

February 15, 2015

2014-01-169

Mr. Mark Chandler  
Vice President of Environmental Services  
TOC Holdings Co.  
2737 W. Commodore Way  
Seattle, WA 98199

Subject: Groundwater Monitoring Report  
Fourth Quarter, 2014  
TOC Facility No. 01-169  
851 North Broadway Street, Everett, Washington  
Washington State Department of Ecology Site# 54678156

This report summarizes the results of the Fourth Quarter 2014 groundwater sampling event conducted by HydroCon Environmental (HydroCon) at the TOC Holdings Co. Facility No. 01-169 property located at 851 North Broadway Street in Everett, Washington (the Property). The Property location is shown on Figure 1. This report presents a summary of the site background, field activities, and results of the quarterly monitoring event.

## Site Background

The subject site is located in a commercial area of North Everett and is currently used as a retail shopping center. Tenants include a Subway restaurant and a 7-Eleven convenience store. Time Oil Co. (currently TOC Holdings Co.) formerly owned and operated a retail gasoline service station on the Property. Remedial activities began in December 2003 when four underground storage tanks (USTs), two fuel-dispensing pump islands, product distribution piping, and associated petroleum-contaminated soil (PCS) were removed from the Property. Some PCS was left in place during the remedial excavation due to the presence of an adjacent sidewalk and a 48-inch-diameter sewer line in the vicinity of the UST system.

Analytical data from subsurface investigations indicates that concentrations of gasoline-range petroleum hydrocarbons (GRPH); diesel-range petroleum hydrocarbons (DRPH); heavy oil-range petroleum hydrocarbons (ORPH); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tertiary-butyl ether (MTBE); and naphthalene exceeded their respective Model Toxics Control Act (MTCA) Method A cleanup levels in soil and/or groundwater beneath the Property. Additionally, elevated concentrations of metals including antimony, arsenic, and lead are also present in soil and/or groundwater beneath the Property. These metals are associated with the slag fill obtained from the former Everett Smelter Site to develop the site.

Based on current information of the site, PCS exists beneath the central and northwestern portions of the Property in the vicinity of the UST excavation, extending beneath a portion of the North Broadway right-of-way and a discontinuous, perched water-bearing zone located in the vicinity of the UST excavation.

Remedial measures have been implemented at the site in an effort to mitigate the residual soil and groundwater contamination. A dual-phase extraction (DPE) remediation system was installed at the Property and operated from 2006 to July 2009 when it was shut down due to a change in land use. A new DPE system was installed in June 2011 and started in the Second Quarter 2012. The new DPE system includes soil vapor extraction (SVE) and groundwater extraction and treatment. The SVE system includes monitoring wells OW02, MW08, RW02 through RW04, and RW08 through RW11. Groundwater is extracted for treatment continuously at RW02, RW03, and RW10 and intermittently at OW02, RW09, and RW11.

Site features including the location of historical facilities and monitoring wells are provided on Figure 2.

## Scope of Work

Groundwater samples were collected on December 29 through 31, 2014 to evaluate the quality of groundwater beneath the Property and to eventually demonstrate compliance with MTCA cleanup regulations. The monitoring event included the following activities:

- Measurement of depth to groundwater in monitoring wells MW01, MW03, MW04, MW05, MW07, MW09, MW11 through MW13; remediation wells RW01, RW04, RW06, RW07, RW09 through RW11; and observation well OW01. Wells OW02, RW02 and RW03 were inaccessible. Wells MW02, MW06, MW08, MW10, RW05 and RW08 were dry.
- Collection of groundwater samples from Wells MW01, MW09, MW12, MW13, RW01, RW06, and RW07. Wells MW03, MW05, MW07, MW11, RW04, RW09, RW10, RW11, and OW01 did not have sufficient water in the wells to collect samples.
- Collection of a field duplicate sample from monitoring well RW07 for quality assurance/quality control (QA/QC) purposes.
- Summarizing the groundwater sampling activities, analytical results, and upcoming work.

## Groundwater Sampling Procedures

HydroCon collected groundwater samples on December 29 and 31, 2014. A field duplicate was collected from RW07 for QA/QC purposes. Monitoring wells were purged and sampled in accordance with U.S. Environmental Protection Agency (EPA) guidance for low-flow sampling<sup>1</sup>.

The remediation system was shut down on December 29 and restarted after the conclusion of the sampling event. Depth to water was measured in the wells on December 31, 2014. Prior to well purging and sample collection, the well cap on each well was removed and the water level was allowed to equilibrate prior to measuring the depth to water. The depth to water in each well was measured using a clean electronic water level indicator. Water levels were measured at the scribed reference mark (north side of the top of the polyvinyl chloride casing) at each well.

Prior to groundwater sampling, the wells were purged with a low-flow peristaltic pump equipped with new length of low-density polyethylene tubing attached to a new length of silicone tubing. The tubing intake was placed approximately 2 to 3 feet below the surface of the groundwater or mid-screen in each well. During purging, water quality was monitored using a YSI or Quanta multi-parameter water quality meter equipped with a flow-through cell. The water quality parameters that were monitored and recorded included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each well was purged until all six water quality parameters stabilized or the minimum parameter subset of pH, specific conductance, temperature, and turbidity and/or dissolved oxygen stabilized. Groundwater sample collection forms are provided in Attachment A.

Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported under chain-of-custody to Friedman & Bruya, Inc. of Seattle, Washington, for laboratory analysis.

Purge water generated during the monitoring event was placed in an appropriately labeled 55-gallon steel drum and temporarily stored on the Property pending receipt of analytical data and proper disposal.

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<sup>1</sup> *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (April 1996). EPA/540/S-95/504*

## Laboratory Analysis

The analytical protocol followed for the samples collected at the Property includes the required testing for petroleum releases for gasoline (Table 830-1 in the MTCA Cleanup Regulations Chapter 173-340 WAC). The analytical methods used include:

- GRPH using Northwest Method NWTPH-Gx.
- Benzene, toluene, ethylbenzene, total xylenes (BTEX) by EPA Method 8021B.

## Groundwater Conditions

Groundwater levels measured on December 31, 2014, ranged from 8.28 feet (observation well RW07) to 24.96 feet (remediation well MW05) below the top of the monitoring well casings (Table 1). Groundwater elevations ranged from 74.22 feet above mean sea level (amsl) in MW03 to 90.12 feet (amsl) in RW07.

Groundwater levels measured in the Property's 26 wells historically have ranged from 6.27 feet (observation well OW01) to 26.33 feet (remediation well RW08) below the top of the monitoring well casings (Table 1). Groundwater contours indicate that groundwater within the UST excavation forms a depression centered on remediation well RW10. Outside of the UST system excavation area, groundwater levels have historically fluctuated drastically and are interpreted to be strongly controlled by the operation of the dual phase extraction (DPE) remediation system and subsurface soil conditions (see SoundEarth 2013<sup>2</sup> for additional information). As a result, only wells near the UST excavation are used to interpret groundwater conditions. In addition, many wells (MW03, MW05, MW07, MW11, RW04, RW09, RW10, RW11, and OW01) had very little water in the casing this quarter or were dry (MW02, MW06, MW08, MW10, RW05 and RW08) and were not used to interpret groundwater flow. Groundwater elevations for Wells MW01, MW12, MW13, RW01, RW06, and RW07 indicate a groundwater flow direction within the UST excavation area is toward the south, converging on Remediation Wells RW10 and RW04 with gradients ranging from 0.03 to 0.06 feet per foot (Figure 3, Table 1).

## Groundwater Sampling Results

Laboratory analytical results from the monitoring event were compared to applicable MTCA Method A cleanup levels for groundwater and are summarized below (Figure 4, Table 1). There were no detections of GRPH or BETX in the seven wells sampled.

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<sup>2</sup> SoundEarth Strategies, March 20, 2013). Remedial Investigation Reports, TOC Holding Co. Facility No. 01-169, 851 North Broadway, Everett, WA. Prepared for TOC Holdings Co., 2737 Commodore Way, Seattle, WA.



## Data Quality Review

HydroCon performed a QA/QC review of the analytical results, which included a review of accuracy and precision of the data supplied by the laboratory. The relative percent difference (RPD) for the field duplicate MW99, which was collected by HydroCon from RW07, could not be calculated because all analytical results were below their respective laboratory reporting limit. All quality control criteria are acceptable; therefore, no action is required, and analytical results meet the project objectives for usable data. A copy of the laboratory report is provided in Attachment B.

## Remediation System Performance

HydroCon performed monthly operations and maintenance (O&M) activities on the site on three dates, during the Fourth Quarter 2014 (October 24, November 20, and December 10). O&M activities included the collection of air samples from the effluent sample ports on the SVE discharge stack and air stripper discharge stack and collection of treated groundwater from a sample port on the groundwater effluent pump.

For each event, air samples were collected in two one-liter Tedlar bags and submitted to Friedman & Bruya for analysis. The air samples were analyzed for GRPH by method NWTPH-Gx and for BTEX by EPA Method 8021B. Quarterly groundwater influent samples were collected in three 40ml-volatile organic analysis (VOA) vials preserved with hydrochloric acid (HCl) and were analyzed for GRPH by Method NWTPH-Gx and for BTEX by EPA Method 8021B. Effluent samples were collected in three 40ml-VOA vials preserved with HCl, one one-liter amber bottle, and two 500 ml polyethylene bottles, one unpreserved and one preserved with nitric acid. The effluent water samples were analyzed for GRPH by Method NWTPH-Gx, for BTEX by EPA Method 8021B, total lead by EPA Method 6020/200.8, oil and grease by EPA Method 1664A, mercury by EPA Method 1631E, and flashpoint by EPA Method 1010.

During the Fourth Quarter 2014 the remediation system removed an estimated 11 pounds of GRPH as vapor. Approximately 7,799 gallons of groundwater were treated to levels that were acceptable for discharge to the City of Everett sanitary sewer. A summary of system performance is presented on Table 2.

## Work Planned

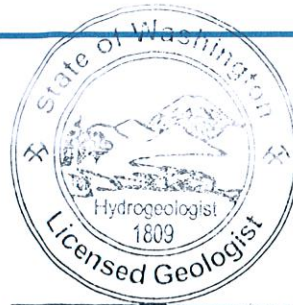
HydroCon will conduct groundwater monitoring at the Property in First Quarter 2015, the results of which will be included in a groundwater monitoring report. O&M activities will be conducted monthly.

