



Environment

Submitted to:
Washington Department of
Ecology
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Lacey, WA 98503

Submitted by :
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October 2016

Shell Oil Products US
Soil and Groundwater Focus
Delivery Group – US Region

2015 Annual Groundwater Monitoring Report

Shell-Branded Wholesale Facility 1349 Northwest State Avenue Chehalis, Washington

Facility Site Identification: 47829194
Cleanup Site Identification: 9388



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November 10, 2016

Washington Department of Ecology
300 Desmond Dr. SE
Lacey, WA 98503

Re: **2015 Annual Groundwater Monitoring Report**
Shell-Branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington
Facility Site Identification: 47829194
Cleanup Site Identification: 9388

To Whom It May Concern:

The attached report has been prepared by AECOM on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). This report describes the results of the groundwater monitoring conducted during 2015 at the Shell-Branded Wholesale Facility located at 1349 Northwest State Avenue, Chehalis, Washington. If you have any questions or require additional information, please contact me at (503) 222-7200.

Sincerely,
AECOM

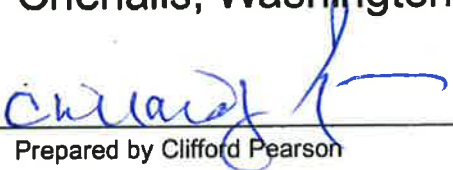


Clifford J. Pearson
Project Manager

cc: Mr. John Robbins, Shell Oil Products
Mr. Harnek Dhuhwal



2015 Annual Groundwater Monitoring Report
Shell-Branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington


Prepared by Clifford Pearson



Reviewed by Renee J. Knecht, LG



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List of Acronyms

AST	Aboveground storage tank
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
COC	Chain of custody
CUL	Cleanup level
DIPE	Diisopropyl ether
EPA	Environmental Protection Agency
ETBE	Ethyl tert-butyl ether
MDC	Maximum detected concentration
MTBE	Methyl tert-butyl ether
MTCA	Model Toxics Control Act
RL	Reporting limit
TAME	Tert-amyl methyl ether
TBA	Tert-butyl alcohol
TOC	Top of casing
TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
TPH-O	Total petroleum hydrocarbons as heavy oil
UST	Underground storage tank
VOC	Volatile organic compound
µg/L	micrograms per liter



1 Introduction

AECOM was retained by Equilon Enterprises LLC dba Shell Oil Products US (Shell) to prepare the *2015 Annual Groundwater Monitoring Report* for the Shell-Branded Wholesale Facility located at 1349 Northwest State Avenue, Chehalis, Washington (the Site, Figure 1). This report summarizes the field activities and analytical results associated with the 2015 groundwater monitoring period.

2 Site Description and Background

2.1 Site Information

Address: 1349 Northwest State Avenue
Chehalis, Washington

Facility Site Identification: 47829194
Cleanup Site Identification: 9388

2.2 Current Site Conditions

The subject property is a Shell-Branded Wholesale Facility located at 1349 Northwest State Avenue, Chehalis Washington. Current Site facilities include a station building, four product dispenser islands, and one diesel 10,000-gallon underground storage tank (UST) and three gasoline 10,000-gallon USTs. Former facilities included a 1,000-gallon waste oil UST, a 1,000-gallon heating oil UST, and a waste oil aboveground storage tank (AST).

3 Field Activities

This section describes the sample collection methods and field observations of the 2015 field activities that occurred on March 17th, June 8th, August 27th, and December 22nd. The first through third quarter sampling events were conducted by GHD and the fourth quarter sampling event was conducted by AECOM. During the quarterly sampling events, Blaine Tech, subcontractor to GHD and AECOM, gauged ten of the eleven groundwater monitoring wells (MW-2 through MW-11), and sampled eight of the groundwater monitoring wells (MW-2, MW-4 through MW-6, and MW-8 through MW-11).

3.1 Groundwater Elevation and Flow

Depth to groundwater was measured from monitoring wells MW-2 through MW-11. Groundwater levels were measured from the monitoring well top of casing (TOC) using an electronic interface probe and were recorded on the Well Gauging Data Form, which is included in Appendix A.

Groundwater elevations (Table 1) were calculated from the surveyed TOC elevations, and were used to prepare contour maps for each event (Figures 2 through 5). Based on available data, groundwater flow direction across the Site during 2015 appears to be toward the northwest year round. Below is a summary of 2015 groundwater gauging data.



Groundwater Flow and Gradient Summary

Date	Flow Direction (estimated)	Horizontal Hydraulic Gradient (calculated)
March 17, 2015	Northwest	0.02
June 8, 2015	Northwest	0.01
August 27, 2015	Northwest	0.04
December 22, 2015	Northwest	0.02

3.2 Groundwater Sampling

Blaine Tech collected groundwater samples from MW-2, MW-4 through MW-6, and MW-8 through MW-11 using a peristaltic pump and dedicated tubing. Water quality measurements, including temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation/reduction potential were collected at each well. Groundwater monitoring wells were purged using standard low flow sampling procedures prior to sampling. Samples were collected from the dedicated tubing into the appropriate sample containers, tightly sealed, uniquely labeled, chilled in a cooler, and delivered under chain-of-custody (COC) procedures. The first through third quarter samples were delivered to TestAmerica Laboratory in Nashville, Tennessee and the fourth quarter samples were delivered to TestAmerica Laboratory in Spokane, Washington. Copies of the Low Flow Well Monitoring Data Sheets, which include field-measured water quality parameters, are included in Appendix A. Copies of the COC forms are included in Appendix B.

3.3 Decontamination

The groundwater samples were collected using single-use equipment as well as decontaminated clean, reusable equipment. Single-use sampling equipment included dedicated tubing, nitrile gloves and laboratory-provided sample containers. Reusable sampling equipment consisted of an interface probe which was decontaminated prior to use and between wells.

3.4 Investigation Derived Waste

Investigation derived waste included excess purge water and decontamination water generated during gauging and sampling activities. Samples were submitted to TestAmerica for waste characterization prior to disposal. The water was disposed of in accordance with the Shell Residual Management Plan (Shell, 2015) at an approved waste disposal facility.

4 Analytical Methods and Results

This section discusses the analytical methods and results for the groundwater samples.

4.1 Laboratory Data Review

A data review was performed by AECOM on analytical results gathered from the December 2015 sampling event to ensure sample integrity was maintained. AECOM assumed a data review was conducted on all data collected by GHD during the first through third quarters of the 2015 sampling event; therefore, AECOM did not perform a data review on previously collected data. A review of the COC was conducted to verify that the sample receipt temperatures were within an acceptable range, that no evident gaps were identified in the COC, and that the correct analyses were requested per the scope of work. The case narrative was reviewed to ensure that no significant issues occurred during the laboratory processes used to generate the analytical data, including deviations from laboratory quality control parameters. Verification of the time between sample collection and



sample extraction/digestion was evaluated based on the specific holding time for each analysis. Laboratory blanks were also evaluated to check for the potential of cross contamination from within the laboratory environment. Detection limits and/or dilutions were monitored to certify the laboratory reporting limits were less than the screening criteria and dilutions resulting in non-detect results were not greater than the screening criteria. The recovery data for laboratory control samples were evaluated to ensure that the percent recoveries were within the laboratory generated control limits including spikes, matrix spikes, duplicates, and surrogates.

4.2 Analytical Methods

Groundwater samples were analyzed for the following analyses:

- Total petroleum hydrocarbons as gasoline (TPH-G) by Method NWTPH-Gx
- Total petroleum hydrocarbons as diesel (TPH-D) and total petroleum hydrocarbons as heavy oil (TPH-O) by Method NWTPH-Dx
- Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260B or 8260C
 - o Benzene, toluene, ethylbenzene, and total xylenes (BTEX)
 - o Diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), methyl tert-butyl ether (MTBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA) during the third quarter only.

4.3 Results

Groundwater samples in all sampled wells, except MW-11, exceed the Model Toxics Control Act (MTCA) Method A cleanup levels (CULs) for either benzene and/or TPH-D during at least one of the quarterly sampling events conducted in 2015. Results for groundwater analytical data are summarized below and are presented in Table 1 and Figures 2 through 5. The laboratory analytical reports are included in Appendix B.

- Concentrations of TPH-G, TPH-O, toluene, ethylbenzene and total xylenes were not reported above their respective MTCA Method A CULs in any of the monitoring wells sampled during the 2015 sampling events.
- Benzene was detected above the MTCA Method A CUL of 5 micrograms per liter ($\mu\text{g/L}$) in MW-2 during the December 2015 sampling event at a concentration of 46.1 $\mu\text{g/L}$.
- TPH-D was detected above the MTCA Method A CUL of 500 $\mu\text{g/L}$ in MW-4 through MW-6 and MW-8 through MW-10 during at least one sampling event in 2015. The maximum detected concentration (MDC) of TPH-D was reported during the October sampling event in monitoring well MW-5 at 1,060 $\mu\text{g/L}$.
- Concentrations of DIPE, ETBE, and TAME were not reported above respective laboratory reporting limits (RLs) in any of the monitoring wells sampled during the August sampling event.
- MTBE and TBA were detected above their respective laboratory RLs in MW-2, MW-6, and MW-9 during the August sampling event. The MTCA Method A CUL of MTBE is 20 $\mu\text{g/L}$, and is not established for TBA. The maximum detected concentration of MTBE was reported in monitoring well MW-9 at 3.56 $\mu\text{g/L}$ and does not exceed the MTCA Method A CUL. The maximum concentration of TBA was reported in MW-2 at 30.30 $\mu\text{g/L}$.

5 Conclusions

Concentrations of TPH-D and benzene were reported above MTCA Method A CULs during the quarterly sampling events conducted in 2015. Benzene was reported above MTCA Method A CUL in MW-2 at a concentration of 46.1 $\mu\text{g/L}$ during the December sampling event. Concentrations of TPH-D were reported above MTCA Method A CUL in MW-4 through MW-6 and MW-8 through MW-10.



6 Limitations

AECOM has prepared this Report for the sole use of Shell in accordance with the Agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of AECOM. Unless otherwise stated in this Report, the assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by AECOM, unless otherwise stated in the Report.

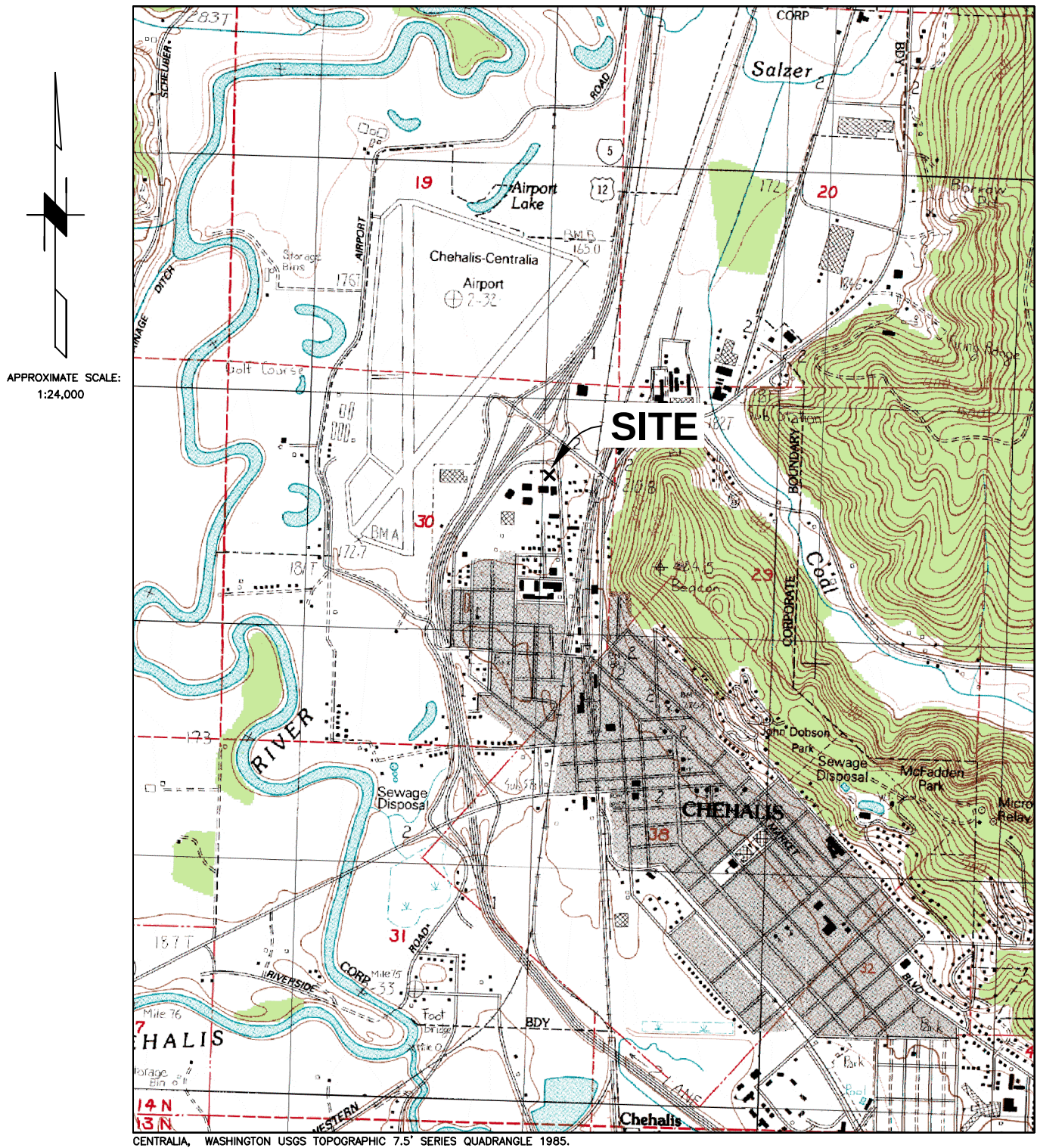
Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the services. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in using this Report.

Note: Effective October 1, 2015 Shell transitioned responsibilities for environmental consulting services for the Site from Conestoga-Rovers & Associates to AECOM Technical Services.

7 References

Shell, 2015. Shell Oil Products US Residual Management Program: Version 1.2. June 1, 2015 revised on February 1, 2016

Figures



VICINITY MAP

SEPTEMBER 2016
60482107

SHELL-BRANDED WHOLESALE FACILITY
1349 NORTHWEST STATE AVENUE
CHEHALIS, WASHINGTON

FIGURE 1

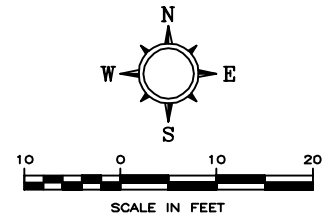
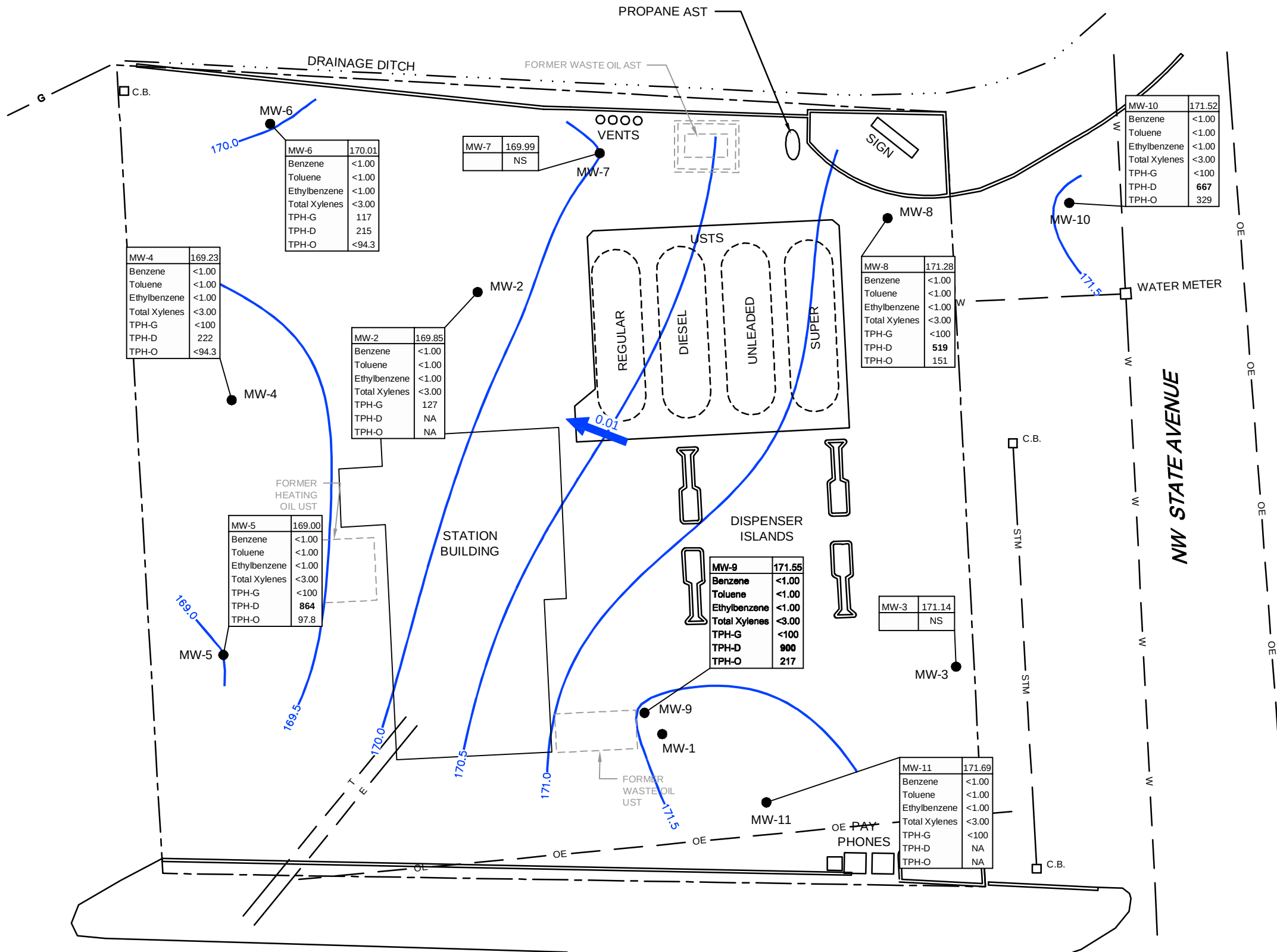
AECOM

O:\2821188 Shell\2016\60482107-1549 NW State Avenue, Chehalis\5000 Technical\Figures\Fig 3 GW 2015.DWG Nov 10, 2016 - 10:14am



SOURCE:
BASEMAP MODIFIED FROM DRAWING PROVIDED BY SECOR &
STATEWIDE LAND SURVEYING INC. DATED 9/28/12.
ORIGINAL FIGURE CREATED BY GHD.

NOTE:
WASHINGTON STATE PLANE COORDINATE SYSTEM NAD 83/CORS 96
EPOCH 2002.00, SOUTH ZONE 4602, IN U.S. SURVEY FEET.



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW-1 ● MONITORING WELL LOCATION
- C.B. CATCH BASIN
- OE — OVERHEAD ELECTRIC LINE
- G — GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- STM — STORMWATER LINE
- 171.5 — GROUNDWATER ELEVATION CONTOUR, IN FEET, REFERENCED TO AN ARBITRARY DATUM
- 0.01 — GROUNDWATER FLOW DIRECTION AND GRADIENT

NOTES:

1. TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE.
2. TPH-D = TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE.
3. TPH-O = TOTAL PETROLEUM HYDROCARBONS AS OIL.
4. NS = NOT SAMPLED.
5. NA = NOT ANALYZED.
6. < = NOT DETECTED AT LABORATORY REPORTING LIMIT.
7. **BOLD** CONCENTRATIONS EXCEED THE MTCA METHOD A CLEANUP LEVELS.
8. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER (µg/L).

CONSTRUCTION EQUIPMENT AND REPAIR

GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - JUNE 8, 2015

SEPTEMBER 2016
60482107

SHELL-BRANDED WHOLESALE FACILITY
1349 NORTHWEST STATE AVENUE
CHEHALIS, WASHINGTON

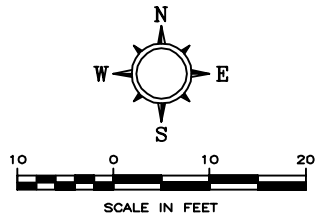
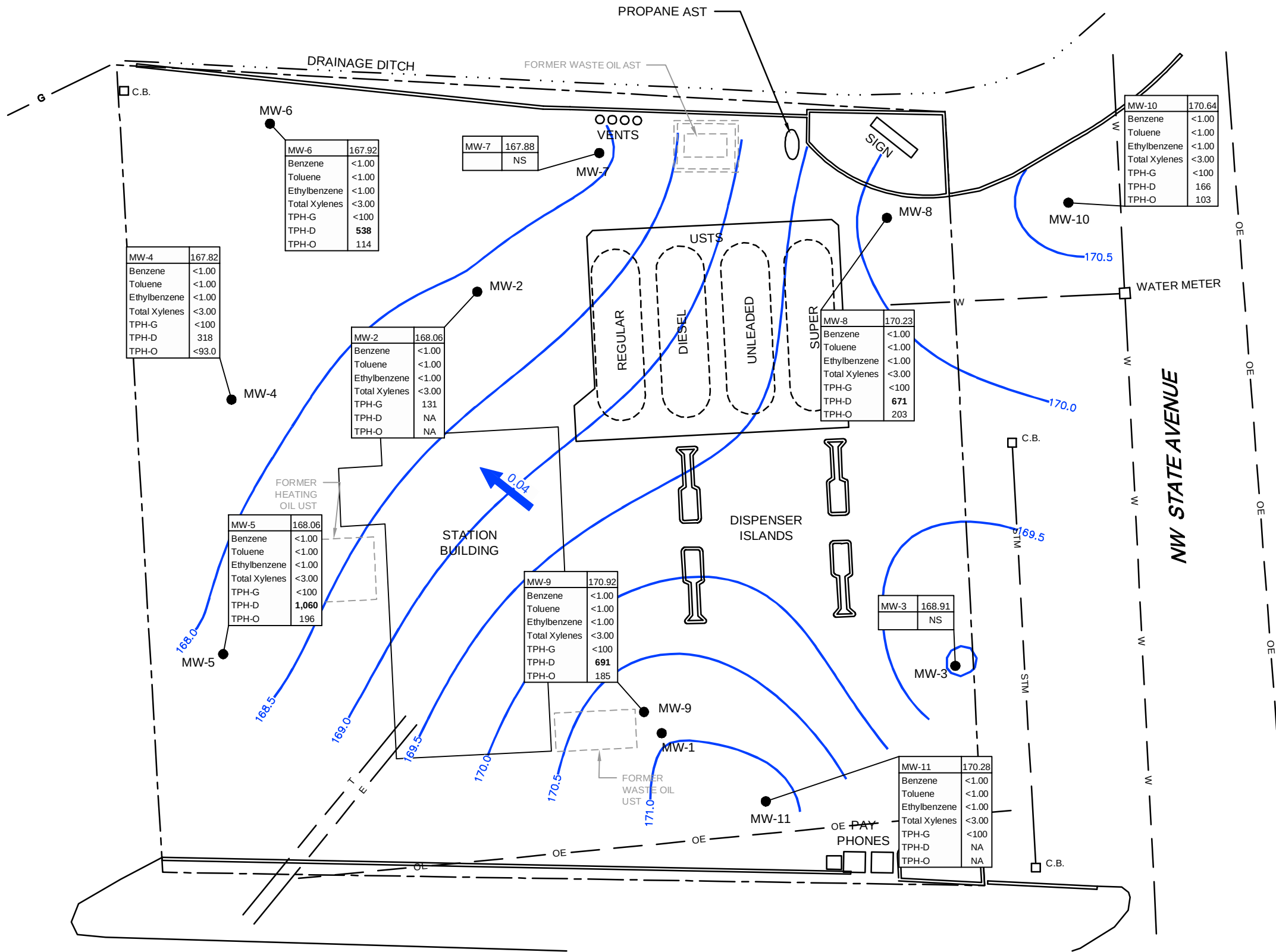
FIGURE 3

O:\2821188_Shell\2016\60482107-1549_NW State Avenue, Chehalis\5000 Technical\Figures\Fig 4 GW 3015.DWG Nov 10, 2016 - 10:15am



SOURCE:
BASEMAP MODIFIED FROM DRAWING PROVIDED BY SECOR &
STATEWIDE LAND SURVEYING INC. DATED 9/28/12.
ORIGINAL FIGURE CREATED BY GHD.

