CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: February 17, 2014

REFERENCE NO.: 241809

PROJECT NAME: 11700 NE 160th St, Bothell, WA

TO: Department of Ecology - NWRO
Attn: Sonia Fernandez
3190 160th Ave. SE
Bellevue, WA 98008

Please find enclosed:

- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:

- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☐ Other

QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

- ☐ As Requested
- ☒ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Mr. Perry Pineda, Shell Oil Products US (Livelink);Tim Cheatum

Completed by: Christina McClelland [Please Print]

Signed: C. McClelland

Filing: **Correspondence File**

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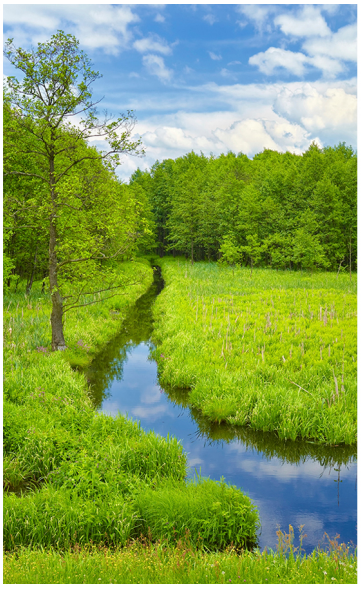

Subsurface Investigation Report

Shell Branded Wholesale Facility
11700 Northeast 160th Street
Bothell, Washington

Prepared for: Shell Oil Products US

Conestoga-Rovers & Associates
20818 44th Ave. West, Suite 190
Lynnwood, Washington 98036

February 2014 • 241809 • Report No. 19

Partners in Sustainability

Subsurface Investigation Report

Shell-Branded Wholesale Facility
11700 Northeast 160th Street
Bothell, Washington

SAP Code	**120531**
Incident No.	**92995017**
Agency No.	**63265631**
VCP No.	**NW2053**

Christina McClelland

Brian Peters, LG

State of Washington
1122
Licensed Geologist
BRIAN C. PETERS

Prepared by:
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FEBRUARY 2014
REF. NO. 241809 (19)

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Section 1.0 Introduction

1.1 General

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (SOPUS) to document the subsurface investigation performed at the Shell-branded wholesale facility located at 11700 Northeast 160th Street, Bothell, King County, Washington (Property; Figure 1).

The objective of this investigation was to assess groundwater quality in the area of former wells MW-1 and MW-9 to determine if CRA's soil excavation removed the source of contamination historically observed in groundwater from MW-1 and MW-9.

1.2 Site Description and Background

The Property is an active Shell-branded wholesale facility located at the northeast corner of Brickyard Road (also known as Juanita Woodinville Way Northeast) and Northeast 160th Street in Bothell, Washington (Figure 1). In July 1998, the Property was transferred from Texaco Refining & Marketing, Inc. (TRMI) to Equilon and then sold to PacWest Energy, LLC/Jackson's Food Stores in December 2009.

In December 1991, the removal and replacement of underground storage tanks (USTs) at the Property facilitated soil sampling to assess subsurface conditions in the vicinity of five USTs, product dispensers, and product piping at the Property (Figure 2). Soil samples were collected from the sidewalls and bottoms of the excavations for the former gasoline, waste oil, and heating oil USTs, dispenser islands, and product piping trenches. Laboratory analysis of the soil samples collected in the vicinity of the dispenser islands and former gasoline UST pit indicated concentrations of petroleum hydrocarbons at concentrations above the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup levels. No specific equipment failure was identified at the time of discovery. A summary of previous investigations is included as Appendix A.

A petroleum release impacting soil and groundwater was reported to Ecology on December 30, 1991, and the site was listed with Ecology's leaking underground storage tank (LUST) program (ID #2849). The site was entered into Ecology's Voluntary Cleanup Program (VCP) in 2009 and issued site number NW2053. The current status of the site with Ecology is "Cleanup Started" for soil and groundwater as of May 1992. The MTCA site (Site) includes all areas currently or historically impacted by the release. The Site boundary is included on Figure 2.

MTCA Method A cleanup levels will be referred to as screening levels for the purpose of evaluating analytical results. Site-specific cleanup levels were established as part of CRA's *Remedial Investigation Report* dated March 2, 2011. Soil data is provided on Figure 3 and in Table 1. Historical boring logs are provided as Appendix B.

Section 2.0 Site Investigation Activities

On August 23, 2013, Cascade Drilling LLP (Cascade), under the direction of CRA, advanced one soil boring via hollow-stem auger drilling and completed the boring as monitoring well MW-13. The boring was advanced to 26.5 feet below ground surface (bgs). The monitoring well was constructed with a 2-inch diameter polyvinyl chloride well casing and screened from 10 to 25 feet bgs. The boring log and well construction details are presented in Appendix B.

Soil samples were collected every 5 feet for the purpose of field screening and soil classification. Select samples were submitted for laboratory analysis. Laboratory analytical data is presented in Table 1, and included in Appendix C.

Monitoring well MW-13 was developed by Blaine Tech Services, Inc. (Blaine) on August 28, 2013. Well development included surging and bailing to remove sediment within the well casing and promote hydraulic conductivity. The well dewatered repeatedly during development; therefore groundwater conditions (temperature, pH, conductivity, and turbidity) did not fully stabilize. Blaine field data sheets are included in Appendix D. The new monitoring well was surveyed for top of casing elevation and coordinate positions by a licensed surveyor. Survey data is included in Appendix E.

Groundwater samples were collected from new well MW-13, along with the remainder of Site wells on September 4, 2013. Samples were submitted for laboratory analysis; Laboratory analytical data is presented in Table 2 and is included in Appendix C.

Investigation derived waste (IDW) generated during the investigation included soil cuttings, decontamination water, and purge water. Purge water was transported by Blaine to a bulk tank for storage and subsequent disposal. All other waste was stored on the Property in United States Department of Transportation compliant 55-gallon drums. IDW was removed from the Property on September 30, 2013 in accordance with SOPUS waste disposal requirements. Waste disposal documentation will be provided under a separate cover.

Section 3.0 Investigation Results

3.1 Site Geology and Hydrogeology

The Site is underlain by up to 15 feet of imported fill and weathered glacial till, consisting of loose sand, silt, and gravel, which is underlain by unweathered glacial till to the total explored depth of 60 feet bgs. The glacial till consists of dense, cement-like well-sorted sands, gravels, and silts with varying amounts

of fine-grained clays and silts. Previous consultants identified a clay layer at approximately 32 to 35 feet bgs. Lithology encountered during this investigation was consistent with previous observations.

Groundwater was encountered at approximately 24 feet bgs during drilling. Static groundwater depth in well MW-13 during development and sampling was 14.45 and 14.36 feet bgs, respectively. Static groundwater depth in Site wells is typically between 7 and 50 feet bgs and is laterally discontinuous with no consistent flow direction. Shallow perched groundwater is located within weathered till on top of less weathered, low permeable glacial till. Historical groundwater elevations for Site wells are presented on Table 2.

Table 2 presents historical groundwater elevations and groundwater monitoring results for all wells associated with the Site.

3.2 Analytical Results – Soil

Soil samples were submitted to TestAmerica for analysis. The soil samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) by Method NWTPH-Gx, TPH as diesel (TPHd) and TPH as oil (TPHo) by Method NWTPH-Dx, and benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8260B.

Soil concentrations were below MTCA Method A screening levels with the exception of TPHg at 10 and 15 feet bgs, and benzene at 10 feet bgs. No concentrations exceeding MTCA Method A screening levels were detected in the bottom soil sample collected at 25 feet bgs. No concentrations exceeded Site-specific cleanup levels.

3.3 Analytical Results – Groundwater

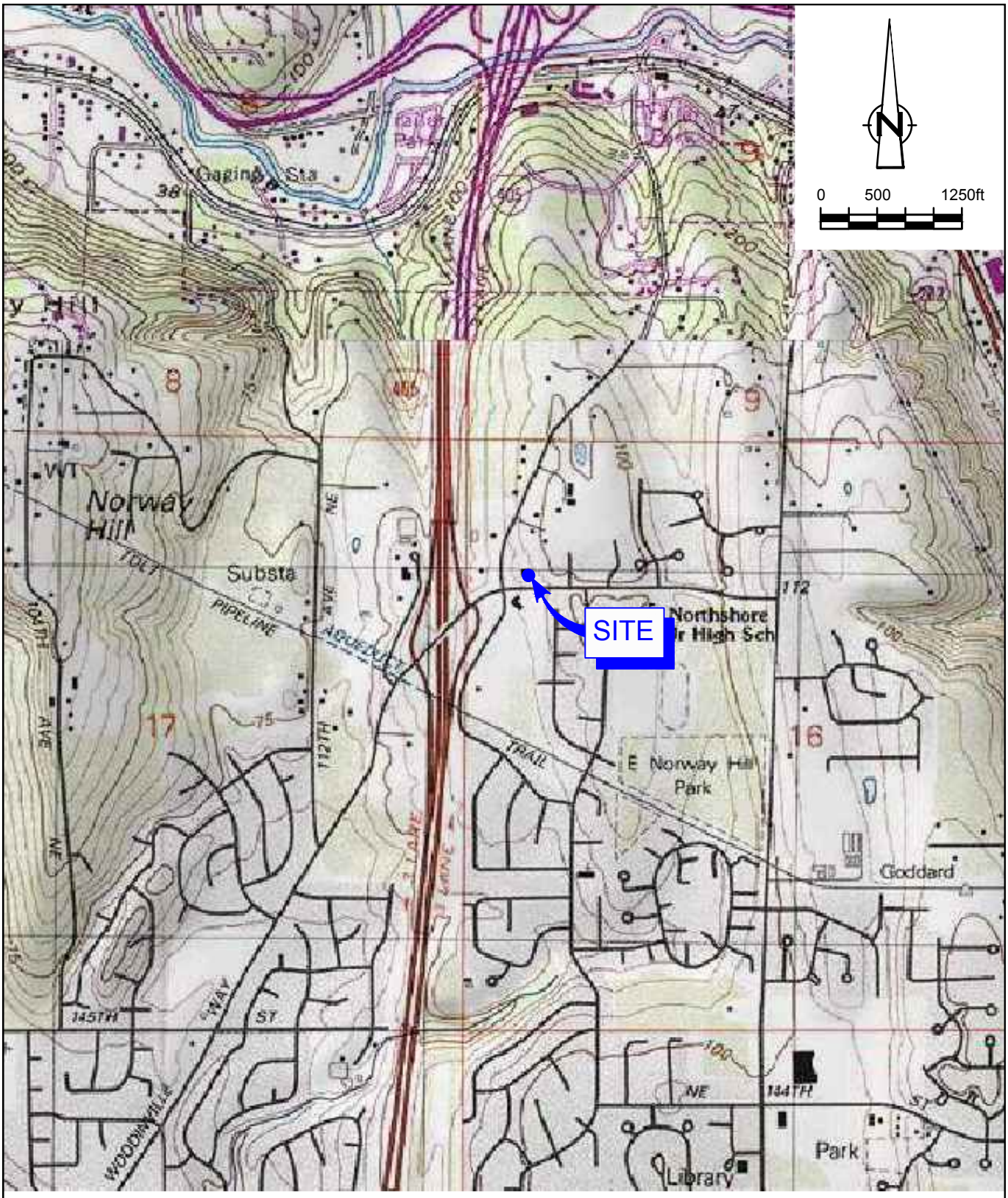
All remaining Site wells were sampled on September 4, 2013 by Blaine. Wells MW-3 and MW-13 were also sampled on December 5, 2013 by Blaine. The groundwater samples were analyzed for TPHg by Method NWTPH-Gx, TPHd and TPHo by Method NWTPH-Dx, and BTEX by EPA Method 8260B. Select groundwater samples were analyzed for naphthalenes by EPA Method 8270.

Monitoring well MW-3 contained 0.02 foot of separate phase hydrocarbons (SPH) during the September event and was not sampled. Monitoring well MW-3 was sampled during the December event and contained TPHd exceeding the MTCA Method A screening level. The groundwater sample collected from newly installed monitoring well MW-13 contained TPHg, TPHd, benzene and total xylenes exceeding MTCA Method A screening levels, and the combined TPH exceeded the Site-specific cleanup level. All groundwater monitoring data collected to date are presented in Table 2. The laboratory analytical reports for the groundwater sampling events are provided in Appendix C.

4.0 Conclusions

During the first two sampling events since installation, groundwater in monitoring well MW-13 exceeded MTCA Method A screening levels for TPHg, TPHd, benzene and total xylenes, and the Site-specific cleanup level for TPH. SPH is intermittently present in monitoring well MW-3, but appears to be unrelated to the groundwater exceedances in MW-13, since dissolved-phase concentrations in this well are in the TPHd range. Additional groundwater sampling is warranted to evaluate static concentrations in well MW-13 and to address SPH in well MW-3.

Figures



SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET
Bothell, Washington

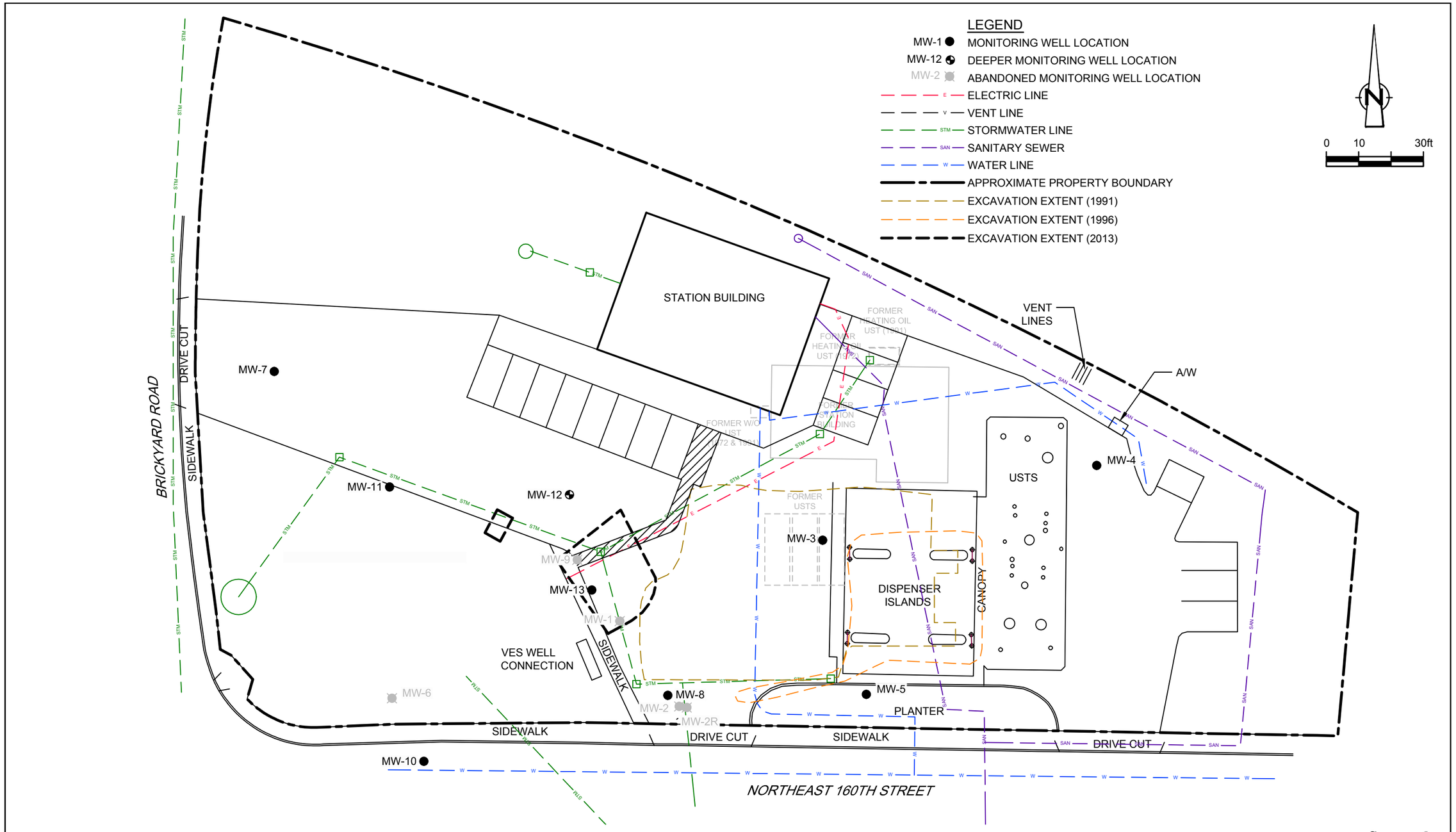


figure 2

SITE PLAN
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET
Bothell, Washington

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING INC.

241809-2014(019)GN-WA002 FEB 12/2014

LEGEND

- MW-1 ● MONITORING WELL LOCATION
- MW-2 ✳ DECOMMISSIONED MONITORING WELL LOCATION
- SB-1 ■ SOIL BORING LOCATION (CRA, 2008)
- PI-5 ⊠ EXCAVATION SOIL SAMPLE (SEACOR, 1992)
- NEPI@7' ⊠ SOIL SAMPLE LOCATION (SEACOR, 1996)
- WOBOT-8 ⊡ SOIL SAMPLE LOCATION (NOLL, 2003)
- SB-6 ◪ SOIL BORING LOCATION (CRA, 2009)
- SB-10 ⬓ SOIL BORING LOCATION (CRA, 2010)
- SB-12 □ SOIL BORING LOCATION (CRA, 2013)
- EX-2-N-BOT-12 ⊠ EXCAVATION SOIL SAMPLE LOCATION (CRA, 2013)
- E — ELECTRIC LINE
- V — VENT LINE
- STM — STORMWATER LINE
- SAN — SANITARY SEWER
- W — WATER LINE
- EXCAVATION EXTENT (1991)
- EXCAVATION EXTENT (1996)
- EXCAVATION EXTENT (2013)
- APPROXIMATE PROPERTY BOUNDARY
- INDICATES ALL CONCENTRATIONS WERE BELOW LABORATORY REPORTING LIMITS
- INDICATES AT LEAST ONE CONCENTRATION WAS DETECTED ABOVE THE LABORATORY REPORTING LIMITS, BUT NO CONCENTRATION EXCEEDED SITE SPECIFIC CLEANUP LEVELS
- INDICATES SOIL SAMPLE HAS BEEN CONFIRMED. THE CONFIRMATION SOIL SAMPLE WAS BELOW SITE SPECIFIC CLEANUP LEVELS
- INDICATES SOIL SAMPLE LOCATION WAS OVER-EXCAVATED AND REMOVED

NOTES:
1. * = LOCATION OF SAMPLE WAS LIKELY NEAR THE NORTHWEST DISPENSER ISLAND BASED ON OTHER SAMPLES FROM THIS EVENT AND THE GENERIC DISPENSER ISLAND REFERENCE IN TABLE 1 OF SEACOR'S 1992 PRELIMINARY SITE ASSESSMENT

N

0 10 30ft

STATION BUILDING
VENT LINES
A/W
FORMER HEATING OIL UST (1991)
FORMER HEATING OIL UST
FORMER WO STATION BUILDING
FORMER USTS
DISPENSER ISLANDS
CANOPY
USTS
PLANTER WITH DRAINAGE SWALE
VES WELL CONNECTION
PLANTER
BRICKYARD ROAD
SIDEWALK
DRIVE CUT
SIDEWALK
DRIVE CUT
SIDEWALK
SIDEWALK
NORTHEAST 160TH STREET
MW-1 MW-2 MW-2R MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-13
SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10/MW-12 SB-11 SB-12 SB-13 SB-14 SB-15 SB-16
SB-01 SB-02
EX-1-BOT-6 EX-2-E-SDWL-7 EX-2-N-BOT-12 EX-2-N-SDWL-7 EX-2-S-BOT-11 EX-2-S-SDWL-7 EX-2-W-SDWL-7
EXB-1 EXB-2 EXB-3 EXB-4 EXB-T1 EXB-T2 EXB-T3
FO-E FO-EXB FO-W
NEPI@7' NEPT@4' NSW-A NWC NWPI@6' NWS P1-6* PI-1 PI-2 PI-3 PI-4 PI-5 SEPI@7' SEPT@4' SSW-A SWC-BOT SWC-SD SWE SWN SWPI@7' SWPT@4' SWW VL WO-EB WO-SWALL-7 WO-W WO-WWALL-6 WOBOT-8

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING INC.