Sincerely,



Craig Hultgren, LHG

**Senior Geologist/Project Manager**



**CRAIG HULTGREN**

cc: Eugene Freeman, Washington State Department of Ecology, Northwest Region

**Attachments**

**Figures**

Figure 1 - Site Location Map

Figure 2 - Site Features

Figure 3 - Groundwater Elevation Contours

Figure 4 - Groundwater Analytical Results

**Table**

Table 1 – Summary of Groundwater Data

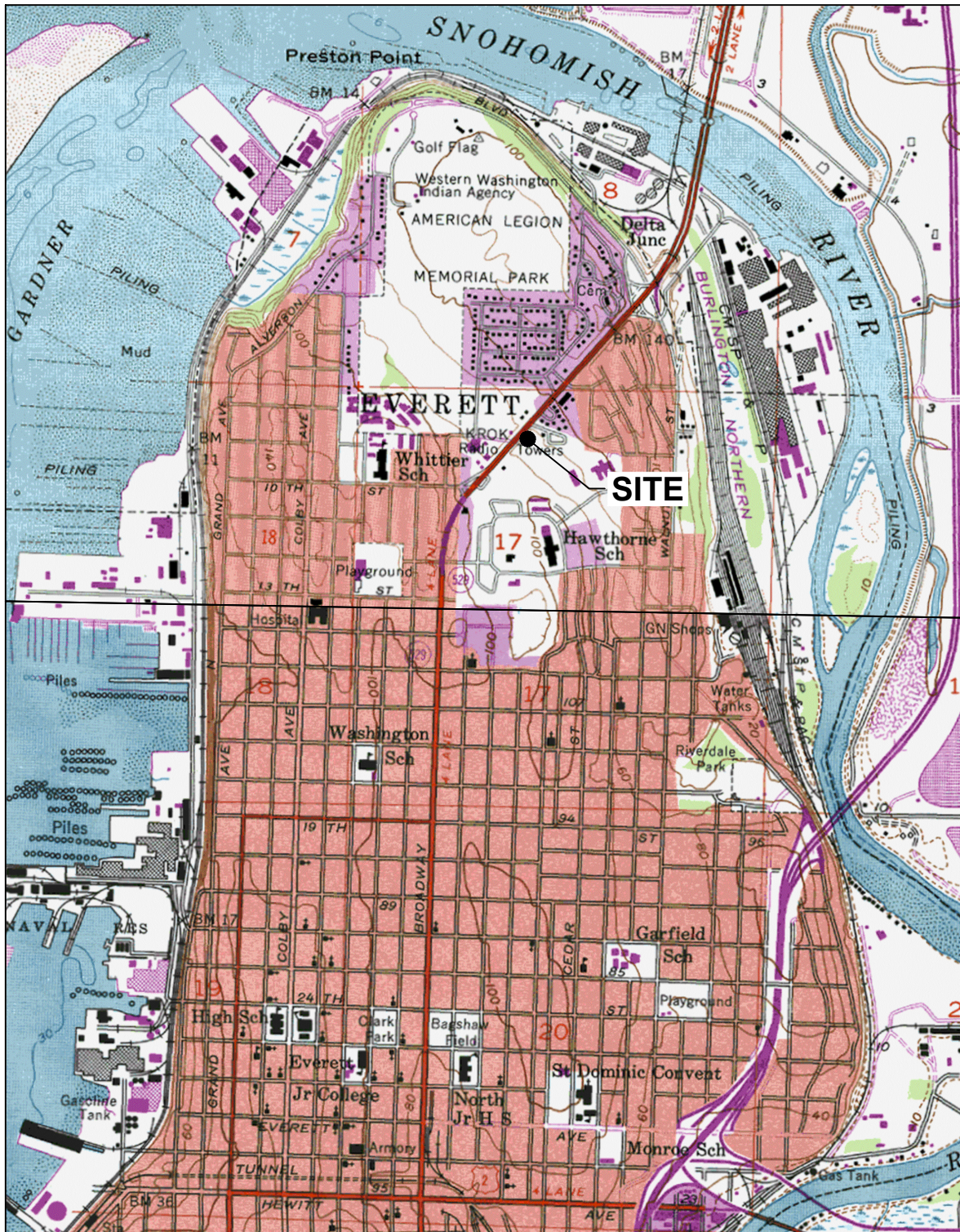
Table 2 – Summary of System Performance

**Attachments**

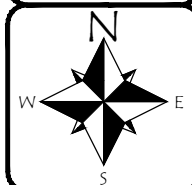
Attachment A – Groundwater Sample Collection Forms

Attachment B – Laboratory Report and Chain-of-Custody Documentation





**NOTE(S):**  
 USGS, MARYSVILLE QUADRANGLE  
 WASHINGTON-SNOHOMISH CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)



0 2000 4000  
 SCALE IN FEET  
 1" = 2000'



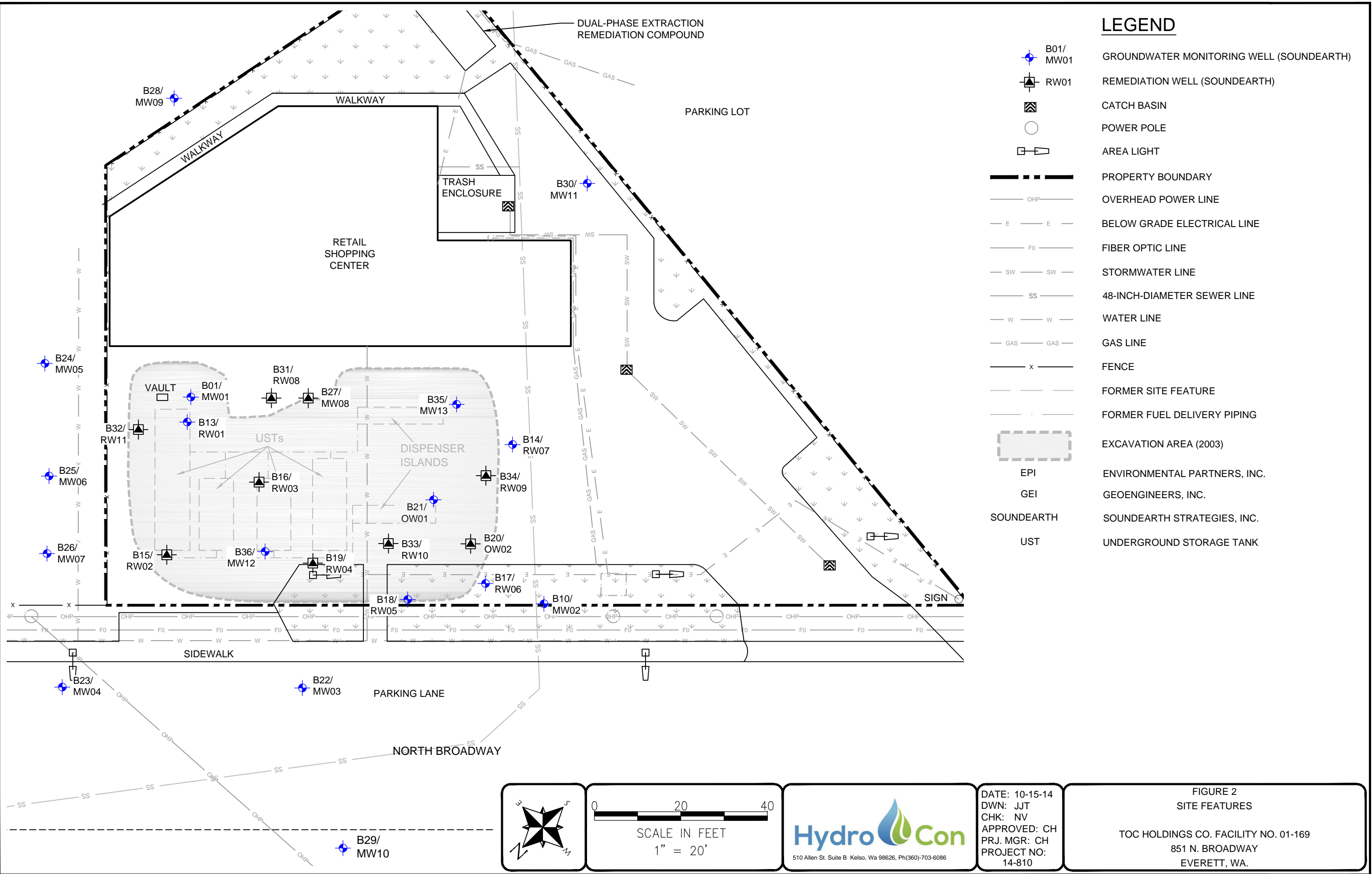
DATE: 1-14-15  
 DWN: JUT  
 CHK: NV  
 APPROVED: CH  
 PRJ. MGR: CH  
 PROJECT NO: 14-810

FIGURE 1  
 SITE LOCATION MAP

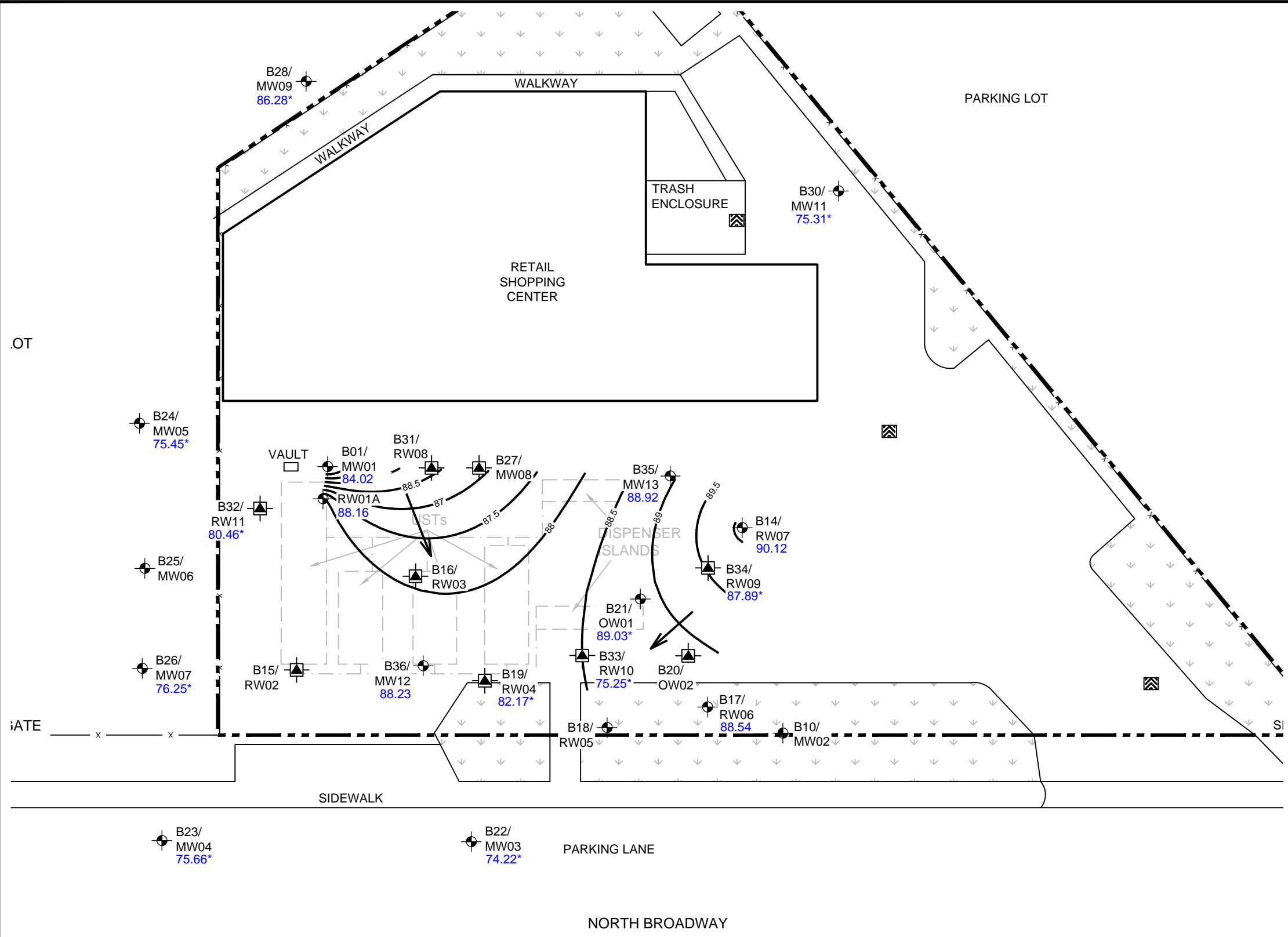
TOC HOLDINGS CO. FACILITY NO. 01-169  
 851 N. BROADWAY  
 EVERETT, WA.



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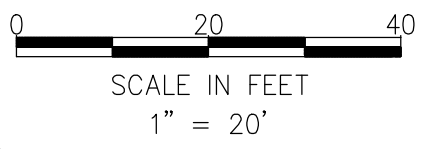


## LEGEND

- B01/MW01 GROUNDWATER MONITORING WELL (SOUNDEARTH)
- RW01 REMEDIATION WELL (SOUNDEARTH)
- CATCH BASIN
- POWER POLE
- PROPERTY BOUNDARY
- FENCE
- FORMER SITE FEATURE
- FORMER FUEL DELIVERY PIPING
- UST
- 88.92 GROUNDWATER SURFACE ELEVATION
- 82 GROUNDWATER ELEVATION CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

\* GROUNDWATER ELEVATION WAS NOT INCLUDED IN THE GROUNDWATER CONTOURING, SEE REPORT TEXT.