NOTE:
WASHINGTON STATE PLANE COORDINATE SYSTEM NAD 83/CORS 96
EPOCH 2002.00, SOUTH ZONE 4602, IN U.S. SURVEY FEET.



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW-1 ● MONITORING WELL LOCATION
- C.B. CATCH BASIN
- OE — OVERHEAD ELECTRIC LINE
- G — GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- STM — STORMWATER LINE
- 171.5 — GROUNDWATER ELEVATION CONTOUR, IN FEET, REFERENCED TO AN ARBITRARY DATUM
- 0.04 → GROUNDWATER FLOW DIRECTION AND GRADIENT
- SAMPLE LOCATION
- GROUNDWATER ELEVATION
- RESULT
- PARAMETER

- NOTES:
1. TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE.
 2. TPH-D = TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE.
 3. TPH-O = TOTAL PETROLEUM HYDROCARBONS AS OIL.
 4. NS = NOT SAMPLED.
 5. NA = NOT ANALYZED.
 6. < = NOT DETECTED AT LABORATORY REPORTING LIMIT.
 7. **BOLD** CONCENTRATIONS EXCEED THE MTCA METHOD A CLEANUP LEVELS.
 8. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER (µg/L).

CONSTRUCTION
EQUIPMENT AND
REPAIR

GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - AUGUST 27, 2015

SEPTEMBER 2016
60482107

SHELL-BRANDED WHOLESALE FACILITY
1349 NORTHWEST STATE AVENUE
CHEHALIS, WASHINGTON

FIGURE 4

Tables

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-1	179.36	06/11/94	8.90	170.46	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-1	179.36	09/12/95	9.48	169.88	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-1	179.36	11/27/95	6.81	172.55	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	02/20/97	6.40	172.96	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-1	179.36	05/20/97	7.10	172.26	ND	878	ND	ND	0.9	ND	ND	---	---	---	---	---
MW-1	179.36	07/31/97	7.79	171.57	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	08/20/97	8.24	171.12	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	11/17/97	8.20	171.16	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	02/19/98	6.35	173.01	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	05/22/98	7.16	172.20	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	08/26/98	8.64	170.72	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	11/30/98	6.67	172.69	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-1	179.36	04/23/99	7.08	172.28	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	11/22/99	8.56	170.80	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	05/22/00	7.76	171.60	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	10/19/00	9.10	170.26	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	05/09/01	8.88	170.48	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	10/23/01	10.03	169.33	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	7/22/2009*	8.61	170.75	<100	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-1	179.36	10/19/09	9.39	169.97	<100	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-1	179.36	01/06/10	7.33	172.03	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	04/23/10	7.21	172.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	07/23/10	7.43	171.93	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	10/06/10	8.60	170.76	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	01/11/11	7.03	172.33	---	---	---	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
 Shell-branded Wholesale Facility
 1349 Northwest State Avenue
 Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-1	179.36	05/05/11	7.14	172.22	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	179.36	08/01/11	8.27	171.09	<100	<95.2	<238	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-1	179.36	11/04/11	8.50	170.86	<100	<94.3	<236	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-1	177.93	01/10/12	7.36	170.57	<100	<95.2	<238	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	179.69	06/11/94	8.22	171.47	13,000	2.4	---	1,300	450	650	2,100	---	---	---	---	---
MW-2	179.69	09/12/95	10.66	169.03	3,100	1,100	---	1,200	47	320	430	---	---	---	---	---
MW-2	179.69	11/27/95	7.29	172.40	4,500	1,200	---	1,400	68	430	540	---	---	---	---	---
MW-2	179.69	02/20/97	7.70	171.99	5,690	1,320	ND	842	36.8	474	598	---	---	---	---	---
MW-2	179.69	05/20/97	8.45	171.24	5,210	ND	ND	488	24.7	395	644	---	---	---	---	---
MW-2	179.69	07/31/97	8.36	171.33	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	179.69	08/20/97	8.97	170.72	5,910	1,130	ND	330	18.6	301	472	---	---	---	---	---
MW-2	179.69	11/17/97	8.44	171.25	4,740	916	ND	307	19.9	375	484	---	---	---	---	---
MW-2	179.69	02/19/98	7.90	171.79	2,600	ND	ND	243	12.6	185	122	---	---	---	---	---
MW-2	179.69	05/22/98	7.97	171.72	4,120	1,030	ND	197	13.1	266	363	---	---	---	---	---
MW-2	179.69	08/26/98	9.26	170.43	3,180	766	ND	146	12	170	232	---	---	---	---	---
MW-2	179.69	11/30/98	7.45	172.24	3,100	728	ND	144	11.8	162	240	---	---	---	---	---
MW-2	179.69	04/23/99	8.08	171.61	2,080	---	---	84.9	6.46	86.2	99.1	---	---	---	---	---
MW-2	179.69	11/22/99	9.19	170.50	1,780	---	---	98	5.94	16.5	64	---	---	---	---	---
MW-2	179.69	05/22/00	8.76	170.93	1,530	---	---	76.5	4.74	31.3	49.6	---	---	---	---	---
MW-2	179.69	10/19/00	11.21	168.48	96.5	---	---	1.41	0.695	1.89	<1.0	---	---	---	---	---
MW-2	179.69	05/09/01	10.12	169.57	1,320	---	---	42.8	4.11	10.1	25.8	---	---	---	---	---
MW-2	179.69	10/23/01	11.69	168.00	1,550	---	---	72.7	5.42	2.63	41.7	---	---	7.01	---	---
MW-2	179.69	08/20/02	10.84	168.85	1,000	300	<500	44	2	2	18	---	---	---	---	---
MW-2	179.69	02/20/03	9.15	170.54	1,400	<250	<500	76	3.8	<1	<1	---	---	3.4	---	---
MW-2	179.69	07/21/03	10.24	169.45	760	370	<500	42	3.3	<1	11	---	---	13	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-2	179.69	02/17/04	8.73	170.96	910	<250	<500	31	3.7	<1	4.3	---	---	<1	---	---
MW-2	179.69	08/12/04	10.84	168.85	740	660	<500	19	2.8	<1	9.7	---	---	4.3	---	---
MW-2	179.69	02/08/05	9.75	169.94	920	<250	<500	22	3.8	<1	9.1	---	---	<1	---	---
MW-2	179.69	08/30/05	10.90	168.79	840	270	<500	30	2.3	<1	9.3	---	---	---	---	---
MW-2	179.69	02/09/06	6.96	172.73	575	<236	<472	9.71	1.82	0.755	3.89	---	---	---	---	---
MW-2	179.69	11/07/06	11.16	168.53	796	618	171	9.84	3.15	<0.500	9.43	---	---	<5.00	---	---
MW-2	179.69	03/20/07	9.36	170.33	626	632 a	<500	2.57	1.66	<0.500	<3.00	---	---	---	---	---
MW-2	179.69	06/18/07	11.66	168.03	687	436 b	<500	2.39	1.86	<0.500	3.87	---	---	---	---	---
MW-2	179.69	09/20/07	13.13	166.56	255	798 a	637	1.79	1.76	<0.500	5.12	---	---	---	---	---
MW-2	179.69	12/03/07	10.73	168.96	394	474 e,f	226	2.22	2.31	3.91	7.52	---	---	1.47	---	---
MW-2	179.69	02/27/08	7.63	172.06	665	810	526	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-2	179.69	07/22/08	9.60	170.09	660	580	<100	0.26	1.3	<1.0	1.4	---	---	---	---	---
MW-2	179.69	10/02/08	10.61	169.08	400	300	<100	<0.50	<1	<1	<1	---	---	1.5	---	---
MW-2	179.69	01/21/09	7.45	172.24	300	350	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	04/08/09	8.28	171.41	370	350	110	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	07/22/09	9.84	169.85	---	380	<100	---	---	---	---	---	---	2.3	---	---
MW-2	179.69	10/19/09	10.50	169.19	270	130 h	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	01/06/10	8.58	171.11	370	270 h	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	04/23/10	8.44	171.25	220	400	170	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	07/02/10	8.79	170.90	280 h	120 h	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-2	179.69	10/06/10	9.70	169.99	280 h	510 h	350 h	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-2	179.69	01/11/11	8.60	171.09	179	248	<96.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	179.69	05/05/11	8.11	171.58	134	146	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	179.69	08/01/11	9.30	170.39	220	260	<238	<1.00	<1.00	<1.00	<3.00	---	---	1.06	---	---
MW-2	179.69	11/04/11	9.34	170.35	228	285	<238	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-2	178.27	01/10/12	8.80	169.47	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	178.27	08/08/12	8.51	169.76	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	178.27	01/10/13	8.70	169.57	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	178.27	04/03/13	8.01	170.26	188	244	379	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	178.27	09/16/13	8.40	169.87	144	468 / 408	270 / 444	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-2	178.27	12/18/13	8.54	169.73	15,300	253 / 156	201 / 121	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	178.27	01/09/14	8.35	169.92	184	293 / 419	428 / 344	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	178.27	03/04/14	8.19	170.08	154	194 / 213	112 / 103	10.5	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	178.27	06/11/14	7.93	170.34	177	231 / 221	95.7 / 118	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-2	178.27	08/28/14	9.41	168.86	189	303	234	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-2	178.27	12/08/14	8.23	170.04	189	210	93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-2	178.27	03/17/15	7.65	170.62	183	---	---	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-2	178.27	06/08/15	8.42	169.85	127	---	---	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-2	178.27	08/27/15	10.21	168.06	131	---	---	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	30.30
MW-2	178.27	12/22/15	7.08	171.19	310	---	---	46.1	8.79	0.299 J	2.69 J	---	---	---	---	---
MW-3	179.45	06/11/94	9.34	170.11	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-3	179.45	09/12/95	9.34	170.11	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-3	179.45	11/27/95	6.62	172.83	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	02/20/97	6.55	172.90	ND	548	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	05/20/97	7.56	171.89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	07/31/97	7.77	171.68	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	08/20/97	8.22	171.23	ND	290	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	11/17/97	7.03	172.42	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	02/19/98	6.55	172.90	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	05/22/98	7.35	172.10	ND	299	ND	ND	ND	ND	ND	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
 Shell-branded Wholesale Facility
 1349 Northwest State Avenue
 Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-3	179.45	08/26/98	8.52	170.93	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	11/30/98	6.68	172.77	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-3	179.45	04/23/99	7.08	172.37	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	11/22/99	8.06	171.39	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	05/22/00	7.62	171.83	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	10/19/00	9.17	170.28	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	05/09/01	8.53	170.92	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	10/23/01	9.72	169.73	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	08/20/02	9.62	169.83	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	02/20/03	7.57	171.88	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	07/21/03	9.32	170.13	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	07/22/09	8.60	170.85	<100	140	<100	<0.5	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-3	179.45	10/19/09	9.21	170.24	<100	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-3	179.45	01/06/10	7.39	172.06	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	04/23/10	7.03	172.42	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	07/02/10	7.40	172.05	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	10/06/10	8.41	171.04	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	01/11/11	7.00	172.45	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	05/05/11	7.00	172.45	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	08/01/11	8.21	171.24	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	179.45	11/04/11	8.65	170.80	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	01/10/12	7.22	170.81	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	08/08/12	8.28	169.75	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	01/10/13	6.60	171.43	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	04/03/13	6.82	171.21	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-3	178.03	09/16/13	7.80	170.23	<100	176 / 155	122 / 302	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-3	178.03	12/18/13	7.11	170.92	<100	<94.3 / <94.3	<94.3 / 109	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-3	178.03	01/09/14	7.33	170.70	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	03/04/14	6.31	171.72	<100	<95.2 / <95.2	<95.2 / <95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-3	178.03	06/11/14	7.45	170.58	<100	<93.9 / <93.9	<93.9 / <93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-3	178.03	08/28/14	8.63	169.40	<100	95.1	<93.9	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-3	178.03	12/08/14	7.27	170.76	<100	<93.9	114	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-3	178.03	03/17/15	7.02	171.01	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	06/08/15	6.89	171.14	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	08/27/15	9.12	168.91	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	178.03	12/22/15	6.20	171.83	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	09/12/95	8.56	169.02	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-4	177.58	11/27/95	5.63	171.95	<50	490	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-4	177.58	02/20/97	4.65	172.93	55.5	938	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	05/20/97	6.02	171.56	ND	1,090	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	07/31/97	6.90	170.68	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	08/20/97	7.35	170.23	ND	853	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	11/17/97	6.07	171.51	73.9	628	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	02/19/98	5.77	171.81	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	05/22/98	6.52	171.06	ND	499	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	08/26/98	7.66	169.92	ND	419	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	11/30/98	5.80	171.78	51.4	537	ND	ND	ND	ND	ND	---	---	---	---	---
MW-4	177.58	04/23/99	6.50	171.08	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	11/22/99	7.43	170.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	05/22/00	6.90	170.68	---	---	---	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-4	177.58	10/19/00	8.47	169.11	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	05/09/01	8.38	169.20	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	10/23/01	9.37	168.21	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	08/20/02	9.11	168.47	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	02/20/03	6.98	170.60	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	07/21/03	8.76	168.82	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	06/18/07	7.71	169.87	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-4	177.58	09/20/07	9.07	168.51	<50.0	1,060 a	869	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-4	177.58	12/03/07	7.13	170.45	<250	195	207 f,g	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-4	177.58	02/27/08	4.46	173.12	69.0	636	480	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-4	177.58	07/22/08	7.82	169.76	<100	330	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	10/02/08	8.63	168.95	<100	150	<100	<0.50	<1	<1	<1	---	---	<1	---	---
MW-4	177.58	01/21/09	5.24	172.34	<100	240	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	04/08/09	6.68	170.90	<100	300	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	7/22/2009*,**	7.87	169.71	---	250	<100	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
MW-4	177.58	10/19/09	8.59	168.99	<100	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	01/06/10	6.51	171.07	<100	230	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	04/23/10	6.51	171.07	<100	290	140	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	07/02/10	6.62	170.96	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-4	177.58	10/06/10	7.89	169.69	<100	330 h	290 h	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-4	177.58	01/11/11	6.14	171.44	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	05/05/11	6.42	171.16	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	177.58	08/01/11	7.51	170.07	<100	933	409	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-4	177.58	11/04/11	7.73	169.85	<100	393	<240	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	01/10/12	6.21	169.97	<100	687	617	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-4	176.18	08/08/12	7.43	168.75	<100	805	485	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-4	176.18	01/10/13	5.92	170.26	<100	454	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	04/03/13	6.23	169.95	<100	1,090	427	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	09/16/13	7.02	169.16	<100	439 / 528	341 / 488	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-4	176.18	12/18/13	6.22	169.96	<100	291 / 562	241 / 444	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	01/09/14	6.30	169.88	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	176.18	03/04/14	5.18	171.00	<100	412 / 513	191 / 178	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	06/11/14	6.44	169.74	<100	613 / 549	271 / 161	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-4	176.18	08/28/14	7.81	168.37	<100	419	249	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-4	176.18	12/08/14	6.46	169.72	<100	149	<93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-4	176.18	03/17/15	5.95	170.23	<100	614	128	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-4	176.18	06/08/15	6.95	169.23	<100	222	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-4	176.18	08/27/15	8.36	167.82	<100	318	<93.0	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	<10.0
MW-4	176.18	12/22/15	4.88	171.30	<52.0	194 J	<380	<0.0320	<0.380	<0.0860	<0.0160	---	---	---	---	---
MW-5	177.10	09/12/95	7.73	169.37	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-5	177.10	11/27/95	6.21	170.89	<50	<250	---	<0.5	<0.5	<0.5	<1.0	---	---	---	---	---
MW-5	177.10	02/20/97	4.56	172.54	ND	1,540	ND	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	05/20/97	5.65	171.45	ND	2,610	ND	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	07/31/97	6.47	170.63	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	08/20/97	6.93	170.17	ND	2,170	869	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	11/17/97	5.72	171.38	ND	2,270	854	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	02/19/98	5.33	171.77	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	05/22/98	6.07	171.03	ND	2,420	ND	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	08/26/98	7.25	169.85	ND	1,360	ND	ND	ND	ND	ND	---	---	---	---	---
MW-5	177.10	11/30/98	5.51	171.59	ND	2,460	771	ND	ND	ND	ND	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-5	177.10	04/23/99	5.39	171.71	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	11/22/99	7.19	169.91	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	05/22/00	6.14	170.96	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	10/19/00	8.10	169.00	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	05/09/01	7.77	169.33	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	10/23/01	8.76	168.34	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	177.10	06/18/07	7.28	169.82	<50.0	790 c	<500	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-5	177.10	09/20/07	8.82	168.28	<50.0	2,740 a	1,710	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---
MW-5	177.10	12/03/07	6.74	170.36	<250	1,160 e,f	1,020	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-5	177.10	02/27/08	5.81	171.29	<50.0	3,800	2,310	3.86	2.41	<0.500	<0.500	---	---	---	---	---
MW-5	177.10	07/22/08	7.23	169.87	<100	560	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	10/02/08	8.00	169.10	<100	400	<100	<0.50	<1	<1	<1	---	---	<1	---	---
MW-5	177.10	01/21/09	4.74	172.36	<100	450	120	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	04/08/09	5.83	171.27	<100	220	220	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	7/22/2009*,**	6.95	170.15	---	680	120	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
MW-5	177.10	10/19/09	8.14	168.96	<100	190	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	01/06/10	5.53	171.57	<100	410	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	04/23/10	5.26	171.84	<100	200	120	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	07/02/10	5.62	171.48	<100	190 h	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-5	177.10	10/06/10	7.37	169.73	<100	900 h	340 h	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-5	177.10	01/11/11	4.88	172.22	<100	245	124	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	177.10	05/05/11	5.74	171.36	<100	251	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	177.10	08/01/11	6.92	170.18	<100	285	<238	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	---	---
MW-5	177.10	11/04/11	7.41	169.69	<100	183	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	175.65	01/10/12	6.04	169.61	---	---	---	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-5	175.65	08/08/12	7.25	168.40	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	175.65	01/10/13	5.22	170.43	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	175.65	04/03/13	6.53	169.12	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	175.65	09/16/13	6.90	168.75	<100	2,090 / 1,620	794 / 1,090	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-5	175.65	12/18/13	5.88	169.77	<100	1,370 / 1,580	652 / 936	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	175.65	01/09/14	5.80	169.85	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	175.65	03/04/14	5.34	170.31	<100	1,700 / 1,760	846 / 762	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	175.65	06/11/14	5.91	169.74	<100	1,300 / 1,350	562 / 384	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-5	175.65	08/28/14	6.99	168.66	<100	1,510	473	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-5	175.65	12/08/14	6.26	169.39	<100	1,130	334	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-5	175.65	03/17/15	5.30	170.35	<100	794	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-5	175.65	06/08/15	6.65	169.00	<100	864	97.8	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-5	175.65	08/27/15	7.59	168.06	<100	1060	196	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	<10.0
MW-5	175.65	12/22/15	4.85	170.80	<52.0	830	<285	0.0758 J	<0.0380	<0.0860	0.267 J	---	---	---	---	---
MW-6	177.84	11/27/95	5.24	172.60	1,100	750	---	570	8.9	41	260	---	---	---	---	---
MW-6	177.84	02/20/97	6.00	171.84	761	1,180	ND	333	6.17	15.5	56.9	---	---	---	---	---
MW-6	177.84	05/20/97	5.93	171.91	2,140	884	ND	547	19.8	58.7	309	---	---	---	---	---
MW-6	177.84	07/31/97	6.02	171.82	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	177.84	08/20/97	6.33	171.51	1,620	1,170	ND	430	18.4	42.3	263	---	---	---	---	---
MW-6	177.84	11/17/97	6.18	171.66	1,110	419	ND	291	13.9	23.2	195	---	---	---	---	---
MW-6	177.84	02/19/98	6.00	171.84	692	ND	ND	114	11.8	12.4	87.2	---	---	---	---	---
MW-6	177.84	05/22/98	6.27	171.57	1,290	1,040	ND	250	12	48.3	213	---	---	---	---	---
MW-6	177.84	08/26/98	6.68	171.16	1,230	613	ND	231	13.4	35.3	180	---	---	---	---	---
MW-6	177.84	11/30/98	5.10	172.74	575	879	ND	148	8.71	6.94	91.2	---	---	---	---	---
MW-6	177.84	04/23/99	5.23	172.61	409	---	---	37.9	5.84	1.32	37.6	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-6	177.84	11/22/99	6.05	171.79	351	---	---	47.4	3.98	<0.5	18.2	---	---	---	---	---
MW-6	177.84	05/22/00	6.32	171.52	644	---	---	47.8	7.59	3.98	27.7	---	---	---	---	---
MW-6	177.84	10/19/00	8.02	169.82	1,410	---	---	86.7	5.7	3	42.7	---	---	---	---	---
MW-6	177.84	05/09/01	6.92	170.92	725	---	---	61.3	6.03	4.46	32.7	---	---	---	---	---
MW-6	177.84	10/23/01	8.94	168.90	387	---	---	6.23	5.10	<0.5	14	---	---	<0.5	---	---
MW-6	177.84	08/20/02	8.62	169.22	600	300	<500	<1	4	<1	10	---	---	---	---	---
MW-6	177.84	02/20/03	6.34	171.50	710	<250	<500	8.7	<1	<1	<1	---	---	16	---	---
MW-6	177.84	07/21/03	8.17	169.67	430	350	<500	5.4	4	<1	7	---	---	6.2	---	---
MW-6	177.84	02/17/04	6.37	171.47	410	360	<500	3.7	1.8	<1	1.8	---	---	2.6	---	---
MW-6	177.84	08/12/04	7.74	170.10	410	640	<500	<1	2.9	<1	4.3	---	---	4.2	---	---
MW-6	177.84	02/08/05	6.46	171.38	560	310	<500	2.4	3.2	<1	4.9	---	---	<1	---	---
MW-6	177.84	08/30/05	7.51	170.33	450	370	<500	<1	2.3	<1	4.9	---	---	---	---	---
MW-6	177.84	02/09/06	5.86	171.98	116	<236	<472	<0.5	0.548	<0.5	<1.0	---	---	---	---	---
MW-6	177.84	11/07/06	5.00	172.84	284	468	208	<0.500	0.950	<0.500	<3.00	---	---	<5.00	---	---
MW-6	177.84	03/20/07	4.22	173.62	278	1,030 a	677	<0.500	0.850	<0.500	<3.00	---	---	---	---	---
MW-6	177.84	06/18/07	6.41	171.43	477	541 e	<485	<0.500	1.60	<0.500	<3.00	---	---	---	---	---
MW-6	177.84	09/20/07	7.81	170.03	135	915 a	829	<0.500	1.43	<0.500	<3.00	---	---	---	---	---
MW-6	177.84	12/03/07	5.96	171.88	<250	498 e,f	441	<1.00	<1.00	<1.00	<3.00	---	---	1.13	---	---
MW-6	177.84	02/27/08	6.31	171.53	<311	976	866	<0.500	0.820	0.590	<3.00	---	---	---	---	---
MW-6	177.84	07/22/08	6.60	171.24	400	430	<100	<0.50	<1.0	<1.0	0.89	---	---	---	---	---
MW-6	177.84	10/02/08	8.28	169.56	210	270	<100	<0.50	<1	<1	<1	---	---	1.9	---	---
MW-6	177.84	01/21/09	5.79	172.05	130	300	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-6	177.84	04/08/09	6.15	171.69	250	160	170	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-6	177.84	07/22/09	6.63	171.21	---	410	120	---	---	---	---	---	---	1.6	---	---
MW-6	177.84	10/19/09	6.71	171.13	230	120 h	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---

