CONESTOGA-ROVERS & ASSOCIATES

20818 44th Ave. West, Suite 190
Seattle, Washington 98036
Telephone: (425) 563-6500 Fax: (425) 563-6599
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TRANSMITTAL

DATE: May 19, 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	2013 Annual Groundwater Monitoring Report

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

COMMENTS:

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

Completed by: Christine Diel [Please Print]

Signed: C. Diel

Filing: **Correspondence File**

CONESTOGA-ROVERS & ASSOCIATES

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2013 Annual Groundwater Monitoring 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

May 2014 • 241809 • Report No. 18

Partners in Sustainability

2013 Annual Groundwater Monitoring Report

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

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

Christine Diel

Christina McClelland

Prepared by:
Conestoga-Rovers & Associates

20818 44th Avenue West,
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MAY 2014
REF. NO. 241809 (18)

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Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (SOPUS). This annual report includes all groundwater monitoring data collected in 2013.

1.1 Site Information

Site Address	11700 Northeast 160th Street, Bothell, Washington
Site Use	Shell-Branded Wholesale Facility
Shell Project Manager	Perry Pineda
CRA Project Manager	Christina McClelland
Lead Agency and Contact	WDOE, Libby Goldstein
Agency Case No.	63265631
Shell SAP Code:	120531
Shell Incident No.	92995017
VCP No.	NW2053

The most recent agency correspondence on record is from May 31, 2011.

Section 2.0 Site Activities, Findings, and Discussion

2.1 Current Activities

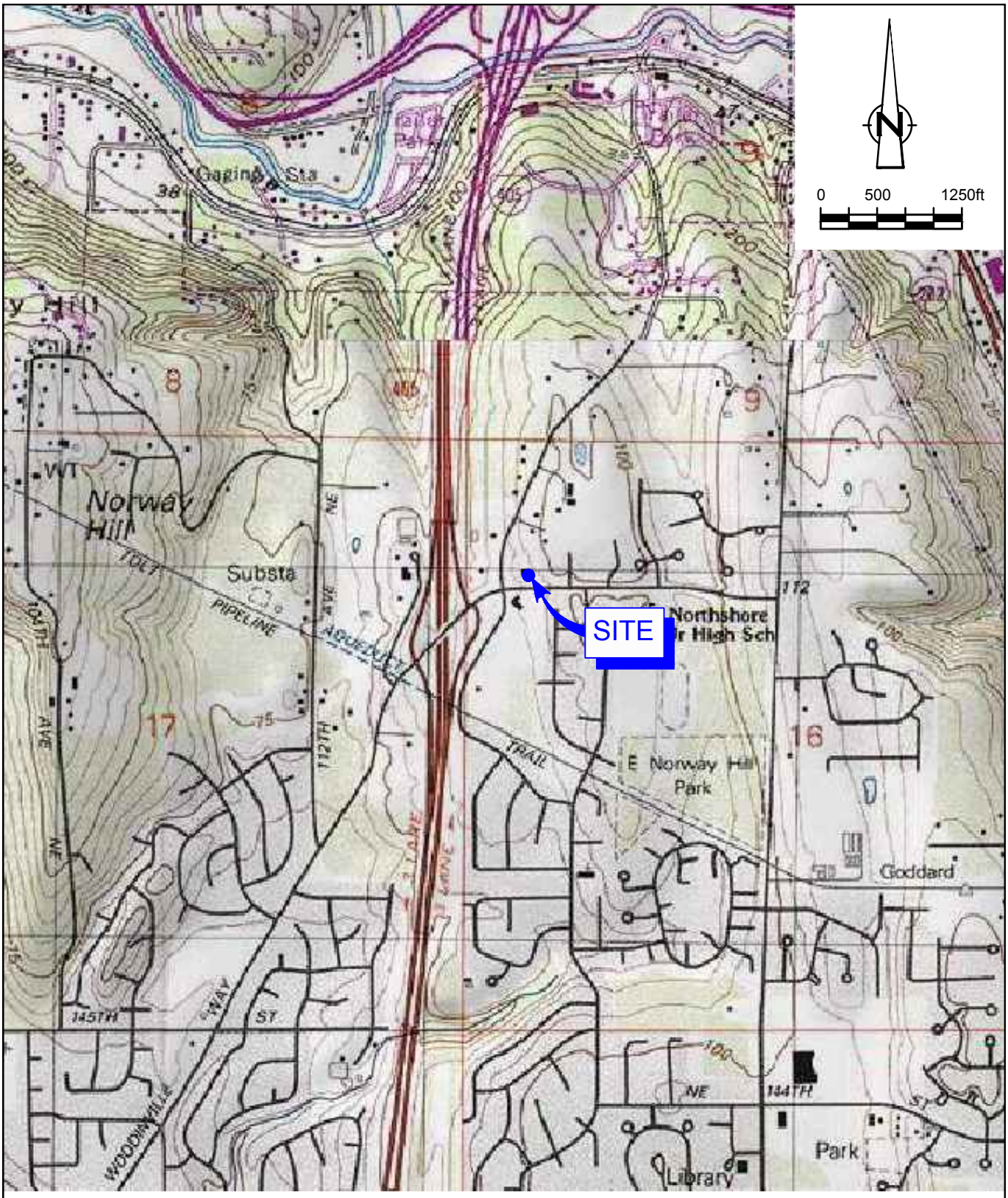
Blaine Tech Services, Inc. (Blaine) gauged and sampled wells according to the established monitoring program for this site. Additionally, Blaine developed well MW-13 on August 28, 2013.