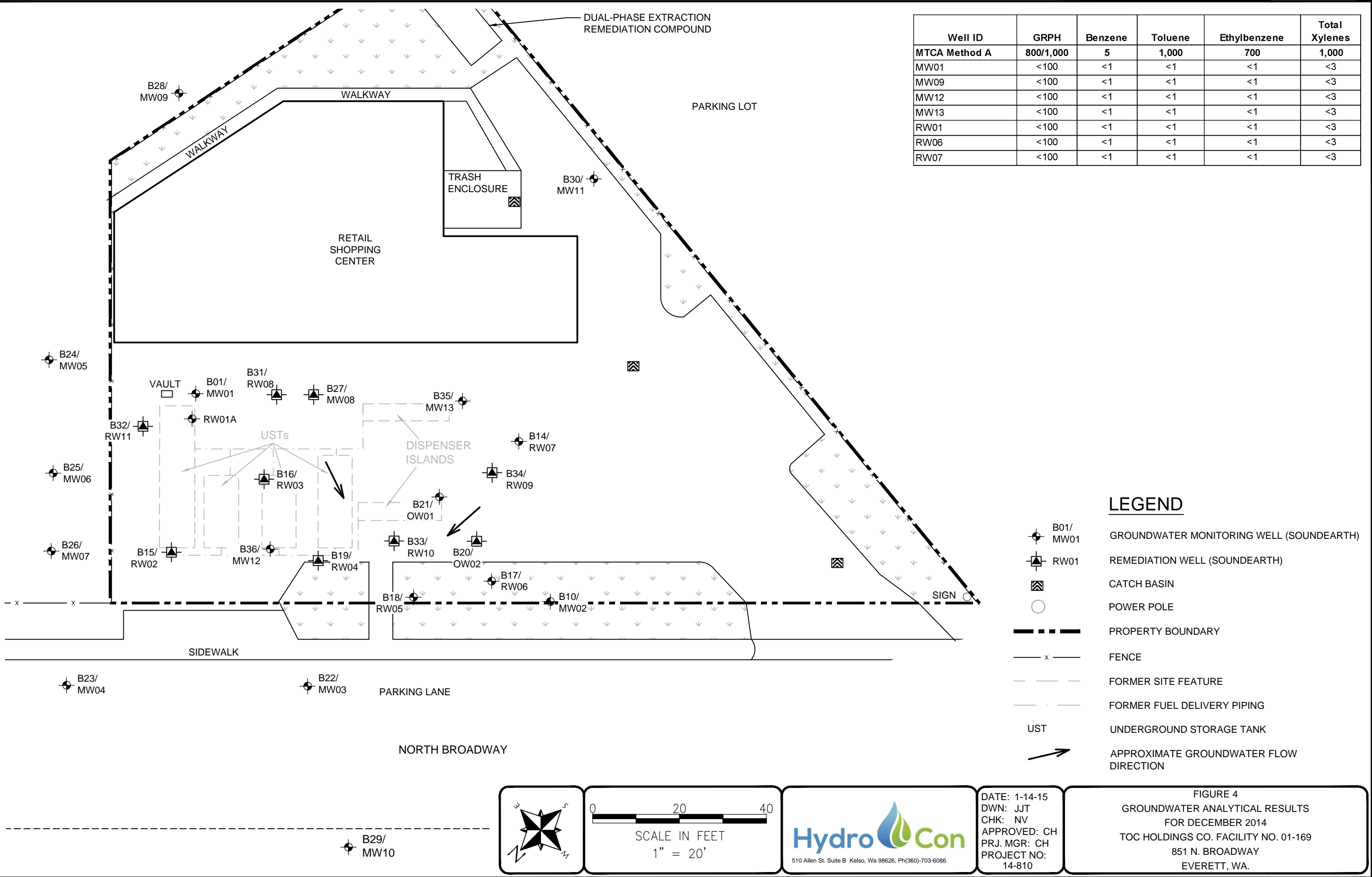
B29/  
MW10



DATE: 11-12-14  
DWN: JJT  
CHK: NV  
APPROVED: CH  
PRJ. MGR: CH  
PROJECT NO:  
14-810

FIGURE 3  
GROUNDWATER ELEVATION CONTOURS  
FOR SEPTEMBER 2014  
TOC HOLDINGS CO. FACILITY NO. 01-169  
851 N. BROADWAY  
EVERETT, WA.

D:\Client\Autocad\Hydrocon-Autocad\01-169\_14-810 Everett 169\2014QTR04\01-169\_BM-Q4.dwg 2:17:2014



Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>		Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>6</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-NE	1,3,5-80		
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15	5						
MW01	100.00	10/07/04	--	--	3,140	<500	<1,000	0.666	0.736	57.9	239	19.1	<20.0	<10.0	<10.0	1.09	--	--	5	--	316	107	
MW01	100.00	05/04/06	11.73	88.27	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--	--	
MW01	100.00	07/20/06	19.29	80.71	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--	--	
MW01	100.00	11/08/06	19.30	80.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	02/06/07	14.10	85.90	<100	--	--	--	<1	<1	<1	<3	--	--	--	5.90	<1	3.21	1.31	--	--	--	
MW01	100.00	06/08/07	11.16	88.84	<100	--	--	--	<1	<1	<1	<3	--	--	--	<1	<1	1.26	1.15	--	--	--	
MW01	100.00	08/14/07	17.18	82.82	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/29/07	18.28	81.72	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	02/19/08	9.91	90.09	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	06/27/08	9.27	90.73	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	08/12/08	9.41	90.59	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/26/08	8.08	91.92	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	03/31/09	7.80	92.20	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	06/19/09	9.82	90.18	<100	--	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--	--	--	
MW01	100.00	08/28/09	9.81	90.19	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/25/09	7.56	92.44	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1	--	<1	--	--	--	--	
MW01	100.00	01/28/10	7.82	92.18	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1	--	--	--	--	--	--	
MW01	100.00	06/09/10	7.15	92.85	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	<1	--	--	--	--	--	--	
MW01	100.00	08/18/10	8.38	91.62	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	<1	--	--	--	--	--	--	
MW01	100.00	11/09/10	7.58	92.42	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	02/16/11	7.46	92.54	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	05/19/11	7.50	92.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	08/18/11	11.20	88.80	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/21/11	10.95	89.05	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	02/15/12	10.73	89.27	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	05/17/12	9.87	90.13	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/29/12	15.77	84.23	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	03/06/13	11.28	88.72	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	06/04/13	17.28	82.72	<100	--	--	--	<1	<1	<1	3.6	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	11/21/13	18.59	81.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	03/05/14	13.93	86.07	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	05/26/14	11.04	88.96	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	09/23/14	19.18	80.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW01	100.00	12/31/14	15.98	84.02	<100	--	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater (1) (feet)	Groundwater Elevation(2) (feet)	Analytical Results (µg/L)														Lead(5)		Arsenic(5)		Trimethylbenzene(5)	
					GRPH(3)	DRPH(4)	ORPH(4)	Benzene(5)	Toluene(5)	Ethylbenzene(5)	Total Xylenes(5)	Naphthalene(5)	MTBE(5)	EDB(5)	EDC(5)	Total	Dissolved	Total	Dissolved	1,2,4- NE	1,3,5- 80			
MTCA Method A Cleanup Level for Groundwater(7)					800/1,000(6)	500	500	5	1,000	700	1,000	160	20	0.01	5	15		5						
MW02	98.30	05/04/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	07/19/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/08/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	02/06/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	06/08/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/14/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/29/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	02/19/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	06/27/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/12/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/26/08	Inaccessible	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	03/31/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	06/19/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/27/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/25/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	01/28/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	06/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/18/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	02/16/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	05/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/21/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	02/15/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	05/17/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/14/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/28/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	03/05/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	06/04/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	08/27/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	11/21/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	03/05/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	05/27/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	09/23/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MW02	98.30	12/31/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					





Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)															Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Lead <sup>(6)</sup>		Arsenic <sup>(6)</sup>		1,2,4-NE	1,3,5-80
																Total	Dissolved	Total	Dissolved		
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15		5			
MW03	98.94	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	06/04/13	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	11/21/13	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	03/05/14	24.7	74.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	05/27/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	09/23/14	24.70	74.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW03	98.94	12/31/14	24.72	74.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	11/21/11	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	02/15/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	05/17/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	08/27/13	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	11/21/13	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	03/05/14	24.77	75.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	05/27/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	09/23/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW04	100.46	12/31/14	24.80	75.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)															Lead <sup>(4)</sup>				Arsenic <sup>(4)</sup>		Trimethylbenzene <sup>8</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>6</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-NE	1,3,5-80						
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15	5										
MW05	100.40	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.40	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.40	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.40	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.40	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.40	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	03/05/14	25.07	75.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	05/27/14	24.93	75.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	09/23/14	24.93	75.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW05	100.41	12/31/14	24.96	75.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	100.96	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	03/05/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	05/27/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	09/23/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW06	101.94	12/31/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	100.19	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	03/05/14	24.87	75.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	05/27/14	24.86	76.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	09/23/14	24.88	76.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
MW07	101.17	12/31/14	24.92	76.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)											Lead <sup>(6)</sup>		Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>8</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-	1,3,5-
					800/1,000 <sup>(6)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15		5		NE	80
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>																					
MW08	99.11	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.11	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	03/05/13	23.22	76.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	06/04/13	23.89	75.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	08/27/13	23.25	76.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	11/21/13	23.43	75.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	03/05/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.33	05/27/14	21.30	78.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.97	09/23/14	23.37	76.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.97	12/31/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.97	12/21/10	24.34	75.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW08	99.97	02/16/11	23.49	76.48	27,000	1,600 <sup>a</sup>	<250	1,700	14,000	2,300	14,000	430	--	--	--	20.6	--	--	--	--	
MW08	99.97	05/19/11	24.12	75.85	30,000	1,800 <sup>a</sup>	<250 <sup>c</sup>	1,600	11,000	1,800	10,800	270	--	--	--	--	--	--	--	--	
MW08	99.97	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.71	12/21/10	11.34	88.37	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.71	02/16/11	9.85	89.86	<100	130 <sup>a</sup>	<250	<0.35	<1	<1	<3	<1	--	--	--	<1	--	--	--	--	
MW09	99.71	05/19/11	10.15	89.56	100	90	<250	<0.35	<1	<1	<3	<1	--	--	--	<1	--	--	--	--	
MW09	99.71	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.71	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.71	02/16/12	16.59	83.12	<100	310 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	05/18/12	10.84	88.85	<100	200	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.69	11/30/12	14.34	85.35	110	480 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	03/06/13	13.91	85.78	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.69	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.69	11/27/13	16.24	83.45	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	03/06/14	13.76	85.93	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	05/30/14	18.55	81.14	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW09	99.69	09/23/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW09	99.69	12/31/14	13.41	86.28	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
MW10	99.18	12/21/10	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	03/05/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	05/27/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	09/23/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW10	99.18	12/31/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Well ID	TOC (feet)	Date	Depth to Groundwater (feet)	Groundwater or Elevation <sup>(1)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>8</sup>	
					GRPH <sup>(2)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total		Total		1,2,4-	1,3,5-				
																15	5	5							
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15	5	NE	80						
MW11	99.62	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	02/15/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	03/15/14	24.79	74.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	05/27/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	09/23/14	24.78	74.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW11	99.62	12/31/14	24.31	75.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.88	08/19/11	10.86	89.02	1,000	56*	<250	6.7	<1	44	<3	13	--	--	--	--	<1	--	--						
MW12	99.88	11/22/11	10.65	89.23	190	<50	<250	1.3	<1	4.2	<3	<1	--	--	--	--	--	<1	--						
MW12	99.88	02/16/12	10.20	89.68	<100	<50	<250	<0.35	<1	<1	<3	<1	--	--	--	--	--	--	--						
MW12	99.86	05/18/12	9.50	90.36	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--						
MW12	99.86	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	11/29/12	10.86	89.00	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--						
MW12	99.86	03/05/13	14.15	85.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	06/04/13	14.92	84.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	03/06/14	13.24	86.62	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--						
MW12	99.86	05/29/14	10.40	89.46	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--						
MW12	99.86	09/23/14	14.84	85.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
MW12	99.86	12/29/14	11.63	88.23	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--						