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1349 Northwest State Avenue
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Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-6	177.84	01/06/10	6.29	171.55	290	450	150	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-6	177.84	04/23/10	6.23	171.61	150	180	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-6	177.84	07/02/10	6.33	171.51	200 h	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	---	---
MW-6	177.84	10/06/10	6.50	171.34	230 h	450 h	340 h	<0.50	<1.0	<1.0	1.2	---	---	---	---	---
MW-6	177.84	01/11/11	6.25	171.59	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	177.84	05/05/11	6.03	171.81	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	177.84	08/01/11	6.69	171.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	177.84	11/04/11	9.69	168.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	176.43	01/10/12	6.40	170.03	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	176.43	08/08/12	9.34	167.09	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	176.43	01/10/13	6.05	170.38	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	176.43	04/03/13	6.94	169.49	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	176.43	09/16/13	6.60	169.83	165	526 / 555	251 / 230	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-6	176.43	12/18/13	6.32	170.11	208	414 / 298	178 / 340	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-6	176.43	01/09/14	6.50	169.93	194	538 / 381	254 / <105	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-6	176.43	03/04/14	6.25	170.18	<100	463 / 482	207 / 231	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-6	176.43	06/11/14	6.32	170.11	143	360 / 277	111 / 196	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-6	176.43	08/28/14	7.79	168.64	103	525	247	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-6	176.43	12/08/14	6.16	170.27	160	288	94.2	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-6	176.43	03/17/15	6.01	170.42	131	402	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-6	176.43	06/08/15	6.42	170.01	117	215	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-6	176.43	08/27/15	8.51	167.92	<100	538	114	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	1.10	<1.00	29.80
MW-6	176.43	12/22/15	5.57	170.86	57.2 J	371	298 J	<0.0320	<0.0380	<0.0860	0.247 J	---	---	---	---	---
MW-7	179.95	11/27/95	7.78	172.17	210	<250	---	7.7	2.1	6	38	---	---	---	---	---
MW-7	179.95	02/20/97	8.00	171.95	2,920	1,090	ND	347	11.80	256	183	---	---	---	---	---

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Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-7	179.95	05/20/97	8.40	171.55	2,680	ND	ND	272	6.80	207	93.6	---	---	---	---	---
MW-7	179.95	07/31/97	9.20	170.75	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	179.95	08/20/97	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	179.95	11/17/97	8.43	171.52	2,830	1,170	ND	138	5.82	178	158	---	---	---	---	---
MW-7	179.95	02/19/98	8.00	171.95	2,370	ND	ND	151	7.75	169	86.4	---	---	---	---	---
MW-7	179.95	05/22/98	8.87	171.08	1,670	818	ND	122	ND	135	55.4	---	---	---	---	---
MW-7	179.95	08/26/98	10.01	169.94	2,270	718	ND	77	6.50	121	133	---	---	---	---	---
MW-7	179.95	11/30/98	7.71	172.24	2,420	874	ND	111	6.41	199	155	---	---	---	---	---
MW-7	179.95	04/23/99	8.46	171.49	1,330	---	---	85.6	3.02	134	17	---	---	---	---	---
MW-7	179.95	11/22/99	9.64	170.31	214	---	---	1.11	<0.5	<0.5	<1.0	---	---	---	---	---
MW-7	179.95	05/22/00	9.17	170.78	332	---	---	2.01	1.93	8	1.07	---	---	---	---	---
MW-7	179.95	10/19/00	10.81	169.14	242	---	---	2.91	3.03	<0.5	8.71	---	---	---	---	---
MW-7	179.95	05/09/01	10.39	169.56	441	---	---	6.52	1.98	21	2.41	---	---	---	---	---
MW-7	179.95	10/23/01	11.48	168.47	811	---	---	33.3	2.26	44.9	8.61	---	---	---	---	---
MW-7	179.95	08/20/02	11.35	168.60	1,000	<250	<500	17	<1	37	27	---	---	---	---	---
MW-7	179.95	02/20/03	9.05	170.90	650	<250	<500	29	<1	<1	<1	---	---	3.8	---	---
MW-7	179.95	07/21/03	11.02	168.93	470	<250	<500	5	<1	11	9	---	---	18	---	---
MW-7	179.95	02/17/04	9.32	170.63	430	500	<500	1.8	<1	2	2.2	---	---	16	---	---
MW-7	179.95	08/12/04	11.24	168.71	350	600	<500	<1	<1	3.6	3.1	---	---	13	---	---
MW-7	179.95	02/08/05	9.14	170.81	360	<250	<500	3.8	<1	<1	2	---	---	6	---	---
MW-7	179.95	08/30/05	10.72	169.23	390	<250	<500	<1	<1	<1	4.4	---	---	---	---	---
MW-7	179.95	02/09/06	7.33	172.62	361	236	<472	4.69	0.785	2.8	11.9	---	---	---	---	---
MW-7	179.95	11/07/06	10.36	169.59	447	428	290	1.27	<0.500	<0.500	4.10	---	---	8.49	---	---
MW-7	179.95	03/20/07	8.55	171.40	425	716 a	612	<0.500	<0.500	0.780	<3.00	---	---	---	---	---
MW-7	179.95	06/18/07	10.17	169.78	315	364 d	<500	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-7	179.95	09/20/07	11.44	168.51	301	1,020 a	1,060	<0.500	<0.500	0.640	8.51	---	---	---	---	---
MW-7	179.95	12/03/07	9.11	170.84	295	514 e,f	481	<1.00	<1.00	<1.00	4.15	---	---	5.86	---	---
MW-7	179.95	02/27/08	9.09	170.86	266	760	758	0.600	<0.50	1.58	3	---	---	---	---	---
MW-7	179.95	07/22/08	10.04	169.91	330	260	<100	<0.50	0.29	4.5	1.4	---	---	---	---	---
MW-7	179.95	10/02/08	10.85	169.10	280	230	<100	<0.50	<1	<1	<1	---	---	5.9	---	---
MW-7	179.95	01/21/09	7.75	172.20	<100	230	140	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	04/08/09	8.50	171.45	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	07/22/09	10.10	169.85	---	---	---	---	---	---	---	---	---	6.3	---	---
MW-7	179.95	10/19/09	10.73	169.22	130	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	01/06/10	8.83	171.12	<100	300	140	0.75	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	04/23/10	8.55	171.40	<100	120	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	07/02/10	8.90	171.05	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	3.6	---	---
MW-7	179.95	10/06/10	9.94	170.01	<100	280 h	220 h	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---
MW-7	179.95	01/11/11	8.69	171.26	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	179.95	05/05/11	8.60	171.35	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	179.95	08/01/11	9.73	170.22	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	3.05	---	---
MW-7	179.95	11/04/11	9.83	170.12	<100	114	<240	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	01/10/12	8.64	169.86	<100	<96.2	266	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	08/08/12	9.67	168.83	<100	141	162	<1.00	<1.00	<1.00	<3.00	---	---	3.64	---	---
MW-7	178.50	01/10/13	8.00	170.50	<100	103	<100	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	04/03/13	8.36	170.14	<100	108	127	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	09/16/13	9.55	168.95	<100	409 / 408	427 / 424	<1.00	<1.00	<1.00	<2.00	---	---	2.00	---	---
MW-7	178.50	12/18/13	8.68	169.82	<100	222 / 338	459 / 288	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	01/09/14	8.60	169.90	<100	487 / 243	501 / 198	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-7	178.50	03/04/14	8.53	169.97	<100	320 / 307	211 / 167	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-7	178.50	06/11/14	8.71	169.79	<100	277 / 285	440 / 122	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-7	178.50	08/28/14	10.13	168.37	<100	337	99.8	<1.00	<1.00	<1.00	<2.00	---	---	2.01	---	---
MW-7	178.50	12/08/14	8.47	170.03	<100	275	226	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-7	178.50	03/17/15	8.34	170.16	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	178.50	06/08/15	8.51	169.99	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	178.50	08/27/15	10.62	167.88	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	178.50	12/22/15	7.18	171.32	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	07/31/97	6.92	173.36	77	554	---	2.51	2.4	1.2	4.18	---	---	---	---	---
MW-8	180.28	08/20/97	7.00	173.28	ND	513	ND	2.76	1.75	ND	2.24	---	---	---	---	---
MW-8	180.28	11/17/97	7.24	173.04	61	650	ND	4.37	1.68	0.53	3.56	---	---	---	---	---
MW-8	180.28	02/19/98	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	05/22/98	7.32	172.96	58.3	844	ND	ND	ND	ND	ND	---	---	---	---	---
MW-8	180.28	08/26/98	8.95	171.33	ND	311	ND	ND	ND	ND	1.35	---	---	---	---	---
MW-8	180.28	11/30/98	6.29	173.99	ND	402	ND	0.627	ND	ND	ND	---	---	---	---	---
MW-8	180.28	04/23/99	5.02	175.26	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	11/22/99	6.69	173.59	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	05/22/00	7.08	173.20	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	10/19/00	7.91	172.37	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	05/09/01	7.46	172.82	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	10/23/01	7.91	172.37	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	07/22/09	8.25	172.03	<100	320	120	<0.5	<1.0	<1.0	<1.0	---	---	2.8	---	---
MW-8	180.28	10/19/09	7.98	172.30	<100	<100	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---
MW-8	180.28	01/06/10	6.69	173.59	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	04/23/10	7.00	173.28	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	07/02/10	7.00	173.28	---	---	---	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-8	180.28	10/06/10	7.43	172.85	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	180.28	01/11/11	6.70	173.58	<100	832	655	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	180.28	05/05/11	6.84	173.44	<100	544	304	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	180.28	08/01/11	7.67	172.61	<100	654	<240	<1.00	<1.00	<1.00	<3.00	---	---	1.18	---	---
MW-8	180.28	11/04/11	7.46	172.82	<100	1,160	848	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	01/10/12	7.05	171.64	<100	837	734	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	08/08/12	8.06	170.63	<100	1,050	680	<1.00	<1.00	<1.00	<3.00	---	---	1.24	---	---
MW-8	178.69	01/10/13	6.40	172.29	<100	485	162	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	04/03/13	6.91	171.78	<100	976	517	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	09/16/13	7.10	171.59	<100	979 / 875	850 / 740	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-8	178.69	12/18/13	7.20	171.49	<100	698 / 844	504 / 807	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	01/09/14	6.51	172.18	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	178.69	03/04/14	6.47	172.22	<100	588 / 614	310 / 376	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	06/11/14	7.42	171.27	<100	820 / 741	360 / 1420	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-8	178.69	08/28/14	8.41	170.28	<100	1,080	615	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-8	178.69	12/08/14	6.85	171.84	<100	664	428	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-8	178.69	03/17/15	6.70	171.99	<100	540	109	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-8	178.69	06/08/15	7.41	171.28	<100	519	151	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-8	178.69	08/27/15	8.46	170.23	<100	671	203	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	<10.0
MW-8	178.69	12/22/15	6.03	172.66	<52.0	265	<294	<0.0320	<0.0380	<0.0860	<0.0160	---	---	---	---	---
MW-9	177.83	08/08/12	10.35	167.48	208	970	263	<1.00	<1.00	1.46	11.1	---	---	5.28	---	---
MW-9	177.83	01/10/13	5.83	172.00	151	1,010	121	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-9	177.83	04/03/13	5.91	171.92	<100	894	317	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-9	177.83	09/16/13	8.01	169.82	<100	1,040 / 1150	776 / 917	<1.00	<1.00	<1.00	<2.00	---	---	4.06	---	---
MW-9	177.83	12/18/13	6.05	171.78	<100	894 / 748	736 / 939	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-9	177.83	01/09/14	6.25	171.58	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	177.83	03/04/14	6.01	171.82	<100	1,100 / 1080	643 / 399	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-9	177.83	06/11/14	6.17	171.66	<100	879 / 881	1,240 / 272	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-9	177.83	08/28/14	7.11	170.72	<100	1,100	438	<1.00	<1.00	<1.00	<2.00	---	---	4.83	---	---
MW-9	177.83	12/08/14	6.05	171.78	<100	688	206	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-9	177.83	03/17/15	6.55	171.28	<100	746	141	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-9	177.83	06/08/15	6.28	171.55	<100	900	217	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-9	177.83	08/27/15	6.91	170.92	<100	691	185	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	3.56	<1.00	12.50
MW-9	177.83	12/22/15	5.64	172.19	<52.0	667	<285	<0.0320	<0.0380	<0.0860	<0.0160	---	---	---	---	---
MW-10	179.34	09/12/13	7.58	171.76	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	179.34	09/16/13	8.50	170.84	<100	469 / 804	418 / 810	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-10	179.34	12/18/13	7.72	171.62	<100	1,100 / 1,220	1,600 / 1,600	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-10	179.34	01/09/14	8.04	171.30	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	179.34	03/04/14	7.21	172.13	<100	862 / 997	999 / 1,200	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-10	179.34	06/11/14	7.64	171.70	<100	1,530 / 1,110	698 / 1,540	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-10	179.34	08/28/14	8.61	170.73	<100	909	714	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-10	179.34	12/08/14	7.41	171.93	<100	930	730	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-10	179.34	03/17/15	7.88	171.46	<100	---	---	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-10	179.34	06/08/15	7.82	171.52	<100	667	329	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-10	179.34	08/27/15	8.70	170.64	<100	166	103	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	<10.0
MW-10	179.34	12/22/15	6.82	172.52	<52.0	672	400 J	<0.0320	<0.0380	<0.0860	<0.0160	---	---	---	---	---
MW-11	177.70	09/12/13	5.33	172.37	---	---	---	---	---	---	---	---	---	---	---	---
MW-11	177.70	09/16/13	5.10	172.60	2,910	1,110 / 844	1,120 / 693	<1.00	<1.00	1.05	<2.00	---	---	<1.00	---	---
MW-11	177.70	12/18/13	5.76	171.94	<100	<94.3 / <94.3	512 / 543	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-11	177.70	01/09/14	5.81	171.89	<100	<100 / 165	<100 / 154	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---

Table 1
Summary of Groundwater Monitoring Data
 Shell-branded Wholesale Facility
 1349 Northwest State Avenue
 Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE
MW-11	177.70	03/04/14	5.38	172.32	187	<93.5 / <93.5	<93.5 / <93.5	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-11	177.70	06/11/14	5.98	171.72	<100	<93.9 / <93.9	<93.9 / <93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-11	177.70	08/28/14	6.61	171.09	104	156	338	<1.00	<1.00	<1.00	<2.00	---	---	<1.00	---	---
MW-11	177.70	12/08/14	5.52	172.18	<100	<93.9	222	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-11	177.70	03/17/15	4.92	172.78	<100	---	---	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---
MW-11	177.70	06/08/15	6.01	171.69	<100	---	---	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---
MW-11	177.70	08/27/15	6.42	170.28	<100	---	---	<1.00	<1.00	<1.00	<3.00	<2.00	<1.00	<1.00	<1.00	<10.0
MW-11	177.70	12/22/15	4.70	173.00	<52.0	---	---	<0.0320	<0.0380	<0.0860	<0.0160	---	---	---	---	---

Notes:

All results in micrograms per liter (µg/L) unless otherwise indicated.

< = Not detected at laboratory reporting limit. Starting on 12/22/15, < is reported at the method detection limit.

--- = Not analyzed

BOLD = Concentrations exceed the MTCA Method A Cleanup Levels

amsl = above mean sea level

btoc = below top of casing

DIPE = Diisopropyl ether

DTW = Depth to Water

ETBE = Ethyl tert-butyl ether

GWE = Groundwater Elevation

TPH-G = Total petroleum hydrocarbons as gasoline

TPH-D = Total petroleum hydrocarbons as diesel

TPH-O = Total petroleum hydrocarbons as oil

MTBE = Methyl tert-butyl ether

MTCA = Model Toxics Control Act

TAME = Tert-amyl methyl ether

TBA = Tert-butyl alcohol

J = The sample result is an estimated concentration.

¹ = Cleanup levels for TPH-g are 800 µ/L if benzene is present and is 1,000 µ/L benzene is non-detect

Table 1
Summary of Groundwater Monitoring Data
Shell-branded Wholesale Facility
1349 Northwest State Avenue
Chehalis, Washington

Sample ID	TOC (feet amsl)	Sample Date	DTW (feet btoc)	GWE (feet amsl)	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	DIPE	ETBE	MTBE	TAME	TBA
Model Toxics Control Act Method A Cleanup Levels					800/1000 ¹	500	500	5.00	1,000	700	1,000	NE	NE	20	NE	NE

* indicates the samples were additionally analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) analyzed by EPA Method 8270C-SIM and for Polychlorinated biphenyls (PCBs) analyzed by EPA Method 8082; all of these analyte concentrations were below the laboratory reporting limits, except 1-Methylnaphthalene and Naphthalene in the sample from MW-5 at concentrations of 0.20 µg/L and 0.24 µg/L, respectively.

** indicates the samples were additionally analyzed for Halogenated Volatile Organic Compounds (HVOCs) analyzed by EPA Method 8260B; of the HVOCs regulated by MTCA all analyte concentrations were below the laboratory reporting/method detection limits. Please refer to the lab report for concentrations of HVOCs not regulated by MTCA.

a = Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

b = Hydrocarbon pattern most closely resembles heavy gas/light diesel range components

c = Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.

d = Hydrocarbon pattern most closely resembles a blend of heavy gas/light diesel range components as well as heavily weathered diesel and/or biogenic interference.

e = The primary contamination elutes between C8-C40, which is in the diesel fuel range.

f = The contamination did not match any standards in our library.

g = The primary contamination elutes between C16-C40, which is in the motor oil range.

h = The sample chromatographic pattern for TPH does not match the specified standard. Quantitation of the unknown hydrocarbons was based on the specified standard.

Appendix A Groundwater Sampling Field Forms

WELL GAUGING DATA

Project # 150317-CP1 Date 3/17/15 Client CRA

Site 1349 NW State St. Chehalis WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or ~~TOB~~	Notes
MW-2	0847	4					7.65	28.01		
MW-3	0857	4					7.02	28.21		
MW-4	0838	4	odor				5.95	20.15		
MW-5	0836	4					5.30	20.19		
MW-6	0842	4					6.01	20.11		
MW-7	0850	4					8.34	20.22		
MW-8	0852	4					6.70	19.73		
MW-9	0830	2					6.55	14.61		
MW-10	0853	2					7.88	11.52		
MW-11	0903	2					4.92	9.22	↓	

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150317-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C. Peters</u>	Gauging Date: <u>3/17/15</u>
Well I.D.: <u>MW-2</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>28.01</u>	Depth to Water (ft.): <u>7.65</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSE 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1020 Flow Rate: 100 mL/min Pump Depth: 10'

Time	Temp. (<u>90</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1026	11.63	6.10	337	34	2.42	-252.5	600	7.85
1029	11.67	6.09	334	29	2.95	-264.1	900	7.85
1032	11.71	6.09	332	27	2.28	-268.2	1200	7.85
1035	11.77	6.08	331	26	2.30	-268.9	1500	7.85
1038	11.79	6.08	331	26	2.39	-270.9	1800	7.85

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1039</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>6W-241795-031715-CP-MW-2</u> Laboratory: <u>TA</u>	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u>	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u> </u>

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150317-CP1	Client: CRA
Sampler: C. Peter	Gauging Date: 3/17/15
Well I.D.: MW-4	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 20.15	Depth to Water (ft.): 5.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: VGO Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1047 Flow Rate: 100 mL/min Pump Depth: 8'

Time	Temp. (° or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1053	12.66	5.94	666	26	6.96	-187.6	600	6.07
1056	12.95	5.96	673	25	6.88	-207.9	900	6.07
1059	12.99	5.97	674	25	6.82	-212.0	1200	6.07
1102	13.11	5.99	675	25	6.69	-221.9	1500	6.08
1105	13.13	6.01	676	24	6.68	-222.7	1800	6.08

Did well dewater? Yes ☒ No	Amount actually evacuated: 1.8L
Sampling Time: 1106	Sampling Date: 3/17/15
Sample I.D.: GW-241795-031715-CP-MW-4 Laboratory: TA	
Analyzed for: TPH-G ☒ BTEX ☒ MTBE ☒ TPH-D	Other: See COC
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150317-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C. Peters</u>	Gauging Date: <u>3/17/15</u>
Well I.D.: <u>MW-5</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>20.19</u>	Depth to Water (ft.): <u>5.30</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>VSE 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1122 Flow Rate: 100 mL/min Pump Depth: 8'

Time	Temp. (<u>°C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u>)	Depth to Water (ft.)
1128	13.84	5.96	773	40	5.13	-241.1	600	5.40
1131	13.97	5.97	781	39	5.64	-238.0	900	5.40
1134	14.02	5.98	785	49	5.02	-221.5	1200	5.40
1137	14.08	5.98	787	30	5.01	-219.4	1500	5.41
1140	14.10	5.99	788	28	5.15	-221.4	1800	5.41

Did well dewater? Yes <u>(No)</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1141</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>GW-241795-031715-CP-MW-5</u> Laboratory: <u>TA</u>	
Analyzed for: <u>TPH-G</u> <u>BYEX</u> <u>MITBE</u> <u>TPH-D</u>	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 150317-CP1	Client: CRA
Sampler: C. Peter	Gauging Date: 3/17/15
Well I.D.: MW-6	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 20.11	Depth to Water (ft.): 6.01
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>45E 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1156 Flow Rate: 100 mL/min Pump Depth: 8.5'

Time	Temp. (<u>°C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1202	13.72	6.33	536	142	0.91	-169.8	600	6.10
1205	13.91	6.32	536	120	0.99	-174.6	900	6.10
1208	13.93	6.30	536	109	1.20	-197.4	1200	6.10
1211	13.94	6.30	538	31	1.29	-213.8	1500	6.10
1214	13.95	6.30	539	53	1.19	-229.8	1800	6.10

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1215</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>GW-241795-031715-CP-MW-6</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>Time</u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150317-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C. Peter</u>	Gauging Date: <u>3/17/15</u>
Well I.D.: <u>MW-8</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8
Total Well Depth (ft.): <u>19.73</u>	Depth to Water (ft.): <u>6.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PV9</u> Grade	Flow Cell Type: <u>VSE 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1230 Flow Rate: 100 mL/min Pump Depth: 9'

Time	Temp. (<u>°C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u>)	Depth to Water (ft.)
1236	13.50	6.16	716	121	1.65	-192.5	600	6.78
1239	13.62	6.16	723	106	2.69	-203.0	900	6.79
1242	13.66	6.16	730	97	2.70	-202.1	1200	6.79
1245	13.68	6.16	733	94	2.70	-203.5	1500	6.80
1248	13.69	6.16	734	90	2.68	-203.0	1800	6.81

Did well dewater? Yes <u>(No)</u>	Amount actually evacuated: <u>1.86</u>
Sampling Time: <u>1249</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>GW-241795-031715-CP-MW-8</u> Laboratory: <u>TA</u>	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>Time</u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150317-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C. Peters</u>	Gauging Date: <u>3/17/15</u>
Well I.D.: <u>MW-9</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.61</u>	Depth to Water (ft.): <u>6.55</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>45I 556</u>

Purge Method: 2" Grundfos Rump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0917 Flow Rate: 100 mL/min Pump Depth: 10'

Time	Temp. (<u>°C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u>)	Depth to Water (ft.)
0923	12.76	5.77	703	276	3.74	-185.7	600	8.02
0926	12.56	5.63	611	151	1.15	-215.1	900	8.66
0929	12.82	5.58	615	127	1.07	-219.7	1200	9.05
0932	12.96	5.58	625	149	0.97	-222.1	1500	9.51
0935	13.10	5.60	640	176	0.88	-228.5	1800	9.82

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>18L</u>
Sampling Time: <u>0936</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>GW-241795-031715-CP-MW-9</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-E</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u> </u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: 150317-CPI	Client: CRA
Sampler: C. Peters	Gauging Date: 3/17/15
Well I.D.: MW-10	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 11.52	Depth to Water (ft.): 7.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVO Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 0952 Flow Rate: 100 mL/min Pump Depth: 10.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
0958	11.89	5.86	516	71000	0.77	-234.1	600	9.13
1001	11.85	5.86	515	874	0.81	-244.4	900	9.45
1004	11.81	5.86	519	663	1.50	-249.2	1200	9.70
1007	11.81	5.86	521	545	1.61	-250.1	1500	9.81
1010	11.80	5.86	520	492	1.70	-251.7	1800	10.01
- Well dewatered 3 times -								
- Insufficient water in well								
to complete Bottle Set -								
- Collected 0 VOA -								