CRA prepared a vicinity map (Figure 1) and groundwater elevation and chemical concentration maps (Figures 2 and 3). CRA prepared Table 1 summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical report are included as Appendices A and B.

2.2 Findings

Quarter/Date	3rd /September 4, 2013
Groundwater Flow Direction	Groundwater is laterally discontinuous; no consistent flow direction
Hydraulic Gradient	N/A
Depth to Water	12.26 to 49.47 feet below top of well casing
Quarter/Date	4th /December 5, 2013
Groundwater Flow Direction	Groundwater is laterally discontinuous; no consistent flow direction
Hydraulic Gradient	N/A
Depth to Water	13.06 to 50.20 feet below top of well casing

Figures



SOURCE: TOPO! MAPS.

figure 1

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

241809-2013(018)GN-WA003 FEB 5/2014

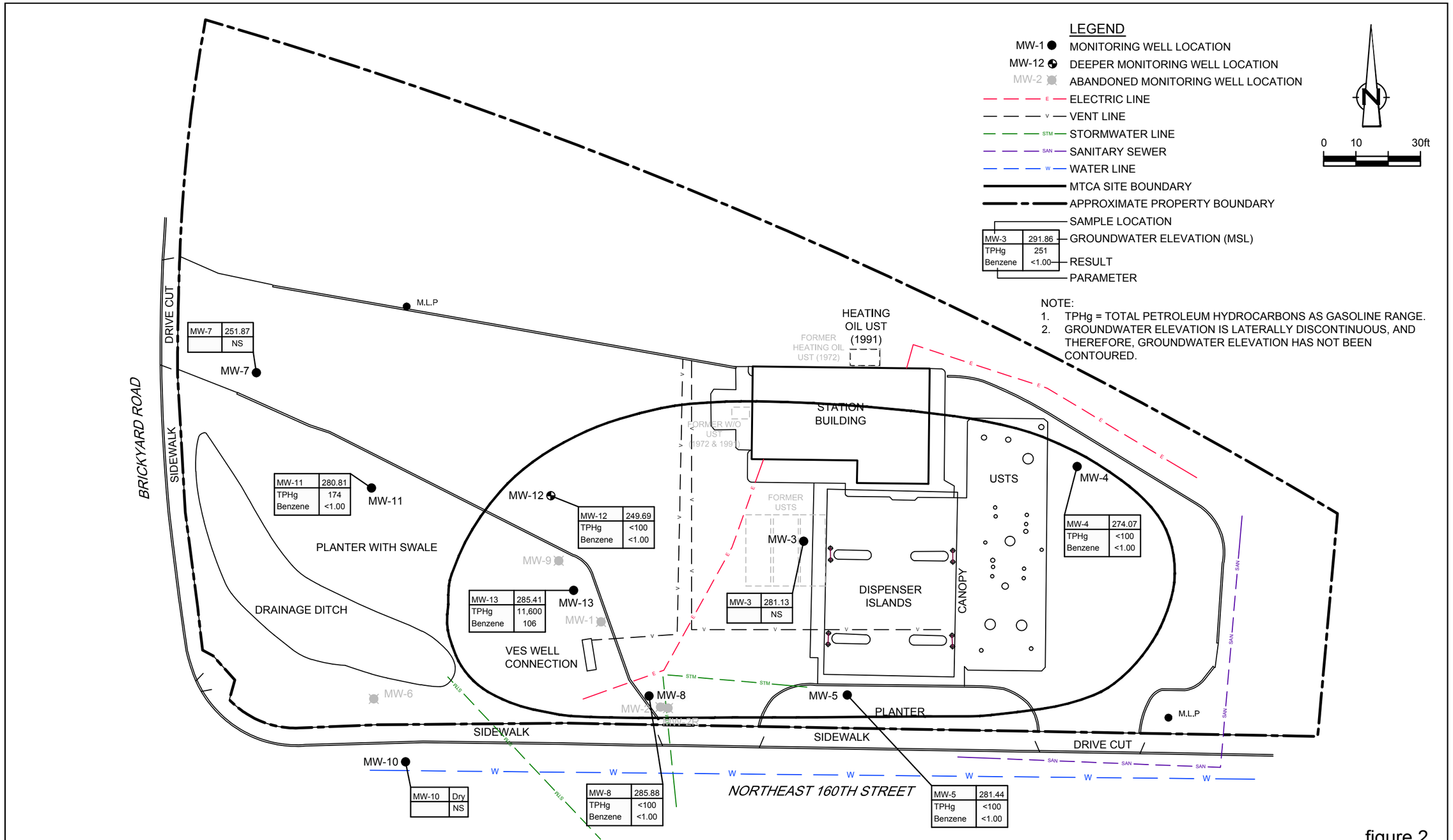


figure 2

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.