Well ID	TOC (feet)	Date	Depth to Groundwater (1) (feet)	Groundwater or Elevation(2) (feet)	Analytical Results (µg/L)												Lead(6)				Arsenic(6)		Trimethylbenzene(6)	
					GRPH(3)	DRPH(4)	ORPH(4)	Benzene(5)	Toluene(5)	Ethylbenzene(5)	Total Xylenes(5)	Naphthalene(5)	MTBE(5)	EDB(5)	EDC(5)	Total	Dissolved	Total	Dissolved	1,2,4-	1,3,5-			
MTCA Method A Cleanup Level for Groundwater(7)					800/1,000(8)	500	500	5	1,000	700	1,000	160	20	0.01	5	15	5	5	NE	80				
MW13	99.58	08/19/11	10.00	89.58	<100	<50	<250	21	<1	<1	<3	<1	--	--	0.01	5	--	<1	--	--				
MW13	99.58	11/21/11	12.53	87.05	350 <sup>a</sup>	<50	<250	160	<1	<1	<3	<1	--	--	--	--	--	--	<1	--				
MW13	99.58	02/16/12	11.22	88.36	<100	170 <sup>a</sup>	<250	2.3	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	05/17/12	10.28	89.30	<100	170 <sup>a</sup>	<250	6.1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	08/14/12	9.58	90.00	<100	200 <sup>a</sup>	<250	3.4	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	11/30/12	10.97	88.61	<100	330 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	03/05/13	10.12	89.46	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	06/04/13	10.65	88.93	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	08/28/13	11.17	88.41	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	11/21/13	12.10	87.48	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	03/04/14	12.8	86.78	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	05/27/14	9.53	90.05	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	09/24/14	10.34	89.24	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
MW13	99.58	12/29/14	10.66	88.92	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	99.96	11/21/03	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	07/19/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	06/27/08	7.99	90.96	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	08/12/08	9.94	89.01	180	--	--	30	2	2	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	11/26/08	6.88	92.07	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	06/19/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	11/25/09	6.48	92.47	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--	--				
OW01	98.95	01/29/10	6.75	92.20	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--	--				
OW01	98.95	06/09/10	6.27	92.68	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	<1	--	--	--	--				
OW01	98.95	08/18/10	7.24	91.71	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	<1	--	--	--	--				
OW01	98.95	11/09/10	6.65	92.30	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	02/16/11	6.50	92.45	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	05/19/11	6.47	92.48	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--				
OW01	98.95	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	98.95	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	03/05/14	10.89	89.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	06/27/14	10.89	89.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	09/24/14	10.89	89.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
OW01	99.96	12/31/14	10.93	89.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)												Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>8</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total		Total		1,2,4-	1,3,5-			
																15	Dissolved	Dissolved	5	NE	80			
MTC Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5									
OW02	98.94	05/04/06	10.42	88.52	2,260	--	--	236	7.63	70.1	313	--	26.1	<0.500	<0.500	--	--	--	--					
OW02	98.94	07/19/06	9.87	89.07	914	--	--	194	0.990	45.3	8.72	--	30.1	<0.500	<0.500	--	--	--	--					
OW02	98.94	11/08/06	10.39	88.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.94	02/06/07	10.54	88.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.94	06/08/07	10.02	88.92	220	--	--	22	1	3	4	--	--	--	--	--	--	--	--					
OW02	98.94	08/14/07	10.02	88.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.94	11/29/07	10.55	88.39	300	--	--	41	3	5	13	--	--	--	--	--	--	--	--					
OW02	98.94	02/19/08	10.56	88.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.94	06/27/08	9.96	88.98	190	--	--	38	2	2	6	--	--	--	--	--	--	--	--					
OW02	98.94	08/12/08	10.24	88.70	180	--	--	30	2	2	<3	--	--	--	--	--	--	--	--					
OW02	98.94	11/26/08	10.10	88.84	260	--	--	54	3	6	8	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	03/31/09	8.82	90.23	380	1,400	260 <sup>7</sup>	49	2	10	38	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	06/19/09	9.25	89.80	<100	--	--	18	<1	2.5	3	<1	3.8	<1	<1	--	<1	--	--					
OW02	99.05 <sup>(9)</sup>	08/28/09	9.31	89.74	<100	510	320	23	<1	2	<3	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	11/25/09	9.33	89.72	<100	<50	<250	7.6	<1	<1	<3	<1	<1	<1	<1	--	1.17	--	--					
OW02	99.05 <sup>(9)</sup>	01/29/10	9.59	89.46	<100	<50	<250	3.5	<1	<1	<3	<1	<1	<1	<1	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	06/09/10	8.95	90.10	<100	100 <sup>7</sup>	640	1.5	<1	<1	<3	<1	<1	<1	<1	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	08/18/10	9.60	89.45	<100	130 <sup>7</sup>	<250	2.0	<1	<1	<3	<5	1.2	<1	<1	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	11/09/10	9.91	89.14	<100	660 <sup>7</sup>	760 <sup>7</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	02/16/11	7.93	91.12	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	05/19/11	9.31	89.74	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	99.05 <sup>(9)</sup>	08/18/11	10.23	88.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.04	11/21/11	7.00	91.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	98.04	02/16/12	8.55	89.49	<100	60 <sup>8</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	97.83	05/18/12	8.53	89.30	<100	100 <sup>8</sup>	250 <sup>7</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	97.83	08/14/12	8.49	89.34	<100	160 <sup>8</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	97.83	11/30/12	8.62	89.21	<100	96 <sup>8</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	97.83	03/05/13	8.60	89.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	06/04/13	8.77	89.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	08/27/13	9.69	88.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	11/21/13	8.25	89.58	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--					
OW02	97.83	03/05/14	No Measurement	Recorded	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	05/27/14	8.76	89.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	09/24/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
OW02	97.83	12/31/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>3</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>1</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-	1,3,5-				
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5					NE	80				
RW01	99.45	05/03/06	10.12	89.33	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	15	--	--	5	--	--			
RW01	99.45	07/20/06	17.14	82.31	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--				
RW01	99.45	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	02/06/07	10.39	89.06	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.10 <sup>c</sup>	--	--				
RW01	99.45	06/08/07	10.15	89.30	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.04 <sup>c</sup>	--	--				
RW01	99.45	08/14/07	10.71	88.74	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	11/29/07	10.97	88.48	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	02/19/08	9.32	90.13	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	06/27/08	8.71	90.74	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	08/12/08	9.15	90.30	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	11/26/08	7.62	91.83	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	03/31/09	7.25	92.20	<100	72 <sup>a</sup>	300	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	06/19/09	9.29	90.16	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	<1	--	<1	--	--	--				
RW01	99.45	08/28/09	9.28	90.17	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	11/25/09	7.01	92.44	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1	--	<1	--	--	--				
RW01	99.45	01/28/10	7.25	92.20	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	<1	--	--	--	--	--				
RW01	99.45	06/09/10	6.63	92.82	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	<1	--	--	--	--	--				
RW01	99.45	08/18/10	7.84	91.61	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	<1	--	--	--	--	--				
RW01	99.45	11/09/10	7.04	92.41	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	02/16/11	6.95	92.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	05/19/11	7.95	91.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	08/18/11	10.50	88.95	<100	<50	<250	<1	7.3	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	11/21/11	10.18	89.27	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.45	02/15/12	9.73	89.72	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	05/18/12	9.08	90.39	<100	54 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	08/14/12	15.86	83.61	<100	200 <sup>a</sup>	840	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	11/29/12	10.29	89.18	<100	60 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	06/04/13	13.02	86.45	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	11/21/13	11.39	88.08	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	03/05/14	10.9	88.57	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	05/26/14	10.15	89.32	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	09/24/14	17.28	82.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW01	99.47	12/31/14	11.31	88.16	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)											Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>5</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>5</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-	1,3,5-		
																						800/1,000 <sup>(5)</sup>	500
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>																							
RW02	99.63	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	07/20/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	06/27/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	11/26/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	03/31/09	15.45	84.18	560	510 <sup>a</sup>	<250	3	15	4	81	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	06/19/09	15.95	83.68	110	--	--	2.0	<1	1.0	15.1	<1	<1	<1	<1	--	--	--	--	--	--		
RW02	99.63	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	11/25/09	15.40	84.23	8,800	1,100 <sup>a</sup>	<250	67	280	82	2,190	100	<1	<1	<1	--	3.61	--	--	--	--		
RW02	99.63	01/28/10	15.20	84.43	9,000	1,000 <sup>a</sup>	<250	120	140	130	2,040	150	<1	<1	<1	--	--	--	--	--	--		
RW02	99.63	06/09/10	11.94	87.69	840	67 <sup>a</sup>	<250	2.5	26	24	214	4.6	<1	<1	<1	--	--	--	--	--	--		
RW02	99.63	08/18/10	16.36	83.27	14,000	4,200 <sup>a</sup>	<250	97	490	460	3,980	<500	<1	<1	<1	--	--	--	--	--	--		
RW02	99.63	11/09/10	14.48	85.15	22,000	1,200 <sup>a</sup>	<250	140	420	820	5,400	360	--	--	--	--	--	--	--	--	--		
RW02	99.63	02/16/11	11.75	87.88	290	<50	<250	1.9	2.8	11	57	--	--	--	--	--	--	--	--	--	--		
RW02	99.63	05/18/11	12.82	86.81	17,000	1,500 <sup>a</sup>	<250	44	160	790	3,770	220	--	--	--	--	--	--	--	--	--		
RW02	99.63	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.67	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.67	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	03/05/13	12.55	87.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	08/27/13	Pump in Well	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	03/05/14	No Measurement Recorded	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	05/27/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	09/24/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW02	99.88	12/31/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		



Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total		Dissolved		Total	Dissolved	1,2,4-	1,3,5-		
																800/1,000 <sup>(6)</sup>	500	500	5	1,000	700	1,000	160	20	0.01
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>																									
RW03	99.22	05/03/06	9.48	89.74	345	--	--	0.670	<0.500	4.71	41.7	--	<5.00	<0.500	<0.500	--	--	--	--	--	--				
RW03	99.22	07/21/06	11.63	87.59	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--				
RW03	99.22	11/08/06	11.50	87.72	<100	--	--	<1	<1	<1	<3	--	<1	<1	<1	--	<1	--	--	--	--				
RW03	99.22	02/06/07	9.68	89.54	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	<1	--	--				
RW03	99.22	06/08/07	9.44	89.78	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.05 <sup>c</sup>	--	--				
RW03	99.22	08/14/07	10.06	89.16	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	11/29/07	10.62	88.60	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	02/19/08	8.91	90.31	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	06/27/08	8.27	90.95	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	08/12/08	8.65	90.57	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	11/26/08	8.22	91.00	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	03/31/09	7.04	92.18	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	06/19/09	8.92	90.30	<100	--	--	<1	<1	<1	<3	<1	1.5	<1	<1	--	<1	--	--	--	--				
RW03	99.22	08/28/09	8.90	90.32	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	11/25/09	6.82	92.40	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--	--	--				
RW03	99.22	01/29/10	7.05	92.17	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--	--	--				
RW03	99.22	06/09/10	6.58	92.64	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--	--	--				
RW03	99.22	08/18/10	7.55	91.67	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--	--	--				
RW03	99.22	11/09/10	6.90	92.32	<100	120 <sup>f</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	02/16/11	6.80	92.42	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	05/18/11	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.22	08/18/11	10.15	89.07	<100	<50	<250	<1	4.1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.41	11/21/11	10.03	89.38	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.41	02/16/12	9.61	89.80	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	05/18/12	8.94	90.72	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	08/14/12	11.88	87.78	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	11/28/12	10.62	89.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	03/05/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	06/04/13	12.15	87.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	08/27/13	Pump in Well	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	11/21/13	12.04	87.62	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	03/05/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	05/27/14	10.18	89.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	09/24/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
RW03	99.66	12/31/14	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater or Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)														Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>5</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>5</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-NE	1,3,5-80					
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(6)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15		5								
RW04	98.87	05/03/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	07/19/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	11/08/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	02/06/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	06/08/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	08/14/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	11/29/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	02/19/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	06/27/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	08/12/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	11/26/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	03/31/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	06/19/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	08/27/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	11/25/09	15.66	83.21	350	<50	<250	27	40	5.6	88	<1	1.6	<1	<1	..	<1	..	..	..	..					
RW04	98.87	01/28/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	06/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	08/18/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	11/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	02/16/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	05/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	98.87	08/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.06	11/21/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.06	02/15/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	05/17/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	08/14/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	11/29/12	15.05	84.22	11,000	1,900 <sup>5</sup>	<300	82	350	10	2,400	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	03/05/13	12.74	86.53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	06/04/13	15.80	83.47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	08/27/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	11/21/13	15.51	83.76	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	03/05/14	16.2	83.07	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	05/27/14	17.19	82.08	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	09/24/14	17.04	82.23	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW04	99.27	12/31/14	17.10	82.17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>8</sup>														
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total		Dissolved		Total	Dissolved	1,2,4-NE	1,3,5-80															
																800/1,000 <sup>(6)</sup>	500	500	5					1,000	700	1,000	160	20	0.01	5	15	5						
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>																																						
RW05	98.30	05/03/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	07/19/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	11/08/06	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	02/06/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	06/08/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	08/14/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	11/29/07	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	02/19/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	06/27/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	08/12/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	11/26/08	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	03/31/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	06/19/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.30	08/27/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.72	11/25/09	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.72	01/28/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	06/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	08/18/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	11/09/10	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	02/16/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	05/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	08/18/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	11/21/11	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	02/15/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	05/18/12	15.19	83.10	1,200	650 <sup>4</sup>	<250	260	47	24	127	3.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	08/14/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	11/28/12	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	03/05/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	06/04/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	08/27/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	11/21/13	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	98.29	03/05/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	99.29	05/27/14	16.54	82.75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	99.29	09/24/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
RW05	99.29	12/31/14	Dry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)													Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>													
					MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>													Total		Dissolved		Total	Dissolved	1,2,4-	1,3,5-												
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Napthalene <sup>6</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>		15		5		NE	80															
MTC Method A Cleanup Level for Groundwater <sup>(7)</sup>																				800/1,000 <sup>(8)</sup>	500	5	1,000	700	1,000	160	20	0.01	5								
RW06	98.25	05/04/06	10.82	87.43	77.4	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--	--	--	--	--												
RW06	98.25	07/19/06	9.90	88.35	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--	--	--	--													
RW06	98.25	11/08/06	9.78	88.47	<100	--	--	<1	<1	<1	<3	--	<1	<1	<1	--	--	--	--	--	--	--	--	--													
RW06	98.25	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	11/29/07	10.89	87.36	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	02/19/08	9.82	88.43	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	06/27/08	10.86	87.39	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	11/26/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	06/19/09	9.92	88.33	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	13.8	--	--	--	--	--	--	--													
RW06	98.25	08/28/09	9.80	88.45	<100	120	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW06	98.25	11/25/09	9.73	88.52	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--	--	--	--	--														
RW06	98.25	01/28/10	9.72	88.53	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--	--	--	--	--														
RW06	98.25	06/09/10	9.61	88.64	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--	--	--	--	--														
RW06	98.25	08/18/10	9.99	88.26	<100	81 <sup>+</sup>	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--	--	--	--	--														
RW06	98.25	11/09/10	9.70	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.25	02/16/11	9.70	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.25	05/18/11	9.68	88.57	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.25	08/19/11	9.99	88.26	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.25	11/22/11	9.89	88.36	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.25	02/16/12	9.73	88.52	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	05/18/12	9.73	88.51	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	08/14/12	9.93	88.31	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	11/30/12	9.70	88.54	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	03/05/13	9.69	88.55	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	06/04/13	9.73	88.51	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	08/28/13	9.97	88.27	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	11/21/13	9.69	88.55	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	03/04/14	9.64	88.60	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	05/29/14	9.70	88.54	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	09/23/14	10.34	87.90	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														
RW06	98.24	12/29/14	9.70	88.54	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--	--														

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)																	Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>(5)</sup>	MTBE <sup>(6)</sup>	EDB <sup>(6)</sup>	EDC <sup>(6)</sup>	Lead <sup>(6)</sup>		Arsenic <sup>(6)</sup>		1,2,4-NE	1,3,5-80		
																Total	Dissolved	Total	Dissolved				
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(8)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5		15		5				
RW07	98.41	05/03/06	10.06	88.35	66.7	--	--	1.380	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--		
RW07	98.41	07/19/06	11.27	87.14	<100	--	--	4.10	3.63	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--	--	--		
RW07	98.41	11/08/06	10.70	87.71	<100	--	--	3.8	<1	<1	<3	--	<1	<1	<1	--	--	--	--	--	--		
RW07	98.41	02/06/07	9.13	89.28	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	13.2	18.2 <sup>c</sup>	--	--		
RW07	98.41	06/08/07	8.89	89.52	<100	--	--	3	<1	<1	<3	--	--	--	--	<1	<1	43.3	60.2 <sup>c</sup>	--	--		
RW07	98.41	08/14/07	10.94	87.47	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	11/29/07	9.30	89.11	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	02/19/08	11.92	86.49	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	06/27/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	08/12/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	11/26/08	9.81	88.60	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	06/19/09	10.22	88.19	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--	--	--		
RW07	98.41	08/28/09	8.87	89.54	<100	2,100 <sup>a</sup>	1,900	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	11/25/09	9.10	89.31	<100	150 <sup>a</sup>	840	<1	2.8	<1	<3	<1	5.9	<1	<1	--	<1	--	--	--	--		
RW07	98.41	01/29/10	9.29	89.12	<100	<50	<250	<1	<1	<1	<3	<1	4.7	<1	<1	--	--	--	--	--	--		
RW07	98.41	06/09/10	9.48	88.93	<100	62 <sup>a</sup>	470	<0.35	<1	<1	<3	<1	4.5	<1	<1	--	--	--	--	--	--		
RW07	98.41	08/18/10	10.25	88.16	<100	470 <sup>a</sup>	<250	<0.35	<1	<1	<3	<5	7.2	<1	<1	--	--	--	--	--	--		
RW07	98.41	11/09/10	9.73	88.68	<100	660 <sup>a</sup>	360 <sup>a</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	02/16/11	8.48	89.93	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	05/18/11	8.40	90.01	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	08/18/11	9.86	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	11/22/11	11.46	86.95	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.41	02/15/12	10.11	88.30	<100	620 <sup>a</sup>	270 <sup>a</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	05/17/12	11.38	87.02	<100	410	350 <sup>a</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	08/14/12	10.33	88.07	<100	570 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	11/28/12	9.85	88.55	<100	730 <sup>a</sup>	310 <sup>a</sup>	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	03/05/13	8.63	89.77	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	06/04/13	9.48	88.92	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	08/28/13	10.93	87.47	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	11/22/13	11.27	87.13	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	03/04/14	9.68	88.72	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	05/27/14	10.65	87.75	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	09/23/14	11.66	86.74	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		
RW07	98.40	12/29/14	8.28	90.12	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--		



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)											Lead <sup>(6)</sup>		Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>5</sup>	
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>5)</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total	Dissolved	Total	Dissolved	1,2,4-	1,3,5-
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>					800/1,000 <sup>(5)</sup>	500	500	5	1,000	700	1,000	160	20	0.01	5	15	5	NE	80		
RW08	99.32	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.32	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.32	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	11/28/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	03/05/13	23.10	76.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	08/27/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	03/06/14	26.33	73.16	1,500	--	--	1.6	2.5	1.1	250	5.4	--	--	--	--	--	--	--	--	
RW08	99.49	05/26/14	26.31	73.18	5,400	--	--	34	94	120	1,300	38	--	--	--	--	--	--	--	--	
RW08	99.49	09/24/14	27.93	71.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW08	99.49	12/31/14	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW09	98.12	08/19/11	11.58	86.54	170	<50	<250	19	<1	<1	<3	<1	--	--	--	--	<1	--	--	--	
RW09	98.12	11/22/11	10.66	87.46	<100	<50	<250	10	<1	<1	<3	<1	--	--	--	--	<1	--	--	--	
RW09	98.12	02/16/12	10.19	87.93	<100	770 <sup>a</sup>	330 <sup>a</sup>	10	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	05/17/12	11.45	86.64	<100	520	320 <sup>a</sup>	9.2	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	08/14/12	10.82	87.27	<100	250 <sup>a</sup>	<250	4.1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	11/30/12	10.32	87.77	<100	380 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	03/05/13	10.21	87.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW09	98.09	06/04/13	10.39	87.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW09	98.09	08/27/13	11.06	87.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW09	98.09	11/22/13	9.89	88.20	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	03/04/14	9.98	88.11	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	05/29/14	10.39	87.70	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	09/25/14	10.62	87.47	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW09	98.09	12/31/14	10.20	87.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	98.76	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	98.76	11/22/11	20.06	78.70	<100	<50	<250	<0.35	<1	<1	<3	<1	--	--	--	--	<1	--	--	--	
RW10	98.76	02/16/12	15.85	82.91	<100	<50	<250	<1	<1	<1	3.8	--	--	--	--	--	--	--	--	--	
RW10	99.02	05/18/12	8.94	90.08	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW10	99.02	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	11/30/12	19.31	79.71	<100	200 <sup>a</sup>	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW10	99.02	03/05/13	20.54	78.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	06/04/13	23.87	75.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	08/27/13	Pump in Well	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	11/21/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	03/06/14	17.48	81.54	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	
RW10	99.02	05/27/14	18.35	80.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	09/25/14	22.85	76.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW10	99.02	12/31/14	23.77	75.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	



Table 1  
Summary of Groundwater Data  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Well ID	TOC (feet)	Date	Depth to Groundwater <sup>(1)</sup> (feet)	Groundwater Elevation <sup>(2)</sup> (feet)	Analytical Results (µg/L)											Lead <sup>(6)</sup>				Arsenic <sup>(6)</sup>		Trimethylbenzene <sup>8</sup>											
					GRPH <sup>(3)</sup>	DRPH <sup>(4)</sup>	ORPH <sup>(4)</sup>	Benzene <sup>(5)</sup>	Toluene <sup>(5)</sup>	Ethylbenzene <sup>(5)</sup>	Total Xylenes <sup>(5)</sup>	Naphthalene <sup>9</sup>	MTBE <sup>(5)</sup>	EDB <sup>(5)</sup>	EDC <sup>(5)</sup>	Total		Dissolved		1,2,4-NE	1,3,5-80												
																800/1,000 <sup>(6)</sup>	500	500	5			1,000	700	1,000	160	20	0.01	5	15	5			
MTCA Method A Cleanup Level for Groundwater <sup>(7)</sup>																																	
RW11	99.81	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.81	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.81	02/15/12	20.33	79.48	3,400	1,200*	<250	150	200	27	480	16	--	--	--	--	--	--	--	--													
RW11	99.28	05/17/12	19.94	79.34	14,000	1,200*	<250	560	1,400	360	2,770	97	--	--	--	--	--	--	--	--													
RW11	99.28	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.28	11/29/12	18.25	81.03	460	520*	<250	52	13	8.1	48	<1	--	--	--	--	--	--	--	--													
RW11	99.28	03/05/13	19.62	79.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.28	06/04/13	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.28	08/27/13	23.44	75.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.28	11/22/13	21.88	77.40	750	--	--	1.1	13	<1	150	--	--	--	--	--	--	--	--	--													
RW11	99.28	03/05/14	22.34	76.94	110	--	--	<1	<1	<1	11	--	--	--	--	--	--	--	--	--													
RW11	99.28	05/26/14	22.02	77.26	110	--	--	<1	<1	<1	14	<1	--	--	--	--	--	--	--	--													
RW11	99.28	09/25/14	23.69	75.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													
RW11	99.28	12/31/14	18.82	80.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--													

NOTES:

Red denotes concentrations exceeding the MTCA Method A cleanup level.

Samples analyzed by TestAmerica Laboratories, Inc. of Bothell, Washington, or Friedman & Bruya, Inc. of Seattle, Washington.

TOCs were surveyed relative to an arbitrary benchmark with an assumed elevation of 100.00 feet.

<sup>(1)</sup>Measured in feet below the top of the well casing.

<sup>(2)</sup>Calculated by subtracting the depth to groundwater from the TOC.

<sup>(3)</sup>Analyzed by Method NWTPH-Gx.

<sup>(4)</sup>Analyzed by Method NWTPH-Dx.