Did well dewater? (Yes) No	Amount actually evacuated: 1.8L
Sampling Time: 1011	Sampling Date: 3/17/15
Sample I.D.: 6W-241795-031715-CPI-MW-10	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150317-CPI</u>	Client: <u>CRA</u>
Sampler: <u>C. Peters</u>	Gauging Date: <u>3/17/15</u>
Well I.D.: <u>MW-11</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>9.22</u>	Depth to Water (ft.): <u>4.92</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>VSE 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1258 Flow Rate: 100 mL/min Pump Depth: 7'

Time	Temp. (<u>9</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u>)	Depth to Water (ft.)
1304	12.74	6.34	274	51	3.59	-156.0	600	4.98
1307	12.83	6.18	272	35	3.28	-163.9	900	4.98
1310	12.60	6.14	271	32	3.25	-165.5	1200	4.98
1313	12.66	6.12	271	30	3.24	-167.4	1500	4.98
1316	12.54	6.08	269	29	3.16	-171.7	1800	4.98

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1317</u>	Sampling Date: <u>3/17/15</u>
Sample I.D.: <u>GW-241795-031715-CPI-MW-11</u> Laboratory: <u>TA</u>	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

WELL GAUGING DATA

Project # 150608-EPI Date 6/8/15 Client CRA

Site 1349 NW State St. Chehalis WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0834	4					8.42	28.02		
MW-3	0814	4					6.89	28.25		
MW-4	0822	4					6.95	20.15		
MW-5	0817	4					6.65	20.03		
MW-6	0826	4					6.42	20.21		
MW-7	0830	4					8.51	20.25		
MW-8	0837	4					7.41	19.68		
MW-9	0843	2					6.28	14.58		
MW-10	0840	2					7.82	11.55		
MW-11	0846	2					6.01	9.21		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CP1	Client: CRA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-2	Well Diameter (in.): 2 3 (4) 6 8
Total Well Depth (ft.): 28.02	Depth to Water (ft.): 8.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 0933 Flow Rate: 100 ml/min Pump Depth: 11'

Time	Temp. (Cor °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0939	17.36	6.97	353	52	2.94	-80.1	600	8.55
0942	17.29	6.79	352	47	2.69	-102.1	900	8.55
0945	17.17	6.61	357	40	2.55	-110.5	1200	8.55
0948	17.10	6.55	360	37	2.45	-119.8	1500	8.55
0951	17.05	6.47	362	39	2.38	-129.2	1800	8.55

Did well dewater? Yes ☒ No	Amount actually evacuated: 1.8L
Sampling Time: 0952	Sampling Date: 6/8/15
Sample I.D.: 6W-24/145-060815-CP-MW-2	Laboratory: TA
Analyzed for: TPH-L ☒ BTEX ☒ MTBE ☐ TPH-D	Other: See eoc
Equipment Blank I.D.: @	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150608-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C Peters</u>	Gauging Date: <u>6/8/15</u>
Well I.D.: <u>MW-4</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8
Total Well Depth (ft.): <u>20.15</u>	Depth to Water (ft.): <u>6.95</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>VST 556</u>

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated (Tubing) New Tubing Other
 Start Purge Time: 1010 Flow Rate: 100 ml/min Pump Depth: 9'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1016	18.33	6.23	829	39	2.40	-82.1	600	7.05
1019	18.44	6.23	828	36	2.26	-96.9	900	7.05
1022	18.51	6.24	828	32	2.23	-99.7	1200	7.05
1025	18.54	6.24	827	28	2.21	-101.4	1500	7.05
1028	18.58	6.24	828	25	2.20	-105.1	1800	7.05

Did well dewater? Yes <u>(No)</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1030</u>	Sampling Date: <u>6/8/15</u>
Sample I.D.: <u>6W-24/145-060815-CP-MW-4</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TRH-G</u> <u>(BTEX)</u> MTBE TPH-D	Other: <u>See eoc</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CP1	Client: CRA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-5	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 20.03	Depth to Water (ft.): 6.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSI 556</u>

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tabling New Tubing Other
 Start Purge Time: 1033 Flow Rate: 100 ml/min Pump Depth: 9'

Time	Temp. (C or F)	pH	Cond. (mS/cm or μ S/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1039	17.86	6.34	975	58	2.19	-82.4	600	6.76
1042	18.56	6.34	971	51	1.95	-120.9	900	6.77
1045	18.66	6.35	969	47	1.93	-134.6	1200	6.77
1048	18.62	6.35	970	42	1.93	-139.5	1500	6.78
1051	18.57	6.35	972	39	1.94	-142.7	1800	6.78

Did well dewater? Yes <u>No</u>	Amount actually evacuated: 1.8L
Sampling Time: 1052	Sampling Date: 6/8/15
Sample I.D.: 6W-24/145-060815-CP-MW-5	Laboratory: TA
Analyzed for: <u>TRH-C</u> <u>BTX</u> MTBE TPH-D	Other: See eoc
Equipment Blank I.D.: @	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CP1	Client: CRA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-6	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 20.21	Depth to Water (ft.): 6.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump : Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1102 Flow Rate: 100 ml/min Pump Depth: 9'

Time	Temp. (C or F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1108	18.46	6.76	595	68	1.86	-145.1	600	6.51
1111	18.43	6.66	606	62	1.62	-179.3	900	6.51
1114	18.44	6.64	604	59	1.58	-184.0	1200	6.52
1117	18.37	6.63	598	55	1.52	-193.1	1500	6.52
1120	18.31	6.62	595	51	1.51	-195.7	1800	6.52

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: 1.8L
Sampling Time: 1121	Sampling Date: 6/8/15
Sample I.D.: 60-24/195-060815-CP-MW-6	Laboratory: TA
Analyzed for: THG TEX MTBE TPH-D	Other: See eoc
Equipment Blank I.D.: @	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CP1	Client: CRA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-8	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 19.68	Depth to Water (ft.): 7.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump : Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1142 Flow Rate: 100 ml/min Pump Depth: 10'

Time	Temp. (C or F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1148	16.81	6.55	823	171	2.02	-129.2	600	7.45
1151	17.16	6.49	827	87	1.78	-161.9	900	7.45
1154	17.30	6.48	827	55	1.69	-177.1	1200	7.45
1157	17.31	6.46	825	51	1.58	-186.1	1500	7.45
1200	17.33	6.45	826	49	1.55	-196.2	1800	7.45

Did well dewater? Yes ☒ No	Amount actually evacuated: 1.8L
Sampling Time: 1201	Sampling Date: 6/8/15
Sample I.D.: 6W-24/145-060815-CP-MW-8	Laboratory: TA
Analyzed for: THL-C BTEX MTBE TPH-D	Other: See eoc
Equipment Blank I.D.: @	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150608-CP1</u>	Client: <u>CRA</u>
Sampler: <u>C Peters</u>	Gauging Date: <u>6/8/15</u>
Well I.D.: <u>MW-9</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.58</u>	Depth to Water (ft.): <u>6.28</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSI 556</u>

Purge Method: 2" Grundfos Pump ; Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 0901 Flow Rate: 100 ml/min Pump Depth: 9

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
0907	18.79	6.44	991	359	3.76	-179.6	600	7.50
0910	18.63	6.53	977	119	3.70	-183.8	900	7.72
0913	18.46	6.46	990	102	3.52	-186.6	1200	8.02
0916	18.42	6.42	1001	98	3.48	-187.5	1500	8.19
0919	18.39	6.39	999	92	3.42	-188.9	1800	8.30

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>0920</u>	Sampling Date: <u>6/8/15</u>
Sample I.D.: <u>6W-24/145-060815-CP-MW-9</u>	Laboratory: <u>TA</u>
Analyzed for: <u>THH-G</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See eoc</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CPI	Client: CRA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-10	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 11.55	Depth to Water (ft.): 7.82
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: FV Grade	Flow Cell Type: VSF 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1212 Flow Rate: 100 ml/min Pump Depth: 10'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1218	19.14	6.60	868	785	1.27	-156.1	600	8.99
1221	19.10	6.61	871	655	1.83	-161.2	900	9.39
1224	19.05	6.61	870	605	1.90	-170.5	1200	9.65
1227	19.02	6.61	867	579	1.45	-181.4	1500	9.81
1230	18.97	6.62	872	559	1.98	-190.2	1800	9.97

Did well dewater? Yes No Amount actually evacuated: 1.86

Sampling Time: 1231 Sampling Date: 6/8/15

Sample I.D.: 60-241795-060815-CPI-MW-Laboratory: TA

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see coc

Equipment Blank I.D.: @ Time Duplicate I.D.:

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LOW FLOW WELL MONITORING DATA SHEET

Project #: 150608-CP1	Client: MA
Sampler: C Peters	Gauging Date: 6/8/15
Well I.D.: MW-11	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 9.21	Depth to Water (ft.): 6.01
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: VSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1235 Flow Rate: 100 mL/min Pump Depth: 7'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1241	18.34	6.98	364	119	2.59	-84.3	600	6.05
1244	18.38	6.73	353	81	2.44	-98.1	900	6.05
1247	18.41	6.63	349	73	2.39	-106.7	1200	6.05
1250	18.38	6.54	348	52	2.34	-114.9	1500	6.05
1253	18.38	6.49	349	48	2.32	-117.3	1800	6.05

Did well dewater? Yes ☒ No	Amount actually evacuated: 1.92
Sampling Time: 1254	Sampling Date: 6/8/15
Sample I.D.: 6W-241795-060815-CP-MW-11 Laboratory: TA	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @	Duplicate I.D.:

WELL GAUGING DATA

Project # 150827-LBI Date 8/27/15 Client GHD

Site 1349 NW STATE ST, CHEHALIS, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-2	0708	4					10.21	27.65		
MW-3	0659	4					9.12 ~~10.62~~	28.07 ~~20.19~~		
MW-4	0713	4					8.36	20.01		
MW-5	0717	4					7.59	19.91		
MW-6	0724	4					8.51	20.03		
MW-7	0657 ~~0659~~	4					10.62	20.19		
MW-8	0729	4					8.46	19.52		
MW-9	0704	2					6.91	14.51		
MW-10	0734	2					8.70	11.49		
MW-11	0740	2					6.42	9.18	✓	

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-2</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>27.65</u>	Depth to Water (ft.): <u>10.21</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVG</u> Grade	Flow Cell Type: <u>VST 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0833 Flow Rate: 100 ML / MIN Pump Depth: 13'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0839	18.36	6.92	515	17	1.31	84.8	600	10.25
0842	18.42	6.90	514	14	1.26	77.7	900	10.25
0845	18.39	6.90	514	13	1.23	76.9	1200	10.25
0848	18.40	6.89	513	12	1.22	75.5	1500	10.25
0851	18.41	6.88	512	12	1.21	74.8	1800	10.25

Did well dewater? Yes ☒ No Amount actually evacuated: 1.8L

Sampling Time: 0852 Sampling Date: 8/27/15

Sample I.D.: GW-241795-082715-LB-MW-2 Laboratory: TA

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE COC

Equipment Blank I.D.: @ Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GAD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-4</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8 <u> </u>
Total Well Depth (ft.): <u>20.01</u>	Depth to Water (ft.): <u>8.36</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSE 555</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0901 Flow Rate: 100 mL / MIN Pump Depth: 11'

Time	Temp. (<u>C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u>)	Depth to Water (ft.)
0907	17.55	6.67	895	10	1.25	95.0	600	8.36
0910	17.52	6.67	901	12	1.20	87.7	900	8.36
0913	17.47	6.68	903	10	1.19	86.5	1200	8.36
0916	17.46	6.70	904	10	1.18	85.4	1500	8.36
0919	17.45	6.71	905	11	1.17	84.4	1800	8.36

Did well dewater? Yes NO Amount actually evacuated: 18L

Sampling Time: 0920 Sampling Date: 8/27/15

Sample I.D.: 6W-241795-082715-LB-MW-4 Laboratory: TA

Analyzed for: TPH BTEX MTBE TPH-D Other: SEE COC

Equipment Blank I.D.: @ Duplicate I.D.: Time

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-5</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>19.91</u>	Depth to Water (ft.): <u>7.59</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PYG</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0943 Flow Rate: 100 mL / MIN Pump Depth: 10.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ~~ml~~)	Depth to Water (ft.)
0949	19.73	6.70	963	26	1.29	88.2	600	7.61
0952	20.01	6.70	965	28	1.25	82.6	900	7.61
0955	19.91	6.89	968	26	1.23	80.6	1500	7.61
0958	19.90	6.68	969	25	1.22	79.6	1500	7.61
1001	19.89	6.70	968	24	1.21	78.2	1800	7.61

Did well dewater? Yes <u>NO</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1002</u>	Sampling Date: <u>8/27/15</u>
Sample I.D.: <u>GW-241745-082715-LB-MW-5</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TRH-6</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u>	Other: <u>SEE COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/21/15</u>
Well I.D.: <u>MW-6</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>20.03</u>	Depth to Water (ft.): <u>8.51</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>EV0</u> Grade	Flow Cell Type: <u>YSL 536</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1015 Flow Rate: 100 mL/MIN Pump Depth: 11.5'

Time	Temp. (<u>C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1021	17.44	6.76	964	45	1.21	-22.7	600	8.51
1024	17.41	6.77	970	21	1.18	-29.8	900	8.51
1027	17.38	6.77	971	18	1.15	-30.8	1200	8.51
1030	17.37	6.78	970	18	1.14	-31.2	1500	8.51
1033	17.36	6.79	969	17	1.13	-32.6	1800	8.51

Did well dewater? Yes <u>NO</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1034</u>	Sampling Date: <u>8/21/15</u>
Sample I.D.: <u>SW-241795-082715-LB-MW-6</u>	Laboratory: <u>TA</u>
Analyzed for: <u>PPH-D</u> <u>BTEX</u> <u>MTBE</u> <u>PPH-D</u> Other: <u>SEE COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-8</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>19.52</u>	Depth to Water (ft.): <u>8.46</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVG</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1046 Flow Rate: 100 mL / MIN Pump Depth: 11'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1052	18.50	6.85	758	30	0.96	-116.8	600	8.46
1055	18.64	6.86	760	27	0.91	-118.5	900	8.46
1058	18.70	6.88	761	22	0.88	-119.4	1200	8.46
1101	18.71	6.87	760	21	0.87	-120.8	1500	8.46
1104	18.72	6.86	758	20	0.86	-121.4	1800	8.46

Did well dewater? Yes <u>NO</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1105</u>	Sampling Date: <u>8/27/15</u>
Sample I.D.: <u>GW-241795-082715-LB-MW-8</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-G</u> <u>BTX</u> <u>MTBE</u> <u>TPH-D</u> <u>Other: SEE COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-9</u>	Well Diameter (in.): <u>4</u> 3 4 6 8
Total Well Depth (ft.): <u>14.51</u>	Depth to Water (ft.): <u>6.91</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>YSI 906</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0751 Flow Rate: 100 mL/MIN Pump Depth: 9.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0757	20.64	6.75	1033	17	1.71	109.2	600	8.63
0800	20.99	6.77	996	14	1.54	81.4	900	8.64
0803	21.03	6.79	994	13	1.52	80.6	1200	8.64
0806	21.05	6.78	993	14	1.51	79.2	1500	8.65
0809	21.06	6.79	992	15	1.50	78.6	1800	8.65

Did well dewater? Yes ☒ No	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>0810</u>	Sampling Date: <u>8/27/15</u>
Sample I.D.: <u>GW-241795-082715-LB-MW-9</u>	Laboratory: <u>TA</u>
Analyzed for: <u>PH</u> <u>TEX</u> <u>MTBE</u> <u>PEL</u> Other: <u>SEE COL</u>	
Equipment Blank I.D.: @ _____ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-10</u>	Well Diameter (in.): <u>Ø</u> 3 4 6 8 <u> </u>
Total Well Depth (ft.): <u>11.49</u>	Depth to Water (ft.): <u>8.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 616</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1112 Flow Rate: 100 ML / MIN Pump Depth: 11'

Time	Temp. <u>EC</u> or °F	pH	Cond. (mS/cm or <u>µS/cm</u>)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1124	21.72	7.07	916	47	0.99	-102.5	600	9.41
1127	21.90	7.08	921	40	0.93	-106.8	900	9.63
1130	21.94	7.09	923	39	0.91	-108.4	1200	9.59
1133	21.95	7.08	924	39	0.96	-109.6	1500	9.61
1136	21.96	7.07	925	40	0.89	-110.4	1800	9.65

Did well dewater? Yes <u>NO</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1137</u>	Sampling Date: <u>8/27/15</u>
Sample I.D.: <u>GW-241795-082715-LB-MW-10</u>	Laboratory: <u>TA</u>
Analyzed for: <u>(PH-G)</u> <u>(BTEX)</u> <u>(MIB)</u> <u>(PFAS)</u> <u>Other</u> <u>SECC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u> </u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>150827-LB1</u>	Client: <u>GHD</u>
Sampler: <u>LB</u>	Gauging Date: <u>8/27/15</u>
Well I.D.: <u>MW-11</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>9.18</u>	Depth to Water (ft.): <u>6.42</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSE 36</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1152 Flow Rate: 100 mL/MIN Pump Depth: 8.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μ S/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1158	21.67	6.83	336	53	1.09	-10.5	600	6.45
1201	21.68	6.76	337	21	0.91	-12.0	900	6.45
1204	21.70	6.74	338	19	0.89	-13.4	1200	6.45
1207	21.71	6.73	339	18	0.88	-14.8	1500	6.45
1210	21.73	6.72	340	17	0.87	-15.2	1800	6.45

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1211</u>	Sampling Date: <u>8/27/15</u>
Sample I.D.: <u>GW-241795-082715-LB-MW-1</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u>	Other: <u>S&P COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.:

WELL GAUGING DATA

Project # 151222-0P2 Date 12/22/15 Client AECOM

Site 1349 NW State St Onehalis WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-2	1115	4					7.08	28.02		
MW-3	1134	4					6.20	27.95		
MW-4	1140	4					4.88	20.02		
MW-5	1137	4					4.85	19.90		
MW-6	1130	4					5.57	20.05		
MW-7	1121	4					7.18	20.32		
MW-8	1130	4					6.03	19.72		
MW-9	1146	2					5.64	14.68		
MW-10	1137	2					6.82	11.52		
MW-11	1140	2					4.70	9.18	↓	

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-CP2</u>	Client: <u>AECOM</u>
Sampler: <u>CP</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-2</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>28.02</u>	Depth to Water (ft.): <u>7.08</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVG</u> Grade	Flow Cell Type: <u>USF 556</u>

Purge Method: 2" Grundfos Pump Peristaltic CP Pump Bladder Pump
 Sampling Method: Dedicated CP Tubing New Tubing Other _____
 Start Purge Time: 1155 Flow Rate: 100 mL/min Pump Depth: 10'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1201	11.66	5.97	499	11	2.34	125.1	600	7.10
1204	11.71	5.71	498	9	2.26	120.7	900	7.10
1207	11.87	5.66	497	8	2.16	117.1	1200	7.10
1210	11.95	5.60	495	8	2.14	114.2	1500	7.10
1213	12.00	5.57	493	7	2.10	110.9	1800	7.10

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>1.9L</u>
Sampling Time: <u>1214</u>	Sampling Date: <u>12/22/15</u>
Sample I.D.: <u>GW-241795-122215-CP-MW-2</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-C</u> <u>BTEX</u> MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>Time</u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-01</u>	Client: <u>AECOM</u>
Sampler: <u>CP</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-4</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>20.02</u>	Depth to Water (ft.): <u>4.88</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>NVO</u> Grade	Flow Cell Type: <u>45I556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1220 Flow Rate: 100 mL/min Pump Depth: 7'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1226	12.36	5.64	649	15	1.30	199.7	600	4.90
1229	12.10	5.62	629	7	1.37	174.1	900	4.90
1232	12.10	5.63	624	7	1.47	184.7	1200	4.90
1235	12.20	5.63	619	6	1.39	181.4	1500	4.90
1238	12.25	5.64	609	5	1.34	178.2	1800	4.90

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1239</u>	Sampling Date: <u>12/22/15</u>
Sample I.D.: <u>GW-241795-122215-CP-MW-4</u>	Laboratory: <u>TA</u>
Analyzed for: TPH ☒ BTEX ☒ MTBE ☒ TDA ☒	Other: <u>See COC</u>
Equipment Blank I.D.: _____ @ _____	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-QP2</u>	Client: <u>AECOM</u>
Sampler: <u>CP</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-5</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>19.90</u>	Depth to Water (ft.): <u>4.85</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>VO</u> Grade	Flow Cell Type: <u>VSI556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1253 Flow Rate: 100 mL/min Pump Depth: 7'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1259	13.83	5.50	950	15	2.11	157.1	600	4.90
1302	13.83	5.46	954	14	1.99	147.9	900	4.90
1305	13.99	5.43	951	9	1.55	147.1	1200	4.90
1308	13.88	5.39	954	9	1.52	145.4	1500	4.90
1311	13.85	5.37	955	7	1.50	144.9	1800	4.90

Did well dewater? Yes <u>(No)</u>	Amount actually evacuated: <u>1.8L</u>
Sampling Time: <u>1312</u>	Sampling Date: <u>12/22/15</u>
Sample I.D. <u>GW-241795-22215-Q-MW-5</u> Laboratory: <u>TA</u>	
Analyzed for: <u>TPH</u> <u>G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u>	Other: <u>Seooc</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-CP2</u>	Client: <u>AECOM</u>
Sampler: <u>CP</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-6</u>	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): <u>20.05</u>	Depth to Water (ft.): <u>5.57</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1320 Flow Rate: 100 mL/min Pump Depth: 8'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1326	14.27	5.71	784	350	0.87	130.3	600	5.57
1329	14.20	5.73	780	241	0.86	121.2	900	5.57
1332	14.16	5.73	759	205	0.76	115.1	1200	5.57
1335	14.08	5.75	751	164	0.70	109.3	1500	5.57
1338	14.01	5.76	745	155	0.64	107.1	1800	5.57

Did well dewater? Yes ☒ No	Amount actually evacuated: <u>1.8 L</u>
Sampling Time: <u>1339</u>	Sampling Date: <u>12/22/15</u>
Sample I.D.: <u>GW-241795-122215-CP-MW-6</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G ☒ BTEX ☒ MTBE ☒ TPH-D	Other: <u>See col</u>
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: 151222-CP2	Client: AECOM
Sampler: VL	Gauging Date: 12/22/15
Well I.D.: MW-0	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 19.72	Depth to Water (ft.): 6.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ Bladder Pump
 Sampling Method: ~~Dedicated Tubing~~ New Tubing Other
 Start Purge Time: 1237 Flow Rate: 100 mL/min Pump Depth: 9'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1243	12.7	6.32	677	29	0.48	-96	600	6.09
1246	13.1	6.27	667	35	0.40	-92	900	6.12
1249	13.0	6.26	665	31	0.43	-95	1200	6.20
1252	12.8	6.25	666	30	0.46	-93	1500	6.24
1255	12.7	6.24	665	31	0.47	-94	1800	6.27

Did well dewater? Yes ☒ No	Amount actually evacuated: 1800 mL
Sampling Time: 1310	Sampling Date: 12/22/15
Sample I.D.: GWL-241795-122215-VL-MW-0	Laboratory: TestAmerica
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 151222-CPZ	Client: AECOM
Sampler: VL	Gauging Date: 12/22/15
Well I.D.: MW-9	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 14.68	Depth to Water (ft.): 5.64
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: **2" Grundfos Pump** **Peristaltic Pump** Bladder Pump
 Sampling Method: **Dedicated Tubing** New Tubing Other
 Start Purge Time: **1157** Flow Rate: **100 mL/min** Pump Depth: **10'**

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1203	9.7	6.21	1110	41	0.42	-83	600	5.66
1206	10.2	6.19	1102	39	0.44	-80	900	5.67
1209	12.4	6.24	1056	36	0.28	-86	1200	5.74
1212	13.6	6.26	1051	37	0.26	-88	1500	5.77
1215	13.8	6.29	1046	33	0.27	-90	1800	5.80

Did well dewater? Yes No	Amount actually evacuated: 1800 mL
Sampling Time: 1230	Sampling Date: 12/22/15
Sample I.D.: GW-241795-122215-VL-MW-9	Laboratory: Test America
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See CAC
Equipment Blank I.D.: @	Duplicate I.D.: Time

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-CPZ</u>	Client: <u>AECOM</u>
Sampler: <u>VL</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-10</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>11.52</u>	Depth to Water (ft.): <u>6.82</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI Pro Plus</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____

Start Purge Time: 1315 Flow Rate: 100 mL/min Pump Depth: 9'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1318	13.5	6.32	1013	7000	0.53	-101	6000	6.92
1321	13.7	6.37	1026	86	0.45	-120	900	6.95
1324	13.9	6.42	1034	61	0.41	-126	1200	6.97
1327	14.0	6.44	1039	57	0.39	-129	1500	6.98
1330	13.9	6.45	1034	63	0.40	-133	1800	6.99
*Well dewatered while filling bottles.								
Only 1 of 2 HCL 1 L ampers collected *								

Did well dewater? Yes (No) Amount actually evacuated: 1800

Sampling Time: 1340 Sampling Date: 12/22/15

Sample I.D.: GW-241745-122215-VL-MW-10 Laboratory: Test America

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>151222-CP2</u>	Client: <u>AECOM</u>
Sampler: <u>CP</u>	Gauging Date: <u>12/22/15</u>
Well I.D.: <u>MW-11</u>	Well Diameter (in.): <u>3</u> 3 4 6 8
Total Well Depth (ft.): <u>9.18</u>	Depth to Water (ft.): <u>4.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>452556</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1352 Flow Rate: 100 mL/min Pump Depth: 7'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u>)	Depth to Water (ft.)
1358	10.93	6.57	382	163	15.04	138.2	600	4.81
1401	10.79	6.05	379	69	13.42	158.0	900	4.81
1404	10.82	5.84	378	56	12.32	166.1	1200	4.81
1407	10.83	5.77	375	52	12.39	158.5	1500	4.81
1410	10.79	5.72	377	50	12.31	155.1	1800	4.81

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: <u>1.86</u>
Sampling Time: <u>1411</u>	Sampling Date: <u>12/22/15</u>
Sample I.D.: <u>6W-241795-122215-CP-MW-11</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH</u> <u>G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u>	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>Time</u>

Appendix B

Analytical Reports & Chains of Custody

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Drive

Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-74516-1

TestAmerica Sample Delivery Group: SAP#116047/241795

Client Project/Site: 1349 NW State Street, Chehalis, WA

For:

Conestoga-Rovers & Associates, Inc.