241809-2014(019)GN-WA003 FEB 12/2014

figure 3

SOIL INVESTIGATION DATA MAP
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET
Bothell, Washington

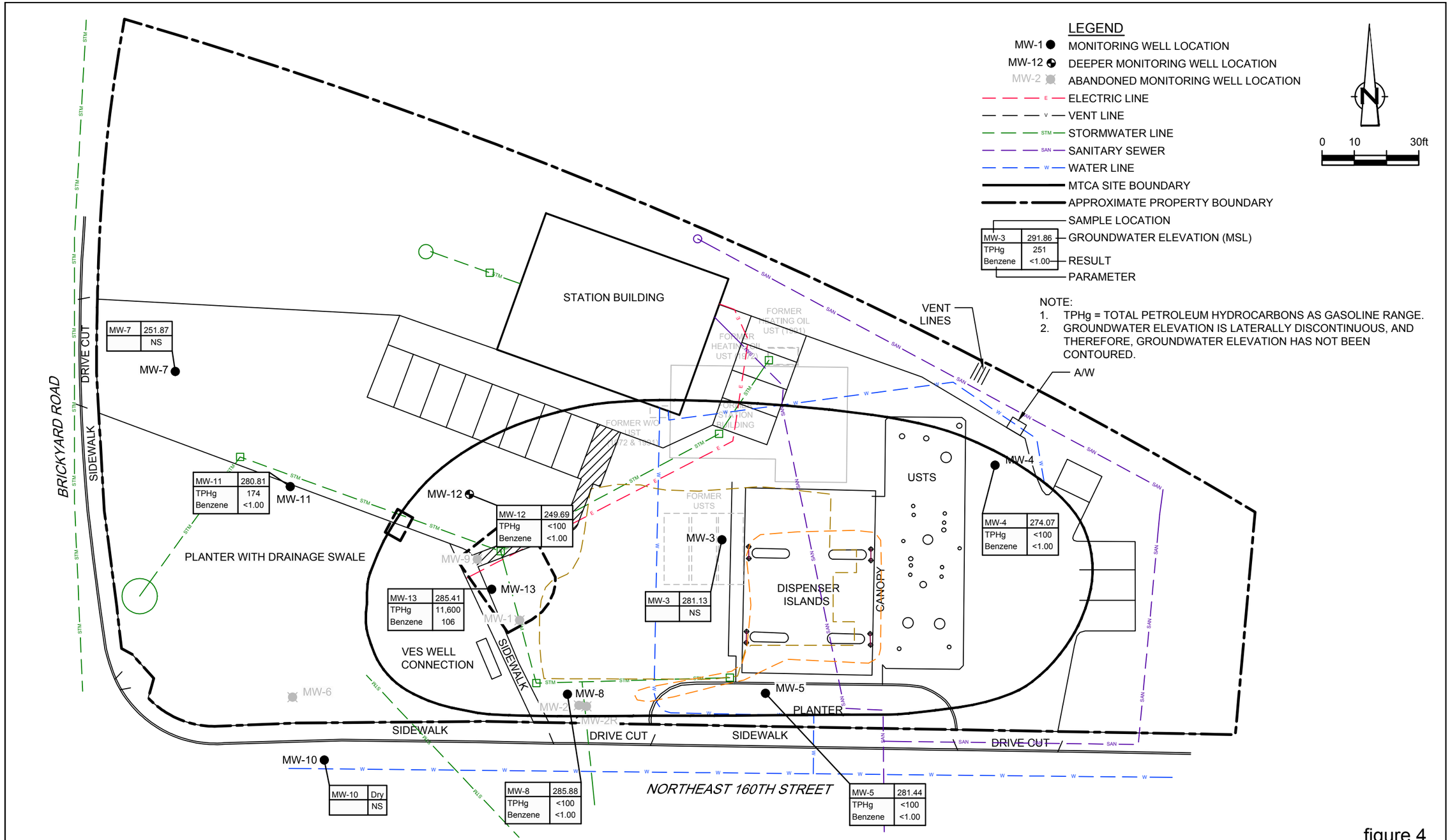


figure 4

GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - SEPTEMBER 4, 2013
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET
Bothell, Washington

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING INC.

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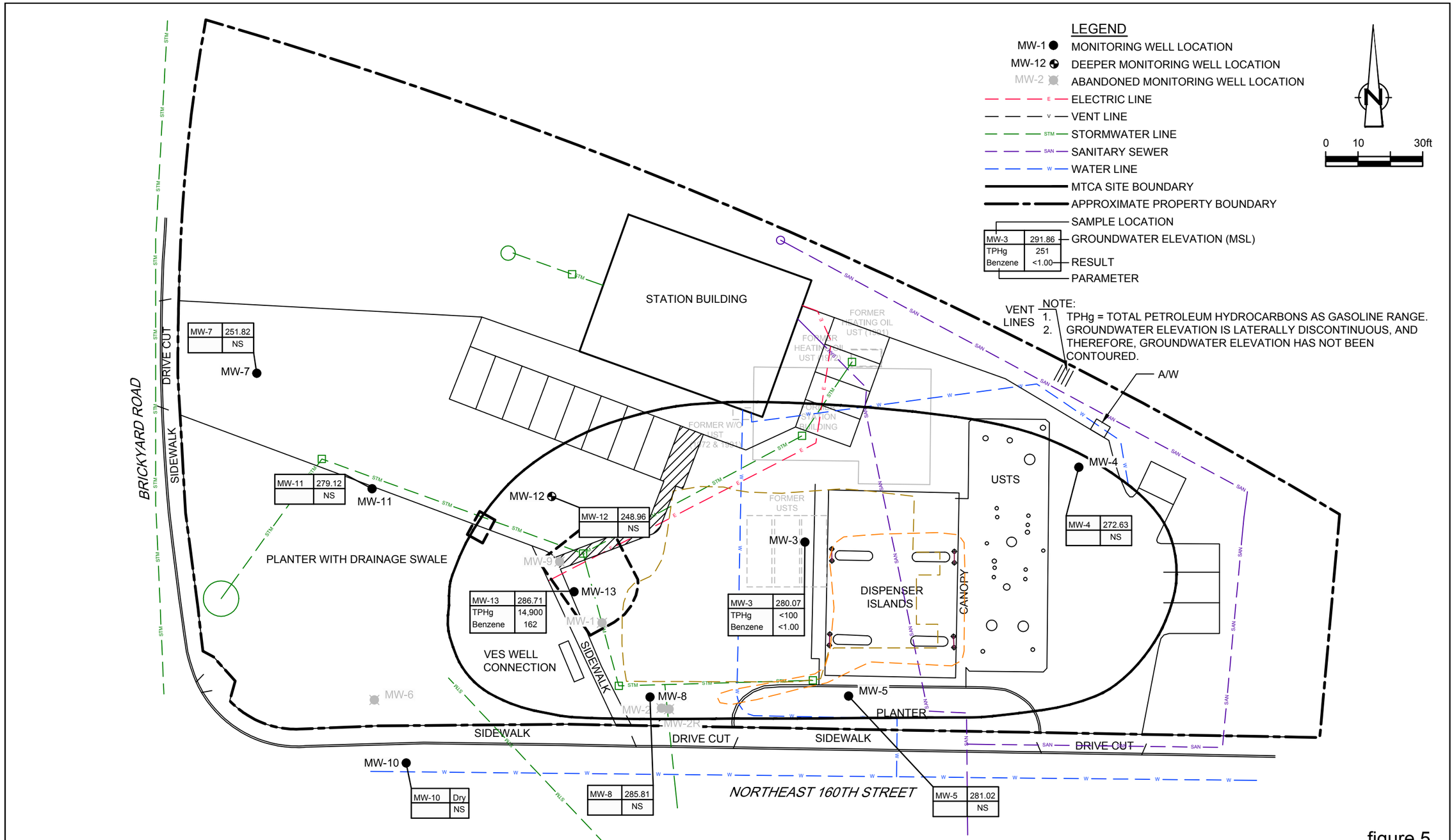

figure 5

GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - DECEMBER 5, 2013
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET
Bothell, Washington

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING INC.

241809-2014(019)GN-WA005 FEB 12/2014

Tables

TABLE 1

SUMARY OF HISTORICAL ANALYTICAL DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORHTEAST 160TH STREET
BOTHELL, WASHINGTON

				HYDROCARBONS			PRIMARY VOCs						LEAD	OXYGENATES	PAHs	
Sample ID	*Consultant*	*Sample Date*	*Depth*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*Total*	*MTBE*	*Naphthalene*	*Total cPAHs* [1]
		MTCA Method A Cleanup Levels		*30/100*	*2,000*	*2,000*	*0.03*	*7*	*6*	*9*	*0.005*	*NE*	*250*	*0.1*	*5*	*0.1*
		Site Specific Cleanup Levels		*4,956*	*4,956*	*4,956*	*18*	*6,400*	*8,000*	*16,000*	*NE*	*NE*	*NE*	*NE*	*1,600*	*0.14*
			feet bgs	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
Product Dispensers																
PI-1	SECOR (1992)	12/17/1991	5	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	8.7	--	--	--
PI-2	SECOR (1992)	12/17/1991	5.5	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	8.5	--	--	--
PI-3	SECOR (1992)	12/17/1991	5	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
PI-4	SECOR (1992)	12/17/1991	8	4,600**	--	--	25**	140**	62**	340**	--	--	<7.5	--	--	--
PI-5	SECOR (1992)	12/17/1991	8	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
Product Piping																
FL	SECOR (1992)	12/17/1991	8	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
VL	SECOR (1992)	12/17/1991	2	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	9.1	--	--	--
Gasoline UST Excavation																
EXB-T1	SECOR (1992)	12/17/1991	16	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
EXB-T2	SECOR (1992)	12/17/1991	16	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
EXB-T3	SECOR (1992)	12/17/1991	16	1.5	--	--	<0.05	<0.10	<0.10	<0.20	--	--	<7.5	--	--	--
SWN	SECOR (1992)	12/17/1991	10	1.4	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SWE	SECOR (1992)	12/17/1991	10	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SWW	SECOR (1992)	12/17/1991	10	1,200	--	--	<0.05	1.9	14	99	--	--	<7.5	--	--	--
NWC	SECOR (1992)	12/17/1991	6.5	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SB-01	SECOR (1992)	12/17/1991	15	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SB-02	SECOR (1992)	12/17/1991	12	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SWC-BOT	SECOR (1992)	12/17/1991	15	17	--	--	0.16	1.1	0.28	1.8	--	--	<7.5	--	--	--
SSW-A	SECOR (1992)	12/17/1991	5	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
SWC-SD	SECOR (1992)	12/17/1991	10	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	<7.5	--	--	--
NSW-A	SECOR (1992)	12/17/1991	10	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	8.2	--	--	--
NWS	SECOR (1992)	12/17/1991	8	1,000	--	--	<0.05	3.5	12	83	--	--	9.8	--	--	--
Product Dispensers & Vent Lines																
PI5-4	SECOR (1992)	12/17/1991	4	<1.0	--	--	<0.05	<0.10	<0.10	<0.10	--	--	7.8	--	--	--
PI6-4	SECOR (1992)	12/17/1991	4	8,400 c	--	--	<0.05	30	17	500	--	--	10	--	--	--
VT-1	SECOR (1992)	12/17/1991	1	82	--	--	<0.05	<0.10	0.09	2.4	--	--	21	--	--	--
Waste Oil UST Excavation																
WO-E	SECOR (1992)	12/23/1991	7	--	--	940	--	--	--	--	--	--	--	--	--	--
WO-W	SECOR (1992)	12/23/1991	7	--	--	<10	--	--	--	--	--	--	--	--	--	--
WO-EXB	SECOR (1992)	12/23/1991	8.5	--	--	1,300	--	--	--	--	--	--	--	--	--	--
WO-EB	SECOR (1992)	12/23/1991	9.5	--	--	13	--	--	--	--	--	--	--	--	--	--
WO-EXB	SECOR (1992)	12/23/1991	10.5	--	--	15	--	--	--	--	--	--	--	--	--	--
Heating Oil UST Excavation																
FO-E	SECOR (1992)	12/24/1991	3	--	ND	--	--	--	--	--	--	--	--	--	--	--
FO-W	SECOR (1992)	12/24/1991	6	--	ND	--	--	--	--	--	--	--	--	--	--	--
FO-EXB	SECOR (1992)	12/24/1991	10	--	14	--	--	--	--	--	--	--	--	--	--	--
New Gasoline UST Excavation																
EXB-1	SECOR (1992)	12/17/1991	18	<20	<50	--	--	--	--	--	--	--	--	--	--	--
EXB-2	SECOR (1992)	12/17/1991	18	<20	<50	--	--	--	--	--	--	--	--	--	--	--
EXB-3	SECOR (1992)	12/17/1991	18	<20	<50	--	--	--	--	--	--	--	--	--	--	--
EXB-4	SECOR (1992)	12/17/1991	18	<20	<50	--	--	--	--	--	--	--	--	--	--	--
MW-1-B	GTI (1995)	2/1/1994	9.5	1,400	--	--	1.5	<0.050	11	45	--	--	--	--	--	--
MW-1-D	GTI (1995)	2/1/1994	19	8.3	--	--	<0.050	0.88	0.24	1.5	--	--	--	--	--	--

TABLE 1

SUMARY OF HISTORICAL ANALYTICAL DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORHTEAST 160TH STREET
BOTHELL, WASHINGTON

				HYDROCARBONS			PRIMARY VOCs						LEAD	OXYGENATES	PAHs	
Sample ID	*Consultant*	*Sample Date*	*Depth*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*Total*	*MTBE*	*Naphthalene*	*Total cPAHs* [1]
		MTCA Method A Cleanup Levels		*30/100*	*2,000*	*2,000*	*0.03*	*7*	*6*	*9*	*0.005*	*NE*	*250*	*0.1*	*5*	*0.1*
		Site Specific Cleanup Levels		*4,956*	*4,956*	*4,956*	*18*	*6,400*	*8,000*	*16,000*	*NE*	*NE*	*NE*	*NE*	*1,600*	*0.14*
			feet bgs	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
MW-1-E	GTI (1995)	2/1/1994	25	<1.0	--	--	0.22	0.28	0.065	<0.10	--	--	--	--	--	--
MW-2-D	GTI (1995)	2/1/1994	18	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-2-E	GTI (1995)	2/1/1994	23	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-3-B	GTI (1995)	2/2/1994	15	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-3-C	GTI (1995)	2/2/1994	20	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-4-D	GTI (1995)	2/3/1994	17.5	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-4-E	GTI (1995)	2/3/1994	22.5	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-5-15'	SECOR (4/1996)	1/26/1996	15	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-6-27.5'	SECOR (4/1996)	1/30/1996	27.5	<1.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
SWPI @ 7'	SECOR (8/1996)	5/16/1996	7	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
SEPI @ 7'	SECOR (8/1996)	5/16/1996	7	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
NWPI @ 6'	SECOR (8/1996)	5/16/1996	6	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
NEPI @ 7'	SECOR (8/1996)	5/16/1996	7	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
SWPT @ 4'	SECOR (8/1996)	5/21/1996	4	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
SEPT @ 4'	SECOR (8/1996)	5/21/1996	4	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
NEPT @ 4'	SECOR (8/1996)	5/21/1996	4	<5.0	--	--	<0.050	<0.050	<0.050	<0.10	--	--	--	--	--	--
MW-7-35.5	GeoEngineers (1998)	5/20/1997	35.5	<5.00	--	--	<0.050	<0.0500	<0.0500	<0.100	--	--	<10.0	--	--	--
WOBOT-8	Noll (2004)	11/21/2003	8	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
WO-SWALL-7	Noll (2004)	11/21/2003	7	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
WO-WWALL-6	Noll (2004)	11/21/2003	6	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
SB1-25	CRA (2008)	6/11/2008	25	<0.016	11	8.5	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	2.22	<0.0049	<0.036	<0.036
SB2-25	CRA (2008)	6/11/2008	25	0.027	18	15	<0.0059	<0.0059	<0.0059	<0.0059	<0.0014 a	<0.0059	1.67	<0.0059	<0.036	<0.036
SB3-25	CRA (2008)	6/11/2008	25	<0.018	17	10	<0.006	<0.006	<0.006	<0.006	<0.0014 a	<0.006	2.8	<0.006	<0.035	<0.035
SB4-25	CRA (2008)	6/11/2008	25	8.7	12	7.5	0.011	0.073	0.029	0.211	<0.0014 a	<0.0059	2.46	<0.0059	<0.041	<0.041
SB5-25	CRA (2008)	6/11/2008	25	0.23	9.7	7.8	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	2.1	<0.0044	<0.036	<0.036
SO-241809-051909-HB-SB-6-9	CRA (2009)	5/19/2009	9	0.90[b]	<5.0	25	0.0032	0.021	0.024	0.13	<0.00076	<0.00076	2.81	<0.0015	<0.020	0.06
SO-241809-051909-HB-SB-6-19	CRA (2009)	5/19/2009	19	560[b]	200*	<5.0	<0.40[c]	5.8	10	65	<0.40[c]	<0.40	2.24	<0.79	2.3	<0.020
SO-241809-051909-HB-SB-7-9	CRA (2009)	5/19/2009	9	<0.18[b]	<5.0	<5.0	<0.00066	0.0025	0.0011	0.0050	<0.00066	<0.00066	2.88	<0.0013	<0.020	0.11
SO-241809-051909-HB-SB-7-14	CRA (2009)	5/19/2009	14	0.48[b]	5.0	14	0.0014	0.0042	0.0036	0.022	<0.00085	<0.00085	2.63	<0.0017	<0.020	<0.020
SO-241809-051909-HB-MW-8-5	CRA (2009)	5/18/2009	5	<0.22[b]	<5.0	<5.0	0.00091	<0.00080	<0.00080	<0.0016	<0.00080	<0.00080	3.19	<0.0016	<0.020	<0.020
SO-241809-051909-HB-MW-8-14	CRA (2009)	5/19/2009	14	<0.21[b]	<5.0	<5.0	<0.00079	<0.00079	<0.00079	<0.0016	<0.00079	<0.00079	3.72	<0.0016	<0.020	<0.020
SO-241809-051909-HB-MW-9-5	CRA (2009)	5/18/2009	5	0.5[b]	<5.0	<5.0	0.0023	0.00048	<0.00048	0.0052	<0.00048	<0.00048	3.42	<0.00095	<0.020	<0.020
SO-241809-051909-HB-MW-9-14	CRA (2009)	5/19/2009	14	93[b]	39*	<5.0	0.0033	0.035	0.49	2.9	<0.00066	<0.00066	2.40	<0.0013	0.33	<0.020
SO-241809-012010-TM-SB-8-6	CRA (2010)	1/20/2010	6	6,100	9,000*	65*	<3.1	<3.1	230	920	--	--	--	--	65	--
SO-241809-012110-TM-SB-9-8	CRA (2010)	1/21/2010	8	<0.21	32	93	<0.00071	<0.00071	<0.00071	<0.0014	--	--	--	--	--	--
SO-241809-012210-TM-SB-9-20	CRA (2010)	1/22/2010	20	<0.14	<5.0	<5.0	<0.00065	<0.00065	<0.00065	<0.0013	--	--	--	--	--	--
SO-241809-012010-TM-MW-10-9.5	CRA (2010)	1/20/2010	9.5	<0.18	<5.0	<5.0	<0.00084	<0.00084	<0.00084	<0.0017	--	--	--	--	--	--
SO-241809-012010-TM-MW-10-14.5	CRA (2010)	1/20/2010	14.5	<0.18	5.8*	<5.0	<0.00068	<0.00068	<0.00068	<0.0014	--	--	--	--	--	--
SO-241809-012110-TM-MW-11-4	CRA (2010)	1/21/2010	4	<0.17	<5.0	<5.0	<0.00076	<0.00076	<0.00076	<0.0015	--	--	--	--	--	--

TABLE 1

SUMARY OF HISTORICAL ANALYTICAL DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORHTEAST 160TH STREET
BOTHELL, WASHINGTON