241809-2013(018)GN-WA001 JAN 23/2014

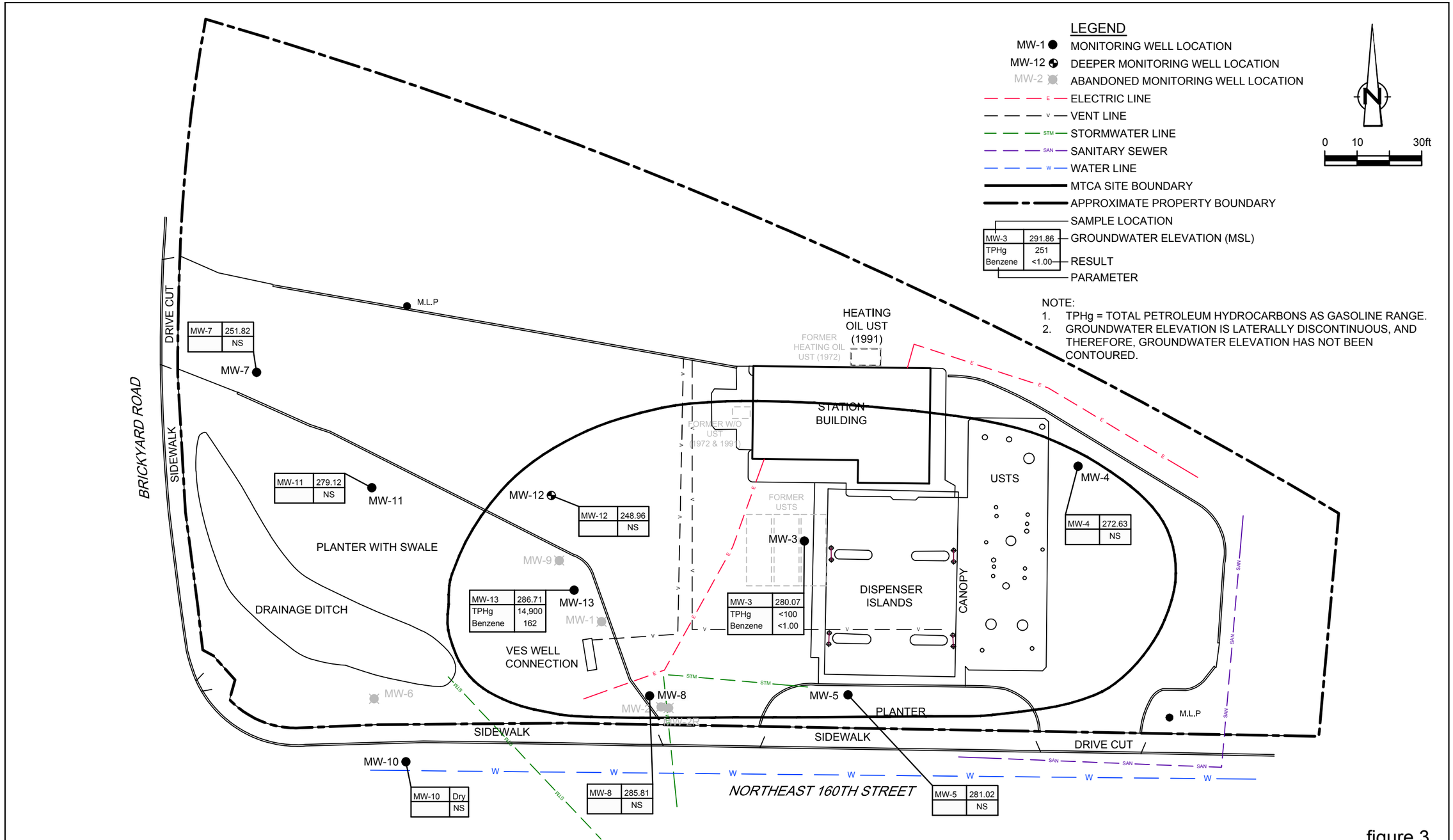


figure 3

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.

241809-2013(018)GN-WA002 FEB 5/2014

Tables

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 Cleanup Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
						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	---
MW-1	09/12/12	299.53	13.69	---	285.84	**14,700**	**2,920**	<95.2	**97.6**	24.1	588	947	---	---	---	---	---	---	---	---	---	156	---

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 Cleanup Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
						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	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	---	---	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---	---	---	---	---	---	---

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 Cleanup Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
						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	01/23/04	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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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 Cleanup Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
						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	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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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 Cleanup Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
						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	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	---
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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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 Cleanup Levels					800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	***160***	***0.1***
						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-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

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

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 Cleanup Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	**160**	**0.1**
						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