20818 44th Ave W

Suite 190

Lynnwood, Washington 98036

Attn: Tim Mullin

Roxanne L Connor

Authorized for release by:

4/1/2015 3:35:11 PM

Roxanne Connor, Senior Project Manager

(615)301-5761

roxanne.connor@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-74516-1	GW-241795-031715-MW-2	Ground Water	03/17/15 10:39	03/18/15 08:40
490-74516-2	GW-241795-031715-MW-4	Ground Water	03/17/15 11:06	03/18/15 08:40
490-74516-3	GW-241795-031715-MW-5	Ground Water	03/17/15 11:41	03/18/15 08:40
490-74516-4	GW-241795-031715-MW-6	Ground Water	03/17/15 12:15	03/18/15 08:40
490-74516-5	GW-241795-031715-MW-8	Ground Water	03/17/15 12:49	03/18/15 08:40
490-74516-6	GW-241795-031715-MW-9	Ground Water	03/17/15 09:36	03/18/15 08:40
490-74516-7	GW-241795-031715-MW-10	Ground Water	03/17/15 10:11	03/18/15 08:40
490-74516-8	GW-241795-031715-MW-11	Ground Water	03/17/15 13:17	03/18/15 08:40

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Job ID: 490-74516-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-74516-1

Comments

No additional comments.

Receipt

The samples were received on 3/18/2015 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 2.5° C.

GC/MS VOA

Method(s) 8260B: MS/MSD not performed for batch 236549 due to instrument error.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 490-74516-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-74516-2

Comments

No additional comments.

Receipt

The samples were received on 3/18/2015 8:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 2.5° C.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern which does not match a typical Total Petroleum Hydrocarbon (TPH) pattern used by the laboratory for quantitative purposes: GW-241795-031715-MW-4 (490-74516-2), GW-241795-031715-MW-5 (490-74516-3), GW-241795-031715-MW-6 (490-74516-4), GW-241795-031715-MW-8 (490-74516-5), GW-241795-031715-MW-9 (490-74516-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 234877.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-2

Lab Sample ID: 490-74516-1

Date Collected: 03/17/15 10:39

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/26/15 17:30	1
Ethylbenzene	ND		1.00		ug/L			03/26/15 17:30	1
Toluene	ND		1.00		ug/L			03/26/15 17:30	1
Xylenes, Total	ND		2.00		ug/L			03/26/15 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		03/26/15 17:30	1
Dibromofluoromethane (Surr)	89		70 - 130		03/26/15 17:30	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		03/26/15 17:30	1
Toluene-d8 (Surr)	108		70 - 130		03/26/15 17:30	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	183		100		ug/L			03/24/15 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150		03/24/15 22:29	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-4

Lab Sample ID: 490-74516-2

Date Collected: 03/17/15 11:06

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 15:57	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 15:57	1
Toluene	ND		1.00		ug/L			03/27/15 15:57	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130					03/27/15 15:57	1
Dibromofluoromethane (Surr)	89		70 - 130					03/27/15 15:57	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130					03/27/15 15:57	1
Toluene-d8 (Surr)	108		70 - 130					03/27/15 15:57	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/24/15 23:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150					03/24/15 23:02	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	614		93.5		ug/L		03/19/15 12:28	03/21/15 15:57	1
C24-C40	128		93.5		ug/L		03/19/15 12:28	03/21/15 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150				03/19/15 12:28	03/21/15 15:57	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-5

Lab Sample ID: 490-74516-3

Date Collected: 03/17/15 11:41

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 16:24	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 16:24	1
Toluene	ND		1.00		ug/L			03/27/15 16:24	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130					03/27/15 16:24	1
Dibromofluoromethane (Surr)	90		70 - 130					03/27/15 16:24	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130					03/27/15 16:24	1
Toluene-d8 (Surr)	108		70 - 130					03/27/15 16:24	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/24/15 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		50 - 150					03/24/15 23:35	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	794		93.5		ug/L		03/19/15 12:28	03/21/15 16:12	1
C24-C40	ND		93.5		ug/L		03/19/15 12:28	03/21/15 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150				03/19/15 12:28	03/21/15 16:12	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-6

Lab Sample ID: 490-74516-4

Date Collected: 03/17/15 12:15

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 16:50	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 16:50	1
Toluene	ND		1.00		ug/L			03/27/15 16:50	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		03/27/15 16:50	1
Dibromofluoromethane (Surr)	89		70 - 130		03/27/15 16:50	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/27/15 16:50	1
Toluene-d8 (Surr)	108		70 - 130		03/27/15 16:50	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	131		100		ug/L			03/25/15 00:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150		03/25/15 00:08	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	402		93.5		ug/L		03/19/15 12:28	03/21/15 16:27	1
C24-C40	ND		93.5		ug/L		03/19/15 12:28	03/21/15 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	03/19/15 12:28	03/21/15 16:27	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-8

Lab Sample ID: 490-74516-5

Date Collected: 03/17/15 12:49

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 17:16	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 17:16	1
Toluene	ND		1.00		ug/L			03/27/15 17:16	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		03/27/15 17:16	1
Dibromofluoromethane (Surr)	89		70 - 130		03/27/15 17:16	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/27/15 17:16	1
Toluene-d8 (Surr)	107		70 - 130		03/27/15 17:16	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/25/15 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		50 - 150		03/25/15 00:41	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	540		93.5		ug/L		03/19/15 12:28	03/21/15 16:43	1
C24-C40	109		93.5		ug/L		03/19/15 12:28	03/21/15 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	68		50 - 150	03/19/15 12:28	03/21/15 16:43	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-9

Lab Sample ID: 490-74516-6

Date Collected: 03/17/15 09:36

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 17:42	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 17:42	1
Toluene	ND		1.00		ug/L			03/27/15 17:42	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130		03/27/15 17:42	1
Dibromofluoromethane (Surr)	89		70 - 130		03/27/15 17:42	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/27/15 17:42	1
Toluene-d8 (Surr)	109		70 - 130		03/27/15 17:42	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/25/15 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150		03/25/15 01:13	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	746		93.9		ug/L		03/19/15 12:28	03/21/15 16:58	1
C24-C40	141		93.9		ug/L		03/19/15 12:28	03/21/15 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	56		50 - 150	03/19/15 12:28	03/21/15 16:58	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-10

Lab Sample ID: 490-74516-7

Date Collected: 03/17/15 10:11

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 18:08	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 18:08	1
Toluene	ND		1.00		ug/L			03/27/15 18:08	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		03/27/15 18:08	1
Dibromofluoromethane (Surr)	89		70 - 130		03/27/15 18:08	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/27/15 18:08	1
Toluene-d8 (Surr)	109		70 - 130		03/27/15 18:08	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/25/15 01:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		50 - 150		03/25/15 01:46	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-11

Lab Sample ID: 490-74516-8

Date Collected: 03/17/15 13:17

Matrix: Ground Water

Date Received: 03/18/15 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 18:34	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 18:34	1
Toluene	ND		1.00		ug/L			03/27/15 18:34	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		03/27/15 18:34	1
Dibromofluoromethane (Surr)	90		70 - 130		03/27/15 18:34	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/27/15 18:34	1
Toluene-d8 (Surr)	108		70 - 130		03/27/15 18:34	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			03/25/15 02:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		50 - 150		03/25/15 02:19	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-236549/7

Matrix: Water

Analysis Batch: 236549

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/26/15 13:35	1
Ethylbenzene	ND		1.00		ug/L			03/26/15 13:35	1
Toluene	ND		1.00		ug/L			03/26/15 13:35	1
Xylenes, Total	ND		2.00		ug/L			03/26/15 13:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		03/26/15 13:35	1
Dibromofluoromethane (Surr)	86		70 - 130		03/26/15 13:35	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/26/15 13:35	1
Toluene-d8 (Surr)	111		70 - 130		03/26/15 13:35	1

Lab Sample ID: LCS 490-236549/3

Matrix: Water

Analysis Batch: 236549

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	46.95		ug/L		94	80 - 121
Ethylbenzene	50.0	56.11		ug/L		112	80 - 130
Toluene	50.0	54.71		ug/L		109	80 - 126
Xylenes, Total	150	168.4		ug/L		112	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Toluene-d8 (Surr)	109		70 - 130

Lab Sample ID: LCSD 490-236549/4

Matrix: Water

Analysis Batch: 236549

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.94		ug/L		94	80 - 121	0	17
Ethylbenzene	50.0	54.76		ug/L		110	80 - 130	2	15
Toluene	50.0	54.24		ug/L		108	80 - 126	1	15
Xylenes, Total	150	164.6		ug/L		110	80 - 132	2	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	108		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-236909/7

Matrix: Water

Analysis Batch: 236909

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			03/27/15 13:43	1
Ethylbenzene	ND		1.00		ug/L			03/27/15 13:43	1
Toluene	ND		1.00		ug/L			03/27/15 13:43	1
Xylenes, Total	ND		2.00		ug/L			03/27/15 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		03/27/15 13:43	1
Dibromofluoromethane (Surr)	89		70 - 130		03/27/15 13:43	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/27/15 13:43	1
Toluene-d8 (Surr)	110		70 - 130		03/27/15 13:43	1

Lab Sample ID: LCS 490-236909/3

Matrix: Water

Analysis Batch: 236909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	47.46		ug/L		95	80 - 121
Ethylbenzene	50.0	54.95		ug/L		110	80 - 130
Toluene	50.0	54.62		ug/L		109	80 - 126
Xylenes, Total	150	164.2		ug/L		109	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
Dibromofluoromethane (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
Toluene-d8 (Surr)	108		70 - 130

Lab Sample ID: LCSD 490-236909/4

Matrix: Water

Analysis Batch: 236909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	45.58		ug/L		91	80 - 121	4	17
Ethylbenzene	50.0	53.49		ug/L		107	80 - 130	3	15
Toluene	50.0	53.19		ug/L		106	80 - 126	3	15
Xylenes, Total	150	159.1		ug/L		106	80 - 132	3	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	109		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-74516-3 MS

Matrix: Ground Water

Analysis Batch: 236909

Client Sample ID: GW-241795-031715-MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	55.51		ug/L		111	75 - 133
Ethylbenzene	ND		50.0	65.21		ug/L		130	79 - 139
Toluene	ND		50.0	63.99		ug/L		128	75 - 136
Xylenes, Total	ND		150	195.0		ug/L		130	74 - 141

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Toluene-d8 (Surr)	109		70 - 130

Lab Sample ID: 490-74516-3 MSD

Matrix: Ground Water

Analysis Batch: 236909

Client Sample ID: GW-241795-031715-MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	52.97		ug/L		106	75 - 133	5	17
Ethylbenzene	ND		50.0	62.40		ug/L		125	79 - 139	4	15
Toluene	ND		50.0	61.10		ug/L		122	75 - 136	5	15
Xylenes, Total	ND		150	185.4		ug/L		124	74 - 141	5	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	108		70 - 130

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-235794/9

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
C6-C12	ND		100		ug/L			03/24/15 18:07	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
a,a,a-Trifluorotoluene	98		50 - 150		03/24/15 18:07	1			

Lab Sample ID: LCS 490-235794/6

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	1000	970.3		ug/L		97	39 - 143

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 490-235794/6

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	125		50 - 150

Lab Sample ID: LCSD 490-235794/7

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	1000	959.3		ug/L		96	39 - 143	1	18

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	123		50 - 150

Lab Sample ID: 490-74508-E-3 MS

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	ND		1000	1116		ug/L		112	39 - 143		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	126		50 - 150

Lab Sample ID: 490-74508-F-3 MSD

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	ND		1000	1178		ug/L		118	39 - 143	5	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	126		50 - 150

Lab Sample ID: 490-74508-E-1 DU

Matrix: Water

Analysis Batch: 235794

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	ND		ND		ug/L				NC	18

	DU	DU	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	96		50 - 150

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 490-234877/1-A

Matrix: Water

Analysis Batch: 235398

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 234877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		03/19/15 12:28	03/21/15 14:25	1
C24-C40	ND		100		ug/L		03/19/15 12:28	03/21/15 14:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150				03/19/15 12:28	03/21/15 14:25	1

Lab Sample ID: LCS 490-234877/2-A

Matrix: Water

Analysis Batch: 235398

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C24	1000	827.3		ug/L		83	51 - 132
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl	81		50 - 150				

Lab Sample ID: 490-74508-J-1-A DU

Matrix: Water

Analysis Batch: 235398

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 234877

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
C10-C24	ND		ND		ug/L		NC	41
C24-C40	ND		ND		ug/L		NC	41
Surrogate	DU %Recovery	DU Qualifier	Limits					
o-Terphenyl	66		50 - 150					

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

GC/MS VOA

Analysis Batch: 236549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74516-1	GW-241795-031715-MW-2	Total/NA	Ground Water	8260B	
LCS 490-236549/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-236549/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-236549/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 236909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74516-2	GW-241795-031715-MW-4	Total/NA	Ground Water	8260B	
490-74516-3	GW-241795-031715-MW-5	Total/NA	Ground Water	8260B	
490-74516-3 MS	GW-241795-031715-MW-5	Total/NA	Ground Water	8260B	
490-74516-3 MSD	GW-241795-031715-MW-5	Total/NA	Ground Water	8260B	
490-74516-4	GW-241795-031715-MW-6	Total/NA	Ground Water	8260B	
490-74516-5	GW-241795-031715-MW-8	Total/NA	Ground Water	8260B	
490-74516-6	GW-241795-031715-MW-9	Total/NA	Ground Water	8260B	
490-74516-7	GW-241795-031715-MW-10	Total/NA	Ground Water	8260B	
490-74516-8	GW-241795-031715-MW-11	Total/NA	Ground Water	8260B	
LCS 490-236909/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-236909/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-236909/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 235794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74508-E-1 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
490-74508-E-3 MS	Matrix Spike	Total/NA	Water	NWTPH-Gx	
490-74508-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	NWTPH-Gx	
490-74516-1	GW-241795-031715-MW-2	Total/NA	Ground Water	NWTPH-Gx	
490-74516-2	GW-241795-031715-MW-4	Total/NA	Ground Water	NWTPH-Gx	
490-74516-3	GW-241795-031715-MW-5	Total/NA	Ground Water	NWTPH-Gx	
490-74516-4	GW-241795-031715-MW-6	Total/NA	Ground Water	NWTPH-Gx	
490-74516-5	GW-241795-031715-MW-8	Total/NA	Ground Water	NWTPH-Gx	
490-74516-6	GW-241795-031715-MW-9	Total/NA	Ground Water	NWTPH-Gx	
490-74516-7	GW-241795-031715-MW-10	Total/NA	Ground Water	NWTPH-Gx	
490-74516-8	GW-241795-031715-MW-11	Total/NA	Ground Water	NWTPH-Gx	
LCS 490-235794/6	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-235794/7	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-235794/9	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 234877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74508-J-1-A DU	Duplicate	Total/NA	Water	3510C	
490-74516-2	GW-241795-031715-MW-4	Total/NA	Ground Water	3510C	
490-74516-3	GW-241795-031715-MW-5	Total/NA	Ground Water	3510C	
490-74516-4	GW-241795-031715-MW-6	Total/NA	Ground Water	3510C	
490-74516-5	GW-241795-031715-MW-8	Total/NA	Ground Water	3510C	
490-74516-6	GW-241795-031715-MW-9	Total/NA	Ground Water	3510C	
LCS 490-234877/2-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Nashville

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

GC Semi VOA (Continued)

Prep Batch: 234877 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-234877/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 235398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-74508-J-1-A DU	Duplicate	Total/NA	Water	NWTPH-Dx	234877
490-74516-2	GW-241795-031715-MW-4	Total/NA	Ground Water	NWTPH-Dx	234877
490-74516-3	GW-241795-031715-MW-5	Total/NA	Ground Water	NWTPH-Dx	234877
490-74516-4	GW-241795-031715-MW-6	Total/NA	Ground Water	NWTPH-Dx	234877
490-74516-5	GW-241795-031715-MW-8	Total/NA	Ground Water	NWTPH-Dx	234877
490-74516-6	GW-241795-031715-MW-9	Total/NA	Ground Water	NWTPH-Dx	234877
LCS 490-234877/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	234877
MB 490-234877/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	234877

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-2

Date Collected: 03/17/15 10:39

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236549	03/26/15 17:30	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/24/15 22:29	GWM	TAL NSH

Client Sample ID: GW-241795-031715-MW-4

Date Collected: 03/17/15 11:06

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 15:57	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/24/15 23:02	GWM	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	234877	03/19/15 12:28	ET	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1070 mL	1 mL	235398	03/21/15 15:57	TRF	TAL NSH

Client Sample ID: GW-241795-031715-MW-5

Date Collected: 03/17/15 11:41

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 16:24	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/24/15 23:35	GWM	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	234877	03/19/15 12:28	ET	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1070 mL	1 mL	235398	03/21/15 16:12	TRF	TAL NSH

Client Sample ID: GW-241795-031715-MW-6

Date Collected: 03/17/15 12:15

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 16:50	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/25/15 00:08	GWM	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	234877	03/19/15 12:28	ET	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1070 mL	1 mL	235398	03/21/15 16:27	TRF	TAL NSH

Client Sample ID: GW-241795-031715-MW-8

Date Collected: 03/17/15 12:49

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 17:16	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/25/15 00:41	GWM	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	234877	03/19/15 12:28	ET	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1070 mL	1 mL	235398	03/21/15 16:43	TRF	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-031715-MW-9

Date Collected: 03/17/15 09:36

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 17:42	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/25/15 01:13	GWM	TAL NSH
Total/NA	Prep	3510C			1065 mL	1 mL	234877	03/19/15 12:28	ET	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1065 mL	1 mL	235398	03/21/15 16:58	TRF	TAL NSH

Client Sample ID: GW-241795-031715-MW-10

Date Collected: 03/17/15 10:11

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 18:08	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/25/15 01:46	GWM	TAL NSH

Client Sample ID: GW-241795-031715-MW-11

Date Collected: 03/17/15 13:17

Date Received: 03/18/15 08:40

Lab Sample ID: 490-74516-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	236909	03/27/15 18:34	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	235794	03/25/15 02:19	GWM	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-74516-1
SDG: SAP#116047/241795

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-15

COOLER RECEIPT FORM



Cooler Received/Opened On 3/18/2015 @ 8:40

1. Tracking # 1770 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 2.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA YES

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA YES

6. Were custody papers inside cooler? YES...NO...NA YES

I certify that I opened the cooler and answered questions 1-6 (initial) BZA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA YES

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA YES

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA YES

12. Did all container labels and tags agree with custody papers? YES...NO...NA YES

13a. Were VOA vials received? YES...NO...NA YES

b. Was there any observable headspace present in any VOA vial? YES...NO...NA YES

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (initial) [Signature]

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA YES

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA YES

16. Was residual chlorine present? YES...NO...NA YES

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) [Signature]

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA YES

18. Did you sign the custody papers in the appropriate place? YES...NO...NA YES

19. Were correct containers used for the analysis requested? YES...NO...NA YES

20. Was sufficient amount of sample sent in each container? YES...NO...NA YES

I certify that I entered this project into LIMS and answered questions 17-20 (initial) [Signature]

I certify that I attached a label with the unique LIMS number to each container (initial) [Signature]

21. Were there Non-Conformance issues at login? YES NO Was a PIPE generated? YES...NO...NA NO

COOLER RECEIPT FORM

Cooler Received/Opened On 3/18/2015 @ 0840

1. Tracking # 1760 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID Raynger

2. Temperature of rep. sample or temp blank when opened: 2-2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? 1 front YES...NO...NA

If yes, how many and where: _____

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ph

7. Were custody seals on containers: YES NO and intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES NO...NA If multiple coolers, sequence # 3/18/15

I certify that I unloaded the cooler and answered questions 7-14 (initial) ph

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ph

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ph

I certify that I attached a label with the unique LIMS number to each container (initial) ph

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES...NO...#

LAB (LOCATION)

☐ CALSCE ()
☐ SPL Houston ()
☐ XENCO ()
☒ TEST AMERICA ()
☐ OTHER ()

☐ ENV SERVICES
☐ NOTVA RENTL
☒ CONSULTANT
☐ SHELL PIPELINE
☐ SHELL RETAIL
☐ NOTVA SOACH
☐ LUBES
☐ OTHER

Blaine Tech Services

20735 Belshaw Avenue, Carson, CA 90746

PROJECT CONTACT: Project Manager or Project Engineer
Bart Gebbie

TELEPHONE: (310) 885-4456 x 103 FAX: (310) 637-6802
TYPICAL ROUND TIME (CALENDAR DAYS): ☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS
☐ LA - RUCOB REPORT FORMAT ☐ UST AGENCY: ☐ RESULTS NEEDED ON WEEKEND

SPECIAL INSTRUCTIONS OR NOTES:

1) Please upload the "CRA EQUIS 4-file EDD" to the CRA Website (http://craupload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder. 2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell Lab, Billings@CRAworld.com, Shell.results@CRAworld.com, and Shell-US-LabDataManagement@CRAworld.com

Email Invoice to Shell Lab, Billings@CRAworld.com
See Laboratory PFI for WA Dept. of Ecology MTCA Method A cleanup levels for million detection limits.