				HYDROCARBONS			PRIMARY VOCs						LEAD	OXYGENATES	PAHs	
Sample ID	*Consultant*	*Sample Date*	*Depth*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*Total*	*MTBE*	*Naphthalene*	*Total cPAHs [1]*
		MTCA Method A Cleanup Levels		*30/100*	*2,000*	*2,000*	*0.03*	*7*	*6*	*9*	*0.005*	*NE*	*250*	*0.1*	*5*	*0.1*
		Site Specific Cleanup Levels		*4,956*	*4,956*	*4,956*	*18*	*6,400*	*8,000*	*16,000*	*NE*	*NE*	*NE*	*NE*	*1,600*	*0.14*
			feet bgs	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
SO-241809-100110-SR-SB-10-6	CRA (2010)	10/1/2010	6	2.5	<5.0	<5.0	<0.046	<0.046	0.098	0.25	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-10	CRA (2010)	10/1/2010	10	2.8	<5.0	<5.0	0.0011	0.0022	0.01	0.038	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-15	CRA (2010)	10/1/2010	15	1.0	<5.0	<5.0	<0.042	<0.042	0.046	0.26	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-25	CRA (2010)	10/1/2010	25	150	12*	<5.0	<0.049	0.19	0.57	3.9	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-35	CRA (2010)	10/1/2010	35	9.2	<5.0	<5.0	0.0033	0.10	0.29	1.7	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-45	CRA (2010)	10/1/2010	45	<0.25	<5.0	<5.0	0.001	0.0049	0.0069	0.035	--	--	--	--	--	--
SO-241809-100110-SR-SB-10-50	CRA (2010)	10/1/2010	50	<0.25	<5.0	<5.0	<0.00096	<0.00096	<0.00096	0.0019	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-6	CRA (2010)	10/1/2010	6	10	11*	8.1*	0.055	0.088	0.37	1.4	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-10	CRA (2010)	10/1/2010	10	140	45*	<5.0	0.0018	0.0053	3.2	16	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-15	CRA (2010)	10/1/2010	15	410	19*	<5.0	0.0042	0.26	5.1	24	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-20	CRA (2010)	10/1/2010	20	18	<5.0	<5.0	0.0013	0.0056	0.063	0.30	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-25	CRA (2010)	10/1/2010	25	4.2	20*	<5.0	0.0013	0.0051	0.087	0.85	--	--	--	--	--	--
SO-241809-100110-SR-SB-11-30	CRA (2010)	10/1/2010	30	1.7	<5.0	<5.0	0.0069	0.0078	0.12	0.35	--	--	--	--	--	--
SO-241809-010913-SB-12-5	CRA (2013)	1/9/2013	5	15.2	<4.48	5.97	0.0117	0.00160	0.0302	0.0797	--	--	--	--	--	--
SO-241809-010913-SB-12-10	CRA (2013)	1/9/2013	10	2,190	57.8	5.12	0.163	0.167	13.3	30.4	--	--	--	--	--	--
SO-241809-010913-SB-13-5	CRA (2013)	1/9/2013	5	17.2	<4.53	<4.53	0.0286	0.00913	0.120	0.320	--	--	--	--	--	--
SO-241809-010913-SB-13-10	CRA (2013)	1/9/2013	10	9.54	<4.28	<4.28	0.00539	0.00337	0.0352	0.117	--	--	--	--	--	--
SO-241809-010913-SB-13-15	CRA (2013)	1/9/2013	15	14.8	<4.22	<4.22	0.00380	0.00213	0.0396	0.133	--	--	--	--	--	--
SO-241809-010913-SB-14-5	CRA (2013)	1/9/2013	5	119	<4.81	5.33	0.0588	0.0404	2.54	5.06	--	--	--	--	--	--
SO-241809-010913-SB-14-10	CRA (2013)	1/9/2013	10	40.7	91.5	<4.34	0.00317	0.003	0.0273	0.0245	--	--	--	--	--	--
SO-241809-010913-SB-14-15	CRA (2013)	1/9/2013	15	798	<4.44	<4.44	0.0341	0.0328	17.7	93.0	--	--	--	--	--	--
SO-241809-010913-SB-15-5	CRA (2013)	1/9/2013	5	18.9	<4.51	<4.51	0.00879	0.00339	0.0274	0.0769	--	--	--	--	--	--
SO-241809-010913-SB-15-10	CRA (2013)	1/9/2013	10	156	<4.79	<4.79	0.0333	0.0559	3.21	2.31	--	--	--	--	--	--
SO-241809-010913-SB-15-15	CRA (2013)	1/9/2013	15	7.49	<4.39	6.40	0.00164	0.00274	0.0805	0.323	--	--	--	--	--	--
SO-241809-010913-SB-16-5	CRA (2013)	1/9/2013	5	39.1	<4.52	<4.52	0.0115	0.00997	0.103	0.113	--	--	--	--	--	--
SO-241809-010913-SB-16-10	CRA (2013)	1/9/2013	10	1,130	<4.81	<4.81	0.00767	0.0207	0.0637	0.0722	--	--	--	--	--	--
SO-241809-010913-SB-16-15	CRA (2013)	1/9/2013	15	14.3	<4.50	<4.50	0.00262	0.00373	0.431	0.304	--	--	--	--	--	--
24-hour TAT ALS Environmental																
SO-241809-EX-2-N-BOT-12	CRA (2013)	2/5/2013	12	620	24J	7.1J	--	--	--	--	--	--	--	--	--	--
SO-241809-EX-2-N-SDWL-7	CRA (2013)	2/5/2013	7	65	4.3J	<50	--	--	--	--	--	--	--	--	--	--
SO-241809-EX-2-E-SDWL-7	CRA (2013)	2/5/2013	7	570	19J	12J	--	--	--	--	--	--	--	--	--	--
Test America																
SO-241809-EX-2-N-BOT-12	CRA (2013)	2/5/2013	12	843	<4.77	<4.77	0.0582	0.265	12.9	83.1	--	--	--	--	--	--
SO-241809-EX-2-N-SDWL-7	CRA (2013)	2/5/2013	7	45.3	<4.51	<4.51	0.0168	0.0140	0.901	0.472	--	--	--	--	--	--
SO-241809-EX-2-E-SDWL-7	CRA (2013)	2/5/2013	7	933	9.12	<4.64	0.204	2.160	13.9	97.1	--	--	--	--	--	--
SO-241809-EX-1-BOT-6	CRA (2013)	2/5/2013	6	18.0	<4.68	8.42	0.0148	0.0122	0.197	1.46	--	--	--	--	<0.0573	--
SO-241809-EX-2-S-BOT-11	CRA (2013)	2/6/2013	11	1,470	79.5	<4.44	0.0297	0.476	32.1	118.0	--	--	--	--	--	--
SO-241809-EX-2-S-SDWL-7	CRA (2013)	2/6/2013	7	53.3	9.12	<4.64	0.0811	0.0600	0.0854	0.163	--	--	--	--	--	--
SO-241809-EX-2-W-SDWL-7	CRA (2013)	2/6/2013	7	9.11	<4.51	<4.51	0.00963	0.00241	0.00310	0.0204	--	--	--	--	--	--
SO-241809-082313-MW-13-5	CRA (2013)	8/23/2013	5	22.9	5.92	23.9	<0.00128	<0.00128	<0.00128	0.00271	---	---	---	---	---	---
SO-241809-082313-MW-13-10	CRA (2013)	8/23/2013	10	675	5.91	<4.94	0.0485	0.0357	2.02	6.60	---	---	---	---	---	---
SO-241809-082313-MW-13-15	CRA (2013)	8/23/2013	15	448	9.63	<4.97	0.0168	0.0127	2.02	5.06	---	---	---	---	---	---
SO-241809-082313-MW-13-25	CRA (2013)	8/23/2013	25	9.39	<4.97	<4.97	0.00483	0.0337	0.0777	0.640	---	---	---	---	---	---

TABLE 1

SUMARY OF HISTORICAL ANALYTICAL DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORHTEAST 160TH STREET
BOTHELL, WASHINGTON

				HYDROCARBONS			PRIMARY VOCs						LEAD	OXYGENATES	PAHs	
Sample ID	Consultant	Sample Date	Depth	TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	Total	MTBE	Naphthalene	Total cPAHs [1]
		MTCA Method A Cleanup Levels		30/100	2,000	2,000	0.03	7	6	9	0.005	NE	250	0.1	5	0.1
		Site Specific Cleanup Levels		4,956	4,956	4,956	18	6,400	8,000	16,000	NE	NE	NE	NE	1,600	0.14
			feet bgs	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)

Notes/Abbreviations

MTCA = Model Toxics Control Act

TPHg = Total petroleum hydrocarbons as gasoline range organics

TPHd = Total petroleum hydrocarbons as diesel range organics

TPHo = Total petroleum hydrocarbons as heavy oil range organics

BTEX = Benzene, toluene, ethylbenzene, xylenes

VOCs = Volatile organic compounds

PAHs = Polycyclic aromatic hydrocarbons

cPAHs = Carcinogenic PAHs

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

MTBE = Methyl-tertiary butyl ether

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

-- = Not analyzed

Bolded concentrations indicate the concentration value exceeded the Site-specific cleanup level

ND = Not detected above laboratory detection limits

NE = Not established

N/A = Not available

feet bgs = feet below ground surface

[1] Total cPAHs were calculated using the Toxic Equivalency Factor (TEF) per Table 708-3 under WAC-173-340-708(8)(e)(v)

* indicates the sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantization of the unknown hydrocarbon(s) in the sample was based upon the specific standard.

** concentration was confirmed non-detect by sample SWPI@7 collected in 1996.

a = Method detection limit used instead of reporting limit in order to meet MTCA Method A cleanup levels

b = Sample was analyzed outside recommended holding time

c = location of the sample was likely near the northwest dispenser island based on the other samples from this event and the generic dispenser island reference in Table 1 of SEACOR's 1992 Preliminary Site Assessment. SECOR did not reference the sample in the report text or the figure. This soil sample was likely excavated during the 1996 Stage II Vapor Recovery installation.

Total cPAHs were calculated using the Toxic Equivalency Factor (TEF) per Table 708-3 under WAC-173-340-708(8)(e)(v)

Indicates soil at the indicated depth was later excavated and is no longer present.