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

Field Forms

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	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)	(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	
	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			
	G	P	(N/A)			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 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 the site manager or 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 on site representative of the job to be performed and potential safety concerns and obtain signature.

Station #	Station Address:		Work Order Number:		Date:
92495017	11700 NE 160TH ST, BOTHELL, WA		130904-LB1		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

Contractor representative name	Signature
LEE BURES	[signature]

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

Site representative name	Signature
I have discussed job clearance form with contractor	
Jack Cooper	Jack Cooper

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	
Yadira MA	[signature]

PARTS - Ordered, Replaced and/or Disposed Of (include model and serial # 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.

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: 12/5/13

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.: 130205-RHc

SAMPLER NAME(S) (Print): Ricky Dhupay

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)

REQUESTED ANALYSIS

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-O	NWTPH-VPH	NWTPH-EPH			Container PID Readings or Laboratory Notes
	GW	241809	120513	rk	MW-3	1429	WG	x			x (circled)		8	x	x	x													X					
	GW	241809	120513	rk	MW-13	1349	↓	X			x		10	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 #	Station Address:			Work Order Number:			Date:
92995017	11700 NE 160th St., Bothell			131205-RK2			12/5/13
Contractor Company Name	Contractor person in charge (print name)	Number of Workers:		JSA Reference Number: (If required)	Start Time: 1205	End Time: 1435	Labor: / Travel Time: / Travel Distance:
BTS	Rickey Dhupar	1					

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 the section below if circumstances on the site or specific to the job are not covered by JSA.