SAMPLE ID

LAB NAME	PROJECT NUMBER	DATE (MM/DD/YY)	SAMPLER INITIALS	WELL ID	TIME	MATRIX	NO. OF CONT.
	241795	03/17/15	AP	MW-2	1034	WC	6
	241795	03/17/15	AP	MW-4	1106	WC	8
	241795	03/17/15	AP	MW-5	1141	WC	8
	241795	03/17/15	AP	MW-6	1215	WC	8
	241795	03/17/15	AP	MW-8	1249	WC	8
	241795	03/17/15	AP	MW-9	0936	WC	8
	241795	03/17/15	AP	MW-10	1611	WC	8
	241795	03/17/15	AP	MW-11	1717	WC	8

Matrix Codes: WG (groundwater), WS (surface water), WP (drinking water source), W (TTP or Temp Blank)

PRESERVATIVE

☐ HCL ☐ HNO3 ☐ H2SO4 ☐ NONE ☐ OTHER

Shell Oil Products Chain Of Custody Record

Print Bill To Contact Name: Tim Mullin - 241795.2011.01

INCIDENT # (ENV SERVICES) ☐ CHECK IF NO INCIDENT # APPLIES

PO # 9 4 9 9 5 0 0 9
SAP # 1 1 6 0 4 7

SITE ADDRESS: Street and City 1349 NW State Street, Chehalis

STATE WA

GLOBAL ID NO: NA

EDD DELIVERABLE TO: Return, Consign, Other Location

PHONE NO: 425-563-5500

E-MAIL: Shell-US-LabDataManagement@CRAworld.com

CONSULTANT PROJECT NO: 150317-091

CRA Seattle, WA
CRA's Patony

REQUESTED ANALYSIS

LOC: 490
74516

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes

Requested by: (Signature) [Signature]

Received by: (Signature) [Signature]

Shipped via Fed Ex

25/12/2

Date: 3/17/15

Time: 0840

Requested by: (Signature)

Received by: (Signature)

25/12/2

Date: 03/18/15

Time: 0840

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-74516-1
SDG Number: SAP#116047/241795

Login Number: 74516

List Number: 1

Creator: Gambill, Shane

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5 / 2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Drive

Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-80213-1

TestAmerica Sample Delivery Group: SAP#116047/241795

Client Project/Site: 1349 NW State Street, Chehalis, WA

For:

Conestoga-Rovers & Associates, Inc.

20818 44th Ave W

Suite 190

Lynnwood, Washington 98036

Attn: Brian Peters

Roxanne L Connor

Authorized for release by:

6/22/2015 4:47:07 PM

Roxanne Connor, Senior Project Manager

(615)301-5761

roxanne.connor@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-80213-1	GW-241795-060815-CP-MW-2	Water	06/08/15 09:52	06/09/15 08:45
490-80213-2	GW-241795-060815-CP-MW-4	Water	06/08/15 10:30	06/09/15 08:45
490-80213-3	GW-241795-060815-CP-MW-5	Water	06/08/15 10:52	06/09/15 08:45
490-80213-4	GW-241795-060815-CP-MW-6	Water	06/08/15 11:21	06/09/15 08:45
490-80213-5	GW-241795-060815-CP-MW-8	Water	06/08/15 12:01	06/09/15 08:45
490-80213-6	GW-241795-060815-CP-MW-9	Water	06/08/15 09:20	06/09/15 08:45
490-80213-7	GW-241795-060815-CP-MW-10	Water	06/08/15 12:31	06/09/15 08:45
490-80213-8	GW-241795-060815-CP-MW-11	Water	06/08/15 12:54	06/09/15 08:45

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Job ID: 490-80213-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-80213-1

Comments

No additional comments.

Receipt

The samples were received on 6/9/2015 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 3.3° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 490-80213-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-80213-2

Comments

No additional comments.

Receipt

The samples were received on 6/9/2015 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 3.3° C.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern which does not match a typical Total Petroleum Hydrocarbon (TPH) pattern used by the laboratory for quantitative purposes: GW-241795-060815-CP-MW-5 (490-80213-3), GW-241795-060815-CP-MW-8 (490-80213-5), GW-241795-060815-CP-MW-9 (490-80213-6), GW-241795-060815-CP-MW-10 (490-80213-7) and (490-80213-H-3-A DU).

Method(s) NWTPH-Dx: There was insufficient contamination present to perform a pattern match for the following samples: GW-241795-060815-CP-MW-4 (490-80213-2) and GW-241795-060815-CP-MW-6 (490-80213-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-2

Lab Sample ID: 490-80213-1

Date Collected: 06/08/15 09:52

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 15:09	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 15:09	1
Toluene	ND		1.00		ug/L			06/18/15 15:09	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		06/18/15 15:09	1
Dibromofluoromethane (Surr)	102		70 - 130		06/18/15 15:09	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/18/15 15:09	1
Toluene-d8 (Surr)	100		70 - 130		06/18/15 15:09	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	127		100		ug/L			06/16/15 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150		06/16/15 03:07	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-4

Lab Sample ID: 490-80213-2

Date Collected: 06/08/15 10:30

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 05:40	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 05:40	1
Toluene	ND		1.00		ug/L			06/18/15 05:40	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 05:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		06/18/15 05:40	1
Dibromofluoromethane (Surr)	99		70 - 130		06/18/15 05:40	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/18/15 05:40	1
Toluene-d8 (Surr)	100		70 - 130		06/18/15 05:40	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 04:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		50 - 150		06/16/15 04:11	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	222		94.3		ug/L		06/13/15 18:43	06/16/15 16:41	1
C24-C40	ND		94.3		ug/L		06/13/15 18:43	06/16/15 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		50 - 150	06/13/15 18:43	06/16/15 16:41	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-5

Lab Sample ID: 490-80213-3

Date Collected: 06/08/15 10:52

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 06:06	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 06:06	1
Toluene	ND		1.00		ug/L			06/18/15 06:06	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 06:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		06/18/15 06:06	1
Dibromofluoromethane (Surr)	101		70 - 130		06/18/15 06:06	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/18/15 06:06	1
Toluene-d8 (Surr)	101		70 - 130		06/18/15 06:06	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82		50 - 150		06/16/15 04:44	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	864		94.3		ug/L		06/13/15 18:43	06/16/15 16:58	1
C24-C40	97.8		94.3		ug/L		06/13/15 18:43	06/16/15 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	99		50 - 150	06/13/15 18:43	06/16/15 16:58	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-6

Lab Sample ID: 490-80213-4

Date Collected: 06/08/15 11:21

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 06:32	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 06:32	1
Toluene	ND		1.00		ug/L			06/18/15 06:32	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 06:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		06/18/15 06:32	1
Dibromofluoromethane (Surr)	101		70 - 130		06/18/15 06:32	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/18/15 06:32	1
Toluene-d8 (Surr)	101		70 - 130		06/18/15 06:32	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	117		100		ug/L			06/16/15 05:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		50 - 150		06/16/15 05:16	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	215		94.3		ug/L		06/13/15 18:43	06/16/15 17:33	1
C24-C40	ND		94.3		ug/L		06/13/15 18:43	06/16/15 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	06/13/15 18:43	06/16/15 17:33	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-8

Lab Sample ID: 490-80213-5

Date Collected: 06/08/15 12:01

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 06:58	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 06:58	1
Toluene	ND		1.00		ug/L			06/18/15 06:58	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 06:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130		06/18/15 06:58	1
Dibromofluoromethane (Surr)	101		70 - 130		06/18/15 06:58	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/18/15 06:58	1
Toluene-d8 (Surr)	101		70 - 130		06/18/15 06:58	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 05:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		50 - 150		06/16/15 05:48	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	519		94.3		ug/L		06/13/15 18:43	06/16/15 17:51	1
C24-C40	151		94.3		ug/L		06/13/15 18:43	06/16/15 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	06/13/15 18:43	06/16/15 17:51	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-9

Lab Sample ID: 490-80213-6

Date Collected: 06/08/15 09:20

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 07:25	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 07:25	1
Toluene	ND		1.00		ug/L			06/18/15 07:25	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		06/18/15 07:25	1
Dibromofluoromethane (Surr)	100		70 - 130		06/18/15 07:25	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/18/15 07:25	1
Toluene-d8 (Surr)	102		70 - 130		06/18/15 07:25	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 06:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	81		50 - 150		06/16/15 06:20	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	900		94.3		ug/L		06/13/15 18:43	06/16/15 18:09	1
C24-C40	217		94.3		ug/L		06/13/15 18:43	06/16/15 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	99		50 - 150	06/13/15 18:43	06/16/15 18:09	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-10

Lab Sample ID: 490-80213-7

Date Collected: 06/08/15 12:31

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 07:51	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 07:51	1
Toluene	ND		1.00		ug/L			06/18/15 07:51	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 07:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		06/18/15 07:51	1
Dibromofluoromethane (Surr)	99		70 - 130		06/18/15 07:51	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/18/15 07:51	1
Toluene-d8 (Surr)	101		70 - 130		06/18/15 07:51	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 06:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82		50 - 150		06/16/15 06:52	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	667		94.3		ug/L		06/13/15 18:43	06/16/15 18:26	1
C24-C40	329		94.3		ug/L		06/13/15 18:43	06/16/15 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	06/13/15 18:43	06/16/15 18:26	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-11

Lab Sample ID: 490-80213-8

Date Collected: 06/08/15 12:54

Matrix: Water

Date Received: 06/09/15 08:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 08:17	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 08:17	1
Toluene	ND		1.00		ug/L			06/18/15 08:17	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 08:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130		06/18/15 08:17	1
Dibromofluoromethane (Surr)	100		70 - 130		06/18/15 08:17	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/18/15 08:17	1
Toluene-d8 (Surr)	102		70 - 130		06/18/15 08:17	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/16/15 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	80		50 - 150		06/16/15 07:25	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-257055/7

Matrix: Water

Analysis Batch: 257055

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 01:45	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 01:45	1
Toluene	ND		1.00		ug/L			06/18/15 01:45	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 01:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130		06/18/15 01:45	1
Dibromofluoromethane (Surr)	98		70 - 130		06/18/15 01:45	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/18/15 01:45	1
Toluene-d8 (Surr)	102		70 - 130		06/18/15 01:45	1

Lab Sample ID: LCS 490-257055/4

Matrix: Water

Analysis Batch: 257055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	51.78		ug/L		104	80 - 121
Ethylbenzene	50.0	52.62		ug/L		105	80 - 130
Toluene	50.0	51.70		ug/L		103	80 - 126
Xylenes, Total	150	161.3		ug/L		108	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: 490-80213-3 MS

Matrix: Water

Analysis Batch: 257055

Client Sample ID: GW-241795-060815-CP-MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	54.52		ug/L		109	75 - 133
Ethylbenzene	ND		50.0	55.31		ug/L		111	79 - 139
Toluene	ND		50.0	54.67		ug/L		109	75 - 136
Xylenes, Total	ND		150	169.0		ug/L		113	74 - 141

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	101		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-80213-3 MSD

Matrix: Water

Analysis Batch: 257055

Client Sample ID: GW-241795-060815-CP-MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	54.02		ug/L		108	75 - 133	1	17
Ethylbenzene	ND		50.0	54.38		ug/L		109	79 - 139	2	15
Toluene	ND		50.0	54.13		ug/L		108	75 - 136	1	15
Xylenes, Total	ND		150	165.8		ug/L		111	74 - 141	2	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: MB 490-257295/7

Matrix: Water

Analysis Batch: 257295

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			06/18/15 14:17	1
Ethylbenzene	ND		1.00		ug/L			06/18/15 14:17	1
Toluene	ND		1.00		ug/L			06/18/15 14:17	1
Xylenes, Total	ND		3.00		ug/L			06/18/15 14:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		06/18/15 14:17	1
Dibromofluoromethane (Surr)	100		70 - 130		06/18/15 14:17	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/18/15 14:17	1
Toluene-d8 (Surr)	101		70 - 130		06/18/15 14:17	1

Lab Sample ID: LCS 490-257295/3

Matrix: Water

Analysis Batch: 257295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.69		ug/L		97	80 - 121
Ethylbenzene	50.0	50.21		ug/L		100	80 - 130
Toluene	50.0	50.26		ug/L		101	80 - 126
Xylenes, Total	150	154.0		ug/L		103	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-257295/4

Matrix: Water

Analysis Batch: 257295

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	49.01		ug/L		98	80 - 121	1	17
Ethylbenzene	50.0	50.50		ug/L		101	80 - 130	1	15
Toluene	50.0	49.87		ug/L		100	80 - 126	1	15
Xylenes, Total	150	154.9		ug/L		103	80 - 132	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: 490-80688-B-1 MS

Matrix: Water

Analysis Batch: 257295

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.99		50.0	53.45		ug/L		103	75 - 133		
Ethylbenzene	99.2		50.0	144.7		ug/L		91	79 - 139		
Toluene	1.44		50.0	54.18		ug/L		105	75 - 136		
Xylenes, Total	7.72		150	171.7		ug/L		109	74 - 141		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: 490-80688-C-1 MSD

Matrix: Water

Analysis Batch: 257295

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.99		50.0	53.20		ug/L		102	75 - 133	0	17
Ethylbenzene	99.2		50.0	147.7		ug/L		97	79 - 139	2	15
Toluene	1.44		50.0	54.20		ug/L		106	75 - 136	0	15
Xylenes, Total	7.72		150	172.7		ug/L		110	74 - 141	1	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
Toluene-d8 (Surr)	102		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-256340/32

Matrix: Water

Analysis Batch: 256340

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			06/15/15 23:20	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		50 - 150					06/15/15 23:20	1

Lab Sample ID: LCS 490-256340/30

Matrix: Water

Analysis Batch: 256340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	1000	905.2		ug/L		91	39 - 143
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	108		50 - 150				

Lab Sample ID: LCSD 490-256340/31

Matrix: Water

Analysis Batch: 256340

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	1000	871.5		ug/L		87	39 - 143	4	18
Surrogate	%Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	110		50 - 150						

Lab Sample ID: 490-80213-1 DU

Matrix: Water

Analysis Batch: 256340

Client Sample ID: GW-241795-060815-CP-MW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
C6-C12	127		125.9		ug/L		0.9	18
Surrogate	%Recovery	DU Qualifier	Limits					
a,a,a-Trifluorotoluene	92		50 - 150					

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 490-256114/1-A

Matrix: Water

Analysis Batch: 256470

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 256114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		06/13/15 18:43	06/16/15 11:40	1
C24-C40	ND		100		ug/L		06/13/15 18:43	06/16/15 11:40	1

TestAmerica Nashville

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup (Continued)

Lab Sample ID: MB 490-256114/1-A

Matrix: Water

Analysis Batch: 256470

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 256114

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150	06/13/15 18:43	06/16/15 11:40	1

Lab Sample ID: LCS 490-256114/2-A

Matrix: Water

Analysis Batch: 256470

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 256114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C24	1000	823.4		ug/L		82	51 - 132
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl	102		50 - 150				

Lab Sample ID: 490-80213-3 DU

Matrix: Water

Analysis Batch: 256470

Client Sample ID: GW-241795-060815-CP-MW-5

Prep Type: Total/NA

Prep Batch: 256114

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
C10-C24	864		757.4		ug/L		13	41
C24-C40	97.8		ND		ug/L		5	41
Surrogate	DU %Recovery	DU Qualifier	Limits					
o-Terphenyl	98		50 - 150					

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

GC/MS VOA

Analysis Batch: 257055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80213-2	GW-241795-060815-CP-MW-4	Total/NA	Water	8260B	
490-80213-3	GW-241795-060815-CP-MW-5	Total/NA	Water	8260B	
490-80213-3 MS	GW-241795-060815-CP-MW-5	Total/NA	Water	8260B	
490-80213-3 MSD	GW-241795-060815-CP-MW-5	Total/NA	Water	8260B	
490-80213-4	GW-241795-060815-CP-MW-6	Total/NA	Water	8260B	
490-80213-5	GW-241795-060815-CP-MW-8	Total/NA	Water	8260B	
490-80213-6	GW-241795-060815-CP-MW-9	Total/NA	Water	8260B	
490-80213-7	GW-241795-060815-CP-MW-10	Total/NA	Water	8260B	
490-80213-8	GW-241795-060815-CP-MW-11	Total/NA	Water	8260B	
LCS 490-257055/4	Lab Control Sample	Total/NA	Water	8260B	
MB 490-257055/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 257295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80213-1	GW-241795-060815-CP-MW-2	Total/NA	Water	8260B	
490-80688-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
490-80688-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-257295/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-257295/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-257295/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 256340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80213-1	GW-241795-060815-CP-MW-2	Total/NA	Water	NWTPH-Gx	
490-80213-1 DU	GW-241795-060815-CP-MW-2	Total/NA	Water	NWTPH-Gx	
490-80213-2	GW-241795-060815-CP-MW-4	Total/NA	Water	NWTPH-Gx	
490-80213-3	GW-241795-060815-CP-MW-5	Total/NA	Water	NWTPH-Gx	
490-80213-4	GW-241795-060815-CP-MW-6	Total/NA	Water	NWTPH-Gx	
490-80213-5	GW-241795-060815-CP-MW-8	Total/NA	Water	NWTPH-Gx	
490-80213-6	GW-241795-060815-CP-MW-9	Total/NA	Water	NWTPH-Gx	
490-80213-7	GW-241795-060815-CP-MW-10	Total/NA	Water	NWTPH-Gx	
490-80213-8	GW-241795-060815-CP-MW-11	Total/NA	Water	NWTPH-Gx	
LCS 490-256340/30	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-256340/31	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-256340/32	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 256114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80213-2	GW-241795-060815-CP-MW-4	Total/NA	Water	3510C	
490-80213-3	GW-241795-060815-CP-MW-5	Total/NA	Water	3510C	
490-80213-3 DU	GW-241795-060815-CP-MW-5	Total/NA	Water	3510C	
490-80213-4	GW-241795-060815-CP-MW-6	Total/NA	Water	3510C	
490-80213-5	GW-241795-060815-CP-MW-8	Total/NA	Water	3510C	
490-80213-6	GW-241795-060815-CP-MW-9	Total/NA	Water	3510C	
490-80213-7	GW-241795-060815-CP-MW-10	Total/NA	Water	3510C	
LCS 490-256114/2-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Nashville

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

GC Semi VOA (Continued)

Prep Batch: 256114 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-256114/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 256470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-80213-2	GW-241795-060815-CP-MW-4	Total/NA	Water	NWTPH-Dx	256114
490-80213-3	GW-241795-060815-CP-MW-5	Total/NA	Water	NWTPH-Dx	256114
490-80213-3 DU	GW-241795-060815-CP-MW-5	Total/NA	Water	NWTPH-Dx	256114
490-80213-4	GW-241795-060815-CP-MW-6	Total/NA	Water	NWTPH-Dx	256114
490-80213-5	GW-241795-060815-CP-MW-8	Total/NA	Water	NWTPH-Dx	256114
490-80213-6	GW-241795-060815-CP-MW-9	Total/NA	Water	NWTPH-Dx	256114
490-80213-7	GW-241795-060815-CP-MW-10	Total/NA	Water	NWTPH-Dx	256114
LCS 490-256114/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	256114
MB 490-256114/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	256114

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-2

Date Collected: 06/08/15 09:52

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257295	06/18/15 15:09	WC1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 03:07	GWM	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-4

Date Collected: 06/08/15 10:30

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 05:40	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 04:11	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 16:41	TRF	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-5

Date Collected: 06/08/15 10:52

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 06:06	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 04:44	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 16:58	TRF	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-6

Date Collected: 06/08/15 11:21

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 06:32	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 05:16	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 17:33	TRF	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-8

Date Collected: 06/08/15 12:01

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 06:58	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 05:48	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 17:51	TRF	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-060815-CP-MW-9

Date Collected: 06/08/15 09:20

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 07:25	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 06:20	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 18:09	TRF	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-10

Date Collected: 06/08/15 12:31

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 07:51	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 06:52	GWM	TAL NSH
Total/NA	Prep	3510C			1060 mL	1 mL	256114	06/13/15 18:43	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1060 mL	1 mL	256470	06/16/15 18:26	TRF	TAL NSH

Client Sample ID: GW-241795-060815-CP-MW-11

Date Collected: 06/08/15 12:54

Date Received: 06/09/15 08:45

Lab Sample ID: 490-80213-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	257055	06/18/15 08:17	AK1	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	256340	06/16/15 07:25	GWM	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-80213-1
SDG: SAP#116047/241795

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-15

1

2

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13

COOLER RECEIPT FORM



Cooler Received/Opened On 6/9/2015 @ 0845

1. Tracking # 2023 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 12080142

2. Temperature of rep. sample or temp blank when opened: 3.3 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: one front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) DA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (initial) DA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) DA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) DA

I certify that I attached a label with the unique LIMS number to each container (initial) DA

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO # 0

COOLER RECEIPT FORM

Cooler Received/Opened On 6/9/2015 @ 8:45

1. Tracking # 2034 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 17610176

2. Temperature of rep. sample or temp blank when opened: 22 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ASH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (initial) ⊕

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO..NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ⊕

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ⊕

I certify that I attached a label with the unique LIMS number to each container (initial) ⊕

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#

LAB (LOCATION)

☐ CALSCIENCE (_____)

☐ SPL Houston (_____)

☐ XENCO (_____)

☒ TEST AMERICA (_____)

☐ OTHER (_____)



Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box

☐ ENV. SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL
☐ MOTIVA SP800	☒ CONSULTANT	☐ LUBES
☐ SHELL PIPELINE	☐ OTHER _____	

Print Bill To Contact Name:	INCIDENT # (ENV SERVICES)										
Brian Peters - 241795.2011.101	9	4	9	9	5	0	0	9			
PO #	SAP #										
	1	1	6	0	4	7					
PAGE:	1		of		1						
DATE:	6/8/11										
☐ CHECK IF NO INCIDENT # APPLIES											

Blaine Tech Services

20735 Belshaw Avenue, Carson, CA 90746
PROJECT CONTACT (Hardcopy or PDF Report to):

TELEPHONE:	FAX:	E-MAIL:
(310) 885-4455 x 103	(310) 637-5802	bqeebie@blairtech.com

TURNAROUND TIME (CALENDAR DAYS):
☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS
☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

COMMENTS OR NOTES:

1) Please upload the CRA EQUIS 4-file EDD to the CRA Website (<http://craabedownload.crawford.com/equis/default.aspx>) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder. 2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell, Lab.Billing@craworld.com, Shell.results@craworld.com, and Shell-US-
LabDataManagement@CRAworld.com

Email invoice to Shell.Lab.Billing@scraworld.com
See Laboratory PM for WA Dept. of Ecology MTCA Method A cleanup levels for
minimum detection limits.

LAB USE ONLY	PROJECT NUMBER	DATE (MMDDYY)	SAMPLER INITIALS	WELL ID	TIME	MATRIX	PRESERVATIVE					NO. OF COUNT.
							HCL	HNO3	H2SO4	NONE	OTHER	
GW	241795	060815	MP	MW-2	0952	U6	X					6
6W	241795	060815	MP	MW-4	1030	U6	X					8
6W	241795	060815	MP	MW-5	1032	U6	X					8
6W	241795	060815	MP	MW-6	1121	U6	X					8
6W	241795	060815	CP	MW-8	1201	U6	X					8
6W	241795	060815	MP	MW-4	0920	U6	X					8
6W	241795	060815	MP	MW-10	1231	U6	X					8
6W	241795	060815	CP	MW-11	1254	U6	0					6

[illegible]

Rechtsnachfolger (Sinnatraz)

Received by: (signature)
Shipped via Fed Ex
Dated for (signature)

01/08/15

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Reinquished by: (Signature)

Received by: (Signature)

14) 3.3, 2.2

Date: 10-9-15

Time:	08:45
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Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-80213-1

SDG Number: SAP#116047/241795

Login Number: 80213

List Number: 1

Creator: Ford, Easton

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Drive

Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-86231-1

TestAmerica Sample Delivery Group: SAP#116047/241795

Client Project/Site: 1349 NW State Street, Chehalis, WA

For:

GHD Services Inc.