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
Sample ID	Date	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
	Model Toxics Control Act Method A Screening Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
	Site-Specific Cleanup Levels (MTCA Method B)						11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	02/07/94	94.91	13.45	---	81.46	**17,000**	---	---	**850**	**1,600**	460	**3,800**	---	---	---	---	---	---	---	5.3	---	---	---
MW-1[c]	02/07/94	94.91	13.45	---	81.46	**18,000**	---	---	**860**	**1,700**	470	**3,900**	---	---	---	---	---	---	---	---	---	---	---
MW-1	06/22/94	94.91	21.78	---	73.13	**55,000**	---	---	**1,200**	**7,100**	**2,800**	**13,000**	---	---	---	---	---	---	---	---	5.6	---	---
MW-1	09/19/94	94.91	17.64	---	77.27	**76,700**	---	---	**1,137**	**7,650**	**2,740**	**12,200**	---	---	---	---	---	---	---	---	3	---	---
MW-1	01/05/94	94.91	14.11	---	80.80	**27,000**	---	---	**240**	980	**1,400**	**6,000**	---	---	---	---	---	---	---	---	ND	---	---
MW-1[c]	01/05/94	94.91	14.11	---	80.80	**44,000**	---	---	**210**	**1,500**	**1,900**	**7,500**	---	---	---	---	---	---	---	---	---	---	---
MW-1	03/23/95	94.91	11.9	---	83.01	**26,000**	---	---	**190**	**1,200**	**1,600**	**5,500**	---	---	---	---	---	---	---	---	ND	---	---
MW-1	06/06/95	94.91	16.93	---	77.98	**40,000**	---	---	**730**	**3,800**	**2,700**	**11,000**	---	---	---	---	---	---	---	---	ND	---	---
MW-1	09/12/95	94.91	17.76	---	77.15	**86,000**	---	---	**1,000**	**6,500**	**3,100**	**13,000**	---	---	---	---	---	---	---	---	7	---	---
MW-1	12/05/95	94.91	10.48	---	84.43	**46,000**	---	---	**200**	**1,400**	**1,800**	**7,400**	---	---	---	---	---	---	---	---	3	---	---
MW-1	03/21/96	94.91	13.49	---	81.42	**64,000**	---	---	**340**	**2,800**	**2,600**	**9,800**	---	---	---	---	---	---	---	---	---	---	---
MW-1[c]	03/21/96	94.91	13.49	---	81.42	**64,000**	---	---	**300**	**2,600**	**2,500**	**9,300**	---	---	---	---	---	---	---	---	---	---	---
MW-1	06/17/96										Well inadvertently buried during site construction -- not measured												
MW-1	09/23/96										Well inadvertently buried during site construction -- not measured												
MW-1	12/16/96										Well inadvertently buried during site construction -- not measured												
MW-1	06/27/97	91.10	15.15	---	75.95	**59,100**	---	---	**126**	**1,400**	**2,670**	**6,940**	---	---	---	---	---	---	---	---	---	---	---
MW-1[c]	06/27/97	91.10	15.15	---	75.95	**58,700**	---	---	**124**	**1,460**	**2,880**	**8,880**	---	---	---	---	---	---	---	---	---	---	---
MW-1	09/16/97	91.10	18.45	---	72.65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/06/98	91.10	18.26	---	72.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	03/23/98	91.10	14.95	---	76.15	**47,300**	---	---	**160**	**1,000**	**1,660**	**6,260**	---	---	---	---	---	---	---	---	---	---	---
MW-1	06/20/98	91.10	16.52	---	74.58	**43,000**	---	---	**110**	474	**2,120**	**7,310**	---	---	---	---	---	---	---	---	---	---	---
MW-1	09/21/98	91.10	22.49	---	68.61	**37,200**	---	---	**678**	923	**2,150**	**7,120**	---	---	---	---	---	---	---	---	---	---	---
MW-1	12/16/98	91.10	15.08	---	76.02	**37,300**	---	---	**221**	790	**1,950**	**6,270**	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/08/99	91.10	16.07	---	75.03	**33,200**	---	---	**86.9**	478	**1,650**	**5,600**	---	---	<500 e	---	---	---	---	---	---	---	---
MW-1	10/07/99	91.10	22.27	---	68.83	**42,200**	---	---	**586**	**1,690**	**2,210**	**6,880**	---	---	---	---	---	---	---	---	---	---	---
MW-1	03/21/00	91.10	16.74	---	74.36	**30,000**	---	---	**104**	310	**1,850**	**5,490**	---	---	---	---	---	---	---	---	---	---	---
MW-1	09/30/00	91.10	22.88	---	68.22	**22,700**	---	---	**590**	227	**1,760**	**3,500**	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/03/01	91.10	18.57	---	72.53	**17,100**	---	---	**88.6**	143	**1,730**	**3,940**	---	---	<40.0 e	---	---	---	---	---	---	---	---
MW-1	07/10/01	91.10	18.92	---	72.18	**30,000**	---	---	**209**	309	**2,050**	**4,710**	---	---	<5.00	---	---	---	---	---	---	---	---
MW-1	02/25/02	91.10	14.35	---	76.75	**17,900**	---	---	**78.0**	84.1	**1,240**	**3,150**	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/11/02	91.10	17.30	---	73.80	**32,000**	---	---	**92**	130	**1,700**	**2,800**	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/02/03	91.10	21.07	---	70.03	**46,000**	---	---	**240**	180	**2,500**	**5,460**	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/14/03	91.10	20.41	---	70.69	**38,000**	---	---	**320**	350	**2,200**	**5,550**	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/23/04	91.10	16.45	---	74.65	**19,000**	---	---	**77**	<1	**880**	**1,855**	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/23/04	91.10	20.84	---	70.26	**24,000**	---	---	**180**	250	**2,100**	**5,030**	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/10/05	91.10	18.02	---	73.08	**12,000**	---	---	**76**	54	**880**	**1,638**	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/15/05	91.10	17.20	---	73.90	**18,000**	---	---	**99**	66	**1,300**	**2,358**	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/11/06	91.10	12.81	---	78.29	**11,800**	---	---	**74**	17.7	406	742	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/15/07	91.10	16.00	---	75.10	**1,050**	---	---	**5.44**	4.09	28.2	83.4	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---
MW-1	09/11/07	91.10	17.44	---	73.66	**10,900 a,b**	---	---	**122**	144	**1,160**	**2,900**	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/20/08	91.10	15.81	---	75.29	**15,500**	---	---	**59.4**	685	38.4	**1,360**	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---
MW-1	08/12/08	91.10	18.79	---	72.31	**14,000**	---	---	**170**	170	**2,100**	**6,350**	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/04/09	91.10	15.11	---	75.99	**10,000**	---	---	**58**	42	630	**1,400**	---	---	<25 e	<250	<50	<50	<50	---	---	---	---
MW-1 *	08/13/09	299.53	18.80	---	280.73	**15,000**	**5,300 d**	<100	**190**	100	**900**	**2,500**	<0.010	<1.6	<10	<200	<10	<10	<10	1.71	---	**360**	<0.1
MW-1 g	02/05/10	299.53	14.14	---	285.39	**11,000**	**5,100 d**	<100	**60**	28	460	830	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	**200**	---
MW-1 g	08/04/10	299.53	15.68	---	283.85	**10,000**	**6,200 d**	<100	**45**	22	200	430	---	---	---	---	---	---	---	---	---	**210**	---
MW-1	03/23/11	299.53	11.58	---	287.95	**10,100**	**1,780**	201	**41.0**	11.5	206	333	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	47.9	---
MW-1	09/12/11	299.53	15.42	---	284.11	**10,100**	**2,290**	<248	**138**	33.4	255	686	---	---	---	---	---	---	---	---	---	58.5	---
MW-1	03/07/12	299.53	11.28	---	288.25	**6,850**	**2,830 h**	105	**55.6**	12.2	162	235	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	38.4	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*		*PAHs*	
Sample ID	***Date***	***TOC***	***DTW***	***SPH***	***GWE***	***TPHg***	***TPHd***	***TPHo***	***B***	***T***	***E***	***X***	***EDB***	***EDC***	***MTBE***	***TBA***	***DIPE***	***ETBE***	***TAME***	***Total***	***Dissolved***	***Naphthalene***	***cPAHs***
	Model Toxics Control Act Method A Screening Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
	Site-Specific Cleanup Levels (MTCA Method B)						11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	09/12/12	299.53	13.69	---	285.84	**14,700**	**2,920**	<95.2	**97.6**	24.1	588	947	---	---	---	---	---	---	---	---	---	156	---
MW-1	12/14/12	299.53	10.03	---	289.50	**5,100**	**1,100**	<96.2	**53.3**	6.74	88.9	98.6	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/07/94	94.63	17.87	---	76.76	**4,200**	---	---	**230**	16	400	870	---	---	---	---	---	---	---	ND	---	---	---
MW-2	06/22/94	94.63	14.71	---	79.92	**4,300**	---	---	**180**	15	370	670	---	---	---	---	---	---	---	---	ND	---	---
MW-2	09/19/94	94.63	16.12	---	78.51	**1,650**	---	---	**79**	4.1	128	201	---	---	---	---	---	---	---	---	ND	---	---
MW-2	01/05/95	94.63	13.58	---	81.05	**1,900**	---	---	**85**	6.4	220	320	---	---	---	---	---	---	---	---	ND	---	---
MW-2	03/23/95	94.63	11.60	---	83.03	**1,500**	---	---	**74**	5.9	160	280	---	---	---	---	---	---	---	---	ND	---	---
MW-2	06/06/95	94.63	15.65	---	78.98	**2,800**	---	---	**154**	15	330	520	---	---	---	---	---	---	---	---	ND	---	---
MW-2	09/12/95	94.63	17.33	---	77.30	**2,300**	---	---	**70**	11	180	280	---	---	---	---	---	---	---	---	ND	---	---
MW-2	12/05/95	94.63	11.10	---	83.53	**1,300**	---	---	**41**	3.5	130	150	---	---	---	---	---	---	---	---	ND	---	---
MW-2	03/21/96	94.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	06/17/96	94.63	Well Destroyed During Widening of Northeast 160th Street																			---	---
MW-3	02/07/94	99.57	21.68	---	77.89	**2,500**	---	---	**220**	12	220	280.0	---	---	---	---	---	---	---	ND	---	---	---
MW-3	06/22/94	99.57	22.16	---	77.41	**5,300**	---	---	**270**	26	400	270.0	---	---	---	---	---	---	---	---	ND	---	---
MW-3[c]	06/22/94	99.57	22.16	---	77.41	**4,900**	---	---	**260**	23	400	250.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/19/94	99.57	23.46	---	76.11	**1,340**	---	---	**158**	5.2	118	32.0	---	---	---	---	---	---	---	---	5	---	---
MW-3[c]	09/19/94	99.57	23.46	---	76.11	**1,300**	---	---	**150**	7.4	116	35.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/05/95	99.57	22.72	---	76.85	**2,500**	---	---	**160**	15	180	120.0	---	---	---	---	---	---	---	---	ND	---	---
MW-3[c]	01/05/95	99.57	22.72	---	76.85	**2,000**	---	---	**130**	8	150	77.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/95	99.57	21.82	---	77.75	**2,100**	---	---	**120**	13	150	84.0	---	---	---	---	---	---	---	---	ND	---	---
MW-3[c]	03/23/95	99.57	21.82	---	77.75	**2,200**	---	---	**120**	12	160	110.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	06/06/95	99.57	22.20	---	77.37	**2,900**	---	---	**120**	34	190	210.0	---	---	---	---	---	---	---	---	ND	---	---
MW-3[c]	06/06/95	99.57	22.20	---	77.37	**3,100**	---	---	**130**	41	220	260.0	---	---	---	---	---	---	---	---	ND	---	---
MW-3	09/12/95	99.57	23.06	---	76.51	**1,300**	---	---	**62**	8.1	98	86.0	---	---	---	---	---	---	---	---	56	---	---
MW-3[c]	09/12/95	99.57	23.06	---	76.51	**1,300**	---	---	**61**	8.8	94	96.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/05/95	99.57	22.24	---	77.33	**1,800**	---	---	**65**	7.7	95	90.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/21/96	99.57	21.22	---	78.35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	06/17/96	99.57	21.25	---	78.32	**3,920**	---	---	**121**	7.19	238	87.4	---	---	---	---	---	---	---	---	---	---	---
MW-3[c]	06/17/96	99.57	21.25	---	78.32	**4,290**	---	---	**87.5**	6.58	211	115.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/23/96	99.57	22.83	---	76.74	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/16/96	99.57	22.66	---	76.91	**878**	---	---	**29.8**	1.1	49.5	7.6	---	---	---	---	---	---	---	---	---	---	---
MW-3[c]	12/16/96	99.57	22.66	---	76.91	**580**	---	---	**29.4**	1.6	41.9	7.3	---	---	---	---	---	---	---	---	---	---	---
MW-3	06/27/97	99.57	21.01	---	78.56	**3,580**	---	---	**42.5**	3.64	135	51.4	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/16/97	99.57	21.80	---	77.77	**4,010**	---	---	**63.3**	4.06	171	74.6	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/06/98	99.57	21.65	---	77.92	**1,160**	---	---	**30.3**	1.6	58.8	16.4	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/98	99.57	26.65	---	72.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	06/20/98	99.57	21.65	---	77.92	**1,380**	---	---	**37.7**	2.86	67.6	18.4	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/21/98	99.57	23.05	---	76.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/16/98	99.57	23.65	---	75.92	ND	---	---	**8.96**	0.907	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/08/99	99.57	22.66	---	76.91	**959**	---	---	**12.7**	<1.40	19.0	15.1	---	---	<8.20	---	---	---	---	---	---	---	---
MW-3	10/07/99	99.57	24.27	---	75.30	<50.0	---	---	2.87	<0.5	<0.5	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/21/00	99.57	23.41	---	76.16	262	---	---	3.42	<0.5	1.8	1.6	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/30/00	99.57	23.66	---	75.91	**8,360**	---	---	**189**	69.3	32.7	**1,200**	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/03/01	99.57	24.11	---	75.46	430	---	---	**62.0**	5.26	7.10	15.7	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/10/01	99.57	23.33	---	76.24	<80	---	---	**12.1**	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/25/02	99.57	23.13	---	76.44	688	---	---	**13.8**	0.795	7.39	6.63	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/11/02	99.57	22.56	---	77.01	300	---	---	2.2	<1	3.8	1.7	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*		*PAHs*	
Sample ID	***Date***	***TOC***	***DTW***	***SPH***	***GWE***	***TPHg***	***TPHd***	***TPHo***	***B***	***T***	***E***	***X***	***EDB***	***EDC***	***MTBE***	***TBA***	***DIPE***	***ETBE***	***TAME***	***Total***	***Dissolved***	***Naphthalene***	***cPAHs***
	Model Toxics Control Act Method A Screening Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
	Site-Specific Cleanup Levels (MTCA Method B)						11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-3	01/02/03	99.57	24.67	---	74.90	<250	---	---	**41**	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/14/03	99.57	23.73	---	75.84	<250	---	---	**6.9**	<1	<1	1.7	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/23/04	99.57	23.82	---	75.75	<250	---	---	**170**	<1	<1	1.5	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/23/04	99.57	23.98	---	75.59	<250	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/10/05	99.57	24.25	---	75.32	<250	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/15/05	99.57	22.99	---	76.58	<50	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/11/06	99.57	23.47	---	76.10	<50	---	---	<0.500	<0.500	<0.500	<0.1	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/15/07	99.57	23.05	---	76.52	**1,230**	---	---	1.96	<0.500	<0.500	<3.00	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---
MW-3	09/11/07	99.57	24.63	---	74.94	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/20/08	99.57	22.73	---	76.84	722	---	---	1.23	<0.500	<0.500	<3.00	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---
MW-3	08/12/08	99.57	23.10	---	76.47	<100	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/04/09	99.57	23.11	---	76.46	640	---	---	0.85	<1.400	<1.0	<1.0	---	---	<1.0	14.0	<2.0	<2.0	<2.0	---	---	---	---
MW-3 *	08/13/09	303.37	23.33	---	280.04	<100	170 d	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	4.0	<0.50	<0.50	<0.50	2.93	---	0.14	<0.1
MW-3	02/05/10	303.37	21.52	---	281.85	430	180 d	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-3	08/04/10	303.37	20.10	---	283.27	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/11	303.37	15.55	---	287.82	<100	<97.1	160	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-3	09/12/11	303.37	11.34	---	292.03	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/07/12	303.37	11.45	0.04	291.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/12	303.37	11.22	---	292.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/03/12	303.37	11.15	---	292.22	423	<97.1	288	<1.00	<1.00	<1.00	7.56	---	---	<1.00	17.5	<1.00	<1.00	<1.00	---	---	---	---
MW-3	09/12/12	303.37	11.50	---	291.87	294	**32,600**	**520**	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-3	11/05/12	303.37	11.51	---	291.86	251	**1,860**	97.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	0.384	---
MW-3	09/04/13	303.37	22.24	0.02	281.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/05/13	303.37	23.30	---	280.07	<100	**3,280**	295	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/07/94	102.75	31.42	---	71.33	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	ND	---	---	---
MW-4	06/22/94	102.75	31.80	---	70.95	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	09/19/94	102.75	32.95	---	69.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	01/05/94	102.75	32.84	---	69.91	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	03/23/95	102.75	31.60	---	71.15	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	06/06/95	102.75	31.90	---	70.85	ND	---	---	ND	ND	ND	0.89	---	---	---	---	---	---	---	---	ND	---	---
MW-4	09/12/95	102.75	32.72	---	70.03	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	12/05/95	102.75	32.85	---	69.90	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	03/21/96	102.75	31.20	---	71.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/17/96	102.75	31.30	---	71.45	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/23/96	102.75	32.62	---	70.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/16/96	102.75	32.95	---	69.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/27/97	102.75	35.35	---	67.40	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/16/97	102.75	31.74	---	71.01	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/06/98	102.75	31.25	---	71.50	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/23/98	102.75	30.61	---	72.14	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/20/98	102.75	31.92	---	70.83	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/21/98	102.75	32.88	---	69.87	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/16/98	102.75	33.50	---	69.25	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	04/08/99	102.75	32.82	---	69.93	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	10/07/99	102.75	33.97	---	68.78	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/21/00	102.75	33.07	---	69.68	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/30/00	102.75	33.39	---	69.36	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/03/01	102.75	33.60	---	69.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
Sample ID	*Date*	*TOC*	*DTW*	*SPH*	*GWE*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Total*	*Dissolved*	*Naphthalene*	*cPAHs*
Model Toxics Control Act Method A Screening Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-4	07/10/01	102.75	32.83	---	69.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/25/02	102.75	32.41	---	70.34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/11/02	102.75	32.45	---	70.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/02/03	102.75	34.33	---	68.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/14/03	102.75	33.37	---	69.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/23/04	102.75	33.68	---	69.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/23/04	102.75	33.87	---	68.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/10/05	102.75	33.94	---	68.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/15/05	102.75	32.85	---	69.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/11/06	102.75	33.62	---	69.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/15/07	102.75	33.16	---	69.59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/11/07	102.75	34.77	---	67.98	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/20/08	102.75	32.90	---	69.85	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	<5.00	---	---	---	---	---	---	---	---
MW-4	08/12/08	102.75	33.03	---	69.72	<100.0	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/04/09	102.75	33.13	---	69.62	<100	---	---	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-4	08/13/09	306.58	33.20	---	273.38	---	<100	<100	---	---	---	---	---	---	---	---	---	---	---	4.91	---	---	---
MW-4	02/05/10	306.58	32.76	---	273.82	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-4	08/04/10	306.58	32.67	---	273.91	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/23/11	306.58	31.60	---	274.98	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-4	09/12/11	306.58	32.12	---	274.46	<100	<96.2	<240	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/07/12	306.58	31.95	---	274.63	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-4	09/12/12	306.58	31.86	---	274.72	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/04/13	306.58	32.51	---	274.07	<100	<93.5	213	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/05/13	306.58	33.95	---	272.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/21/96	94.76	20.79	---	73.97	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	06/17/96	94.76	20.69	---	74.07	ND	---	---	ND	0.647	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/23/96	94.76	22.87	---	71.89	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5[c]	09/23/96	94.76	22.87	---	71.89	ND	---	---	ND	0.633	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/16/96	94.76	21.90	---	72.86	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	06/27/97	94.76	20.87	---	73.89	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/16/97	94.76	21.84	---	72.92	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5[c]	09/16/97	94.76	21.84	---	72.92	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/06/98	94.76	21.65	---	73.11	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/23/98	94.76	20.90	---	73.86	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	06/20/98	94.76	21.53	---	73.23	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/21/98	94.76	23.46	---	71.30	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/16/98	94.76	22.96	---	71.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-5	04/08/99	94.76	21.63	---	73.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	10/07/99	94.76	24.21	---	70.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/21/00	94.76	22.69	---	72.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/30/00	94.76	24.12	---	70.64	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/03/01	94.76	23.58	---	71.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/10/01	94.76	22.56	---	72.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/25/02	94.76	21.54	---	73.22	<50	---	---	<0.500	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/11/02	94.76	22.14	---	72.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/02/03	94.76	24.68	---	70.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/14/03	94.76	23.15	---	71.61	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/23/04	94.76	21.73	---	73.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*		*PAHs*	
Sample ID	***Date***	***TOC***	***DTW***	***SPH***	***GWE***	***TPHg***	***TPHd***	***TPHo***	***B***	***T***	***E***	***X***	***EDB***	***EDC***	***MTBE***	***TBA***	***DIPE***	***ETBE***	***TAME***	***Total***	***Dissolved***	***Naphthalene***	***cPAHs***
	Model Toxics Control Act Method A Screening Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
	Site-Specific Cleanup Levels (MTCA Method B)						11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-5	07/23/04	94.76	21.87	---	72.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/10/05	94.76	22.95	---	71.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/15/05	94.76	22.04	---	72.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/11/06	94.76	19.80	---	74.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/15/07	94.76	21.54	---	73.22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/11/07	94.76	23.03	---	71.73	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/20/08	94.76	20.70	---	74.06	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	<5.00	---	---	---	---	---	---	---	---
MW-5	08/12/08	94.76	22.18	---	72.58	<100	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/04/09	94.76	20.68	---	74.08	<100	---	---	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-5 *	08/13/09	303.22	21.89	---	281.33	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	<10	<0.50	<0.50	<0.50	3.93	---	<0.1	<0.1
MW-5	02/05/10	303.22	20.36	---	282.86	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-5	08/04/10	303.22	21.15	---	282.07	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/23/11	303.22	17.52	---	285.70	<100	<94.3	117	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-5	09/12/11	303.22	18.73	---	284.49	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/07/12	303.22	17.73	---	285.49	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-5	09/12/12	303.22	18.03	---	285.19	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/04/13	303.22	21.78	---	281.44	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/05/13	303.22	22.20	---	281.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	03/21/96	Not surveyed	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	06/17/96																						
												Well Destroyed During Widening of Northeast 160th Street										---	---
MW-7	05/21/97	Not surveyed	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	08/13/09	291.70	39.80	---	251.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/23/11	291.70	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/12/11	291.70	39.63	---	252.07	<100	---	---	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/07/12	291.70	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/12/12	291.70	39.91	---	251.79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/04/13	291.70	39.83	---	251.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	12/05/13	291.70	39.88	---	251.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8 *	08/13/09	299.31	15.33	---	283.98	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	<10	<0.50	<0.50	<0.50	<1.00	---	<0.1	<0.1
MW-8	02/05/10	299.31	9.95	---	289.36	**13,000**	**6,000 d**	<100	**40**	46	580	**1,500**	---	---	<2.0	<20	<4.0	<4.0	<4.0	---	---	---	---
MW-8f	03/11/10	299.31	13.30	---	286.01	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-8	08/04/10	299.31	12.96	---	286.35	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/23/11	299.31	9.12	---	290.19	<100	<98.0	193	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-8	09/12/11	299.31	9.91	---	289.40	<100	<99.0	<248	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/07/12	299.31	8.47	---	290.84	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-8	09/12/12	299.31	7.31	---	292.00	<100	96.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/04/13	299.31	13.43	---	285.88	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/05/13	299.31	13.50	---	285.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 *	08/13/09	299.13	19.30	---	279.83	**37,000**	**21,000 d**	<500	**34**	530	**1,600**	**10,000**	<0.010	<2.0	<12	<250	<12	<12	<12	1.64	---	**570**	<0.1
MW-9 g	02/05/10	299.13	12.50	---	286.63	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<1.0	<10	<2.0	<10	<10	---	---	<10	---
MW-9 f, g	03/11/10	299.13	10.73	---	288.40	**14,000**	**6,300**	<100	**22**	28	380	890	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	79	---
MW-9 g	08/04/10	299.13	16.10	---	283.03	**41,000**	**22,000 d**	<500	**32**	290	**1,700**	**7,000**	---	---	---	---	---	---	---	---	---	**380**	---
MW-9	03/23/11	299.13	9.26	---	289.87	**19,000**	**2,890**	191	**51.8**	30.5	551	857	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	42.0	---
MW-9	09/12/11	299.13	18.02	---	281.11	**59,800**	**5,440**	271	**94.8**	424	**2,380**	**12,200**	---	---	---	---	---	---	---	---	---	51.3	---
MW-9	03/07/12	299.13	9.46	---	289.67	**15,700 j**	**5,030 i**	238	**169**	46.0	513	971	---	---	**27.0**	<10.0	<1.00	<1.00	<1.00	---	---	75.4	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
Sample ID	Date	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Model Toxics Control Act Method A Screening Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-9	09/12/12	299.13	15.01	---	284.12	**40,700**	**8,670**	<95.2	**119**	151	**1,260**	**4,850**	---	---	---	---	---	---	---	---	---	128	---
MW-9	12/14/12	299.13	8.70	---	290.43	**11,700**	**2,960**	<96.2	**111**	32.8	333	444	---	---	---	---	---	---	---	---	---	---	---
MW-10	01/29/10	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	02/05/10	294.78	24.30	---	270.48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	08/04/10	294.78	24.40	---	270.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	03/23/11	294.78	23.63	---	271.15	<100	<97.1	<97.1	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-10	09/12/11	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	03/07/12	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	09/12/12	294.78	24.55	---	270.23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	09/04/13	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	12/05/13	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-11	01/29/10	293.07	14.04	---	279.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-11 g	02/05/10	293.07	12.32	---	280.75	**810**	420d	<100	1.0	2.3	<1.0	4.5	---	---	<1.0	<10	<2.0	<10	<10	---	---	12	---
MW-11	08/04/10	293.07	19.90	---	273.17	Insufficient Water - No Sample			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-11	03/23/11	293.07	13.53	---	279.54	665	155	<105	1.14	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	0.814	---
MW-11	09/12/11	293.07	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-11	03/07/12	293.07	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-11	09/12/12	293.07	11.76	---	281.31	213	162	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	0.456	---
MW-11	09/04/13	293.07	12.26	---	280.81	174	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	0.802	---
MW-11	12/05/13	293.07	13.95	---	279.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-12	10/12/10	299.16	50.20	---	248.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-12	10/19/10	299.16	50.09	---	249.07	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	<10	---
MW-12	03/23/11	299.16	49.24	---	249.92	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	<0.0990	---
MW-12	09/12/11	299.16	49.61	---	249.55	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	1.43	---
MW-12	03/07/12	299.16	49.73	---	249.43	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	<0.0943	---
MW-12	09/12/12	299.16	49.80	---	249.36	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	<0.100	---
MW-12	09/04/13	299.16	49.47	---	249.69	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	<0.0935	---
MW-12	12/05/13	299.16	50.20	---	248.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-13	08/28/13	299.77	14.45	---	285.32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-13	09/04/13	299.77	14.36	---	285.41	**11,600**	**3,760**	<93.5	**106**	52.3	180	**1,060**	---	---	---	---	---	---	---	---	---	77.1	---
MW-13	12/05/13	299.77	13.06	---	286.71	**14,900**	**3,400**	<106	**162**	21.1	339	738	---	---	---	---	---	---	---	---	---	93.4	---

Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

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

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwise noted. The higher value is based on the assumption that no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o-xylene + m,p-xylene

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
SHELL-BRANDED WHOLESALE FACILITY
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
Sample ID	Date	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Model Toxics Control Act Method A Screening Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	**160**	**0.1**
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

EDB = 1,2-Dibromoethane analyzed by EPA Method 8011
EDC = 1,2-Dichloroethane analyzed by EPA Method 8260B
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
TBA = Tertiary-butanol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
Total Lead analyzed by EPA Method 6020 unless otherwise noted.
PAH = polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C-SIM
cPAHs = carcinogenic polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C-SIM
NE = Not established
<x = Not detected at laboratory reporting limit x
--- = Not analyzed
Concentrations in bold type indicate the analyte was detected above the Model Toxics Control Act (MTCA) Method A cleanup level

a = Initial analysis within holding time. Re-analysis for the required dilution was past holding time.
b = Sample container contained headspace
c = duplicate sample
d = The sample chromatographic pattern for TPH does not match the specified standard. Quantitation of the unknown hydrocarbon was based upon the specified standard.
e = Laboratory reporting limit (RL) in excess of the MTCA Method A cleanup level.
f = Monitoring well was re-sampled due to a suspected field error
g = Naphthalene analyzed by EPA Method 8260B
h = The hydrocarbon pattern most closely resembles a gasoline & diesel product.
i= The contamination did not match any standards in our library.
j = The hydrocarbon pattern most closely resembles a gasoline product.

* = Sample also analyzed for one or more of the following: carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by 8270C-SIM, polychlorinated biphenyls (PCBs) by EPA Method 8082, and halogenated volatile organic compounds (HVOCs) by EPA Method 8260B. For those constituents analyzed, no concentrations exceeded the laboratory method detection limits. Please see applicable laboratory report(s) for more information.

Appendix A

Summary of Previous Investigations and Remedial Activities

SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES

1991 Preliminary Site Assessment: In December 1991 through January 1992, Science & Engineering Analysis Corporation (SEACOR) removed three 8,000-gallon gasoline underground storage tanks (UST[s]), one 550-gallon waste oil UST, one 1,000-gallon heating oil UST, dispenser islands, and all associated product piping for Texaco Refining and Marketing, Inc (TRMI). SEACOR collected 14 soil samples following the gasoline UST removal activities. Soil samples were collected from beneath each former UST (EXB-T1, EXB-T2, EXB-T3) and along sidewalls (SWN, SWE, SWW, NWC, SSW-A, SWC-SD, NSW-A, NWS). Additional excavation floor samples were collected in the western and southern extents of the excavation (SB-01, SB-02, and SWC-BOT). The soil sample results indicated that total petroleum hydrocarbons (TPH) as gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX) constituents were present at concentrations above the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup levels in two soil samples (SWW and NSW) located along the west sidewall. The final excavation was completed at a depth of approximately 20 feet below ground surface (bgs). Groundwater was encountered at 17 feet bgs following the UST removals. SEACOR removed approximately 600 gallons of groundwater from gasoline UST excavation. Groundwater did not return to the excavation until a saturated sandy lens was encountered at 20 feet bgs.

In December 1991, SEACOR removed one 1,000-gallon heating oil UST and one 550-gallon waste oil UST. SEACOR collected three soil samples (FO-E, FO-W, and FO-EXB) from the heating oil UST excavation and five soil samples (WO-E, WO-W, WO-EXB, WO-EB, and WO-EXB) from the waste oil UST excavation. No analytes were detected at concentrations above the MTCA Method A cleanup levels. The final excavation depths were approximately 10 feet bgs.

In December 1991, SEACOR removed the gasoline dispenser islands, product lines, and vent lines. SEACOR collected ten soil samples (PI-1 through PI-5, FL, VL, PI5-4, PI6-4[1], and VT-1). The soil sample results indicated that TPHg and BTEX constituents were present at concentrations above MTCA Method A cleanup levels in two soil samples (PI-4 and PI6-4) located beneath the south dispenser island. During excavation of the product line trenches, piping for a proposed vapor extraction system (VES) was installed at a depth of 4 feet bgs. The final excavation was completed to a depth of approximately 8 feet bgs. Approximately 1,740 cubic yards of petroleum-impacted soil was excavated and removed from the UST and dispenser island excavations. The soil was stockpiled in

[1] The exact location of PI6-4 is unknown; this soil sample was not depicted on the Site Plan included with the report. However, this soil sample was likely excavated during the 1996 Stage II Vapor Recovery installation.

the northwest corner of the Property atop plastic sheeting surrounded by ecology blocks. Slotted PVC piping was placed in two separate 4-foot lifts within the stockpile for potential VES remediation of the stockpiled soil.

In December 1991, SEACOR collected four soil samples (EXB-1 through EXB-4) from the new UST excavation, located in the eastern portion of the Property. No analytes were detected at concentrations above the MTCA Method A cleanup levels for samples collected from the new UST excavation. The final excavation was completed to a depth of approximately 18 feet bgs. More information is available in SECOR's *Preliminary Site Assessment* report, dated May 29, 1992.

1994 Monitoring Well Installation and Pumping Test: In February 1994, Groundwater Technology, Inc. (GTI) installed four groundwater monitoring wells (MW-1 through MW-4) at the Site as part of additional characterization activities. Soil samples were collected and analyzed for TPHg and BTEX. TPHg and BTEX constituents were detected at concentrations above the MTCA Method A cleanup levels in a soil sample collected from monitoring well MW-1 at 9.5 feet bgs. Groundwater samples were collected from monitoring wells MW-1 through MW-4 and analyzed for TPHg, BTEX and total lead. TPHg, BTEX, and/or total lead were detected at concentrations above the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells MW-1 through MW-3.

In April 1994, a constant-rate pumping test and rising-head slug test were conducted using monitoring well MW-1. The pumping rate varied from 0.16 gallons per minute (gpm) to 1.1 gpm. After 1.5 hours, groundwater had been drawn down approximately 12 feet below the static groundwater levels. GTI concluded that MW-1 would dewater if pumping sustained for another 1.5 hours, so pumping was discontinued. Groundwater recovered approximately 20 percent after a period of 4.5 hours. Based on aquifer testing in monitoring well MW-1 and empirical analysis of grain-size distribution of soil samples collected during drilling activities, the estimated hydraulic conductivity at the Site ranges between 1 and 10 gallons per day per square foot. GTI determined that confined aquifer conditions may exist at the Site based on the presence of a thin clay aquitard at approximately 32 to 35 feet bgs. GTI further concluded that the piezometric surface of the potential aquifer may influence observed water levels producing conditions that indicate groundwater flow is opposite the expected groundwater flow direction based on topography. More information is available in GTI's *Report of Preliminary Environmental Site Assessment*, dated March 27, 1995.