<sup>(5)</sup>Analyzed by EPA Method 8021B, 8260B, or 8260C.

<sup>(6)</sup>Analyzed by EPA Method 200.8.

<sup>(7)</sup>MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

<sup>(8)</sup>800 µg/L when benzene is present and 1,000 µg/L when benzene is not present.

<sup>(9)</sup>The TOC for OW02 was modified and resurveyed on March 16, 2009.

Laboratory Notes:

\*The dissolved arsenic was greater than the total arsenic for the sample. The samples were reanalyzed by the laboratory with the same result.

\*The result is below normal reporting limits. The value reported is an estimate.

\*The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

\*The pattern of peaks present is not indicative of motor oil.

-- = not analyzed/not measured

< = not detected at a concentration exceeding laboratory reporting limits

µg/L = micrograms per liter

DRPH = diesel-range petroleum hydrocarbons

Dry = measurable groundwater not encountered in well

EDB = ethylene dibromide (1,2-dibromoethane)

EDC = ethylene dichloride (1,2-dichloroethane)

EPA = U.S. Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

TOC = top of well casing elevation

Table 2  
Summary of System Performance  
TOC Holdings Co. Facility No. 01-169  
851 North Broadway  
Everett, Washington

Reporting Period		Duration of Reporting Period	System Run Time (days)	System Run Time (%)	Volume of Groundwater Discharged	Average Groundwater Recovered Flow Rate	GRPH Aqueous- Phase Removal (lb)	GRPH Vapor- Phase Removal (lb)
Start Date	End Date							
06/07/12	06/19/12	12	12	99%	3,950	329.2	0.015	103.0
06/19/12	09/12/12	85	41	48%	4,764	56.0	0.014	354.9
09/12/12	11/09/12	58	38	66%	2,306	39.8	0.006	513.0
11/09/12	07/10/13	119	29	24%	5,473	46.0	0.004	139.4
07/10/13	10/10/13	87	87	100%	8,932	102.7	0.007	178.0
10/10/13	01/00/00	106	65	61%	2,989	28.2	0.003	177.3
09/17/13	12/06/13	80	73	91%	3,727	46.6	0.003	314.9
12/06/14	03/14/14	98	95	98%	9,576.6	103.4	0.003	274.7
03/14/14	06/23/14	101	38	37%	6,119.0	161.0	0.0030	1.5
06/23/14	09/26/14	95	86	82%	3,303.0	38.4	0.000	10.5
09/26/14	12/10/14	75	75	100%	7,799.0	13.8	0.000	11.0
<b>Average</b>	--	--	--		--		--	--
<b>Totals</b>		<b>916</b>	<b>627</b>	<b>73%</b>	<b>54,989</b>	<b>87.7</b>	<b>0.043</b>	<b>2,078.2</b>

NOTES:

gallons/day = gallons per day

GRPH = gasoline-range petroleum hydrocarbons

lb = pound(s)



**ATTACHMENT A**

**GROUNDWATER SAMPLE COLLECTION FORMS**



# GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW01Project Name (Number): 700 Everett - Broadway (01-169)  
Hydrocon Project Number: TH-810  
Date: 31 December 2014Sample I.D.: MW01-26/12/31 Time: 1151  
Field Duplicate I.D.: \_\_\_\_\_ Time: \_\_\_\_\_  
Personnel: Larry Hantha

## WELL INFORMATION

Monument condition: ☐ Good ☒ Needs repair: Stripped ears ☐ Water in Monument  
Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration  
Headspace reading: ☒ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_  
Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_  
Comments: \_\_\_\_\_

## PURGING INFORMATION

Total well depth: 19.24 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5'-20'  
Depth to product: NM ft  
Depth to water: 15.98 ft Intake Depth (BTOC): 18 Begin Purging Well: 1131  
Casing volume: 3.26 ft (H<sub>2</sub>O) X 0.16 gal/ft = 0.52 gal. X 3 = 1.56 gal.  
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

## PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
Bailer type: \_\_\_\_\_ Water Disposal: ☐ Drummed ☒ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1133	16.38		9.91	0.851	8.48	6.52	230	55.9
1136	16.55		10.20	0.838	7.29	6.63	229	60.0
1139	16.76		10.42	0.834	6.83	6.65	228	64.1
1142	16.96	0.046	10.34	0.819	6.79	6.63	228	65.7
1145	17.06		10.01	0.837	6.54	6.63	227	71.7
1148	17.26		9.79	0.816	6.51	6.65	226	71.9

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: Some Lt brown sediment in water column

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-Gx, BTEX
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx <u>e</u>
500 ml Poly	1	HNO <sub>3</sub>	No 0.45 0.10	Dissolved Lead <u>e</u>
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: \_\_\_\_\_



## GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MWC9

Project Name (Number): TIC Everett, WA 01-169  
Hydrocon Project Number: 14-810  
Date: 31 Dec 2014

Sample I.D.: MW09-20141231 Time: 1153  
Field Duplicate I.D.: \_\_\_\_\_ Time: \_\_\_\_\_  
Personnel: Warren R. R. R.

## WELL INFORMATION

**WELL INFORMATION**

Monument condition: ☒ Good ☐ Needs repair: \_\_\_\_\_ ☐ Water in Monument

Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration

Headspace reading: ☒ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_

Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_

Comments \_\_\_\_\_

## PURGING INFORMATION

**PURGING INFORMATION**

Total well depth: 23.1 ft Bottom: ☒ Hard ☐ Soft ☐ Not measured Screen Interval(s): 5-25

Depth to product: NA ft

Depth to water: 13.25 ft Intake Depth (BTOC): 15 Begin Purging Well: 183

Casing volume: 9.85 ft (H<sub>2</sub>O) X 0.16 gal/ft = 1.576 gal. X 3 = 4.728 gal.

Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

**PURGING/DISPOSAL METHOD**

**PURGING/DISPOSAL METHOD**  
 Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
 Bailer type: \_\_\_\_\_ Water Disposal: ☐ Drummed ☐ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: \_\_\_\_\_

[illegible]

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments:

## SAMPLE INFORMATION

SAMPLE INFORMATION			Analysis	
Container Type	Bottle Count	Preservative	Field Filtered?	
40 mL VOA	4	HCL	(No) 0.45 0.10	Gx, BTEX, NAPH
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:



## GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: M0512

Project Name (Number): Tec. Everett - Broadway (01-169)  
Hydrocon Project Number: 14-816  
Date: 29 December 2014

Sample I.D.: mw12-2014/229 Time: 1509  
Field Duplicate I.D.: \_\_\_\_\_ Time: \_\_\_\_\_  
Personnel: Larry Nambor

## WELL INFORMATION

**WELL INFORMATION**

Monument condition: ☐ Good ☒ Needs repair: Stripped cars ☒ Water in Monument

Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration

Headspace reading: ☒ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_

Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_

Comments \_\_\_\_\_

## PURGING INFORMATION

**PURGING INFORMATION**

Total well depth: 1513 ft Bottom: ☐ Hard ☐ Soft ☐ Not measured Screen Interval(s): 5-15

Depth to product: NM ft

Depth to water: 11.98 ft Intake Depth (BTOC): 14 Begin Purging Well: 14/99

Casing volume: 315 ft (H<sub>2</sub>O) X 0.16 gal/ft = 0.50 gal. X 3 = 1.50 gal.

Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

### PURGING/DISPOSAL METHOD

Pump type: ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
Bailer type: \_\_\_\_\_ Water Disposal: ☒ Drummed ☐ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: None

[illegible]

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments:

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3 / 4 / 6	HCl	No 0.45 0.10	NWTPH-Gx, BTEX
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO <sub>3</sub>	No 0.45 0.10	Dissolved Lead
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:



## GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW 13

Project Name (Number): TGC Everett, WA 01-169  
Hydrocon Project Number: 14-810  
Date: 29 Dec 2014

Sample I.D.: MW13-20141224 Time: ~~14~~ 1500  
Field Duplicate I.D.: \_\_\_\_\_ Time: \_\_\_\_\_  
Personnel: W. Rytterich

## WELL INFORMATION

**WELL INFORMATION**

Monument condition: ☒ Good ☐ Needs repair: \_\_\_\_\_ ☒ Water in Monument

Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration

Headspace reading: ☐ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_

Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_

Comments \_\_\_\_\_

## PURGING INFORMATION

**PURGING INFORMATION**

Total well depth: 14.78 ft Bottom: ☐ Hard ☐ Soft ☐ Not measured Screen Interval(s): 5-15

Depth to product: N/A ft

Depth to water: 10.17 ft Intake Depth (BTOC): 10 Begin Purging Well: 1440

Casing volume: 4.31 ft (H<sub>2</sub>O) X 0.16 gal/ft = 0.6896 gal. X 3 = 2.0688 gal.

Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

**PURGING/DISPOSAL METHOD**

**PURGING/DISPOSAL METHOD**  
 Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
 Bailer type: \_\_\_\_\_ Water Disposal: ☐ Drummed ☒ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: \_\_\_\_\_

[illegible]

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments:

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3 / 4 / 6	HCl	No 0.45 0.10	NWTPH-Gx, BTEX, NAPH
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO <sub>3</sub>	No 0.45 0.10	Dissolved Lead
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:



## GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: RW1

Project Name (Number): 70C Everett H. Broadway (01-169)  
Hydrocon Project Number: 14-810  
Date: 31 December 2014

Sample I.D.: RW01-2014/231 Time: 1228  
Field Duplicate I.D.: \_\_\_\_\_ Time: \_\_\_\_\_  
Personnel: Larry Numbur

## WELL INFORMATION

Well Information

Monument condition: ☒ Good ☐ Needs repair: \_\_\_\_\_ ☒ Water in Monument

Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration

Headspace reading: ☒ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_

Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_

Comments Vaulted

## PURGING INFORMATION

Total well depth: 17.47 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 8-18  
 Depth to product: NA ft  
 Depth to water: 11.13 ft Intake Depth (BTOC): 14 Begin Purging Well: 1207  
 Casing volume: 6.34 ft (H<sub>2</sub>O) X 0.165 gal/ft = 4.12 gal. X 3 = 12.36 gal.  
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

### PURGING/DISPOSAL METHOD

Pump type: ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
Bailer type: \_\_\_\_\_ Water Disposal: ☐ Drummed ☒ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: \_\_\_\_\_

[illegible]

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: \_\_\_\_\_

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-Gx, BTEX
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO <sub>3</sub>	No 0.45 0.10	Dissolved Lead
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: \_\_\_\_\_



## GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: RW00

Project Name (Number): 700 Everett - Broadway (01-169)

Sample I.D.: RW06-201412-29

Time: 1955

Hydrocon Project Number: 14-810

Field Duplicate I.D.:

Time:\_\_\_\_\_

Date: 29 December 2014

Personnel: Larry Nambor

## WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair: \_\_\_\_\_ ☐ Water in Monument

Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration

Headspace reading: ☒ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_

Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_

Comments quoted

## PURGING INFORMATION

Total well depth: 12.28 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 8-13

Depth to product: 4M ft

Depth to product: 944 ft      Intake Depth (BTOC): 11      Begin Purging Well: 1535

Casing volume: 2.61 ft (H<sub>2</sub>O) X 6.65 gal/ft = 1.70 gal. X 3 = 5.10 gal.