TASK STEP	Hazards not covered by JSA	How to reduce or eliminate risk - Include PPE to be Worn
Gauge	N/A	
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
Jack Cooper	Jack Cooper

Site representative name	Signature
I have discussed job clearance form with contractor	
Rickey Dhupar	[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 # 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.

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 B

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: 490-34640-1
TestAmerica Sample Delivery Group: SAP 120531 / 241809
Client Project/Site: 11700 NE 160th Bothell WA

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

Attn: Christina McClelland

Authorized for release by:
9/16/2013 12:30:46 PM

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

Table of Contents

Sample Summary

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-34640-1	GW-241809-90413-LB-MW-4	Water	09/04/13 09:52	09/05/13 08:30
490-34640-2	GW-241809-90413-LB-MW-5	Water	09/04/13 10:46	09/05/13 08:30
490-34640-3	GW-241809-90413-LB-MW-8	Water	09/04/13 11:32	09/05/13 08:30
490-34640-4	GW-241809-90413-LB-MW-11	Water	09/04/13 12:25	09/05/13 08:30
490-34640-5	GW-241809-90413-LB-MW-12	Water	09/04/13 09:05	09/05/13 08:30
490-34640-6	GW-241809-90413-LB-MW-13	Water	09/04/13 13:09	09/05/13 08:30

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Job ID: 490-34640-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-34640-1

Comments
No additional comments.

Receipt
The samples were received on 9/5/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5º C and 4.6º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for the following sample(s) was outside the upper control limit: GW-241794-090313-LB-MW-2A (490-34641-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Job ID: 490-34640-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-34640-2

Comments
No additional comments.

Receipt
The samples were received on 9/5/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5º C and 4.6º C.

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 105402.

Method(s) 8270C SIM: Surrogate recovery for the following sample(s) was outside control limits: GW-241809-90413-LB-MW-13 (490-34640-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

GC VOA
Method(s) NWTPH-Gx: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 106079 . The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) NWTPH-Gx: Surrogate recovery for the following sample(s) was outside control limits: GW-241809-90413-LB-MW-13 (490-34640-6)490-34640-b-6. Evidence of matrix interference is present; confirmed by reanalysis.

Method(s) NWTPH-Gx: Surrogate recovery for the following sample(s) was outside the upper control limit: (MB 490-106079/7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Job ID: 490-34640-2 (Continued)

Laboratory: TestAmerica Nashville (Continued)

GC Semi VOA

Method(s) NWTPH-Dx: The following sample(s) contained single peaks contamination which does not match a typical Total Petroleum Hydrocarbon (TPH) pattern used by the laboratory for quantitative purposes: (490-34640-1 DU), GW-241809-90413-LB-MW-4 (490-34640-1).

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern for analyte C10-C24 that most closely resembles a Gasoline product used by the laboratory for quantitative purposes: GW-241809-90413-LB-MW-13 (490-34640-6).

No other analytical or quality issues were noted.

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 105402.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-4
Date Collected: 09/04/13 09:52
Date Received: 09/05/13 08:30

Lab Sample ID: 490-34640-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 04:01	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 04:01	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 04:01	1
Toluene	ND		1.00		ug/L			09/13/13 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*09/13/13 04:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/13/13 04:01*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*09/13/13 04:01*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*09/13/13 04:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/10/13 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*68*		*50 - 150*		*09/10/13 22:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		93.5		ug/L		09/07/13 14:43	09/11/13 17:35	1
C24-C40	**213**		93.5		ug/L		09/07/13 14:43	09/11/13 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*09/07/13 14:43*	*09/11/13 17:35*	*1*

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-5
Date Collected: 09/04/13 10:46
Date Received: 09/05/13 08:30