1994 Dual Phase Extraction Feasibility Test: In December 1994 and January 1995, GTI completed feasibility tests for the use of a dual phase extraction (DPE) system at the

Site. Each test ran for 9 to 10 hours, and utilized well MW-1 for extraction, and wells MW-2, MW-3 and MW-4 as observation points. GTI concluded a radius of influence of approximately 37 feet, a calculated TPHg emission rate of 3.3 pounds per day, and a hydraulic conductivity of the saturated zone of 1 gallon per day per square foot. Based on results of vacuum testing and effluent vapor sampling from Site wells, GTI determined that a DPE remedial system with five monitoring wells (two existing wells (MW-1 and MW-2) and three new wells) would produce sufficient groundwater drawdown and air extraction rates to effectively reduce the contaminant concentrations in soil and groundwater; however, further Site characterization of the lateral extent of dissolved hydrocarbons prior to design of the remedial system would be necessary. More information is available in GTI's *Report of Dual Phase Extraction Feasibility Test*, dated June 14, 1995.

1996 Monitoring Well Installation: In January 1996, SECOR International, Inc. (SECOR) installed two monitoring wells (MW-5 and MW-6). Monitoring well MW-5 was installed along the southern Property boundary in the planter south of the dispenser island, and monitoring well MW-6 was installed in the city right-of-way in the drainage swale just beyond the southern Property boundary. Soil samples were collected and analyzed for TPHg and BTEX. No analytes were detected at concentrations above the MTCA Method A cleanup levels. More information is available in SECOR's *Limited Subsurface Investigation* report, dated April 17, 1996.

1996 Stage II Vapor Recovery Installation: In May 1996, SECOR collected soil samples during the installation of a canopy, dispenser islands, and Stage II Vapor Recovery piping. The area surrounding the dispenser islands was excavated to approximately 4 feet bgs; each corner of the excavation was extended to 7 feet bgs to accommodate concrete canopy footings. SECOR collected seven soil samples (SWPI, SEPI, NWPI, NEPI, SWPT, SEPT, and NEPT) from beneath each dispenser island and adjacent to the southwestern, southeastern, and northeastern dispenser islands. Soil samples were collected and analyzed for TPHg and BTEX. No analytes were detected at concentrations above the MTCA Method A cleanup levels. More information is available in SECOR's *Compliance Soil Sampling Results* report, dated August 5, 1996.

1996 Monitoring Well Destruction: In June 1996, monitoring wells MW-2 and MW-6 were destroyed during road widening construction on Northeast 160th Street. Groundwater sampling of the remaining Site wells was completed on June 6, 1996. More information is available in Pacific Environmental Group's *Groundwater Sampling Activities* report, dated July 25, 1996.

1997 Monitoring Well Installation: In May 1997, GeoEngineers, Inc. (GeoEngineers) installed monitoring well MW-7. Soil samples were collected and analyzed for TPHg, BTEX, and total lead. No analytes were detected at concentrations above the MTCA Method A cleanup levels. More information is available in GeoEngineers's *Report of Environmental Services Drilling and Groundwater Monitoring*, dated September 30, 1998.

2003 Waste Oil UST Removal: In November 2003, Noll Environmental, Inc. (Noll) removed one 550-gallon waste oil UST. Noll collected three soil samples (WO-SWALL-7, WO-WWALL-6, and WOBOT-8) from the waste oil UST excavation and analyzed them for TPHg, TPH as diesel (TPHd), and TPH as heavy oil (TPHo). No analytes were detected at concentrations above the MTCA Method A cleanup levels for samples collected from the waste oil UST excavation. The waste oil UST excavation was completed to a depth of approximately 8 feet bgs. More information is available in Noll's *Compliance Sampling Results – Waste Oil UST Removal* report, dated March 22, 2004.

2008 Phase II Environmental Site Assessment: In June 2008, Conestoga-Rovers & Associates (CRA) completed five soil borings (SB-1 through SB-5) at the Site. Soil samples were collected and analyzed for TPHg, TPHd, TPHo, BTEX, 1,2-dichloroethane (EDC), 1,2-dibromoethane (EDB), methyl tertiary-butyl ether (MTBE), carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and total lead. No analytes were detected at concentrations above the MTCA Method A cleanup levels. CRA's *Phase II Environmental Site Assessment Report* erroneously reported BTEX concentrations in SB4-25 as mg/kg, when they were in fact micrograms per kilogram. The corrected concentrations are included in Table 1 of this report. More information is available in CRA's *Phase II Environmental Site Assessment Report*, dated August 2008.

2009 Monitoring Well Installation: In April 2009, CRA completed two soil borings (SB-6 and SB-7) and installed two monitoring wells (MW-8 and MW-9) at the Site to evaluate potential petroleum hydrocarbon impacts to soil and groundwater down- and cross-gradient of the former gasoline USTs. Soil samples were collected and analyzed for TPHg, TPHd, TPHo, BTEX, EDC, EDB, MTBE, cPAHs, and total lead. TPHg and BTEX constituents were detected at concentrations above the MTCA Method A cleanup levels in a soil sample collected from soil boring SB-6 at 19 feet bgs. Total cPAHs were detected at concentrations above the MTCA Method A cleanup levels in a soil sample collected from soil boring SB-7 at 9 feet. No other analytes were detected at concentrations above the MTCA Method A cleanup levels.

2010 Monitoring Well Installations: In January 2010, CRA completed two soil borings (SB-8 and SB-9) and installed two monitoring wells (MW-10 and MW-11) at the Site to

define the vertical and horizontal extent of soil and groundwater impacts west and southwest of former gasoline USTs and southwest of the former dispenser islands. Soil samples were collected and analyzed for TPHg, TPHd, TPHo, and BTEX. TPHg, TPHd, and BTEX constituents were detected at concentrations above the MTCA Method A cleanup levels in a soil sample collected from soil boring SB-8 at 6 feet bgs. No other analytes were detected at concentrations above the MTCA Method A cleanup levels.

In October 2010, CRA completed one soil borings SB-11, and installed one groundwater monitoring well MW-12 to define the vertical and horizontal extent of soil impacts surrounding SB-8 and determine whether deeper water bearing zones have been impacted by the historical release. Monitoring well MW-12 was installed to a total depth of 60 feet bgs. Soil samples were collected every 5 feet and analyzed for TPHg, TPHd, TPHo, and BTEX. Concentrations exceeding the MTCA Method A cleanup levels were detected in SB-10/MW-12 at 25 feet bgs, and SB-11 at 6, 10, and 15 feet bgs. A minimum of 15 feet of contiguous soil with no detections above the MTCA Method A cleanup levels was obtained in each boring to define the vertical extent.

January 2013 Soil Investigation: In January 2013, CRA completed five soil borings (SB-12 through SB-16). The borings were completed to depths ranging from 12.5 to 15 feet bgs. Concentrations exceeding MTCA Method A cleanup levels were detected in soil borings SB-12 at 10 feet bgs, SB-14 at 5, 10, and 15 feet bgs, SB-15 at 10 feet bgs, and SB-16 at 5 and 10 feet bgs.

February 2013 Soil Excavation: In February 2013, CRA decommissioned two monitoring wells (MW-1 and MW-9) in accordance with Washington Administrative Code 173-160-381 in preparation of excavation activities. Site investigation activities in January 2010 and 2013 identified two areas (in the vicinity of SB-8 and MW-1/SB-12) where impacted soil exceeded MTCA Method A cleanup levels. Groundwater impacts in wells MW-1 and MW-9 exceeded Site-specific cleanup levels, which is likely due to a residual soil source in these areas. These two areas were excavated. The excavation surrounding SB-8 measured an approximate 12 by 8-foot area excavated to 6 feet bgs. The excavation surrounding MW-1/SB-12 measured an approximate 25 by 40-foot area excavated to 11 to 12 feet bgs. Confirmation soil samples were collected from the base and sidewalls of the excavations and were documented below Site Specific Cleanup Levels.

Appendix B

Boring Logs

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BOTH 11700
PROJECT NUMBER: 241809
CLIENT: SHELL OIL PRODUCTS US
LOCATION: 11700 NE 160TH ST, BOTHELL, WA

HOLE DESIGNATION: MW-13
DATE COMPLETED: August 23, 2013
DRILLING METHOD: HOLLOW STEM AUGER
FIELD PERSONNEL: S. RASMUSSEN

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE BLOW COUNTS	SAMPLE PID (ppm)
0	TOPSOIL, planter bark/soil	0.50	CONCRETE					
	FILL, asphalt chunks, gravel, sand		BENTONITE					
2								
4			2" PVC WELL CASING					
	ML-SANDY SILT, with gravel, medium plasticity, fine grained sand, olive gray, damp, slight hydrocarbon odor	5.00	BENTONITE CHIPS	MW-13-5		33		0.2
6								
8			8" BOREHOLE					
10	ML-SANDY SILT, trace gravel, medium plasticity, fine grained sand, olive gray, damp, strong hydrocarbon odor	10.00		MW-13-10		100	9 9 24	400
12			2" PVC WELL SCREEN					
14			SAND PACK					
	ML-SANDY SILT, low plasticity, fine to medium coarse grained sand, gray, dry, hydrocarbon odor	15.00		MW-13-15		100	50/ 5"	980
16								
18	- cobble/gravel, hard drilling at 18.0ft BGS							
20	NO RECOVERY, gravel, cobble	20.00		MW-13-20		0	50/ 4"	
	ML-SANDY SILT, low plasticity, fine to medium coarse grained sand, gray, dry, hydrocarbon odor	21.50						
22								
24								
	ML-SANDY SILT, trace gravel, dense, fine grained sand, no plasticity, brownish gray, dry, no hydrocarbon odor	25.00		MW-13-25		67	50/ 6"	5.0
26		26.50						
	END OF BOREHOLE @ 26.5ft BGS							
28								
30								
32								
34								

WELL DETAILS
Screened interval:
10.00 to 25.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Seal:
3.00 to 9.00ft BGS
Material: BENTONITE CHIPS
Sand Pack:
9.00 to 25.00ft BGS
Material: SAND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

Appendix C

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-33922-1
TestAmerica Sample Delivery Group: SAP 120531 / 241809
Client Project/Site: 11700 NE 160th St, Bothell, WA

For:
Conestoga-Rovers & Associates, Inc.
20818 44th Ave W
Suite 190
Lynnwood, Washington 98036

Attn: Christina McClelland

Authorized for release by:
9/5/2013 10:28:13 AM

Ryan Fitzwater, Senior Project Manager
ryan.fitzwater@testamericainc.com

Links

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-33922-1	SO-241809-082313-MW-13-5	Solid	08/23/13 08:40	08/24/13 08:15
490-33922-2	SO-241809-082313-MW-13-10	Solid	08/23/13 11:05	08/24/13 08:15
490-33922-3	SO-241809-082313-MW-13-15	Solid	08/23/13 11:10	08/24/13 08:15
490-33922-4	SO-241809-082313-MW-13-25	Solid	08/23/13 11:35	08/24/13 08:15

Job ID: 490-33922-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-33922-1

Comments
No additional comments.

Receipt
The samples were received on 8/24/2013 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9º C.

GC/MS VOA
Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 103156. See LCS/LCSD

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: SO-241809-082313-MW-13-10 (490-33922-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 103482. See LCS/LCSD

No other analytical or quality issues were noted.

Organic Prep
Method(s) Moisture: The sample duplicate precision for the following sample associated with batch 102579 was outside control limits: (490-33909-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Job ID: 490-33922-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-33922-2

Comments
No additional comments.

Receipt
The samples were received on 8/24/2013 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9º C.

GC VOA
No analytical or quality issues were noted.

GC Semi VOA
Method(s) NWTPH-Dx: There was insufficient contamination present to perform a pattern match for the following sample(s): (490-33922-2 DU), SO-241809-082313-MW-13-10 (490-33922-2).

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern that most closely resembles a Motor oil product used by

Job ID: 490-33922-2 (Continued)

Laboratory: TestAmerica Nashville (Continued)

the laboratory for quantitative purposes: SO-241809-082313-MW-13-5 (490-33922-1).

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern that most closely resembles a Mineral Spirits product used by the laboratory for quantitative purposes: SO-241809-082313-MW-13-15 (490-33922-3).

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

General Chemistry

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit

Glossary

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

Client Sample ID: SO-241809-082313-MW-13-5
Date Collected: 08/23/13 08:40
Date Received: 08/24/13 08:15

Lab Sample ID: 490-33922-1
Matrix: Solid
Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00128		mg/Kg	☼	08/27/13 13:09	08/28/13 19:47	1
Ethylbenzene	ND		0.00128		mg/Kg	☼	08/27/13 13:09	08/28/13 19:47	1
Xylenes, Total	**0.00271**		0.00192		mg/Kg	☼	08/27/13 13:09	08/28/13 19:47	1
Toluene	ND		0.00128		mg/Kg	☼	08/27/13 13:09	08/28/13 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*08/27/13 13:09*	*08/28/13 19:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*	*08/27/13 13:09*	*08/28/13 19:47*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*	*08/27/13 13:09*	*08/28/13 19:47*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*	*08/27/13 13:09*	*08/28/13 19:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**22.9**		4.80		mg/Kg	☼	08/27/13 13:10	08/29/13 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*119*		*50 - 150*	*08/27/13 13:10*	*08/29/13 01:24*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	**5.92**		4.97		mg/Kg	☼	08/28/13 07:21	08/30/13 04:07	1
C24-C40	**23.9**		4.97		mg/Kg	☼	08/28/13 07:21	08/30/13 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*08/28/13 07:21*	*08/30/13 04:07*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**86**		0.10		%			08/26/13 09:58	1

Client Sample ID: SO-241809-082313-MW-13-10
Date Collected: 08/23/13 11:05
Date Received: 08/24/13 08:15

Lab Sample ID: 490-33922-2
Matrix: Solid
Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0485		0.00120		mg/Kg	☼	08/27/13 13:09	08/28/13 20:17	1
Ethylbenzene	2.02		0.105		mg/Kg	☼	08/27/13 13:10	08/29/13 14:39	1
Xylenes, Total	6.60		0.158		mg/Kg	☼	08/27/13 13:10	08/29/13 14:39	1
Toluene	0.0357		0.00120		mg/Kg	☼	08/27/13 13:09	08/28/13 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*X*	*70 - 130*	*08/27/13 13:09*	*08/28/13 20:17*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*08/27/13 13:10*	*08/29/13 14:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*129*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 130*	*08/27/13 13:10*	*08/29/13 14:39*	*1*
Toluene-d8 (Surr)	*150*	*X*	*70 - 130*	*08/27/13 13:09*	*08/28/13 20:17*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*	*08/27/13 13:10*	*08/29/13 14:39*	*1*
Dibromofluoromethane (Surr)	*126*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:17*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*	*08/27/13 13:10*	*08/29/13 14:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	675		9.80		mg/Kg	☼	08/27/13 13:10	08/30/13 11:57	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*116*		*50 - 150*	*08/27/13 13:10*	*08/30/13 11:57*	*2*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	5.91		4.94		mg/Kg	☼	08/28/13 07:21	08/30/13 04:22	1
C24-C40	ND		4.94		mg/Kg	☼	08/28/13 07:21	08/30/13 04:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*08/28/13 07:21*	*08/30/13 04:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	83		0.10		%			08/26/13 09:58	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Client Sample ID: SO-241809-082313-MW-13-15
Date Collected: 08/23/13 11:10
Date Received: 08/24/13 08:15

Lab Sample ID: 490-33922-3
Matrix: Solid
Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0168		0.00140		mg/Kg	☼	08/27/13 13:09	08/28/13 20:47	1
Ethylbenzene	2.02		0.0779		mg/Kg	☼	08/27/13 13:10	08/29/13 15:09	1
Xylenes, Total	5.06		0.117		mg/Kg	☼	08/27/13 13:10	08/29/13 15:09	1
Toluene	0.0127		0.00140		mg/Kg	☼	08/27/13 13:09	08/28/13 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:09*	*1*
Toluene-d8 (Surr)	*121*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:47*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:09*	*1*
Dibromofluoromethane (Surr)	*126*		*70 - 130*	*08/27/13 13:09*	*08/28/13 20:47*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	448		4.04		mg/Kg	☼	08/27/13 13:10	08/29/13 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*50 - 150*	*08/27/13 13:10*	*08/29/13 02:47*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	9.63		4.97		mg/Kg	☼	08/31/13 09:59	09/01/13 00:20	1
C24-C40	ND		4.97		mg/Kg	☼	08/31/13 09:59	09/01/13 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*08/31/13 09:59*	*09/01/13 00:20*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10		%			08/26/13 09:58	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Client Sample ID: SO-241809-082313-MW-13-25
Date Collected: 08/23/13 11:35
Date Received: 08/24/13 08:15

Lab Sample ID: 490-33922-4
Matrix: Solid
Percent Solids: 90.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00483		0.00129		mg/Kg	☼	08/27/13 13:09	08/28/13 21:18	1
Ethylbenzene	0.0777		0.00129		mg/Kg	☼	08/27/13 13:09	08/28/13 21:18	1
Xylenes, Total	0.640		0.101		mg/Kg	☼	08/27/13 13:10	08/29/13 15:40	1
Toluene	0.0337		0.00129		mg/Kg	☼	08/27/13 13:09	08/28/13 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*08/27/13 13:09*	*08/28/13 21:18*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*	*08/27/13 13:09*	*08/28/13 21:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:40*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*	*08/27/13 13:09*	*08/28/13 21:18*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:40*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*	*08/27/13 13:09*	*08/28/13 21:18*	*1*
Dibromofluoromethane (Surr)	*88*		*70 - 130*	*08/27/13 13:10*	*08/29/13 15:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	9.39		4.40		mg/Kg	☼	08/27/13 13:10	08/29/13 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*	*08/27/13 13:10*	*08/29/13 03:28*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		4.97		mg/Kg	☼	08/28/13 07:21	08/30/13 05:09	1
C24-C40	ND		4.97		mg/Kg	☼	08/28/13 07:21	08/30/13 05:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*08/28/13 07:21*	*08/30/13 05:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10		%			08/26/13 10:00	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

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

Lab Sample ID: MB 490-103156/6
Matrix: Solid
Analysis Batch: 103156

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200		mg/Kg			08/28/13 12:09	1
Ethylbenzene	ND		0.00200		mg/Kg			08/28/13 12:09	1
Xylenes, Total	ND		0.00300		mg/Kg			08/28/13 12:09	1
Toluene	ND		0.00200		mg/Kg			08/28/13 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*08/28/13 12:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 130*		*08/28/13 12:09*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/28/13 12:09*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*08/28/13 12:09*	*1*

Lab Sample ID: LCS 490-103156/3
Matrix: Solid
Analysis Batch: 103156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.0500	0.04235		mg/Kg		85	75 - 127		
Ethylbenzene			0.0500	0.04414		mg/Kg		88	80 - 134		
Xylenes, Total			0.100	0.08968		mg/Kg		90	80 - 137		
Toluene			0.0500	0.04202		mg/Kg		84	80 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-103156/4
Matrix: Solid
Analysis Batch: 103156

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.0500	0.04265		mg/Kg		85	75 - 127	1	50
Ethylbenzene			0.0500	0.04499		mg/Kg		90	80 - 134	2	50
Xylenes, Total			0.100	0.09092		mg/Kg		91	80 - 137	1	50
Toluene			0.0500	0.04279		mg/Kg		86	80 - 132	2	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 490-103482/7
Matrix: Solid
Analysis Batch: 103482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100		mg/Kg			08/29/13 12:39	1
Ethylbenzene	ND		0.100		mg/Kg			08/29/13 12:39	1
Xylenes, Total	ND		0.150		mg/Kg			08/29/13 12:39	1
Toluene	ND		0.100		mg/Kg			08/29/13 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*08/29/13 12:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*77*		*70 - 130*		*08/29/13 12:39*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*08/29/13 12:39*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*		*08/29/13 12:39*	*1*

Lab Sample ID: LCS 490-103482/3
Matrix: Solid
Analysis Batch: 103482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.0500	0.04178		mg/Kg		84	75 - 127		
Ethylbenzene			0.0500	0.04404		mg/Kg		88	80 - 134		
Xylenes, Total			0.100	0.08927		mg/Kg		89	80 - 137		
Toluene			0.0500	0.04187		mg/Kg		84	80 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-103482/4
Matrix: Solid
Analysis Batch: 103482

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.0500	0.04024		mg/Kg		80	75 - 127	4	50
Ethylbenzene			0.0500	0.04289		mg/Kg		86	80 - 134	3	50
Xylenes, Total			0.100	0.08629		mg/Kg		86	80 - 137	3	50
Toluene			0.0500	0.04037		mg/Kg		81	80 - 132	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*

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

Lab Sample ID: 490-33966-D-1-A DU
Matrix: Solid
Analysis Batch: 103163

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 102917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	110			102.2		mg/Kg	☼			8	10

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*110*		*50 - 150*

Lab Sample ID: MB 490-103163/19
Matrix: Solid
Analysis Batch: 103163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			08/28/13 17:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*76*		*50 - 150*		*08/28/13 17:08*	*1*

Lab Sample ID: MB 490-103163/20
Matrix: Solid
Analysis Batch: 103163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			08/28/13 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*50 - 150*		*08/28/13 17:29*	*1*

Lab Sample ID: LCS 490-103163/13
Matrix: Solid
Analysis Batch: 103163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			10.0	11.26		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*115*		*50 - 150*

Lab Sample ID: LCSD 490-103163/14
Matrix: Solid
Analysis Batch: 103163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			10.0	10.61		mg/Kg		106	70 - 130	6	10

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

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

Lab Sample ID: 490-34129-C-6-A DU
Matrix: Solid
Analysis Batch: 103784

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 103596

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	10.3			7.894		mg/Kg	☼			26	10