20818 44th Ave W

Suite 190

Lynnwood, Washington 98036

Attn: Brian Peters

Roxanne L Connor

Authorized for release by:

9/14/2015 3:54:01 PM

Roxanne Connor, Senior Project Manager

(615)301-5761

roxanne.connor@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-86231-1	GW-241795-082715-LB-MMW-2	Ground Water	08/27/15 08:52	08/28/15 09:35
490-86231-2	GW-241795-082715-LB-MMW-4	Ground Water	08/27/15 09:20	08/28/15 09:35
490-86231-3	GW-241795-082715-LB-MMW-5	Ground Water	08/27/15 10:02	08/28/15 09:35
490-86231-4	GW-241795-082715-LB-MMW-6	Ground Water	08/27/15 10:34	08/28/15 09:35
490-86231-5	GW-241795-082715-LB-MMW-8	Ground Water	08/27/15 11:05	08/28/15 09:35
490-86231-6	GW-241795-082715-LB-MMW-9	Ground Water	08/27/15 08:10	08/28/15 09:35
490-86231-7	GW-241795-082715-LB-MMW-10	Ground Water	08/27/15 11:37	08/28/15 09:35
490-86231-8	GW-241795-082715-LB-MMW-11	Ground Water	08/27/15 12:11	08/28/15 09:35

Case Narrative

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Job ID: 490-86231-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-86231-1

Comments

No additional comments.

Receipt

The samples were received on 8/28/2015 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 1.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 490-86231-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-86231-2

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method(s) NWTPH-Dx: There was insufficient contamination present to perform a pattern match for the following sample: GW-241795-082715-LB-MMW-10 (490-86231-7).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern which does not match a typical Total Petroleum Hydrocarbon (TPH) pattern used by the laboratory for quantitative purposes: GW-241795-082715-LB-MMW-4 (490-86231-2), GW-241795-082715-LB-MMW-5 (490-86231-3), GW-241795-082715-LB-MMW-6 (490-86231-4), GW-241795-082715-LB-MMW-8 (490-86231-5) and GW-241795-082715-LB-MMW-9 (490-86231-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-2

Lab Sample ID: 490-86231-1

Date Collected: 08/27/15 08:52

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 14:45	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 14:45	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 14:45	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 14:45	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 14:45	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 14:45	1
tert-Butyl alcohol (TBA)	30.3		10.0		ug/L			09/05/15 14:45	1
Toluene	ND		1.00		ug/L			09/05/15 14:45	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		09/05/15 14:45	1
Dibromofluoromethane (Surr)	103		70 - 130		09/05/15 14:45	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		09/05/15 14:45	1
Toluene-d8 (Surr)	97		70 - 130		09/05/15 14:45	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	131		100		ug/L			09/05/15 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150		09/05/15 09:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-4

Lab Sample ID: 490-86231-2

Date Collected: 08/27/15 09:20

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 15:13	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 15:13	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 15:13	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 15:13	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 15:13	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 15:13	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 15:13	1
Toluene	ND		1.00		ug/L			09/05/15 15:13	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		09/05/15 15:13	1
Dibromofluoromethane (Surr)	101		70 - 130		09/05/15 15:13	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		09/05/15 15:13	1
Toluene-d8 (Surr)	98		70 - 130		09/05/15 15:13	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 10:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		50 - 150		09/05/15 10:14	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	318		93.0		ug/L		09/09/15 19:51	09/10/15 19:42	1
C24-C40	ND		93.0		ug/L		09/09/15 19:51	09/10/15 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150	09/09/15 19:51	09/10/15 19:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-5

Lab Sample ID: 490-86231-3

Date Collected: 08/27/15 10:02

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 15:42	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 15:42	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 15:42	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 15:42	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 15:42	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 15:42	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 15:42	1
Toluene	ND		1.00		ug/L			09/05/15 15:42	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		09/05/15 15:42	1
Dibromofluoromethane (Surr)	101		70 - 130		09/05/15 15:42	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		09/05/15 15:42	1
Toluene-d8 (Surr)	98		70 - 130		09/05/15 15:42	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 10:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150		09/05/15 10:45	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	1060		93.0		ug/L		09/09/15 19:51	09/10/15 20:00	1
C24-C40	196		93.0		ug/L		09/09/15 19:51	09/10/15 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96		50 - 150	09/09/15 19:51	09/10/15 20:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-6

Lab Sample ID: 490-86231-4

Date Collected: 08/27/15 10:34

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 16:11	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 16:11	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 16:11	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 16:11	1
Methyl tert-butyl ether	1.10		1.00		ug/L			09/05/15 16:11	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 16:11	1
tert-Butyl alcohol (TBA)	29.8		10.0		ug/L			09/05/15 16:11	1
Toluene	ND		1.00		ug/L			09/05/15 16:11	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		09/05/15 16:11	1
Dibromofluoromethane (Surr)	104		70 - 130		09/05/15 16:11	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		09/05/15 16:11	1
Toluene-d8 (Surr)	99		70 - 130		09/05/15 16:11	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150		09/05/15 11:16	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	538		93.0		ug/L		09/09/15 19:51	09/10/15 20:17	1
C24-C40	114		93.0		ug/L		09/09/15 19:51	09/10/15 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	09/09/15 19:51	09/10/15 20:17	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-8

Lab Sample ID: 490-86231-5

Date Collected: 08/27/15 11:05

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 16:39	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 16:39	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 16:39	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 16:39	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 16:39	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 16:39	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 16:39	1
Toluene	ND		1.00		ug/L			09/05/15 16:39	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		09/05/15 16:39	1
Dibromofluoromethane (Surr)	104		70 - 130		09/05/15 16:39	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		09/05/15 16:39	1
Toluene-d8 (Surr)	98		70 - 130		09/05/15 16:39	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		50 - 150		09/05/15 11:47	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	671		93.0		ug/L		09/09/15 19:51	09/10/15 20:34	1
C24-C40	203		93.0		ug/L		09/09/15 19:51	09/10/15 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	09/09/15 19:51	09/10/15 20:34	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-9

Lab Sample ID: 490-86231-6

Date Collected: 08/27/15 08:10

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 17:08	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 17:08	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 17:08	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 17:08	1
Methyl tert-butyl ether	3.56		1.00		ug/L			09/05/15 17:08	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 17:08	1
tert-Butyl alcohol (TBA)	12.5		10.0		ug/L			09/05/15 17:08	1
Toluene	ND		1.00		ug/L			09/05/15 17:08	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		09/05/15 17:08	1
Dibromofluoromethane (Surr)	101		70 - 130		09/05/15 17:08	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		09/05/15 17:08	1
Toluene-d8 (Surr)	98		70 - 130		09/05/15 17:08	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150		09/05/15 12:18	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	691		93.5		ug/L		09/09/15 19:51	09/10/15 20:51	1
C24-C40	185		93.5		ug/L		09/09/15 19:51	09/10/15 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150	09/09/15 19:51	09/10/15 20:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-10

Lab Sample ID: 490-86231-7

Date Collected: 08/27/15 11:37

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 17:36	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 17:36	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 17:36	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 17:36	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 17:36	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 17:36	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 17:36	1
Toluene	ND		1.00		ug/L			09/05/15 17:36	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		09/05/15 17:36	1
Dibromofluoromethane (Surr)	104		70 - 130		09/05/15 17:36	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		09/05/15 17:36	1
Toluene-d8 (Surr)	98		70 - 130		09/05/15 17:36	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150		09/05/15 12:50	1

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	166		93.0		ug/L		09/09/15 19:51	09/10/15 21:09	1
C24-C40	103		93.0		ug/L		09/09/15 19:51	09/10/15 21:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150	09/09/15 19:51	09/10/15 21:09	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-11

Lab Sample ID: 490-86231-8

Date Collected: 08/27/15 12:11

Matrix: Ground Water

Date Received: 08/28/15 09:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 18:05	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 18:05	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 18:05	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 18:05	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 18:05	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 18:05	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 18:05	1
Toluene	ND		1.00		ug/L			09/05/15 18:05	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		09/05/15 18:05	1
Dibromofluoromethane (Surr)	102		70 - 130		09/05/15 18:05	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		09/05/15 18:05	1
Toluene-d8 (Surr)	100		70 - 130		09/05/15 18:05	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150		09/05/15 13:21	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-279329/7

Matrix: Water

Analysis Batch: 279329

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/05/15 10:28	1
Diisopropyl ether	ND		2.00		ug/L			09/05/15 10:28	1
Ethylbenzene	ND		1.00		ug/L			09/05/15 10:28	1
Ethyl tert-butyl ether	ND		1.00		ug/L			09/05/15 10:28	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/05/15 10:28	1
Tert-amyl methyl ether	ND		1.00		ug/L			09/05/15 10:28	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			09/05/15 10:28	1
Toluene	ND		1.00		ug/L			09/05/15 10:28	1
Xylenes, Total	ND		3.00		ug/L			09/05/15 10:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		09/05/15 10:28	1
Dibromofluoromethane (Surr)	101		70 - 130		09/05/15 10:28	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		09/05/15 10:28	1
Toluene-d8 (Surr)	99		70 - 130		09/05/15 10:28	1

Lab Sample ID: LCS 490-279329/4

Matrix: Water

Analysis Batch: 279329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	43.07		ug/L		86	80 - 121
Diisopropyl ether	50.0	42.25		ug/L		84	61 - 142
Ethylbenzene	50.0	45.74		ug/L		91	80 - 130
Ethyl tert-butyl ether	50.0	43.69		ug/L		87	63 - 135
Methyl tert-butyl ether	50.0	44.41		ug/L		89	72 - 133
Tert-amyl methyl ether	50.0	42.60		ug/L		85	63 - 135
tert-Butyl alcohol (TBA)	500	436.0		ug/L		87	54 - 150
Toluene	50.0	42.20		ug/L		84	80 - 126
Xylenes, Total	100	95.09		ug/L		95	80 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: 490-86540-B-3 MS

Matrix: Water

Analysis Batch: 279329

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	45.42		ug/L		91	75 - 133
Diisopropyl ether	ND		50.0	43.31		ug/L		87	10 - 200
Ethylbenzene	ND		50.0	48.60		ug/L		97	79 - 139
Ethyl tert-butyl ether	ND		50.0	45.37		ug/L		91	60 - 138
Methyl tert-butyl ether	ND		50.0	44.27		ug/L		89	66 - 141

TestAmerica Nashville

QC Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-86540-B-3 MS

Matrix: Water

Analysis Batch: 279329

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tert-amyl methyl ether	ND		50.0	43.75		ug/L		88	61 - 138
tert-Butyl alcohol (TBA)	ND		500	518.1		ug/L		104	50 - 183
Toluene	ND		50.0	48.28		ug/L		97	75 - 136
Xylenes, Total	ND		100	102.9		ug/L		103	74 - 141

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 490-86540-C-3 MSD

Matrix: Water

Analysis Batch: 279329

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	45.66		ug/L		91	75 - 133	1	17
Diisopropyl ether	ND		50.0	44.28		ug/L		89	10 - 200	2	50
Ethylbenzene	ND		50.0	50.06		ug/L		100	79 - 139	3	15
Ethyl tert-butyl ether	ND		50.0	47.40		ug/L		95	60 - 138	4	19
Methyl tert-butyl ether	ND		50.0	47.10		ug/L		94	66 - 141	6	16
Tert-amyl methyl ether	ND		50.0	47.31		ug/L		95	61 - 138	8	15
tert-Butyl alcohol (TBA)	ND		500	445.5		ug/L		89	50 - 183	15	32
Toluene	ND		50.0	46.12		ug/L		92	75 - 136	5	15
Xylenes, Total	ND		100	103.6		ug/L		104	74 - 141	1	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-279038/5

Matrix: Water

Analysis Batch: 279038

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/05/15 05:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150		09/05/15 05:36	1

TestAmerica Nashville

QC Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 490-279038/4

Matrix: Water

Analysis Batch: 279038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
C6-C12			1000	770.3		ug/L	-	77	39 - 143		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
a,a,a-Trifluorotoluene	123		50 - 150								

Lab Sample ID: LCSD 490-279038/24

Matrix: Water

Analysis Batch: 279038

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Date: 2/26/20

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	1000	784.2		ug/L	-	78	39 - 143	2	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	115		50 - 150						

Lab Sample ID: 490-86215-E-2 DU

Matrix: Water

Analysis Batch: 279038

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
C6-C12	ND		ND		ug/L	-	NC	18
Surrogate	%Recovery	DU Qualifier	Limits					
a,a,a-Trifluorotoluene	96		50 - 150					

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 490-280361/1-A

Matrix: Water

Analysis Batch: 280441

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 280361

MB MB							Prep Date: 2009/09/15		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		09/09/15 19:51	09/10/15 17:06	1
C24-C40	ND		100		ug/L		09/09/15 19:51	09/10/15 17:06	1
MB MB							Prep Date: 2009/09/15		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	68		50 - 150				09/09/15 19:51	09/10/15 17:06	1

Lab Sample ID: LCS 490-280361/2-A

Matrix: Water

Analysis Batch: 280441

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 280361

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C24	1000	537.2		ug/L		54	51 - 132

TestAmerica Nashville

QC Sample Results

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup (Continued)

Lab Sample ID: LCS 490-280361/2-A
Matrix: Water
Analysis Batch: 280441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 280361

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
o-Terphenyl	61		50 - 150

Lab Sample ID: 490-86215-H-6-A DU
Matrix: Water
Analysis Batch: 280441

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 280361

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
C10-C24	ND		ND		ug/L		NC	41
C24-C40	ND		ND		ug/L		NC	41

	DU	DU	
Surrogate	%Recovery	Qualifier	Limits
o-Terphenyl	68		50 - 150

QC Association Summary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

GC/MS VOA

Analysis Batch: 279329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86231-1	GW-241795-082715-LB-MMW-2	Total/NA	Ground Water	8260B	
490-86231-2	GW-241795-082715-LB-MMW-4	Total/NA	Ground Water	8260B	
490-86231-3	GW-241795-082715-LB-MMW-5	Total/NA	Ground Water	8260B	
490-86231-4	GW-241795-082715-LB-MMW-6	Total/NA	Ground Water	8260B	
490-86231-5	GW-241795-082715-LB-MMW-8	Total/NA	Ground Water	8260B	
490-86231-6	GW-241795-082715-LB-MMW-9	Total/NA	Ground Water	8260B	
490-86231-7	GW-241795-082715-LB-MMW-10	Total/NA	Ground Water	8260B	
490-86231-8	GW-241795-082715-LB-MMW-11	Total/NA	Ground Water	8260B	
490-86540-B-3 MS	Matrix Spike	Total/NA	Water	8260B	
490-86540-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-279329/4	Lab Control Sample	Total/NA	Water	8260B	
MB 490-279329/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 279038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86215-E-2 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
490-86231-1	GW-241795-082715-LB-MMW-2	Total/NA	Ground Water	NWTPH-Gx	
490-86231-2	GW-241795-082715-LB-MMW-4	Total/NA	Ground Water	NWTPH-Gx	
490-86231-3	GW-241795-082715-LB-MMW-5	Total/NA	Ground Water	NWTPH-Gx	
490-86231-4	GW-241795-082715-LB-MMW-6	Total/NA	Ground Water	NWTPH-Gx	
490-86231-5	GW-241795-082715-LB-MMW-8	Total/NA	Ground Water	NWTPH-Gx	
490-86231-6	GW-241795-082715-LB-MMW-9	Total/NA	Ground Water	NWTPH-Gx	
490-86231-7	GW-241795-082715-LB-MMW-10	Total/NA	Ground Water	NWTPH-Gx	
490-86231-8	GW-241795-082715-LB-MMW-11	Total/NA	Ground Water	NWTPH-Gx	
LCS 490-279038/4	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-279038/24	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-279038/5	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 280361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86215-H-6-A DU	Duplicate	Total/NA	Water	3510C	
490-86231-2	GW-241795-082715-LB-MMW-4	Total/NA	Ground Water	3510C	
490-86231-3	GW-241795-082715-LB-MMW-5	Total/NA	Ground Water	3510C	
490-86231-4	GW-241795-082715-LB-MMW-6	Total/NA	Ground Water	3510C	
490-86231-5	GW-241795-082715-LB-MMW-8	Total/NA	Ground Water	3510C	
490-86231-6	GW-241795-082715-LB-MMW-9	Total/NA	Ground Water	3510C	
490-86231-7	GW-241795-082715-LB-MMW-10	Total/NA	Ground Water	3510C	
LCS 490-280361/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-280361/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 280441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86215-H-6-A DU	Duplicate	Total/NA	Water	NWTPH-Dx	280361
490-86231-2	GW-241795-082715-LB-MMW-4	Total/NA	Ground Water	NWTPH-Dx	280361
490-86231-3	GW-241795-082715-LB-MMW-5	Total/NA	Ground Water	NWTPH-Dx	280361
490-86231-4	GW-241795-082715-LB-MMW-6	Total/NA	Ground Water	NWTPH-Dx	280361

TestAmerica Nashville

QC Association Summary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

GC Semi VOA (Continued)

Analysis Batch: 280441 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86231-5	GW-241795-082715-LB-MMW-8	Total/NA	Ground Water	NWTPH-Dx	280361
490-86231-6	GW-241795-082715-LB-MMW-9	Total/NA	Ground Water	NWTPH-Dx	280361
490-86231-7	GW-241795-082715-LB-MMW-10	Total/NA	Ground Water	NWTPH-Dx	280361
LCS 490-280361/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	280361
MB 490-280361/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	280361

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-2

Date Collected: 08/27/15 08:52

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 14:45	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 09:43	AMC	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-4

Date Collected: 08/27/15 09:20

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 15:13	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 10:14	AMC	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1075 mL	1 mL	280441	09/10/15 19:42	TRF	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-5

Date Collected: 08/27/15 10:02

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 15:42	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 10:45	AMC	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1075 mL	1 mL	280441	09/10/15 20:00	TRF	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-6

Date Collected: 08/27/15 10:34

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 16:11	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 11:16	AMC	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1075 mL	1 mL	280441	09/10/15 20:17	TRF	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-8

Date Collected: 08/27/15 11:05

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 16:39	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 11:47	AMC	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1075 mL	1 mL	280441	09/10/15 20:34	TRF	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Client Sample ID: GW-241795-082715-LB-MMW-9

Date Collected: 08/27/15 08:10

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 17:08	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 12:18	AMC	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1070 mL	1 mL	280441	09/10/15 20:51	TRF	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-10

Date Collected: 08/27/15 11:37

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 17:36	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 12:50	AMC	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	280361	09/09/15 19:51	MDW	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	1075 mL	1 mL	280441	09/10/15 21:09	TRF	TAL NSH

Client Sample ID: GW-241795-082715-LB-MMW-11

Date Collected: 08/27/15 12:11

Date Received: 08/28/15 09:35

Lab Sample ID: 490-86231-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	279329	09/05/15 18:05	NC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	279038	09/05/15 13:21	AMC	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: GHD Services Inc.
Project/Site: 1349 NW State Street, Chehalis, WA

TestAmerica Job ID: 490-86231-1
SDG: SAP#116047/241795

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-16

1

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12

13

COOLER RECEIPT FORM



490-86231 Chain of Custody

Cooler Received/Opened On 8/28/2015 @ 0935

1. Tracking # 3202 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 96210146

2. Temperature of rep. sample or temp blank when opened: 1.8 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? 1 fresh YES...NO...NA

If yes, how many and where: _____

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) VS

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) ADH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ADH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ADH

I certify that I attached a label with the unique LIMS number to each container (initial) ADH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# _____

COOLER RECEIPT FORM

Cooler Received/Opened On 8/28/2015 @ 0935

1. Tracking # 3196 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 1.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: (1) Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ADH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # ADH

I certify that I unloaded the cooler and answered questions 7-14 (initial) ADH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ADH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ADH

I certify that I attached a label with the unique LIMS number to each container (initial) ADH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#



Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- ☐ CALSCEANCE ()
☐ SPL Houston ()
☐ XEROX ()
☒ TEST AMERICA ()
☐ OTHER ()

Please Check Appropriate Box:

- ☐ ENV. SERVICES
☐ MOTIVA RETAIL
☒ CONSULTANT
☐ MOTIVA SOOCH
☐ SHELL PIPELINE
☐ SHELL RETAIL
☐ LUBES

SAMPLING COMPANY:

Blaine Tech Services

20735 Belshaw Avenue, Carson, CA 90746

PROJECT CONTACT (Person or PDF Report to):

Bart Gebbie

TELEPHONE:

(310) 885-4455 x 103

FAX:

(310) 637-5802

E-MAIL:

bogebbie@blainetech.com

TURNAROUND TIME (CALENDAR DAYS):

☒ STANDARD (1-5 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS

☐ LA - RWOCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

- 1) Please upload the "CRA EQUIS 4-file EDD" to the CRA Website
(http://craebddupload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-
LabDataManagement@CRAworld.com email folder. 2) Please indicate that you have uploaded
the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the
final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell Lab Billing@CRAworld.com, Shell.results@CRAworld.com, and Shell-US-
LabDataManagement@CRAworld.com

Email Invoice to Shell Lab Billing@CRAworld.com

See Laboratory PM for WA Dept. of Ecology MTCOA Method A cleanup levels for

Minimum detection limits.

Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Temp Blank)

NO. OF CONT.

PRESERVATIVE

HCL HNO3 H2SO4 NONE OTHER

MATRIX

TIME

WELL ID

SAMPLER INITIALS

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

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PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

Print Bill To Contact Name:

Brian Peters - 241795.2011.01

PO #

SAP #

GLOBAL ID NO:

1 1 6 0 4 7

STATE

WA

PHONE NO:

425-563-6500

REP DELIVERABLE TO (Name, Company, Other Location):

CRA, Seattle, WA

SAMPLER NAME(S) (Print):

LAB BORES

CONSULTANT PROJECT NO:

13827-181

LAB USE ONLY

INCIDENT # (ENV. SERVICES):

9 4 9 9 5 0 0 9

CHECK IF NO INCIDENT # APPLIES

DATE: 8/27/15

PAGE: 1 of 1

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes

Loc: 490

86231

TPH-O

BTEX (8260)

NWTPH-EPH

NWTPH-VPH

Pest (8080)

VOCs Full list (8260B)

PAHs (6070 SIM)

PCBs (8082)

Total Lead (6020)

EDC (8011)

EDC (8260B)

5 Oxygenates, MTBE, TBA, DPE, TAME, ETBE

NWTPH-DX w/ Silica Gel Cleanup

NWTPH-DX w/ Silica Gel Cleanup

NWTPH-GX

NO. OF CONT.

PRESERVATIVE

HCL HNO3 H2SO4 NONE OTHER

MATRIX

TIME

WELL ID

SAMPLER INITIALS

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

DATE (MM/DD/YYYY)

PROJECT NUMBER

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9/14/2015

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 490-86231-1

SDG Number: SAP#116047/241795

Login Number: 86231

List Number: 1

Creator: Huskey, Adam

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane

11922 East 1st Ave

Spokane, WA 99206

Tel: (509)924-9200

TestAmerica Job ID: 590-2581-1

Client Project/Site: 1349 NW State St. Chehalis

Revision: 1

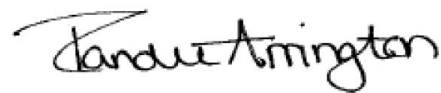
For:

AECOM, Inc.

111 SW Columbia Street, Suite 1500

Portland, Oregon 97201

Attn: Clifford Pearson



Authorized for release by:

1/25/2016 3:27:10 PM

Randee Arrington, Project Manager II

(509)924-9200

randee.arrington@testamericainc.com

LINKS

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results through

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Job ID: 590-2581-1

Laboratory: TestAmerica Spokane

Narrative

Revision

Per the client's request the data has been re-evaluated down to the MDL.

Receipt

The samples were received on 12/23/2015 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 4.9° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC):
GW-241795-122215-CP-MW-8 (590-2581-5), GW-241795-122215-CP-MW-9 (590-2581-6) and GW-241795-122215-CP-MW-10 (590-2581-7). The container labels list GW-241795-122215-VL-MW8, GW-241795-122215-VL-MW9 and GW-241795-122215-VL-MW10, while the COC lists GW-241795-122215-CP-MW8, GW-241795-122215-CP-MW9 and GW-241795-122215-CP-MW10. The client was contacted, and the lab was instructed to log samples in according to COC.