Volume Conversion Factors: 3/4"=0.02 gal/ft    1"=0.04 gal/ft    2"=0.16 gal/ft    4"=0.65 gal/ft    6"= 1.47 gal/ft

### PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_

Bailer type: \_\_\_\_\_ Water Disposal: ☒ Drummed ☐ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: \_\_\_\_\_

[illegible]

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments:

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3 / 4 / 6	HCl	No 0.45 0.10	NWTPH-Gx, BTEX
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx <sup>e</sup>
500 ml Poly	1	HNO <sub>3</sub>	No 0.45 0.10	Dissolved Lead <sup>e</sup>
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:



# GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: RW07

Project Name (Number): TOL Everett, WA 01-169  
 Hydrocon Project Number: 14-810  
 Date: 29 Dec 2014

Sample I.D.: RW07-2014/229 Time: 1554  
 Field Duplicate I.D.: MW99-20142229 Time: 1607  
 Personnel: \_\_\_\_\_

## WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair: \_\_\_\_\_ ☒ Water in Monument  
 Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration  
 Headspace reading: ☐ Not measured PID Reading \_\_\_\_\_ ppm ☐ Odor: \_\_\_\_\_  
 Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other: \_\_\_\_\_  
 Comments: \_\_\_\_\_

## PURGING INFORMATION

Total well depth: 13.02 ft Bottom: ☐ Hard ☐ Soft ☐ Not measured Screen Interval(s): 8-13  
 Depth to product: NA ft  
 Depth to water: 6.98 ft Intake Depth (BTOC): 10 Begin Purging Well: 1530  
 Casing volume: 6.12 ft (H<sub>2</sub>O) X 0.65 gal/ft = 3.978 gal. X 3 = 11.934 gal.  
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

## PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other \_\_\_\_\_  
 Bailer type: \_\_\_\_\_ Water Disposal: ☐ Drummed ☒ Remediation System ☐ Other \_\_\_\_\_

## FIELD PARAMETERS

Odor and/or Sheen: \_\_\_\_\_

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1536	7.05	0.070	11.5	0.77	1.84	6.58	18.0	7.78
1539	7.15		12.3	0.77	1.41	6.42	2.9	5.76
1542	7.25		12.4	0.77	1.19	6.42	-5.0	4.93
1545	7.33		12.2	0.77	1.07	6.44	-8.2	3.71
1548	7.40		12.2	0.77	0.75	6.45	-10.2	3.09
1551	7.53		12.2	0.77	0.73	6.45	-12.5	2.35

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: \_\_\_\_\_

## SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 mL VOA	8	HCL	No 0.45 0.10	Gx, BTEX, NAPH
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: \_\_\_\_\_



**ATTACHMENT B**

**LAB REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
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fbi@isomedia.com  
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January 9, 2015

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on January 2, 2015 from the TOC\_01-169, WORFDB8 F&BI 501007 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allison Greiner, Rob Honsberger  
HDC0109R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on January 2, 2015 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 501007 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
501007 -01	MW01-20141231
501007 -02	MW09-20141231
501007 -03	MW12-20141229
501007 -04	MW13-20141229
501007 -05	RW01-20141231
501007 -06	RW06-20141229
501007 -07	RW07-20141229
501007 -08	MW99-20141229

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/09/15  
 Date Received: 01/02/15  
 Project: TOC\_01-169, WORFDB8 F&BI 501007  
 Date Extracted: 01/06/15  
 Date Analyzed: 01/06/15

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES AND TPH AS GASOLINE  
 USING METHODS 8021B AND NWTPH-Gx**  
 Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
MW01-20141231 501007-01	<1	<1	<1	<3	<100	105
MW09-20141231 501007-02	<1	<1	<1	<3	<100	105
MW12-20141229 501007-03	<1	<1	<1	<3	<100	102
MW13-20141229 501007-04	<1	<1	<1	<3	<100	104
RW01-20141231 501007-05	<1	<1	<1	<3	<100	101
RW06-20141229 501007-06	<1	<1	<1	<3	<100	103
RW07-20141229 501007-07	<1	<1	<1	<3	<100	95
MW99-20141229 501007-08	<1	<1	<1	<3	<100	92
Method Blank 05-0015 MB	<1	<1	<1	<3	<100	97

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 01/09/15

Date Received: 01/02/15

Project: TOC\_01-169, WORFDB8 F&BI 501007

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 501007-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	ug/L (ppb)	50	94	65-118
Toluene	ug/L (ppb)	50	96	72-122
Ethylbenzene	ug/L (ppb)	50	95	73-126
Xylenes	ug/L (ppb)	150	96	74-118
Gasoline	ug/L (ppb)	1,000	96	69-134

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

501007



Hydrocon Environmental, LLC  
 Report to: Craig Hultgren  
 cc: Allison Greiner  
 cc: Rob Honsberger  
 510 Allen Street  
 Kelso, Washington 98626  
 (360) 703-6079  
 CraigH@hydroconllc.net  
 allisongreiner@eurekaprojectsolutions.net  
 RobertH@hydroconllc.net

Samplers Name: Larry Namba  
 Project Name: TOC Holdings Company  
 Facility Number: 01-169  
 Facility Address: Everett, WA  
 PO Number:  
 EDD Requested: EIM

Requested Turn Around Time  
 Standard 10 business days  
 Rush Charges Authorized by:  
 Sample Disposal: (30 days) Return Will Call

Additional Comments: Sample ID Format: Sample ID-Sample Date  
 BTEX+OBEQ-VOC-RBCA  
 Oxygenates: Napthalene, EDC, 1,3,5-Trimethylbenzene

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of containers	TPH-Dx	TPH-Dx+SG	TPH-Gx	8021B BTEX	8260C Oxygenates	8260 SIM RBCA	8260C RBCA	8260C N	200.8 Pb, Total	200.8 Pb, Diss FF	Notes
1 MW01-20141231	01 A-D	12/31/14	1151	W	34			x	x							
2 MW09-20141231	02	12/31/14	1153	W	34			x	x							
3 MW12-20141229	03	12/29/14	1509	W	4			x	x							
4 MW13-20141229	04	12/29/14	1500	W	4			x	x							
5 RW01-20141231	05	12/31/14	1228	W	4			x	x							
6 RW06-20141229	06	12/29/14	1535	W	4			x	x							
7 RW07-20141229	07	12/29/14	1554	W	4			x	x							
8 RW08-				W				*	*				*			
9 RW09-				W				*	*				*			
10 RW10-				W				*	*				*			

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

Relinquished by: Larry Namba  
 Received by: Eric Clance  
 Relinquished by:  
 Received by:

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_ Time: \_\_\_\_\_ Date: 02 January 2015

Samples received at 4 °C



Hydrocon Environmental, LLC  
Report to: Craig Hultgren  
cc: Allison Greiner  
cc: Rob Honsberger  
510 Allen Street  
Kelso, Washington 98626  
(360) 703-6079  
CraigH@hydroconllc.net  
allisongreiner@eurekaprojectsolutions.net  
RobertH@hydroconllc.net

Samplers Name: Larry Namba  
Project Name: TOC Holdings Company  
Facility Number: 01-169  
Facility Address: Everett, WA  
PO Number:  
EDD Requested: EIM

Requested Turn Around Time  
☒ Standard 10 business days  
☐ Rush  
Rush Charges Authorized by:  
Sample Disposal: 30 days Return Will Call

Additional Comments: Sample ID Format: Sample ID-Sample Date  
BTEX+ODEQ+VOC = RBCA  
Oxygenates: Napthalene, EDC, 1,3,5-Trimethylbenzene

ANALYSES REQUESTED																
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of containers	TPH-Dx	TPH-Dx+SG	TPH-Gx	8021B BTEX	8260C Oxygenates	8260 SIM RBCA	8260C RBCA	8260C N	200.8 Pb, Total	200.8 Pb, Diss FF	Notes
								*	*				*			
4RW44-				W				*	*				*			
2 MW99- 2014/1229	08.A.10	12/29/14	11:04	W	4			x	x							
3																
4																
5																
6																
7																
8																
9																
10																

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282

Relinquished by:  
Received by:  
Relinquished by:  
Received by:

Signature	Print Name	Time	Date
	Larry Namba		02 January 2015

Samples received at 4 °C



FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 23, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412178 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allision Greiner, Robert Honsberger  
HDC1223R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412178 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412178 -01	01-169_INF_20141210
412178 -02	01-169_EFF_20141210

Sample 01-169\_EFF\_20141210 was sent to Fremont for flashpoint analysis. Review of the enclosed report indicates that all quality assurance were acceptable.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/10/14

Date Analyzed: 12/10/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
01-169_INF_20141210 412178-01	<1	<1	<1	<3	<100	80
01-169_EFF_20141210 412178-02	<1	<1	<1	<3	<100	77
Method Blank 04-2438 MB	<1	<1	<1	<3	<100	76

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/16/14

Date Analyzed: 12/17/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR OIL AND GREASE USING EPA METHOD 1664**

Results Reported as mg/L (ppm)

Sample ID

Oil and Grease

Laboratory ID

01-169\_EFF\_20141210

<3

412178-02

Method Blank

<3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	01-169_EFF_20141210	Client:	HydroCon
Date Received:	12/10/14	Project:	TOC_01-169, WORFDB8 F&BI 412178
Date Extracted:	12/11/14	Lab ID:	412178-02
Date Analyzed:	12/11/14	Data File:	412178-02.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration ug/L (ppb)
Lead	4.29

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	HydroCon
Date Received:	NA	Project:	TOC_01-169, WORFDB8 F&BI 412178
Date Extracted:	12/11/14	Lab ID:	I4-793 mb
Date Analyzed:	12/11/14	Data File:	I4-793 mb.019
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	100	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/15/14

Date Analyzed: 12/19/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL MERCURY**

**USING EPA METHOD 1631E**

Results Reported as ug/L (ppb)

Sample ID

Total Mercury

Laboratory ID

01-169\_EFF\_20141210

<0.1

412178-02

Method Blank

<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 412178-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	ug/L (ppb)	50	89	65-118
Toluene	ug/L (ppb)	50	87	72-122
Ethylbenzene	ug/L (ppb)	50	89	73-126
Xylenes	ug/L (ppb)	150	85	74-118
Gasoline	ug/L (ppb)	1,000	91	69-134



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR OIL AND GREASE  
USING EPA METHOD 1664**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 11)
Oil and Grease	mg/L (ppm)	40	95	97	78-114	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 412157-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	111	106	79-121	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	113	83-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
TOTAL MERCURY  
USING EPA METHOD 1631E**

Laboratory Code: 412157-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	ug/L (ppb)	0.5	<0.1	102	101	71-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	ug/L (ppb)	0.5	103	88-113

**Data Qualifiers & Definitions**



- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

$$\frac{V_1}{A_1}$$

**TURNAROUND TIME**  
☒ Standard (2 Weeks)  
☐ RUSH \_\_\_\_\_  
 Rush charges authorized by \_\_\_\_\_

---

**SAMPLE DISPOSAL**  
☒ Dispose after 30 days  
☐ Return samples  
☐ Will call with instructions

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Robert A. Heisberg	Hedegaard	12-10-45	1235
	John J. Lauer	Ferguson	12/10/45	1235
Received by:				
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 15, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412177 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Rob Honsberger, Allison Greiner  
HDC1215R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412177 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412177 -01	01-169_EFF_20141210
412177 -02	01-169_TS_20141210

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

Date Extracted: 12/11/14

Date Analyzed: 12/11/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141210 412177-01	<0.1	<0.1	<0.1	<0.3	<10	75
01-169_TS_20141210 412177-02	<0.1	<0.1	<0.1	<0.3	<10	75
Method Blank 04-2479 MB	<0.1	<0.1	<0.1	<0.3	<10	80



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 412177-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	<0.3	<0.3	nm
Gasoline	mg/m <sup>3</sup>	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	81	70-130
Toluene	mg/m <sup>3</sup>	5.0	78	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	80	70-130
Xylenes	mg/m <sup>3</sup>	15	79	70-130
Gasoline	mg/m <sup>3</sup>	100	103	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

M- 12/10/19

Page # 1 of 1

**TURNAROUND TIME**

☒ Standard (2 Weeks)

☐ RUSH \_\_\_\_\_

Rush charges authorized by \_\_\_\_\_

\_\_\_\_\_

**SAMPLE DISPOSAL**

☒ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

*Friedman & Brya, Inc.*  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282  
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
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(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 15, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412177 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Rob Honsberger, Allison Greiner  
HDC1215R.DOC

# FRIEDMAN & BRUYA, INC.

---

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412177 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412177 -01	01-169_EFF_20141210
412177 -02	01-169_TS_20141210

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

Date Extracted: 12/11/14

Date Analyzed: 12/11/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141210 412177-01	<0.1	<0.1	<0.1	<0.3	<10	75
01-169_TS_20141210 412177-02	<0.1	<0.1	<0.1	<0.3	<10	75
Method Blank 04-2479 MB	<0.1	<0.1	<0.1	<0.3	<10	80

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 412177-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	<0.3	<0.3	nm
Gasoline	mg/m <sup>3</sup>	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	81	70-130
Toluene	mg/m <sup>3</sup>	5.0	78	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	80	70-130
Xylenes	mg/m <sup>3</sup>	15	79	70-130
Gasoline	mg/m <sup>3</sup>	100	103	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