Lab Sample ID: 490-34640-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 04:28	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 04:28	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 04:28	1
Toluene	ND		1.00		ug/L			09/13/13 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*09/13/13 04:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*09/13/13 04:28*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*09/13/13 04:28*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*09/13/13 04:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/10/13 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*68*		*50 - 150*		*09/10/13 22:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:07	1
C24-C40	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*09/07/13 14:43*	*09/11/13 18:07*	*1*

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-8
Date Collected: 09/04/13 11:32
Date Received: 09/05/13 08:30

Lab Sample ID: 490-34640-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 04:55	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 04:55	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 04:55	1
Toluene	ND		1.00		ug/L			09/13/13 04:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*		*09/13/13 04:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*09/13/13 04:55*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*09/13/13 04:55*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*09/13/13 04:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/10/13 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*69*		*50 - 150*		*09/10/13 23:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:23	1
C24-C40	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*09/07/13 14:43*	*09/11/13 18:23*	*1*

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-11
Date Collected: 09/04/13 12:25
Date Received: 09/05/13 08:30

Lab Sample ID: 490-34640-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 05:22	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 05:22	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 05:22	1
Toluene	ND		1.00		ug/L			09/13/13 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*09/13/13 05:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*09/13/13 05:22*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*09/13/13 05:22*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*09/13/13 05:22*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.802**		0.0952		ug/L		09/07/13 08:54	09/08/13 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*63*		*13 - 120*	*09/07/13 08:54*	*09/08/13 20:22*	*1*
Nitrobenzene-d5	*46*		*27 - 120*	*09/07/13 08:54*	*09/08/13 20:22*	*1*
2-Fluorobiphenyl (Surr)	*63*		*29 - 120*	*09/07/13 08:54*	*09/08/13 20:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**174**		100		ug/L			09/11/13 00:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*69*		*50 - 150*		*09/11/13 00:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:39	1
C24-C40	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*09/07/13 14:43*	*09/11/13 18:39*	*1*

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-12
Date Collected: 09/04/13 09:05
Date Received: 09/05/13 08:30

Lab Sample ID: 490-34640-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 05:49	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 05:49	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 05:49	1
Toluene	ND		1.00		ug/L			09/13/13 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*		*09/13/13 05:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*09/13/13 05:49*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*09/13/13 05:49*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*09/13/13 05:49*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0935		ug/L		09/07/13 08:54	09/08/13 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*67*		*13 - 120*	*09/07/13 08:54*	*09/08/13 20:45*	*1*
Nitrobenzene-d5	*62*		*27 - 120*	*09/07/13 08:54*	*09/08/13 20:45*	*1*
2-Fluorobiphenyl (Surr)	*64*		*29 - 120*	*09/07/13 08:54*	*09/08/13 20:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/11/13 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*68*		*50 - 150*		*09/11/13 00:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:55	1
C24-C40	ND		93.5		ug/L		09/07/13 14:43	09/11/13 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*50 - 150*	*09/07/13 14:43*	*09/11/13 18:55*	*1*

Client Sample ID: GW-241809-90413-LB-MW-13

Lab Sample ID: 490-34640-6

Date Collected: 09/04/13 13:09

Matrix: Water

Date Received: 09/05/13 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**106**		1.00		ug/L			09/13/13 06:15	1
Ethylbenzene	**180**		1.00		ug/L			09/13/13 06:15	1
Xylenes, Total	**1060**		20.0		ug/L			09/13/13 19:03	10
Toluene	**52.3**		1.00		ug/L			09/13/13 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/13/13 06:15*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*09/13/13 19:03*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*09/13/13 06:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*09/13/13 19:03*	*10*
Toluene-d8 (Surr)	*92*		*70 - 130*		*09/13/13 06:15*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*09/13/13 19:03*	*10*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*09/13/13 06:15*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*09/13/13 19:03*	*10*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**77.1**		1.87		ug/L		09/07/13 08:54	09/08/13 23:09	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*56*		*13 - 120*	*09/07/13 08:54*	*09/08/13 21:10*	*1*
Nitrobenzene-d5	*175*	*X*	*27 - 120*	*09/07/13 08:54*	*09/08/13 21:10*	*1*
2-Fluorobiphenyl (Surr)	*58*		*29 - 120*	*09/07/13 08:54*	*09/08/13 21:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**11600**		1000		ug/L			09/11/13 13:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*152*	*X*	*50 - 150*		*09/11/13 13:03*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	**3760**		467		ug/L		09/07/13 14:43	09/12/13 11:41	5
C24-C40	ND		93.5		ug/L		09/07/13 14:43	09/11/13 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*09/07/13 14:43*	*09/11/13 19:11*	*1*