One of the voa vials received for sample GW-241795-122215-CP-MW-9 (590-2581-6) was cracked and disposed of. There was enough remaining voa vials to proceed with requested analysis.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons appear to be due to diesel as well as biogenic interference in the following samples:
GW-241795-122215-CP-MW-5 (590-2581-3), GW-241795-122215-CP-MW-6 (590-2581-4), GW-241795-122215-CP-MW-8 (590-2581-5), GW-241795-122215-CP-MW-9 (590-2581-6) and GW-241795-122215-CP-MW-10 (590-2581-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-2581-1	GW-241795-122215-CP-MW-2	Water	12/22/15 12:14	12/23/15 15:15
590-2581-2	GW-241795-122215-CP-MW-4	Water	12/22/15 12:39	12/23/15 15:15
590-2581-3	GW-241795-122215-CP-MW-5	Water	12/22/15 13:12	12/23/15 15:15
590-2581-4	GW-241795-122215-CP-MW-6	Water	12/22/15 13:39	12/23/15 15:15
590-2581-5	GW-241795-122215-CP-MW-8	Water	12/22/15 13:10	12/23/15 15:15
590-2581-6	GW-241795-122215-CP-MW-9	Water	12/22/15 12:30	12/23/15 15:15
590-2581-7	GW-241795-122215-CP-MW-10	Water	12/22/15 13:40	12/23/15 15:15
590-2581-8	GW-241795-122215-CP-MW-11	Water	12/22/15 14:11	12/23/15 15:15

TestAmerica Spokane

Method Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC/MS)	NWTPH	TAL SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Detection Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-2

Lab Sample ID: 590-2581-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	46.1		0.200	0.0320	ug/L	1		8260C	Total/NA
Ethylbenzene	0.299	J	1.00	0.0860	ug/L	1		8260C	Total/NA
m,p-Xylene	1.78	J	2.00	0.124	ug/L	1		8260C	Total/NA
o-Xylene	0.912	J	1.00	0.0620	ug/L	1		8260C	Total/NA
Toluene	8.79		1.00	0.0380	ug/L	1		8260C	Total/NA
Xylenes, Total	2.69	J	3.00	0.0160	ug/L	1		8260C	Total/NA
Gasoline	310		100	52.0	ug/L	1		NWTPH-Gx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-4

Lab Sample ID: 590-2581-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.194	J	0.238	0.190	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-5

Lab Sample ID: 590-2581-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0758	J	0.200	0.0320	ug/L	1		8260C	Total/NA
m,p-Xylene	0.151	J	2.00	0.124	ug/L	1		8260C	Total/NA
o-Xylene	0.117	J	1.00	0.0620	ug/L	1		8260C	Total/NA
Xylenes, Total	0.267	J	3.00	0.0160	ug/L	1		8260C	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.830		0.237	0.190	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-6

Lab Sample ID: 590-2581-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m,p-Xylene	0.247	J	2.00	0.124	ug/L	1		8260C	Total/NA
Xylenes, Total	0.247	J	3.00	0.0160	ug/L	1		8260C	Total/NA
Gasoline	57.2	J	100	52.0	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.371		0.238	0.191	mg/L	1		NWTPH-Dx	Total/NA
Residual Range Organics (RRO) (C25-C36)	0.298	J	0.381	0.286	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-8

Lab Sample ID: 590-2581-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.265		0.245	0.196	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-9

Lab Sample ID: 590-2581-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.667		0.238	0.190	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-10

Lab Sample ID: 590-2581-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.672		0.257	0.205	mg/L	1		NWTPH-Dx	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Spokane

Detection Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-10 (Continued)

Lab Sample ID: 590-2581-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Residual Range Organics (RRO) (C25-C36)	0.400	J	0.411	0.308	mg/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-241795-122215-CP-MW-11

Lab Sample ID: 590-2581-8

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Spokane

Client Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-2

Lab Sample ID: 590-2581-1

Date Collected: 12/22/15 12:14

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	46.1		0.200	0.0320	ug/L			12/29/15 17:13	1
Ethylbenzene	0.299	J	1.00	0.0860	ug/L			12/29/15 17:13	1
m,p-Xylene	1.78	J	2.00	0.124	ug/L			12/29/15 17:13	1
o-Xylene	0.912	J	1.00	0.0620	ug/L			12/29/15 17:13	1
Toluene	8.79		1.00	0.0380	ug/L			12/29/15 17:13	1
Xylenes, Total	2.69	J	3.00	0.0160	ug/L			12/29/15 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		70 - 140		12/29/15 17:13	1
4-Bromofluorobenzene (Surr)	95		68.7 - 141		12/29/15 17:13	1
Dibromofluoromethane (Surr)	100		71.2 - 143		12/29/15 17:13	1
Toluene-d8 (Surr)	101		74.1 - 135		12/29/15 17:13	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	310		100	52.0	ug/L			12/29/15 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		68.7 - 141		12/29/15 17:13	1

Client Sample ID: GW-241795-122215-CP-MW-4

Lab Sample ID: 590-2581-2

Date Collected: 12/22/15 12:39

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 17:34	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 17:34	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 17:34	1
o-Xylene	ND		1.00	0.0620	ug/L			12/29/15 17:34	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 17:34	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 140		12/29/15 17:34	1
4-Bromofluorobenzene (Surr)	98		68.7 - 141		12/29/15 17:34	1
Dibromofluoromethane (Surr)	102		71.2 - 143		12/29/15 17:34	1
Toluene-d8 (Surr)	104		74.1 - 135		12/29/15 17:34	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		68.7 - 141		12/29/15 17:34	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.194	J	0.238	0.190	mg/L		12/29/15 14:50	12/31/15 16:33	1
Residual Range Organics (RRO) (C25-C36)	ND		0.380	0.285	mg/L		12/29/15 14:50	12/31/15 16:33	1

TestAmerica Spokane

Client Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	94		50 - 150	12/29/15 14:50	12/31/15 16:33	1
<i>n</i> -Triacontane-d62	97		50 - 150	12/29/15 14:50	12/31/15 16:33	1

Client Sample ID: GW-241795-122215-CP-MW-5

Lab Sample ID: 590-2581-3

Date Collected: 12/22/15 13:12

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0758	J	0.200	0.0320	ug/L			12/29/15 17:55	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 17:55	1
<i>m,p</i> -Xylene	0.151	J	2.00	0.124	ug/L			12/29/15 17:55	1
<i>o</i> -Xylene	0.117	J	1.00	0.0620	ug/L			12/29/15 17:55	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 17:55	1
Xylenes, Total	0.267	J	3.00	0.0160	ug/L			12/29/15 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 140		12/29/15 17:55	1
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 17:55	1
Dibromofluoromethane (Surr)	106		71.2 - 143		12/29/15 17:55	1
Toluene-d8 (Surr)	102		74.1 - 135		12/29/15 17:55	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 17:55	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.830		0.237	0.190	mg/L		12/29/15 14:50	12/31/15 16:50	1
Residual Range Organics (RRO) (C25-C36)	ND		0.380	0.285	mg/L		12/29/15 14:50	12/31/15 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	96		50 - 150	12/29/15 14:50	12/31/15 16:50	1
<i>n</i> -Triacontane-d62	98		50 - 150	12/29/15 14:50	12/31/15 16:50	1

Client Sample ID: GW-241795-122215-CP-MW-6

Lab Sample ID: 590-2581-4

Date Collected: 12/22/15 13:39

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 18:16	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 18:16	1
<i>m,p</i> -Xylene	0.247	J	2.00	0.124	ug/L			12/29/15 18:16	1
<i>o</i> -Xylene	ND		1.00	0.0620	ug/L			12/29/15 18:16	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 18:16	1
Xylenes, Total	0.247	J	3.00	0.0160	ug/L			12/29/15 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 140		12/29/15 18:16	1
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 18:16	1
Dibromofluoromethane (Surr)	106		71.2 - 143		12/29/15 18:16	1

TestAmerica Spokane

Client Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-6

Lab Sample ID: 590-2581-4

Date Collected: 12/22/15 13:39

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		74.1 - 135		12/29/15 18:16	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	57.2	J	100	52.0	ug/L			12/29/15 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 18:16	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.371		0.238	0.191	mg/L		12/29/15 14:50	12/31/15 17:07	1

Residual Range Organics (RRO) (C25-C36)	0.298	J	0.381	0.286	mg/L		12/29/15 14:50	12/31/15 17:07	1
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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96		50 - 150	12/29/15 14:50	12/31/15 17:07	1
n-Triacontane-d62	99		50 - 150	12/29/15 14:50	12/31/15 17:07	1

Client Sample ID: GW-241795-122215-CP-MW-8

Lab Sample ID: 590-2581-5

Date Collected: 12/22/15 13:10

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 18:37	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 18:37	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 18:37	1
o-Xylene	ND		1.00	0.0620	ug/L			12/29/15 18:37	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 18:37	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 140		12/29/15 18:37	1
4-Bromofluorobenzene (Surr)	99		68.7 - 141		12/29/15 18:37	1
Dibromofluoromethane (Surr)	101		71.2 - 143		12/29/15 18:37	1
Toluene-d8 (Surr)	106		74.1 - 135		12/29/15 18:37	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		68.7 - 141		12/29/15 18:37	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.265		0.245	0.196	mg/L		12/29/15 14:50	12/31/15 17:24	1

Residual Range Organics (RRO) (C25-C36)	ND		0.392	0.294	mg/L		12/29/15 14:50	12/31/15 17:24	1
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TestAmerica Spokane

Client Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-8

Date Collected: 12/22/15 13:10

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	98		50 - 150	12/29/15 14:50	12/31/15 17:24	1
<i>n</i> -Triacontane-d62	102		50 - 150	12/29/15 14:50	12/31/15 17:24	1

Client Sample ID: GW-241795-122215-CP-MW-9

Date Collected: 12/22/15 12:30

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 18:58	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 18:58	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 18:58	1
<i>o</i> -Xylene	ND		1.00	0.0620	ug/L			12/29/15 18:58	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 18:58	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 140		12/29/15 18:58	1
4-Bromofluorobenzene (Surr)	96		68.7 - 141		12/29/15 18:58	1
Dibromofluoromethane (Surr)	100		71.2 - 143		12/29/15 18:58	1
Toluene-d8 (Surr)	103		74.1 - 135		12/29/15 18:58	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		68.7 - 141		12/29/15 18:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	0.667		0.238	0.190	mg/L		12/29/15 14:50	12/31/15 17:41	1
(C10-C25)									
Residual Range Organics (RRO)	ND		0.380	0.285	mg/L		12/29/15 14:50	12/31/15 17:41	1
(C25-C36)									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	97		50 - 150	12/29/15 14:50	12/31/15 17:41	1
<i>n</i> -Triacontane-d62	101		50 - 150	12/29/15 14:50	12/31/15 17:41	1

Client Sample ID: GW-241795-122215-CP-MW-10

Date Collected: 12/22/15 13:40

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 19:19	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 19:19	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 19:19	1
<i>o</i> -Xylene	ND		1.00	0.0620	ug/L			12/29/15 19:19	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 19:19	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 19:19	1

TestAmerica Spokane

Client Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-10

Lab Sample ID: 590-2581-7

Date Collected: 12/22/15 13:40

Matrix: Water

Date Received: 12/23/15 15:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 140		12/29/15 19:19	1
4-Bromofluorobenzene (Surr)	94		68.7 - 141		12/29/15 19:19	1
Dibromofluoromethane (Surr)	99		71.2 - 143		12/29/15 19:19	1
Toluene-d8 (Surr)	99		74.1 - 135		12/29/15 19:19	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		68.7 - 141		12/29/15 19:19	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	0.672		0.257	0.205	mg/L		12/29/15 14:50	12/31/15 17:58	1

Residual Range Organics (RRO)	0.400	J	0.411	0.308	mg/L		12/29/15 14:50	12/31/15 17:58	1
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(C25-C36)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98		50 - 150	12/29/15 14:50	12/31/15 17:58	1
n-Triacontane-d62	98		50 - 150	12/29/15 14:50	12/31/15 17:58	1

Client Sample ID: GW-241795-122215-CP-MW-11

Lab Sample ID: 590-2581-8

Date Collected: 12/22/15 14:11

Matrix: Water

Date Received: 12/23/15 15:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 19:40	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 19:40	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 19:40	1
o-Xylene	ND		1.00	0.0620	ug/L			12/29/15 19:40	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 19:40	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 140		12/29/15 19:40	1
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 19:40	1
Dibromofluoromethane (Surr)	102		71.2 - 143		12/29/15 19:40	1
Toluene-d8 (Surr)	102		74.1 - 135		12/29/15 19:40	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		68.7 - 141		12/29/15 19:40	1

TestAmerica Spokane

QC Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-4909/19

Matrix: Water

Analysis Batch: 4909

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200	0.0320	ug/L			12/29/15 16:11	1
Ethylbenzene	ND		1.00	0.0860	ug/L			12/29/15 16:11	1
m,p-Xylene	ND		2.00	0.124	ug/L			12/29/15 16:11	1
o-Xylene	ND		1.00	0.0620	ug/L			12/29/15 16:11	1
Toluene	ND		1.00	0.0380	ug/L			12/29/15 16:11	1
Xylenes, Total	ND		3.00	0.0160	ug/L			12/29/15 16:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 140		12/29/15 16:11	1
4-Bromofluorobenzene (Surr)	95		68.7 - 141		12/29/15 16:11	1
Dibromofluoromethane (Surr)	106		71.2 - 143		12/29/15 16:11	1
Toluene-d8 (Surr)	101		74.1 - 135		12/29/15 16:11	1

Lab Sample ID: LCS 590-4909/1005

Matrix: Water

Analysis Batch: 4909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	11.43		ug/L		114	80 - 140
Ethylbenzene	10.0	10.66		ug/L		107	80 - 120
m,p-Xylene	10.0	11.03		ug/L		110	80 - 120
o-Xylene	10.0	10.62		ug/L		106	80 - 120
Toluene	10.0	11.83		ug/L		118	80 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 140
4-Bromofluorobenzene (Surr)	93		68.7 - 141
Dibromofluoromethane (Surr)	101		71.2 - 143
Toluene-d8 (Surr)	97		74.1 - 135

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Lab Sample ID: MB 590-4910/19

Matrix: Water

Analysis Batch: 4910

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	52.0	ug/L			12/29/15 16:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		68.7 - 141		12/29/15 16:11	1

TestAmerica Spokane

QC Sample Results

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: LCS 590-4910/1006

Matrix: Water

Analysis Batch: 4910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	998	1162		ug/L		116	80 - 120
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		68.7 - 141				

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-4912/1-A

Matrix: Water

Analysis Batch: 4952

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 4912

Analysis Date: 4/6/12									
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (DRO) (C10-C25)	ND		0.250	0.200	mg/L		12/29/15 14:50	12/31/15 15:40	1
Residual Range Organics (RRO) (C25-C36)	ND		0.400	0.300	mg/L		12/29/15 14:50	12/31/15 15:40	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
%Recovery	Qualifier								
o-Terphenyl	107		50 - 150				12/29/15 14:50	12/31/15 15:40	1
n-Triacontane-d62	108		50 - 150				12/29/15 14:50	12/31/15 15:40	1

Lab Sample ID: LCS 590-4912/2-A

Matrix: Water

Analysis Batch: 4952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 4912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO) (C10-C25)	1.01	1.130		mg/L		112	50 - 150
Residual Range Organics (RRO) (C25-C36)	1.03	1.181		mg/L		115	50 - 150
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl	111		50 - 150				
n-Triacontane-d62	113		50 - 150				

TestAmerica Spokane

QC Association Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

GC/MS VOA

Analysis Batch: 4909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-2581-1	GW-241795-122215-CP-MW-2	Total/NA	Water	8260C	
590-2581-2	GW-241795-122215-CP-MW-4	Total/NA	Water	8260C	
590-2581-3	GW-241795-122215-CP-MW-5	Total/NA	Water	8260C	
590-2581-4	GW-241795-122215-CP-MW-6	Total/NA	Water	8260C	
590-2581-5	GW-241795-122215-CP-MW-8	Total/NA	Water	8260C	
590-2581-6	GW-241795-122215-CP-MW-9	Total/NA	Water	8260C	
590-2581-7	GW-241795-122215-CP-MW-10	Total/NA	Water	8260C	
590-2581-8	GW-241795-122215-CP-MW-11	Total/NA	Water	8260C	
LCS 590-4909/1005	Lab Control Sample	Total/NA	Water	8260C	
MB 590-4909/19	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 4910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-2581-1	GW-241795-122215-CP-MW-2	Total/NA	Water	NWTPH-Gx	
590-2581-2	GW-241795-122215-CP-MW-4	Total/NA	Water	NWTPH-Gx	
590-2581-3	GW-241795-122215-CP-MW-5	Total/NA	Water	NWTPH-Gx	
590-2581-4	GW-241795-122215-CP-MW-6	Total/NA	Water	NWTPH-Gx	
590-2581-5	GW-241795-122215-CP-MW-8	Total/NA	Water	NWTPH-Gx	
590-2581-6	GW-241795-122215-CP-MW-9	Total/NA	Water	NWTPH-Gx	
590-2581-7	GW-241795-122215-CP-MW-10	Total/NA	Water	NWTPH-Gx	
590-2581-8	GW-241795-122215-CP-MW-11	Total/NA	Water	NWTPH-Gx	
LCS 590-4910/1006	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
MB 590-4910/19	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 4912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-2581-2	GW-241795-122215-CP-MW-4	Total/NA	Water	3510C	
590-2581-3	GW-241795-122215-CP-MW-5	Total/NA	Water	3510C	
590-2581-4	GW-241795-122215-CP-MW-6	Total/NA	Water	3510C	
590-2581-5	GW-241795-122215-CP-MW-8	Total/NA	Water	3510C	
590-2581-6	GW-241795-122215-CP-MW-9	Total/NA	Water	3510C	
590-2581-7	GW-241795-122215-CP-MW-10	Total/NA	Water	3510C	
LCS 590-4912/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 590-4912/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 4952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-2581-2	GW-241795-122215-CP-MW-4	Total/NA	Water	NWTPH-Dx	4912
590-2581-3	GW-241795-122215-CP-MW-5	Total/NA	Water	NWTPH-Dx	4912
590-2581-4	GW-241795-122215-CP-MW-6	Total/NA	Water	NWTPH-Dx	4912
590-2581-5	GW-241795-122215-CP-MW-8	Total/NA	Water	NWTPH-Dx	4912
590-2581-6	GW-241795-122215-CP-MW-9	Total/NA	Water	NWTPH-Dx	4912
590-2581-7	GW-241795-122215-CP-MW-10	Total/NA	Water	NWTPH-Dx	4912
LCS 590-4912/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	4912
MB 590-4912/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	4912

TestAmerica Spokane

Lab Chronicle

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-2

Date Collected: 12/22/15 12:14

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 17:13	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 17:13	MRS	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-4

Date Collected: 12/22/15 12:39

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 17:34	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 17:34	MRS	TAL SPK
Total/NA	Prep	3510C			1052.3 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	1052.3 mL	5 mL	4952	12/31/15 16:33	NMI	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-5

Date Collected: 12/22/15 13:12

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 17:55	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 17:55	MRS	TAL SPK
Total/NA	Prep	3510C			1052.9 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	1052.9 mL	5 mL	4952	12/31/15 16:50	NMI	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-6

Date Collected: 12/22/15 13:39

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 18:16	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 18:16	MRS	TAL SPK
Total/NA	Prep	3510C			1049.2 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	1049.2 mL	5 mL	4952	12/31/15 17:07	NMI	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-8

Date Collected: 12/22/15 13:10

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 18:37	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 18:37	MRS	TAL SPK
Total/NA	Prep	3510C			1021.7 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	1021.7 mL	5 mL	4952	12/31/15 17:24	NMI	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Client Sample ID: GW-241795-122215-CP-MW-9

Date Collected: 12/22/15 12:30

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 18:58	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 18:58	MRS	TAL SPK
Total/NA	Prep	3510C			1052.6 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	1052.6 mL	5 mL	4952	12/31/15 17:41	NMI	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-10

Date Collected: 12/22/15 13:40

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 19:19	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 19:19	MRS	TAL SPK
Total/NA	Prep	3510C			974.2 mL	5 mL	4912	12/29/15 14:50	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1	974.2 mL	5 mL	4952	12/31/15 17:58	NMI	TAL SPK

Client Sample ID: GW-241795-122215-CP-MW-11

Date Collected: 12/22/15 14:11

Date Received: 12/23/15 15:15

Lab Sample ID: 590-2581-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	43 mL	43 mL	4909	12/29/15 19:40	MRS	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	4910	12/29/15 19:40	MRS	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Definitions/Glossary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc.
Project/Site: 1349 NW State St. Chehalis

TestAmerica Job ID: 590-2581-1

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C569	01-06-17

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
NWTPH-Gx		Water	Gasoline

LAB (LOCATION)

ACCOUNT ()
CALSCIENCE ()
ESTAMERICA ()
Other ()

Please Check Appropriate Box:
☐ Soil Pkg ☐ TYPICAL ☐ DIRECT
☐ CHEMICALS ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☐ OTHER



Shell Oil Products US Chain Of Custody Record



Blaine Tech Service

Print Bill To Contact Name: **Clifford Pearson** Platelet Site or Project ID: **12/22/15**
PO # **12/22/15** GSAP Project ID: **12/22/15**
DATE: **12/22/15**
PAGE: **1** of **1**

SHIP ADDRESS Street and City: **1349 NW State St, Chetals** State: **WA** AECOM Project Task Number: **12/22/15**

PHONE NO: **503-243-3121** E-MAIL: **clifford.pearson@aecom.com**

PROJECT CONTACT (Person or Fax) **Renee Knecht** TEL: **206-438-2371** FAX: **206-438-2371**

TURNAROUND TIME (CALENDAR DAYS): **25 STANDARD (4 DAY)** ☐ DAYS ☐ DAYS ☐ DAYS ☐ HOURS ☐ RESULTS NEEDED ON WEEKEND

DELIVERABLES: ☐ LEVEL 1 ☒ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) **3 SC** ☐ CODE #3

TEMPERATURE ON RECEIPT C° **41.9C** CODE #1 **41.9C** CODE #2 **3 SC** CODE #3 **12001**

SPECIAL INSTRUCTIONS OR NOTES: **STATE REMISEMENT RATE APPLIES**
☐ STATE REMISEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEAD DISK

Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	LAB-55 BTEX	SI LAB-123 - WA NW Dx Water	LAB-35 MTBE	LAB-36 TBA	LAB-37 DIPE	LAB-38 TAME	LAB-39 ETBE	TPH-O	WA - NWTPH-Gx	Total Lead	NON-UNIT COST	UNIT COST	REQUESTED ANALYSIS	FIELD NOTES:
	DATE	TIME		HCL	HN03	HN04	HN06	OTHER															

LAB-55 BTEX: **60-241795-122215-QP-MW-7** DATE: **12/21/15** TIME: **12:14** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **4**

LAB-35 MTBE: **60-241795-122215-QP-MW-4** DATE: **12/21/15** TIME: **12:39** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

LAB-36 TBA: **60-241795-122215-QP-MW-5** DATE: **12/21/15** TIME: **13:12** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

LAB-37 DIPE: **60-241795-122215-QP-MW-6** DATE: **12/21/15** TIME: **13:39** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

LAB-38 TAME: **60-241795-122215-QP-MW-8** DATE: **12/21/15** TIME: **13:10** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

LAB-39 ETBE: **60-241795-122215-QP-MW-9** DATE: **12/21/15** TIME: **12:30** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

TPH-O: **60-241795-122215-QP-MW-10** DATE: **12/21/15** TIME: **13:40** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **7**

WA - NWTPH-Gx: **60-241795-122215-QP-MW-11** DATE: **12/21/15** TIME: **14:11** MATRIX: **WT** HCL: **X** HN03: **X** HN04: **X** HN06: **X** OTHER: **X** NO. OF CONT.: **8**

Total Lead: **12/22/15**

Container PID Readings or Laboratory Notes

Received By (Signature): **Clifford Pearson** Date: **12/22/15** Time: **15:55**

Received By (Signature): **Clifford Pearson** Date: **12/23/15** Time: **15:55**

Requested By (Signature): **Clifford Pearson** Date: **12/23/15** Time: **15:55**

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 590-2581-1

Login Number: 2581

List Number: 1

Creator: Kratz, Sheila J

List Source: TestAmerica Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	