M- 12/10/19

Page # 1 of 1

**TURNAROUND TIME**

☒ Standard (2 Weeks)

☐ RUSH \_\_\_\_\_

Rush charges authorized by \_\_\_\_\_

\_\_\_\_\_



**SAMPLE DISPOSAL**

☒ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	254-A Hunsda	Hydrex	12-10-14	1235
Received by: 	Nhau Pham	FERRE	12/10/14	1238
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

November 25, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on November 20, 2014 from the TOC\_01-169, WORFDB8 F&BI 411368 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allison Greiner, Rob Honsberger  
HDC1125R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 411368 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
411368 -01	01-169_EFF_20141120
411368 -02	01-169_TS_20141120

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/14

Date Received: 11/20/14

Project: TOC\_01-169, WORFDB8 F&BI 411368

Date Extracted: 11/21/14

Date Analyzed: 11/21/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141120 411368-01	<0.1	<0.1	<0.1	<0.3	<10	81
01-169_TS_20141120 411368-02	<0.1	<0.1	<0.1	<0.3	<10	82
Method Blank 04-2359 MB	<0.1	<0.1	<0.1	<0.3	<10	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/14

Date Received: 11/20/14

Project: TOC\_01-169, WORFDB8 F&BI 411368

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 411305-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	0.57	0.55	4
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	0.72	0.80	11
Gasoline	mg/m <sup>3</sup>	63	75	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	82	70-130
Toluene	mg/m <sup>3</sup>	5.0	82	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	87	70-130
Xylenes	mg/m <sup>3</sup>	15	86	70-130
Gasoline	mg/m <sup>3</sup>	100	114	70-130

**Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

ME 11/20/14

Phone # \_\_\_\_\_ Fax # \_\_\_\_\_

Page # 1 of 1

Rush charges authorized by

☒ Dispose after 30 day

☐ Will call with instructions

[illegible]

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

October 28, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on October 24, 2014 from the TOC\_01-169, WORFDB8 F&BI 410454 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allison Greiner, Rob Honsberger  
HDC1028R.DOC



# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on October 24, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 410454 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
410454 -01	01-169-EFF-20141024
410454 -02	01-169-TS-20141024

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/28/14

Date Received: 10/24/14

Project: TOC\_01-169, WORFDB8 F&BI 410454

Date Extracted: 10/24/14

Date Analyzed: 10/24/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169-EFF-20141024 410454-01	<0.1	<0.1	<0.1	<0.3	<10	95
01-169-TS-20141024 410454-02	<0.1	<0.1	<0.1	<0.3	<10	97
Method Blank 04-2122 MB	<0.1	<0.1	<0.1	<0.3	<10	97

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/28/14

Date Received: 10/24/14

Project: TOC\_01-169, WORFDB8 F&BI 410454

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 410354-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	0.10	0.12	15
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	<0.3	<0.3	nm
Gasoline	mg/m <sup>3</sup>	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	89	70-130
Toluene	mg/m <sup>3</sup>	5.0	90	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	93	70-130
Xylenes	mg/m <sup>3</sup>	15	91	70-130
Gasoline	mg/m <sup>3</sup>	100	102	70-130

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

**SAMBI E** **CEAIN OF CUSTODY** **ME 10-24-14**

Company Hydrex

City, State, ZIP Code WA 98626

Phone # 260-803-6679 Fax # 260-702-6666

SAMPLES (signature) <i>[Signature]</i>	
PROJECT NAME/NO. 102 01-5169	PO #
REMARKS	

Page # 1 of 1

☒ **TURNAROUND TIME**  
Standard (2 Weeks)

☐ **RUSH**

Rush charges authorized by: \_\_\_\_\_

**SAMPLE DISPOSAL**

☐ Dispose after 30 days

☐ Return samples

☐ **WAX** call with instructions

[illegible]

**Frederick & Evans, Inc.**

3012 16th Avenue West

6817-2889

THE UNIVERSITY OF CHICAGO

**EX-100-2003-0011**

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	Robert A. Hunsberger	Hydronic	10-24-14	11:00
<i>[Signature]</i>	DO NOT	FEBI	"	11:00
Received by:				

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

November 25, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on November 20, 2014 from the TOC\_01-169, WORFDB8 F&BI 411368 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allison Greiner, Rob Honsberger  
HDC1125R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 411368 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
411368 -01	01-169_EFF_20141120
411368 -02	01-169_TS_20141120

All quality control requirements were acceptable.



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/14

Date Received: 11/20/14

Project: TOC\_01-169, WORFDB8 F&BI 411368

Date Extracted: 11/21/14

Date Analyzed: 11/21/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141120 411368-01	<0.1	<0.1	<0.1	<0.3	<10	81
01-169_TS_20141120 411368-02	<0.1	<0.1	<0.1	<0.3	<10	82
Method Blank 04-2359 MB	<0.1	<0.1	<0.1	<0.3	<10	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/14

Date Received: 11/20/14

Project: TOC\_01-169, WORFDB8 F&BI 411368

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 411305-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	0.57	0.55	4
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	0.72	0.80	11
Gasoline	mg/m <sup>3</sup>	63	75	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	82	70-130
Toluene	mg/m <sup>3</sup>	5.0	82	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	87	70-130
Xylenes	mg/m <sup>3</sup>	15	86	70-130
Gasoline	mg/m <sup>3</sup>	100	114	70-130

**Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 15, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412177 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Rob Honsberger, Allison Greiner  
HDC1215R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412177 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412177 -01	01-169_EFF_20141210
412177 -02	01-169_TS_20141210

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

Date Extracted: 12/11/14

Date Analyzed: 12/11/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141210 412177-01	<0.1	<0.1	<0.1	<0.3	<10	75
01-169_TS_20141210 412177-02	<0.1	<0.1	<0.1	<0.3	<10	75
Method Blank 04-2479 MB	<0.1	<0.1	<0.1	<0.3	<10	80

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 412177-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	<0.3	<0.3	nm
Gasoline	mg/m <sup>3</sup>	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	81	70-130
Toluene	mg/m <sup>3</sup>	5.0	78	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	80	70-130
Xylenes	mg/m <sup>3</sup>	15	79	70-130
Gasoline	mg/m <sup>3</sup>	100	103	70-130



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

M- 12/10/19

Page # 1 of 1

**TURNAROUND TIME**

☒ Standard (2 Weeks)

☐ RUSH \_\_\_\_\_

Rush charges authorized by \_\_\_\_\_

\_\_\_\_\_

**SAMPLE DISPOSAL**

☒ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

*Friedman & Brya, Inc.*  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282  
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	Bert A Hunsberger	Hydrex	12-10-14	1235
Received by: <i>[Signature]</i>	Nhava Pham	FCB I	12/10/14	1238
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 15, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412177 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Rob Honsberger, Allison Greiner  
HDC1215R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412177 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412177 -01	01-169_EFF_20141210
412177 -02	01-169_TS_20141210

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

Date Extracted: 12/11/14

Date Analyzed: 12/11/14

**RESULTS FROM THE ANALYSIS OF VAPOR SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING MODIFIED METHODS 8021B AND NWTPH-Gx**

Results Reported as mg/m<sup>3</sup>

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
01-169_EFF_20141210 412177-01	<0.1	<0.1	<0.1	<0.3	<10	75
01-169_TS_20141210 412177-02	<0.1	<0.1	<0.1	<0.3	<10	75
Method Blank 04-2479 MB	<0.1	<0.1	<0.1	<0.3	<10	80

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 12/15/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412177

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF VAPOR SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING MODIFIED EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 412177-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Toluene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Ethylbenzene	mg/m <sup>3</sup>	<0.1	<0.1	nm
Xylenes	mg/m <sup>3</sup>	<0.3	<0.3	nm
Gasoline	mg/m <sup>3</sup>	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/m <sup>3</sup>	5.0	81	70-130
Toluene	mg/m <sup>3</sup>	5.0	78	70-130
Ethylbenzene	mg/m <sup>3</sup>	5.0	80	70-130
Xylenes	mg/m <sup>3</sup>	15	79	70-130
Gasoline	mg/m <sup>3</sup>	100	103	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

M- 12/10/19

Page # 1 of 1

**TURNAROUND TIME**

☒ Standard (2 Weeks)

☐ RUSH \_\_\_\_\_

Rush charges authorized by \_\_\_\_\_

\_\_\_\_\_

**SAMPLE DISPOSAL**

☒ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

*Friedman & Brya, Inc.*  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282  
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	B. J. A. Hunsby	Hydrex	12-10-14	1235
Received by: <i>[Signature]</i>	Nhava Pham	FEBI	12/10/14	1238
Relinquished by:				
Received by:				



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 23, 2014

Craig Hultgren, Project Manager  
HydroCon  
510 Allen St, Suite B  
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on December 10, 2014 from the TOC\_01-169, WORFDB8 F&BI 412178 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Allision Greiner, Robert Honsberger  
HDC1223R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on December 10, 2014 by Friedman & Bruya, Inc. from the HydroCon TOC\_01-169, WORFDB8 F&BI 412178 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
412178 -01	01-169_INF_20141210
412178 -02	01-169_EFF_20141210

Sample 01-169\_EFF\_20141210 was sent to Fremont for flashpoint analysis. Review of the enclosed report indicates that all quality assurance were acceptable.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/10/14

Date Analyzed: 12/10/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
01-169_INF_20141210 412178-01	<1	<1	<1	<3	<100	80
01-169_EFF_20141210 412178-02	<1	<1	<1	<3	<100	77
Method Blank 04-2438 MB	<1	<1	<1	<3	<100	76

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/16/14

Date Analyzed: 12/17/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR OIL AND GREASE USING EPA METHOD 1664**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Oil and Grease</u>
Laboratory ID	
01-169_EFF_20141210	<3
412178-02	
Method Blank	<3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	01-169_EFF_20141210	Client:	HydroCon
Date Received:	12/10/14	Project:	TOC_01-169, WORFDB8 F&BI 412178
Date Extracted:	12/11/14	Lab ID:	412178-02
Date Analyzed:	12/11/14	Data File:	412178-02.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration ug/L (ppb)
Lead	4.29

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	HydroCon
Date Received:	NA	Project:	TOC_01-169, WORFDB8 F&BI 412178
Date Extracted:	12/11/14	Lab ID:	I4-793 mb
Date Analyzed:	12/11/14	Data File:	I4-793 mb.019
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	100	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

Date Extracted: 12/15/14

Date Analyzed: 12/19/14

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL MERCURY**

**USING EPA METHOD 1631E**

Results Reported as ug/L (ppb)

Sample ID

Total Mercury

Laboratory ID

01-169\_EFF\_20141210

<0.1

412178-02

Method Blank

<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 412178-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	ug/L (ppb)	50	89	65-118
Toluene	ug/L (ppb)	50	87	72-122
Ethylbenzene	ug/L (ppb)	50	89	73-126
Xylenes	ug/L (ppb)	150	85	74-118
Gasoline	ug/L (ppb)	1,000	91	69-134



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR OIL AND GREASE  
USING EPA METHOD 1664**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 11)
Oil and Grease	mg/L (ppm)	40	95	97	78-114	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 412157-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	111	106	79-121	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	113	83-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/23/14

Date Received: 12/10/14

Project: TOC\_01-169, WORFDB8 F&BI 412178

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
TOTAL MERCURY  
USING EPA METHOD 1631E**

Laboratory Code: 412157-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	ug/L (ppb)	0.5	<0.1	102	101	71-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	ug/L (ppb)	0.5	103	88-113

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**



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- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

$$\frac{V_1}{A_1}$$

**TURNAROUND TIME**  
☒ Standard (2 Weeks)  
☐ RUSH \_\_\_\_\_  
 Rush charges authorized by \_\_\_\_\_

---

**SAMPLE DISPOSAL**  
☒ Dispose after 30 days  
☐ Return samples  
☐ Will call with instructions

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Robert A. Heisberg	Hedegaard	12-10-45	1235
	John J. Lauer	Ferguson	12/10/45	1235
Received by:				
Relinquished by:				
Received by:				