 PM

Group Number: 1131757

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: 090436050002A	Sample number(s): 5597377-5597380 UNSPK: P596363 BKG: P596363								
Lead	97	98	75-125	1	20	N.D.	0.055 J	200* (1)	20
Batch number: 09044A54A	Sample number(s): 5597376-5597377,5597379 UNSPK: P598728								
NWTPH-Gx water C7-C12	92		48-140						
Batch number: N090432AA	Sample number(s): 5597377,5597379 UNSPK: P594266								
Methyl Tertiary Butyl Ether	116	115	69-127	1	30				
Dichlorodifluoromethane	135	133	52-192	1	30				
Chloromethane	116	117	58-157	1	30				
Vinyl Chloride	115	112	68-147	3	30				
Bromomethane	109	108	54-140	1	30				
Chloroethane	109	113	60-140	3	30				
Trichlorofluoromethane	133	134	68-163	1	30				
1,1-Dichloroethene	134	130	87-145	2	30				
Methylene Chloride	121	119	79-133	1	30				
trans-1,2-Dichloroethene	128	124	82-133	3	30				
1,1-Dichloroethane	124	122	85-135	1	30				
2,2-Dichloropropane	129	128	79-146	1	30				
cis-1,2-Dichloroethene	120	121	83-126	1	30				
Chloroform	121	119	83-139	1	30				
Bromochloromethane	114	119	82-129	4	30				
1,1,1-Trichloroethane	129	126	81-142	3	30				
Carbon Tetrachloride	130	128	82-149	1	30				
1,1-Dichloropropene	124	126	86-134	2	30				
Benzene	120	119	83-128	1	30				
1,2-Dichloroethane	122	121	70-143	1	30				
Trichloroethene	122	121	83-136	1	30				
1,2-Dichloropropane	116	119	83-129	2	30				
Dibromomethane	117	116	82-128	1	30				
Bromodichloromethane	118	115	80-137	3	30				
Toluene	119	118	83-127	1	30				
1,1,2-Trichloroethane	113	114	77-125	1	30				
Tetrachloroethene	124	122	78-133	2	30				
1,3-Dichloropropane	113	114	82-121	1	30				
Dibromochloromethane	114	112	80-128	2	30				
1,2-Dibromoethane	112	112	78-120	0	30				
Chlorobenzene	120	119	83-120	1	30				
1,1,1,2-Tetrachloroethane	119	116	83-119	2	30				
Ethylbenzene	119	118	82-129	0	30				
m+p-Xylene	119	119	82-130	0	30				
o-Xylene	118	118	82-130	0	30				
Styrene	119	118	69-131	1	30				
Bromoform	109	110	64-119	0	30				
Isopropylbenzene	120	120	81-130	0	30				
1,1,2,2-Tetrachloroethane	111	111	73-121	0	30				
Bromobenzene	116	116	83-121	0	30				
1,2,3-Trichloropropane	113	114	73-125	1	30				
n-Propylbenzene	120	121	74-138	1	30				
2-Chlorotoluene	116	117	78-121	1	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(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: 02/23/09 at 05:06 PM

Group Number: 1131757

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
1,3,5-Trimethylbenzene	119	120	75-132	0	30				
4-Chlorotoluene	116	117	81-123	1	30				
tert-Butylbenzene	117	118	76-128	1	30				
1,2,4-Trimethylbenzene	118	118	80-125	0	30				
sec-Butylbenzene	121	122	73-137	1	30				
p-Isopropyltoluene	120	120	74-135	0	30				
1,3-Dichlorobenzene	117	118	79-123	1	30				
1,4-Dichlorobenzene	118	118	81-122	0	30				
n-Butylbenzene	116	117	70-141	1	30				
1,2-Dichlorobenzene	116	115	82-117	1	30				
1,2-Dibromo-3-chloropropane	108	108	60-131	0	30				
1,2,4-Trichlorobenzene	115	118	60-121	3	30				
Hexachlorobutadiene	111	114	51-135	3	30				
Naphthalene	110	113	57-125	2	30				
1,2,3-Trichlorobenzene	108	110	65-127	3	30				
Acetone	121	121	54-150	0	30				
Carbon Disulfide	118	115	69-146	3	30				
2-Butanone	114	114	57-137	0	30				
trans-1,3-Dichloropropene	114	111	77-123	2	30				
cis-1,3-Dichloropropene	118	115	72-124	2	30				
4-Methyl-2-pentanone	112	112	61-131	0	30				
2-Hexanone	110	110	60-135	0	30				
Batch number: P090433AA	Sample number(s): 5597376 UNSPK: P597363								
Benzene	107	108	83-128	0	30				
Toluene	94	94	83-127	1	30				
Ethylbenzene	94	93	82-129	0	30				
Xylene (Total)	93	94	82-130	0	30				

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: PAHs in waters by SIM
Batch number: 09042WAF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5597377	111	104	97
5597379	111	102	96
Blank	107	107	102
LCS	108	106	98
LCSD	110	105	97
Limits:	64-147	68-132	69-140

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 09044A54A

	Trifluorotoluene-F

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 02/23/09 at 05:06 PM

Group Number: 1131757

Surrogate Quality Control

5597376	91
5597377	94
5597379	96
Blank	94
LCS	99
LCSD	100
MS	98
Limits:	63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 090480011A

	Orthoterphenyl
5597377	80
5597379	88
Blank	88
LCS	92
LCSD	89
Limits:	50-150

Analysis Name: EPA SW846/8260 (water)
Batch number: N090432AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5597377	105	98	100	99
5597379	96	91	98	97
Blank	100	98	99	96
LCS	99	101	100	98
MS	102	101	101	98
MSD	102	98	101	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX by 8260B
Batch number: P090433AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5597376	94	90	82	85
Blank	94	88	83	85
LCS	94	93	83	86
MS	94	93	83	86
MSD	94	93	82	86
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(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.

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