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*75*		*50 - 150*

Lab Sample ID: MB 490-103784/10
Matrix: Solid
Analysis Batch: 103784

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			08/30/13 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*50 - 150*		*08/30/13 10:33*	*1*

Lab Sample ID: MB 490-103784/9
Matrix: Solid
Analysis Batch: 103784

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			08/30/13 10:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*50 - 150*		*08/30/13 10:13*	*1*

Lab Sample ID: LCS 490-103784/5
Matrix: Solid
Analysis Batch: 103784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			10.0	10.39		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*120*		*50 - 150*

Lab Sample ID: LCS 490-103784/6
Matrix: Solid
Analysis Batch: 103784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			10.0	9.476		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*117*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-103108/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 103760 — **Prep Batch: 103108**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		5.00		mg/Kg		08/28/13 07:21	08/30/13 01:30	1
C24-C40	ND		5.00		mg/Kg		08/28/13 07:21	08/30/13 01:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*08/28/13 07:21*	*08/30/13 01:30*	*1*

Lab Sample ID: LCS 490-103108/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 103760 — **Prep Batch: 103108**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C24			50.0	45.85		mg/Kg		92	55 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*109*		*50 - 150*

Lab Sample ID: 490-33922-2 DU — **Client Sample ID: SO-241809-082313-MW-13-10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 103760 — **Prep Batch: 103108**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C10-C24	5.91			5.832		mg/Kg	☼			1	50
C24-C40	ND			ND		mg/Kg	☼			NC	50

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*70*		*50 - 150*

Lab Sample ID: MB 490-104109/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 104123 — **Prep Batch: 104109**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		5.00		mg/Kg		08/31/13 09:59	08/31/13 23:49	1
C24-C40	ND		5.00		mg/Kg		08/31/13 09:59	08/31/13 23:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*08/31/13 09:59*	*08/31/13 23:49*	*1*

Lab Sample ID: LCS 490-104109/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 104123 — **Prep Batch: 104109**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C24			50.0	40.55		mg/Kg		81	55 - 129		

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

Lab Sample ID: LCS 490-104109/2-A
Matrix: Solid
Analysis Batch: 104123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*88*		*50 - 150*

Lab Sample ID: 490-33922-3 DU
Matrix: Solid
Analysis Batch: 104123

Client Sample ID: SO-241809-082313-MW-13-15
Prep Type: Total/NA
Prep Batch: 104109

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C10-C24	9.63			15.85		mg/Kg	☼			49	50
C24-C40	ND			6.426		mg/Kg	☼			41	50

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*133*		*50 - 150*

Method: Moisture - Percent Moisture

Lab Sample ID: 490-33909-A-1 DU
Matrix: Solid
Analysis Batch: 102579

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	64			41	F	%				45	20

GC/MS VOA

Prep Batch: 102930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	5035	
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	5035	
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	5035	
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	5035	

Prep Batch: 102932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	5035	
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	5035	
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	5035	

Analysis Batch: 103156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	8260B	102930
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	8260B	102930
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	8260B	102930
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	8260B	102930
LCS 490-103156/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-103156/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-103156/6	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 103482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	8260B	102932
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	8260B	102932
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	8260B	102932
LCS 490-103482/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-103482/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-103482/7	Method Blank	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 102917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33966-D-1-A DU	Duplicate	Total/NA	Solid	5035	

Prep Batch: 102932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	5035	
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	5035	
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	5035	
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	5035	

Analysis Batch: 103163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	NWTPH-Gx	102932
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	NWTPH-Gx	102932
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	NWTPH-Gx	102932
490-33966-D-1-A DU	Duplicate	Total/NA	Solid	NWTPH-Gx	102917
LCS 490-103163/13	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	

GC VOA (Continued)

Analysis Batch: 103163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 490-103163/14	Lab Control Sample Dup	Total/NA	Solid	NWTPH-Gx	
MB 490-103163/19	Method Blank	Total/NA	Solid	NWTPH-Gx	
MB 490-103163/20	Method Blank	Total/NA	Solid	NWTPH-Gx	

Prep Batch: 103596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34129-C-6-A DU	Duplicate	Total/NA	Solid	5035	

Analysis Batch: 103784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	NWTPH-Gx	102932
490-34129-C-6-A DU	Duplicate	Total/NA	Solid	NWTPH-Gx	103596
LCS 490-103784/5	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	
LCS 490-103784/6	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	
MB 490-103784/10	Method Blank	Total/NA	Solid	NWTPH-Gx	
MB 490-103784/9	Method Blank	Total/NA	Solid	NWTPH-Gx	

GC Semi VOA

Prep Batch: 103108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	3550B	
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	3550B	
490-33922-2 DU	SO-241809-082313-MW-13-10	Total/NA	Solid	3550B	
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	3550B	
LCS 490-103108/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 490-103108/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 103760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	NWTPH-Dx	103108
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	NWTPH-Dx	103108
490-33922-2 DU	SO-241809-082313-MW-13-10	Total/NA	Solid	NWTPH-Dx	103108
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	NWTPH-Dx	103108
LCS 490-103108/2-A	Lab Control Sample	Total/NA	Solid	NWTPH-Dx	103108
MB 490-103108/1-A	Method Blank	Total/NA	Solid	NWTPH-Dx	103108

Prep Batch: 104109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	3550B	
490-33922-3 DU	SO-241809-082313-MW-13-15	Total/NA	Solid	3550B	
LCS 490-104109/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 490-104109/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 104123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	NWTPH-Dx	104109
490-33922-3 DU	SO-241809-082313-MW-13-15	Total/NA	Solid	NWTPH-Dx	104109
LCS 490-104109/2-A	Lab Control Sample	Total/NA	Solid	NWTPH-Dx	104109
MB 490-104109/1-A	Method Blank	Total/NA	Solid	NWTPH-Dx	104109

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

General Chemistry

Analysis Batch: 102579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-33909-A-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-33909-A-5 MS	Matrix Spike	Total/NA	Solid	Moisture	
490-33909-A-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
490-33922-1	SO-241809-082313-MW-13-5	Total/NA	Solid	Moisture	
490-33922-2	SO-241809-082313-MW-13-10	Total/NA	Solid	Moisture	
490-33922-3	SO-241809-082313-MW-13-15	Total/NA	Solid	Moisture	
490-33922-4	SO-241809-082313-MW-13-25	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Client Sample ID: SO-241809-082313-MW-13-5

Lab Sample ID: 490-33922-1

Date Collected: 08/23/13 08:40
Matrix: Solid
Date Received: 08/24/13 08:15
Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			102930	08/27/13 13:09	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103156	08/28/13 19:47	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	103163	08/29/13 01:24	AMC	TAL NSH
Total/NA	Prep	3550B			103108	08/28/13 07:21	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	103760	08/30/13 04:07	JML	TAL NSH
Total/NA	Analysis	Moisture		1	102579	08/26/13 09:58	RRS	TAL NSH

Client Sample ID: SO-241809-082313-MW-13-10

Lab Sample ID: 490-33922-2

Date Collected: 08/23/13 11:05
Matrix: Solid
Date Received: 08/24/13 08:15
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			102930	08/27/13 13:09	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103156	08/28/13 20:17	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103482	08/29/13 14:39	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	NWTPH-Gx		2	103784	08/30/13 11:57	AMC	TAL NSH
Total/NA	Prep	3550B			103108	08/28/13 07:21	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	103760	08/30/13 04:22	JML	TAL NSH
Total/NA	Analysis	Moisture		1	102579	08/26/13 09:58	RRS	TAL NSH

Client Sample ID: SO-241809-082313-MW-13-15

Lab Sample ID: 490-33922-3

Date Collected: 08/23/13 11:10
Matrix: Solid
Date Received: 08/24/13 08:15
Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			102930	08/27/13 13:09	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103156	08/28/13 20:47	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103482	08/29/13 15:09	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	103163	08/29/13 02:47	AMC	TAL NSH
Total/NA	Prep	3550B			104109	08/31/13 09:59	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	104123	09/01/13 00:20	JLF	TAL NSH
Total/NA	Analysis	Moisture		1	102579	08/26/13 09:58	RRS	TAL NSH

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Client Sample ID: SO-241809-082313-MW-13-25
Date Collected: 08/23/13 11:35
Date Received: 08/24/13 08:15

Lab Sample ID: 490-33922-4
Matrix: Solid
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			102930	08/27/13 13:09	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103156	08/28/13 21:18	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	8260B		1	103482	08/29/13 15:40	KKK	TAL NSH
Total/NA	Prep	5035			102932	08/27/13 13:10	GLN	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	103163	08/29/13 03:28	AMC	TAL NSH
Total/NA	Prep	3550B			103108	08/28/13 07:21	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	103760	08/30/13 05:09	JML	TAL NSH
Total/NA	Analysis	Moisture		1	102579	08/26/13 10:00	RRS	TAL NSH

Laboratory References:

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

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 11700 NE 160th St, Bothell, WA

TestAmerica Job ID: 490-33922-1
SDG: SAP 120531 / 241809

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-14

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Solids
NWTPH-Dx	3550B	Solid	C10-C24
NWTPH-Gx		Solid	C6-C12
NWTPH-Gx	5035	Solid	C6-C12

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-33922 Chain of Custody

Cooler Received/Opened On : 8/24/2013 @ 0815

Tracking # 0160 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun : 12080142

1. Temperature of rep. sample or temp blank when opened: 0.9 *Degrees Celsius*

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

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

If yes, how many and where: 1 Front

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

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

I certify that I opened the cooler and answered questions 1-6 (intial) LG

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

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

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

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

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

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

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

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

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

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

I certify that I unloaded the cooler and answered questions 7-14 (intial) CM

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

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

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

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

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

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

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

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

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

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

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

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL Houston (_____)
- ☐ XENCO (_____)
- ☑ TEST AMERICA (Nashville)
- ☐ OTHER (_____)

Please Check Appropriate Box: ☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL ☐ MOTIVA SD&CM ☑ CONSULTANT ☐ LUBES ☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: C. McClelland

INCIDENT # (ENV SERVICES): 9 2 9 9 5 0 1 7 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/23/13

PAGE: 1 of 1

PO #: 4 0 4 0 3 6 0 5 8

SAP #: 1 2 0 5 3 1

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 11700 NE 160th St, Bothell

State: WA

GLOBAL ID NO.:

ADDRESS: 20818 44th Ave West, Suite 190, Lynnwood, WA 98036

EDF DELIVERABLE TO (Name, Company, Office Location): Christine Diel, CRA

PHONE NO.: 425-563-6500

E-MAIL: cdiel@CRAworld.com

CONSULTANT PROJECT NO.: 241809

PROJECT CONTACT (Hardcopy or PDF Report to): Christina McClelland

TELEPHONE: 425-563-6500

FAX: 425-563-6599

E-MAIL: CMcClelland@craworld.com

SAMPLER NAME(S) (Print): Stephen Rasmussen

LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

Copy final report to Shell.Lab.Billing@craworld.com

See TA PM for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits

☑ SHELL CONTRACT RATE APPLIES ☐ STATE REIMBURSEMENT RATE APPLIES ☐ EDD NOT NEEDED ☐ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDC (8260B)	EDC (8011)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	NWTPH-VPH	NWTPH-EPH	n-Hexane (9071B)	Container PID Readings or Laboratory Notes
	SO-241809-082313-MW-13-5	8/23/13	840	SO					X	6	X	X	X												-1
	SO-241809-082313-MW-13-10	8/23/13	1105	SO					X	6	X	X	X												-2
	SO-241809-082313-MW-13-15	8/23/13	1110	SO					X	6	X	X	X												-3
	SO-241809-082313-MW-13-25	8/23/13	1135	SO					X	6	X	X	X												-4
	~~SO-241809-082313-MW-13-~~ SP 8/23/13																								
	Temp Blank									1															

Loc: 490
33922

TEMPERATURE ON RECEIPT C°: 0.9

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Stephen CRA to Fedex 8/23/13	TAN	8-24-13	0815
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

0.9°c

05/2/06 Rev

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9/5/2013

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-33922-1
SDG Number: SAP 120531 / 241809

Login Number: 33922
List Number: 1
Creator: Huckaba, Jimmy

List Source: TestAmerica Nashville

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

Appendix D

Blaine Field Data Sheets

WELL GAUGING DATA

Project # 130828-LB1 Date 8/28/13 Client CRA

Site 11700 NE 160TH ST, BOTHELL, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-13	0825	2					14.45	24.56	↓	

WELL DEVELOPMENT DATA SHEET

Project #: 130828-LBJ	Client: CRA
Developer: LB	Date Developed: 8/28/13
Well I.D. MW-13	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 24.56 After 24.61	Depth to Water: Before 14.45 After ~~39~~ 23.95
Reason not developed:	If Free Product, thickness:
Additional Notations: 80% = 16.47	

Volume Conversion Factor (VCF):	Well dia.		VCF
{12 x (d^2/4) x π} /231	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

2	X	10		20
1 Case Volume		Specified Volumes	=	gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump ___
Other equipment used SURGE BLOCK

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
0830		SURGED WELL		W/ SURGE BLOCK		FOR 10 MIN.
0843		START PURGE		@ 0.5	GPM	
0847	62.6	7.52	2852	>1000	2	VERY SILTY, BROWN
0851	59.9	7.35	1860	>1000	4	SILTY
0855	59.0	7.27	1842	>1000	6	SILTY
		WELL	DEWATERED	@ 6	GALLONS	: DTW: 24.22
0900						DTW: 23.78
~~0905~~ 0910						DTW: 22.71
0920						DTW: 21.98
0930						DTW: 21.83
1000						DTW: 20.94
1001		SURGED WELL		W/	SURGE BLOCK	FOR 10 MIEN
~~1005~~ 1015		START PURGE		@ 0.25	GPM	
Did Well Dewater? Y		If yes, note above.		Gallons Actually Evacuated:		15

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-13	PAGE 2 OF 2
Project #: 130828-LB1	Client: CRA

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1024	59.1	6.84	1859	>1000	8	SILTY, BROWN
1032	59.3	6.81	1843	>1000	~~8~~ 10	SILTY
———	———	WELL	DEWATERED @		10	GALLONS ———
———	———	DEVELOPMENT		COMPLETE		DTW: 23.95
						TWD: 24.61

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 92995017

DATE: 8/28/13

ADDRESS 1700 NE 160TH ST

CITY & STATE BOTHELL, WA

Well ID	Observations Upon Arrival: Manway Cover, Type, Condition & Size					Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition		Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials
MW-13	Standpipe	Flush (circled)	G (circled)	P	Size (inch) 8	Y (circled)	N	G (circled)	R	G	R	NL (circled)	G (circled)	P		Y	N (circled)	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	

TOTAL # CAPS REPLACED = 0 | 1 = TOTAL # OF LOCKS REPLACED

Condition of Soil Boring Patches or Abandoned Monitoring Wells			If POOR, Borings/Well IDs or Location Description		Photos		
G	P	N/A (circled)			Y	N	

Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted	Photos of Condition		Repair Date and PM Initials
NA	X	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A		Y	N	
Building																	
Building w/ Fence Comp.																	
Fenced Compound																	
Trailer																	

Number of Drums On-site	Does the Label Reveal the Source of the Contents			Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved	Photos of Drum Condition		Date Drums Removed from Site and PM Initials
3	Y (circled)	N	N/A	Y (circled)	N	N/A	G (circled)	P	N/A	Y (circled)	N	Y (circled)	N	N/A		Y	N (circled)	

G = Good (Acceptable) R = Replaced

P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

LEE BURES / BTS

Print or type Name of Field Personnel & Consultant Company

SHELL BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT SHELL FACILITIES IN THE STATE OF WASHINGTON OR OREGON. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS, IS MADE UP INTO LOADS OF APPROPRIATE SIZE TO BE TRANSPORTED & PROCESSED BY A SHELL APPROVED WASTE HAULER.

The contractor performing this work is BLAINE TECH SERVICES, INC. 22727 72ND Ave South, Suite D – 102, Kent, WA 98032. Blaine Tech Services, Inc. is authorized by SHELL OIL COMPANY (SHELL) to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the SHELL facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Shell facility to BTS; from one Shell facility to BTS via another Shell facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of SHELL.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the SHELL facility described below:

929950 17	Perry Pineda
INCIDENT #	Shell Engineer

11700	NE 160TH	ST.	BOTHELL,	WA
street number	street name		city	state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-13	10		

added equip. rinse water / 1

any other adjustments /

TOTAL GALS. RECOVERED 11

loaded onto BTS vehicle # 88

BTS event #	time	date
130628-LB1	1040	6/28/13

signature

* *

RECEIVED AT BTS Kent

time / date / /

unloaded by signature

Job Clearance Form

CONTRACTOR INSTRUCTIONS PRIOR TO START OF WORK: 1. Review form, check appropriate boxes, read and sign at the bottom of the form. 2. Inform site representative of the job to be performed and potential safety concerns and obtain signature.

Station #	Station Address:	Work Order Number:	Date:
9299507	1700 NE 160th St. Bothell, WA	130828-LB1	8/28/13

Contractor Company Name:	Contractor person in charge (print name):	Number of Workers:	JSA Reference Number: (If required)	Start Time:	End Time:	Labor:	Travel Time:	Travel Distance:
Blaine Tech Services	Lee Bures	1		0815	1040			

Problem/Work Description: Develop groundwater well MW-13

Return Call: yes / no

Damage Claim: yes / no

PPE REQUIRED (CHECK AND/OR FILL BLANK SPACE)

- [x] SAFETY VEST
- [x] PROTECTIVE CLOTHING
- [x] HARD HAT
- [x] GLOVES
- [x] SHOES & BOOTS
- [x] SAFETY GLASSES/GOGGLES
- [ ] HEARING PROTECTION
- [ ] WELDING PPE
- [ ] RESPIRATOR
- [ ] OTHER ____

Contractor to complete this section below if circumstances on site or specific to this job, may generate additional hazards, that are not described in the JSA

Task / Step	Hazards not covered by JSA	How to reduce or eliminate risk including PPE to be worn
See JSA	NA	NA

Work documentation requirements: **Lower Risk** - no JSA required; **Medium Risk / Higher Risk tasks** - JSA required; **Higher Risk** - JSA required & appropriate checklist completed (see below)

Examples of Higher / Medium tasks

- [ ] Works at heights: in all cases on open sites - on closed sites if no JSA present
- [ ] Trenching or excavation related to underground tank / product lines
- [ ] Heavy lifting
- [ ] Work in confined spaces (e.g. tank, interceptor or deep manhole entry)
- [ ] Hot work with risk of product or vapor ignition
- [ ] LPG system degassing, installation or maintenance

This form must be completed for each job and updated and re-signed if circumstances change or additional hazards identified.

SIGN IN

Operating sites: to be signed by the Site Representative

Non-operating sites: to be signed by Contractor Representative only

GENERAL SAFETY CHECKS

- Have all site personnel been informed?
- Has fuel delivery service been informed?
- Is a fuel delivery due?
- Have isolation procedures been agreed - lock out/tag out?
- Are work areas cordoned off to protect workers, site staff & public?
- Other

Contractor representative name	Signature
Lee Bures	[signature]
Site representative name	**Signature**
I have discussed job clearance form with contractor	
Jack Cooper	[signature]

SIGN OUT

GENERAL SAFETY CHECKS

- Has the work area been left tidy and safe?
- Are site personnel aware of status of work including remaining isolation?
- Are changes to equipment documented and communicated?
- All incidents, near incidents, unsafe situations reported?
- Other

Contractor signature	
[signature]	
Site representative name	**Signature**
I have discussed job clearance form with contractor	
Jack Cooper	[signature]

PARTS - Ordered, Replaced and/or Disposed Of (include model and serial #s as appropriate)

The contractor through its authorized representative shall sign, issue and be solely responsible for all job clearance forms and the obligations arising there under applicable to the work.

This form covers important reminders and is not intended to relieve the contractor from safely performing the work in compliance with all applicable laws and regulations.
The Site Representative may require the contractor to stop work if it appears that the contractor or any of its workers are failing to comply with the requirements in the applicable items of this form or other applicable safety requirements.

BLAINE TECH SERVICES

Daily Tailgate Safety Meeting Checklist & Hazard Mitigation Form

TGSM

Site Address: 11700 NE 160TH ST, BOTHELL, WA	Date: 8/28/13
Check-In with site representative completed?	☒ Yes ☐ N/A
Is **fuel delivery** scheduled for today?	☐ Yes ☒ No ☐ N/A
Emergency pump cut-off switch located?	☒ Yes ☐ N/A
First aid kit located and confirmed ready-to-use?	☒ Yes
Fire extinguisher located and confirmed ready-to-use?	☒ Yes
Eye wash located and confirmed ready-to-use?	☒ Yes
HASP — **Emergency Services** information located & reviewed?	☒ Yes
HASP — **Hospital** map & route located and reviewed?	☒ Yes
HASP — **Special Hazard Notice** section reviewed?	☒ Yes
HASP — **Site Status** confirmed or amended, dated and initialed?	☒ Yes
HASP — **Emergency Response** procedures reviewed with all work crew members?	☒ Yes
HASP — **Compliance Roster** signed by all work crew members?	☒ Yes
Site walk has been performed to locate wells and identify additional hazards?	☒ Yes
Job Safety Analysis (JSA) for each task located & reviewed by all work crew members?	☒ Yes
Work Area Plans reviewed for suitability and effectiveness given current site conditions?	☒ Yes ☐ N/A
Traffic Control Plans reviewed for suitability given current road, traffic & weather conditions?	☐ Yes ☒ N/A
Stop Work Authority reviewed and understood by all work crew members?	☒ Yes

- In the space below, note unaddressed hazards and conditions that might compromise compliance with Approved Procedures and/or JSA's or impede the safe and proper execution of the Work Plan, Work Area Plan(s) and/or Traffic Control Plan(s).
- Report unaddressed hazards and adverse conditions to the Project Manager during Pre-Start Call-In **and** as hazards are identified or conditions change throughout the workday.
- DO NOT COMMENCE OR RESTART WORK until PM has been notified and mitigation measures approved.

Time	Hazard or Adverse Condition	PM Initials	Hazard Control Measure

Site representative briefed on planned work activities and Work Area Plans?	☒ Yes ☐ N/A
Job Clearance Form completed?	☒ Yes
Pre-Start Call-In completed and approval to start work received from Project Manager?	☒ Yes

Printed Name	Signature	Time
LEEBURES		0817

WELL GAUGING DATA

Project # 130904-LB1 Date 9/4/13 Client CRA

Site 11700 NE 160TH ST, BOTHELL, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-3	0820	4	ODOR	22.22	0.02	—	22.24	—		
MW-4	0801	4					32.51	39.11		
MW-5	0809	4					21.78	24.63		
MW-7	0748	4					39.83	39.95		
MW-8	0815	2					13.43	24.61		
MW-10	1340	2					DRY	24.74		
MW-11	0828	2					12.26	19.83		
MW-12	0755	2					49.47	59.45		
MW-13	0835	2					14.36	24.53		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-L81	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-3	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): —	Depth to Water (ft.): 22.24
Depth to Free Product: 22.22	Thickness of Free Product (feet): 0.02
Referenced to: PVC Grade	Flow Cell Type: ___

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

Start Purge Time: ___ Flow Rate: ___ Pump Depth: ___

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
—	—		0.02'	OF SPH	DETECTED		WI	
				INTERFACE	PROBE		—	
	—		VERIFIED VIA BAILER, SHOCK BACK					
			DOWN WELL		—			
—	—	—	NO SAMPLE TAKEN			—		

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-481	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-4	Well Diameter (in.): 2 3 (4) 6 8 ____
Total Well Depth (ft.): 39.11	Depth to Water (ft.): 32.51
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

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

Start Purge Time: 0930 Flow Rate: 100 mL/MIN Pump Depth: 38'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0939	16.16	6.63	274	13	1.26	93.8	900	32.59
0942	16.21	6.62	284	12	1.26	90.4	1200	32.62
0945	16.26	6.61	287	11	1.25	86.3	1500	32.65
0948	16.28	6.59	288	10	1.24	85.2	1800	32.68
0951	16.29	6.58	290	10	1.23	84.3	2100	32.71

Did well dewater? Yes (No) Amount actually evacuated: 2 L

Sampling Time: 0952 Sampling Date: 9/4/13

Sample I.D.: GW-241809-090413-LB-MW-4 Laboratory: TA

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

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-LB1	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-5	Well Diameter (in.): 2 3 (4) 6 8 ____
Total Well Depth (ft.): 24.63	Depth to Water (ft.): 21.78
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

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

Start Purge Time: 1027 Flow Rate: 100 mL/MIN Pump Depth: 23.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1033	15.63	6.48	440	11	1.65	94.4	600	21.81
1036	15.69	6.47	443	10	1.53	91.1	900	21.82
1039	15.60	6.46	444	10	1.51	86.9	1200	21.82
1042	15.67	6.46	445	9	1.50	85.3	1500	21.83
1045	15.66	6.45	446	8	1.49	84.5	1800	21.83

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

Sampling Time: 1046 Sampling Date: 9/4/13

Sample I.D.: GW-241809-090413-LB-MW-5 Laboratory: TA

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

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-LB1	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-7	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 39.95	Depth to Water (ft.): 39.83
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

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

Start Purge Time: ___ Flow Rate: ___ Pump Depth: ___

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
			INSUFFICIENT	WATER	TO	SAMPLE		
			NO	SAMPLE	TAKEN			

Did well dewater? Yes No Amount actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: Laboratory:

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

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-LB1	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-8	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 24.61	Depth to Water (ft.): 13.43
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

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

Start Purge Time: 1113 Flow Rate: 100 mL/MIN Pump Depth: 16'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1119	16.65	6.25	351	13	1.92	95.1	600	13.51
1122	16.64	6.24	350	11	1.88	91.6	900	13.53
1125	16.59	6.23	347	10	1.81	89.5	1200	13.56
1128	16.58	6.22	347	9	1.80	86.3	1500	13.58
1131	16.57	6.21	346	8	1.79	85.5	1800	13.61

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

Sampling Time: 1132 Sampling Date: 9/4/13

Sample I.D.: GW-241809-090413-LB-MW-8 Laboratory: TA

Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D) Others: SEE COC

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130804-LBJ	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-10	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 24.74	Depth to Water (ft.): DRY
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type:_____

Purge Method: 2" Grundfos Pump / Peristaltic Pump / Bladder Pump
Sampling Method: Dedicated Tubing / New Tubing / Other_____

Start Purge Time:_____ Flow Rate: _____ Pump Depth:_____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
			WELL	IS DRY				
			NO SAMPLE	TAKEN				

Did well dewater? Yes / No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-L81	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-11	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 19.83	Depth to Water (ft.): 12.26
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other____

Start Purge Time: 1207 Flow Rate: 100 mL/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1213	16.62	6.95	326	11	1.10	-15.3	600	12.31
1215	16.72	6.96	326	10	0.97	-17.3	900	12.34
1218	16.78	6.97	327	10	0.95	-18.1	1200	12.36
1221	16.77	6.98	327	9	0.94	-19.8	1500	12.39
1224	16.76	6.99	328	10	0.93	-20.4	1800	12.41

Did well dewater? Yes (No)	Amount actually evacuated: 1.8L
Sampling Time: 1225	Sampling Date: 9/4/13
Sample I.D.: GW-241809-090413-LB-MW-11	Laboratory: TA
Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D)	Other: SEE COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904-LB1	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-12	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 59.45	Depth to Water (ft.): 49.47
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

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

Start Purge Time: 0843 Flow Rate: 100 ML/MIN Pump Depth: 55'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0852	16.15	6.39	424	15	1.87	84.4	~~1000~~ 900	49.58
0855	15.82	6.40	425	12	1.78	82.2	1200	49.61
0858	15.45	6.43	426	12	1.72	80.4	1500	49.64
0901	15.43	6.44	424	11	1.71	79.2	1800	49.67
0904	15.42	6.45	425	10	1.70	78.6	2100	49.69

Did well dewater? Yes (No)	Amount actually evacuated: 2.1 L
Sampling Time: 0905	Sampling Date: 9/4/13
Sample I.D.: GW-241809-090413-LB-MW-12	Laboratory: TA
Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D)	Other: SEE COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130904 -LB1	Client: CRA
Sampler: LB	Gauging Date: 9/4/13
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 24.53	Depth to Water (ft.): 14.30
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump (Peristaltic) Pump Bladder Pump
Sampling Method: Dedicated Tubing New (Tubing) Other ____

Start Purge Time: 1250 Flow Rate: 100 mL/MIN Pump Depth: 17'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1256	16.11	6.45	1051	13	1.21	-10.4	600	14.41
1259	16.09	6.46	1052	13	1.15	-14.5	900	14.44
1302	16.07	6.53	1059	11	1.14	-21.9	1200	14.47
1305	16.06	6.54	1058	10	1.13	-22.7	1500	14.49
1308	16.05	6.55	1057	9	1.12	-23.6	1800	14.51

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

Sampling Time: 1309 Sampling Date: 9/4/13

Sample I.D.: GW-241809-090413-LB-MW-13 Laboratory: TA

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

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

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

☐ CALSCIENCE (_____)
☐ SPL Houston (_____)
☐ XENCO (_____)
☑ TEST AMERICA (_____)
☐ OTHER (_____)

Please Check Appropriate Box:

☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☑ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Christina McClelland - 241809.2012.02

INCIDENT # (ENV. SERVICES): 9 2 9 9 5 0 1 7 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9/4/13

PAGE: 1 of 1

PO #:

SAP #: 1 2 0 5 3 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

SITE ADDRESS: Street and City: 11700 NE 160th, Bothell

State: WA

GLOBAL ID NO.: NA

ADDRESS: 20735 Belshaw Avenue, Carson, CA 90746

EDF DELIVERABLE TO (Name, Company, Office Location): CRA, Seattle, WA

PHONE NO.: 425-563-6500

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

CONSULTANT PROJECT NO.: 130904-L81

PROJECT CONTACT (Hardcopy or PDF Report to): Lorin King

SAMPLER NAME(S) (Print): LEE BURES

LAB USE ONLY

TELEPHONE: (310) 885-4455 x 108

FAX: (310) 637-5802

E-MAIL: lking@blainetech.com

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

REQUESTED ANALYSIS

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

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

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

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED

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

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	SAMPLE ID	PROJECT NUMBER	DATE (MMDDYY)	SAMPLER - INITIALS	WELL ID	TIME	MATRIX	PRESERVATIVE: HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDC (8260B)	EDC (8011)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	Napthalenes (8270-SIM)	TPH-D	NWTPH-VPH	NWTPH-EPH	Container PID Readings or Laboratory Notes
	GW -	241809 -	090413 -	LB -	MW-4	0952	WG	X					8	X	X	X										X			
	GW -	241809 -	090413 -	LB -	MW-5	1046	WG	X					8	X	X	X										X			
	GW -	241809 -	090413 -	LB -	MW-8	1132	WG	X					8	X	X	X										X			
	GW -	241809 -	090413 -	LB -	MW-11	1225	WG	X			X		10	X	X	X									X	X			
	GW -	241809 -	090413 -	LB -	MW-12	0925	WG	X			X		10	X	X	X									X	X			
	GW -	241809 -	090413 -	LB -	MW-13	1309	WG	X			X		10	X	X	X									X	X			
	-	-	-	-																									
	-	-	-	-																									
	-	-	-	-																									
	-	-	-	-																									

Relinquished by: (Signature)	Received by: (Signature) SHIPPED VIA FEDEX	Date: 9/4/13	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 92995017 ADDRESS 11700 NE 160TH ST

DATE: 9/4/13 CITY & STATE BOTHELL, WA

Well ID	Observations Upon Arrival: Manway Cover, Type, Condition & Size					Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition		Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials
MW-3	Standpipe	(Flush)	(G)	P	Size (inch) 12	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-4	Standpipe	(Flush)	(G)	P	Size (inch) 12	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-5	Standpipe	(Flush)	(G)	P	Size (inch) 12	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-7	Standpipe	(Flush)	(G)	P	Size (inch) 12	(Y)	N	(G)	R	(G)	R	NL	G	(P)	CRACKED APRON	Y	(N)	
MW-8	Standpipe	(Flush)	(G)	P	Size (inch) 8	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-10	Standpipe	(Flush)	(G)	P	Size (inch) 8	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-11	Standpipe	(Flush)	(G)	P	Size (inch) 8	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-12	Standpipe	(Flush)	(G)	P	Size (inch) 8	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
MW-13	Standpipe	(Flush)	(G)	P	Size (inch) 8	(Y)	N	(G)	R	(G)	R	NL	(G)	P		Y	(N)	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
TOTAL # CAPS REPLACED =									0		0	= TOTAL # OF LOCKS REPLACED						

Condition of Soil Boring Patches or Abandoned Monitoring Wells	G	P	(N/A)	If POOR, Borings/Well IDs or Location Description		Y	N	

Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted	Photos of Condition		Repair Date and PM Initials
NA	X	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A		Y	N	
Building																	
Building w/ Fence Comp.																	
Fenced Compound																	
Trailer																	

Number of Drums On-site	Does the Label Reveal the Source of the Contents			Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved	Photos of Drum Condition		Date Drums Removed from Site and PM Initials
3	(Y)	N	N/A	(Y)	N	N/A	(G)	P	N/A	(Y)	N	(Y)	N	N/A		Y	(N)	

G = Good (Acceptable) R = Replaced

P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

LEE BURG / BTS

Print or type Name of Field Personnel & Consultant Company

SHELL BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT SHELL FACILITIES IN THE STATE OF WASHINGTON OR OREGON. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS, IS MADE UP INTO LOADS OF APPROPRIATE SIZE TO BE TRANSPORTED & PROCESSED BY A SHELL APPROVED WASTE HAULER.

The contractor performing this work is BLAINE TECH SERVICES, INC. 22727 72ND Ave South, Suite D – 102, Kent, WA 98032. Blaine Tech Services, Inc. is authorized by SHELL OIL COMPANY (SHELL) to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the SHELL facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Shell facility to BTS; from one Shell facility to BTS via another Shell facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of SHELL.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the SHELL facility described below:

92995017 — INCIDENT #

Perry Pineda — Shell Engineer

11700 — street number

NE 160TH ST. — street name

BOTHELL — city

WA — state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-4	1.0		
MW-5	0.5		
MW-8	0.5		
MW-11	0.5		
MW-12	1.0		
MW-13	0.5		

added equip. rinse water / 2.0

any other adjustments /

TOTAL GALS. RECOVERED 6.0

loaded onto BTS vehicle # 88

BTS event # 130924-481 — time 1350 — date 9/4/13

signature

****

RECEIVED AT BTS Kent — time — date

unloaded by

signature

Job Clearance Form

CONTRACTOR INSTRUCTIONS PRIOR TO START OF WORK: 1. Review form, check appropriate boxes, read and sign at the bottom of this form. 2. Inform dealer, manager or site representative of the job to be performed and potential safety concerns and obtain signature.

Station#	Station Address:			Work Order Number:			Date:		
92995017	11700 NE 160TH ST, BOTHELL, WA			130904-LBI			9/4/13		
Contractor Company Name:	Contractor person in charge (print name):	Number of Workers:		JSA Reference Number: (if required)	Start Time:	End Time:	Labor:	Travel Time:	Travel Distance:
BLAINE TECH SERVICES	LEE BURES	1			0730	1350			

Problem/Work Description:

GAUGE, PURGE, + SAMPLE 9 GROUND WATER WELLS

Return Call: yes / no

Damage Claim: yes / no

PPE REQUIRED (CHECK AND/OR FILL BLANK SPACE)

- [X] SAFETY VEST
- [X] PROTECTIVE CLOTHING
- [X] HARD HAT
- [X] GLOVES
- [X] SHOES & BOOTS
- [X] SAFETY GLASSES/GOGGLES
- [ ] HEARING PROTECTION
- [ ] WELDING PPE
- [ ] RESPIRATOR
- [ ] OTHER ____________

Contractor to complete this section below if circumstances on site or specific to this job, may generate additional hazards, that are not described in the JSA

TASK / STEP	Hazards not covered by JSA	How to reduce or eliminate risk - Include PPE to be Worn
GAUGE	NA	NA
PURGE		
SAMPLE		

Work documentation requirements: Lower Risk - no JSA required; Medium Risk / Higher Risk tasks - JSA required; Higher Risk - JSA required & appropriate checklist completed (see below)

Examples of Higher / Medium tasks:

- [ ] Works at heights: in all cases on open sites - on closed sites if no JSA present
- [ ] Trenching or excavation related to underground tank / product lines
- [ ] Heavy lifting
- [ ] Work in confined spaces (e.g. tank, interceptor or deep manhole entry)
- [ ] Hot work with risk of product or vapor ignition
- [ ] LPG system degassing, installation or maintenance

This form must be completed for each job and updated and re-signed if circumstances change or additional hazards identified.

SIGN IN

Operating sites: to be signed by the Site Representative

Non-operating sites: to be signed by Contractor Representative only

GENERAL SAFETY CHECKS

- Have all site personnel been informed?
- Has fuel delivery service been informed?
- Is a fuel delivery due?
- Have isolation procedures been agreed - lock out/tag out?
- Are work areas cordoned off to protect workers, site staff & public?
- Other

Contractor representative name	Signature
LEE BURES	[signature]
Site representative name	Signature
Jack Cooper	[signature]

SIGN OUT

GENERAL SAFETY CHECKS

- Has the work area been left tidy and safe?
- Are site personnel aware of status of work including remaining isolation?
- Are changes to equipment documented and communicated?
- All incidents, near incidents, unsafe situations reported?
- Other

Contractor signature
[signature]

Site representative name	Signature
Yadira ma	[signature]

PARTS - Ordered, Replaced and/or Disposed Of (include model and serial #s as appropriate)

The contractor through its authorized representative shall sign, issue and be solely responsible for all job clearance forms and the obligations arising here under applicable to the work.

This form covers important reminders and is not intended to relieve the contractor from safely performing the work in compliance with all applicable laws and regulations.
The Site Representative may require the contractor to stop work if it appears that the contractor or any of its workers are failing to comply with the requirements in the applicable items of this form or other applicable safety requirements.

Page 1 of 1
Revision No.: 1.0
Date Issued: May 2007

BLAINE TECH SERVICES

Daily Tailgate Safety Meeting Checklist & Hazard Mitigation Form

TGSM

Site Address: 17700 NE 600TH ST, BOTHELL, WA	Date: 9/4/13
Check-In with site representative completed?	☒ Yes ☐ N/A
Is **fuel delivery** scheduled for today?	☐ Yes ☒ No ☐ N/A
Emergency pump cut-off switch located?	☒ Yes ☐ N/A
First aid kit located and confirmed ready-to-use?	☒ Yes
Fire extinguisher located and confirmed ready-to-use?	☒ Yes
Eye wash located and confirmed ready-to-use?	☒ Yes
HASP — **Emergency Services** information located & reviewed?	☒ Yes
HASP — **Hospital** map & route located and reviewed?	☒ Yes
HASP — **Special Hazard Notice** section reviewed?	☒ Yes
HASP — **Site Status** confirmed or amended, dated and initialed?	☒ Yes
HASP — **Emergency Response** procedures reviewed with all work crew members?	☒ Yes
HASP — **Compliance Roster** signed by all work crew members?	☒ Yes
Site walk has been performed to locate wells and identify additional hazards?	☒ Yes
Job Safety Analysis (JSA) for each task located & reviewed by all work crew members?	☒ Yes
Work Area Plans reviewed for suitability and effectiveness given current site conditions?	☒ Yes ☐ N/A
Traffic Control Plans reviewed for suitability given current road, traffic & weather conditions?	☒ Yes ☐ N/A
Stop Work Authority reviewed and understood by all work crew members?	☒ Yes

- In the space below, note unaddressed hazards and conditions that might compromise compliance with Approved Procedures and/or JSA's or impede the safe and proper execution of the Work Plan, Work Area Plan(s) and/or Traffic Control Plan(s).
- Report unaddressed hazards and adverse conditions to the Project Manager during Pre-Start Call-In **and** as hazards are identified or conditions change throughout the workday.
- DO NOT COMMENCE OR RESTART WORK until PM has been notified and mitigation measures approved.

Time	Hazard or Adverse Condition	PM Initials	Hazard Control Measure

Site representative briefed on planned work activities and Work Area Plans?	☒ Yes ☐ N/A
Job Clearance Form completed?	☒ Yes
Pre-Start Call-In completed and approval to start work received from Project Manager?	☒ Yes

Printed Name	Signature	Time
LEE BURES		0734

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 11700 NE 160TH ST, BOTHELL, WA				PROJECT NUMBER 130904-LB1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI 556	SEA #2	9/4/13 0500	PH 4.0 7.0 10.0	4.13 7.14 10.10	4.01 ✓ 7.00 ✓ 10.01 ✓	15.5	LB
			COND 3900	3942	3901 ✓	15.6	LB
			ORP 244	268.4	244.3 ✓	15.6	LB
			DO 100%	89.4%	100.1 % ✓	—	LB

WELL GAUGING DATA

Project # 131205-RR2 Date 12/5/13 Client CRA

Site 11700 NE 160th St., Bothell

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOS	Notes
MW-3	1320	4					23.30	34.60		
MW-4	1240	4					33.95	39.15		
MW-5	1247	4					22.20	24.59		
MW-7	1230	4					39.88	39.95		
MW-8	1255	2					13.50	24.64		
MW-10	1306	2					DRY	24.70		
MW-11	1325	2					13.95	19.80		
MW-12	1235	2					50.20	59.41		
MW-13	1329	2					13.06	24.60		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 131205-7H2	Client: CRA
Sampler: JK	Gauging Date: 12/5/13
Well I.D.: MW-3	Well Diameter (in.): 2 3 (4) 6 8 ____
Total Well Depth (ft.): 34.60	Depth to Water (ft.): 23.30
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI556

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ Bladder Pump
Sampling Method: Dedicated Tubing (New Tubing) Other ____

Start Purge Time: 1410 Flow Rate: 100mL/min Pump Depth: 26.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1416	11.90	6.95	611	15	1.15	1.0	600	23.32
1419	11.91	6.91	605	14	1.01	5.7	900	23.38
1422	11.91	6.91	609	14	1.02	10.9	1200	23.38
1425	11.91	6.93	609	13	1.02	11.5	1500	23.39
1428	11.90	6.93	613	13	1.03	9.7	1800	23.39

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

Sampling Time: 1429 Sampling Date: 12/5/13

Sample I.D.: GW-241809-120513-JK-MW-3 Laboratory: T-A

Analyzed for: (TPH/G) (BTEX) MTBE (TPH/D) Other: Spec-o-C

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 131205-RK2	Client: CRA
Sampler: RK	Gauging Date: 12/05/13
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 24.60	Depth to Water (ft.): 13.06
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ Bladder Pump
Sampling Method: ~~Dedicated Tubing~~ New Tubing Other____

Start Purge Time: 1330 Flow Rate: 100ml/min Pump Depth: 16.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or ~~µS/cm~~)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1336	12.01	6.67	636	15	1.25	7.2	600	13.12
1339	12.05	6.60	634	14	1.20	5.1	900	13.15
1342	12.07	6.61	640	13	1.15	3.7	1200	13.19
1345	12.08	6.61	642	13	1.16	2.8	1500	13.22
1348	12.08	6.63	641	10	1.17	3.1	1800	13.24

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

Sampling Time: 1349 Sampling Date: 12/5/13

Sample I.D.: GW-241809-120513-RK-MW-13 Laboratory: T-A-

Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D) (Other): See C.O.C.

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

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- ☐ CALSCIENCE ( )
- ☐ SPL Houston ( )
- ☐ XENCO ( )
- ☑ TEST AMERICA ( )
- ☐ OTHER ( )

Please Check Appropriate Box:

- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: Christina McClelland - 241809.2012.02

INCIDENT # (ENV SERVICES): 9 2 9 9 5 0 1 7 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #: 1 2 0 5 3 1

DATE: 12/8/13

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

ADDRESS: 20735 Belshaw Avenue, Carson, CA 90746

PROJECT CONTACT (Hardcopy or PDF Report to): Lorin King

TELEPHONE: (310) 885-4455 x 108

FAX: (310) 637-5802

E-MAIL: lking@blainetech.com

SITE ADDRESS: Street and City: 11700 NE 160th, Bothell

State: WA

GLOBAL ID NO.: NA

EDF DELIVERABLE TO (Name, Company, Office Location): CRA, Seattle, WA

PHONE NO.: 425-563-6500

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

CONSULTANT PROJECT NO.: 13RE05-RH2

SAMPLER NAME(S) (Print): Ricky Dhupar

LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☐ RECEIPT VERIFICATION REQUESTED

SPECIAL INSTRUCTIONS OR NOTES:

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

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

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

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

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	SAMPLE ID	PROJECT NUMBER	DATE (MMDDYY)	SAMPLER INITIALS	WELL ID	TIME	MATRIX	PRESERVATIVE: HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.
	GW	241809	120513	RD	MW-3	1429	WG	X			X		8
	GW	241809	120513	RD	MW-13	1349	↓	X			X		10

REQUESTED ANALYSIS

Well ID	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDC (8260B)	EDC (8011)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)				Napthalenes (8270-SIM)	TPH-O	NWTPH-VPH	NWTPH-EPH			Container PID Readings or Laboratory Notes
MW-3	X	X	X													X					
MW-13	X	X	X												X	X					

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	Shipped via FedEx	12/5/13	

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 92995017

ADDRESS 11700 NE 180th St.

DATE: 12/4/13

CITY & STATE Bothell WA

Well ID	Observations Upon Arrival: Manway Cover, Type, Condition & Size						Well Labeled / Painted Properly		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition		Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials
MW-3	Standpipe	Flush	G	P	Size (inch) 12		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-4	Standpipe	Flush	G	P	Size (inch) 12		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-5	Standpipe	Flush	G	P	Size (inch) 12		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-7	Standpipe	Flush	G	P	Size (inch) 12		Y	N	G	R	G	R	NL	G	P	Apron Cracked	Y	N	
MW-8	Standpipe	Flush	G	P	Size (inch) 8		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-10	Standpipe	Flush	G	P	Size (inch) 8		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-11	Standpipe	Flush	G	P	Size (inch) 8		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-12	Standpipe	Flush	G	P	Size (inch) 8		Y	N	G	R	G	R	NL	G	P		Y	N	
MW-13	Standpipe	Flush	G	P	Size (inch) 8		Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)		Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)		Y	N	G	R	G	R	NL	G	P		Y	N	
TOTAL # CAPS REPLACED =									0		0	= TOTAL # OF LOCKS REPLACED							

Condition of Soil Boring Patches or Abandoned Monitoring Wells	G	P	N/A	If POOR, Borings/Well IDs or Location Description	Y	N	
						N	

Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted	Photos of Condition		Repair Date and PM Initials
NA	X	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A		Y	N	
Building																	
Building w/ Fence Comp.																	
Fenced Compound																	
Trailer																	

Number of Drums On-site	Does the Label Reveal the Source of the Content?			Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min. Business Interference			Detailed Explanation of Any Issues Resolved	Photos of Drum Condition		Date Drums Removed from Site and PM Initials
	Y	N	N/A	Y	N	N/A	G	P	N/A	Y	N	Y	N	N/A		Y	N	

G = Good (Acceptable) R = Replaced

P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Ricky Dhuyar BTS

Print or type Name of Field Personnel & Consultant Company

SHELL BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT SHELL FACILITIES IN THE STATE OF WASHINGTON OR OREGON. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS, IS MADE UP INTO LOADS OF APPROPRIATE SIZE TO BE TRANSPORTED & PROCESSED BY A SHELL APPROVED WASTE HAULER.

The contractor performing this work is BLAINE TECH SERVICES, INC. 22727 72ND Ave South, Suite D – 102, Kent, WA 98032. Blaine Tech Services, Inc. is authorized by SHELL OIL COMPANY (SHELL) to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the SHELL facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Shell facility to BTS; from one Shell facility to BTS via another Shell facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of SHELL.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the SHELL facility described below:

92995017		Perry Pineda
INCIDENT #		Shell Engineer

11700	NE	160th	St.	Bothell	WA
street number		street name		city	state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-3	0.5		
MW-13	0.5		

added equip. rinse water 1 1

any other adjustments

TOTAL GALS. RECOVERED 2

loaded onto BTS vehicle # 90

BTS event # 131205-PW2 time 1530 date 12/5/13

signature

* *

RECEIVED AT BTS Kent time date

unloaded by

signature

Job Clearance Form

CONTRACTOR INSTRUCTIONS PRIOR TO START OF WORK: 1. Review form, check appropriate boxes, read and sign at the bottom of this form. 2. Inform dealer, manager or site representative of the job to be performed and potential safety concerns and obtain signature.

Station #: 92495017	Station Address: 11700 NE 160th St., Bothell		Work Order Number: 131205-RK2	Date: 12/5/13
Contractor Company Name: BTS	Contractor person in charge (print name): Rickey Draper	Number of Workers: 1	JSA Reference Number: (If required)	Start Time: 1205 / End Time: 1435
Problem/Work Description: Ground water Monitoring				Return Call: yes / no Damage Claim: yes / no

PPE REQUIRED (CHECK AND/OR FILL BLANK SPACE)

- [x] SAFETY VEST
- [x] PROTECTIVE CLOTHING
- [x] HARD HAT
- [x] GLOVES
- [x] SHOES & BOOTS
- [x] SAFETY GLASSES/GOGGLES
- [ ] HEARING PROTECTION
- [ ] WELDING PPE
- [ ] RESPIRATOR
- [ ] OTHER ____________

Contractor to complete this section below if circumstances on the day of operation differ from JSA...

TASK STEP	Hazards not covered by JSA	How to reduce or eliminate risk - include PPE to be Worn
Gauge Purge Sample	N/A	

Work documentation requirements — Lower Risk - no JSA required — Medium Risk / Higher Risk tasks - JSA required — Higher Risk - JSA required & appropriate checklist completed (see below)

Examples of Higher / Medium tasks.

- [ ] Works at heights: in all cases on open sites - on closed sites if no JSA present
- [ ] Trenching or excavation related to underground tank / product lines
- [ ] Heavy lifting
- [ ] Work in confined spaces (e.g. tank, interceptor or deep manhole entry)
- [ ] Hot work with risk of product or vapor ignition
- [ ] LPG system degassing, installation or maintenance

This form must be completed for each job and updated and re-signed if circumstances change or additional hazards identified.

SIGN IN

Operating sites: to be signed by the Site Representative

Non-operating sites: to be signed by Contractor Representative only

GENERAL SAFETY CHECKS

- Have all site personnel been informed?
- Has fuel delivery service been informed?
- Is a fuel delivery due?
- Have isolation procedures been agreed - lock out tag out?
- Are work areas cordoned off to protect workers, site staff & public?
- Other

Contractor representative name	Signature
Jack Cooper	Jack Cooper

Site representative name	Signature
I have discussed job clearance form with contractor	
Rickey Draper	[signature]

SIGN OUT

GENERAL SAFETY CHECKS

- Has the work area been left tidy and safe?
- Are site personnel aware of status of work including remaining isolation?
- Are changes to equipment documented and communicated?
- All incidents, near incidents, unsafe situations reported?
- Other

Contractor signature
[signature]

Site representative name	Signature
I have discussed job clearance form with contractor	
James Nelson	[signature]

PARTS - Ordered, Replaced and/or Disposed Of (include model and serial no. as appropriate)

The contractor through its authorized representative shall sign, issue and be solely responsible for all job clearance forms and the obligations arising there under applicable to the work.

This form covers important reminders and is not intended to relieve the contractor from safely performing the work in compliance with all applicable laws and regulations.

The Site Representative may require the contractor to stop work if it appears that the contractor or any of its workers are failing to comply with the requirements in the applicable terms of this form or other applicable safety requirements.

Page 1 of 1
Revision No.: 1.0
Date Issued: May 2007

BLAINE TECH SERVICES

Daily Tailgate Safety Meeting Checklist & Hazard Mitigation Form

TGSM

Site Address: 11700 NE 160th St., Bothell	Date: 12/5/13
Check-In with site representative completed?	☒ Yes ☐ N/A
Is **fuel delivery** scheduled for today?	☐ Yes ☐ No ☒ N/A
Emergency pump cut-off switch located?	☒ Yes ☐ N/A
First aid kit located and confirmed ready-to-use?	☒ Yes
Fire extinguisher located and confirmed ready-to-use?	☒ Yes
Eye wash located and confirmed ready-to-use?	☒ Yes
HASP — **Emergency Services** information located & reviewed?	☒ Yes
HASP — **Hospital** map & route located and reviewed?	☒ Yes
HASP — **Special Hazard Notice** section reviewed?	☒ Yes
HASP — **Site Status** confirmed or amended, dated and initialed?	☒ Yes
HASP — **Emergency Response** procedures reviewed with all work crew members?	☒ Yes
HASP — **Compliance Roster** signed by all work crew members?	☒ Yes
Site walk has been performed to locate wells and identify additional hazards?	☒ Yes
Job Safety Analysis (JSA) for each task located & reviewed by all work crew members?	☒ Yes
Work Area Plans reviewed for suitability and effectiveness given current site conditions?	☒ Yes ☐ N/A
Traffic Control Plans reviewed for suitability given current road, traffic & weather conditions?	☒ Yes ☐ N/A
Stop Work Authority reviewed and understood by all work crew members?	☒ Yes

- In the space below, note unaddressed hazards and conditions that might compromise compliance with Approved Procedures and/or JSA's or impede the safe and proper execution of the Work Plan, Work Area Plan(s) and/or Traffic Control Plan(s).
- Report unaddressed hazards and adverse conditions to the Project Manager during Pre-Start Call-In **and** as hazards are identified or conditions change throughout the workday.
- DO NOT COMMENCE OR RESTART WORK until PM has been notified and mitigation measures approved.

Time	Hazard or Adverse Condition	PM Initials	Hazard Control Measure

Site representative briefed on planned work activities and Work Area Plans?	☒ Yes ☐ N/A
Job Clearance Form completed?	☒ Yes
Pre-Start Call-In completed and approval to start work received from Project Manager?	☒ Yes

Printed Name	Signature	Time
Ricky Dupont		1215

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 11700 NE 160th St, Bothell				PROJECT NUMBER 131205-PH2			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI 556	BTS-8	12/5/13 @ 1325	pH 7 pH 4 pH 10	pH 7.01 pH 4.03 pH 10.00	✓	10.11°C	JM
↓	↓	↓	Conductivity 3900 uS	3919 uS	✓	10.10°C	JM
			ORP 250.5mV	252.3mV	✓	10.10°C	JM
↓	↓	↓	D.O. ~	105.3%	✓	10.13°C	JM

Appendix E

Survey Data

STATEWIDE LAND SURVEYING INC.

Coordinate System		UTM Zone	Vertical Datum	Quad Map	Station No.	Address	
Washington North		10	Navd88	Kirkland		11700 NE 160th St	
Zone 4601 Nad 83/91						Bothell Wa	
US Survey Feet							
Well	**Northing (Y)**	**Easting (X)**	**Latitude**	**Longitude**	**El. Surface**	**El. Rim**	**El. PVC**
MW-1	274293.22'	1308032.31'	N:47°44'38.276"	W:122°11'03.752"	300.02'	300.06'	4"=299.53'
MW-3	274318.20'	1308095.04'	N:47°44'38.533"	W:122°11'02.841"	303.68'	303.62'	4"=303.37'
MW-4	274341.31'	1308179.74'	N:47°44'38.776"	W:122°11'01.608"	307.06'	307.08'	4"=306.58'
MW-5	274270.56'	1308108.53'	N:47°44'38.065"	W:122°11'02.631"	303.59'	303.61'	4"=303.22'
MW-7	274370.39'	1307925.53'	N:47°44'39.019"	W:122°11'05.334"	292.14'	292.11'	4"=291.70'
MW-8	274270.25'	1308047.15'	N:47°44'38.052"	W:122°11'03.529"	299.59'	299.61'	2"=299.31'
MW-9	274312.15'	1308019.19'	N:47°44'38.460"	W:122°11'03.949"	299.49'	299.49'	2"=299.13'
MW-10	274249.87'	1307971.75'	N:47°44'37.838"	W:122°11'04.627"	295.13'	295.13'	2"=294.78'
MW-11	274334.65'	1307961.18'	N:47°44'38.672"	W:122°11'04.804"	293.34'	293.37'	2"=293.07'
MW-12	274333.34'	1308017.42'	N:47°44'38.669"	W:122°11'03.981"	299.45'	299.41'	2"=299.16'
MW-13	274302.96'	1308023.78'	N:47°44"38.370"	W:122°11"03.880"	300.13`	300.22'	2"=299.77'
SB-1	274334.17'	1308192.50'	N:47°44'38.708"	W:122°11'01.419"	307.7'		
SB-2	274296.50'	1308188.90'	N:47°44'38.335"	W:122°11'01.462"	306.6'		
SB-3	274268.13'	1308168.78'	N:47°44'38.052"	W:122°11'01.749"	305.9'		
SB-4	274286.22'	1308087.00'	N:47°44'38.216"	W:122°11'02.951"	302.7'		
SB-5	274352.03'	1308048.59'	N:47°44'38.859"	W:122°11'03.529"	302.1'		
SB-6	274300.17'	1308062.49'	N:47°44'38.350"	W:122°11'03.313"	301.4'		
SB-7	274299.10'	1308081.80'	N:47°44'38.342"	W:122°11'03.030"	302.6'		
SB-8	274266.51'	1308053.05'	N:47°44'38.016"	W:122°11'03.442"	300.1'		

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BENCHMARK

KING COUNTY MONUMENT ID NO. 616. A 3" BRASS DISK SET FLUSH WITH THE SIDEWALK STAMPED " KING COUNTY 616 1995" AND SCRIBED WITH A TRIANGLE IN THE CENTER OF DISK. LOCATED 150 FEET WEST OF THE INTERSECTION OF 160TH AND BRICKYARD ON THE NORTH SIDE OF 160TH. ELEVATION OF MARK IS 291.918 FEET.

SITE BENCHMARK

STATEWIDE LAND SURVEYING SITE CONTROL POINT NUMBER 4. A MAG NAIL WITH WASHER SET IN ASPHALT NEAR THE CENTER OF THE SITE BY CURB AND WALKWAY AS SHOWN HERON. ELEVATION OF MARK IS 300.22 FEET.

VERTICAL DATUM

NAVD 88, US SURVEY FEET

HORIZONTAL DATUM

WASHINGTON STATE PLANE COORDINATE SYSTEM NAD 83/91 NORTH ZONE 4601, IN U.S. SURVEY FEET.

VICINITY MAP

NOT TO SCALE

SITE

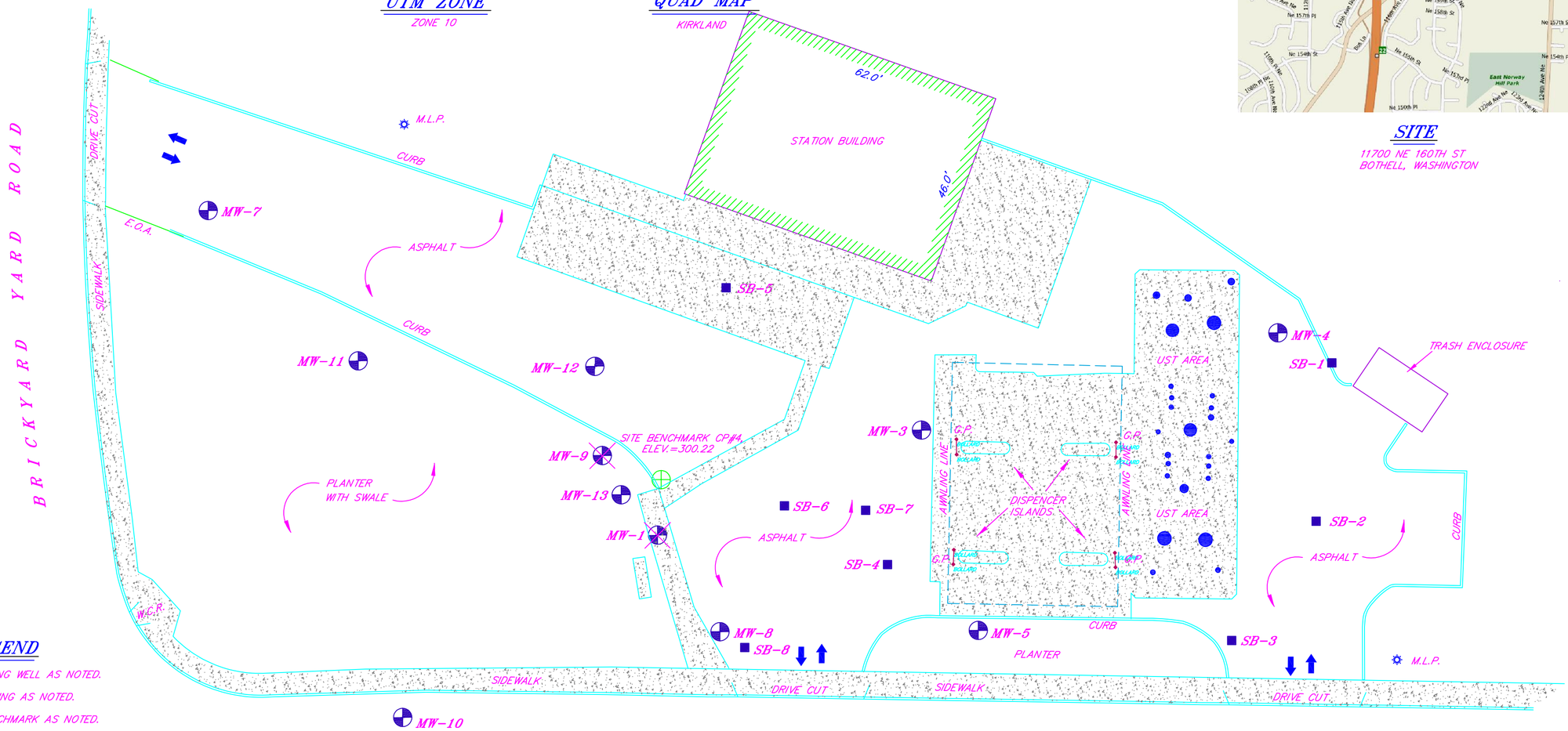
11700 NE 160TH ST
BOTHELL, WASHINGTON

UTM ZONE

ZONE 10

QUAD MAP

KIRKLAND



LEGEND

- = MONITORING WELL AS NOTED.
- = SOIL BORING AS NOTED.
- = SITE BENCHMARK AS NOTED.
- = DECOMMISSIONED WELL
- G.P. GUARD POST.
- M.L.P. = METAL LIGHT POLE.
- M.W. = MONITORING WELL.
- S.B. = SOIL BORING
- U.S.T. = UNDERGROUND STORAGE TANKS.
- W.C.R. = WHEEL CHAIR RAMP.
- = CONCRETE.

N

SCALE:1"=20'

0' 20' 40' 60'

NOTES

1) ON SEPT. 16, 2013 SURVEY CREW ARRIVED ON SITE AND FOUND ALL EXISTING CONTROL POINTS TO BE GONE BY NEW CONSTRUCTION. THE WSRN WAS USED TO ESTABLISH NEW CONTROL. MW-8 WAS OBSERVED WITH THE WSRN AND ALL X,Y, AND Z VALUES WERE SHIFTED TO MATCH.

MONITORING WELL SURVEY

FOR

CONESTOGA-ROVERS & ASSOCIATES

SITUATED IN THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 26 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, CITY OF BOTHELL, COUNTY OF KING, STATE OF WASHINGTON.

DONALD H. HOLLY — STATE OF WASHINGTON — 13738 — REGISTERED PROFESSIONAL LAND SURVEYOR

REVISED SEPTEMBER 16, 2013
REVISED NOVEMBER 10, 2010

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DRAWN G.W.E.	DATE 11/10/10	
CHECKED D.H.H.	DATE 11/10/10	
SCALE 1" = 20'	SHEET 1 OF 1	PROJECT NO. 2009-54