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

Lab Sample ID: MB 490-106811/4
Matrix: Water
Analysis Batch: 106811

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/12/13 22:40	1
Ethylbenzene	ND		1.00		ug/L			09/12/13 22:40	1
Xylenes, Total	ND		2.00		ug/L			09/12/13 22:40	1
Toluene	ND		1.00		ug/L			09/12/13 22:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/12/13 22:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*09/12/13 22:40*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*09/12/13 22:40*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*09/12/13 22:40*	*1*

Lab Sample ID: LCS 490-106811/3
Matrix: Water
Analysis Batch: 106811

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.94		ug/L		100	80 - 121
Ethylbenzene	20.0	19.68		ug/L		98	80 - 130
Xylenes, Total	40.0	40.01		ug/L		100	80 - 132
Toluene	20.0	18.98		ug/L		95	80 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*

Lab Sample ID: 490-34641-D-1 MS
Matrix: Water
Analysis Batch: 106811

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	41.74		ug/L		83	75 - 133
Ethylbenzene	ND		50.0	41.66		ug/L		83	79 - 139
Xylenes, Total	ND		100	86.08		ug/L		86	74 - 141
Toluene	ND		50.0	39.99		ug/L		80	75 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*

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

Lab Sample ID: 490-34641-E-1 MSD
Matrix: Water
Analysis Batch: 106811

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	42.89		ug/L		86	75 - 133	3	17
Ethylbenzene	ND		50.0	43.46		ug/L		87	79 - 139	4	15
Xylenes, Total	ND		100	89.13		ug/L		89	74 - 141	3	15
Toluene	ND		50.0	41.25		ug/L		82	75 - 136	3	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 490-106820/4
Matrix: Water
Analysis Batch: 106820

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/13/13 13:01	1
Ethylbenzene	ND		1.00		ug/L			09/13/13 13:01	1
Xylenes, Total	ND		2.00		ug/L			09/13/13 13:01	1
Toluene	ND		1.00		ug/L			09/13/13 13:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*09/13/13 13:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*09/13/13 13:01*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*09/13/13 13:01*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*09/13/13 13:01*	*1*

Lab Sample ID: LCS 490-106820/3
Matrix: Water
Analysis Batch: 106820

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			20.0	21.29		ug/L		106	80 - 121		
Ethylbenzene			20.0	20.95		ug/L		105	80 - 130		
Xylenes, Total			40.0	42.81		ug/L		107	80 - 132		
Toluene			20.0	20.36		ug/L		102	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*

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

Lab Sample ID: 490-34603-B-2 MS
Matrix: Water
Analysis Batch: 106820

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	44.69		ug/L		89	75 - 133
Ethylbenzene	ND		50.0	44.44		ug/L		89	79 - 139
Xylenes, Total	ND		100	95.00		ug/L		95	74 - 141
Toluene	ND		50.0	42.21		ug/L		84	75 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*

Lab Sample ID: 490-34603-C-2 MSD
Matrix: Water
Analysis Batch: 106820

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	45.45		ug/L		91	75 - 133	2	17
Ethylbenzene	ND		50.0	44.44		ug/L		89	79 - 139	0	15
Xylenes, Total	ND		100	89.38		ug/L		89	74 - 141	6	15
Toluene	ND		50.0	42.77		ug/L		86	75 - 136	1	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 490-105402/1-A
Matrix: Water
Analysis Batch: 105491

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 105402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/L		09/07/13 08:54	09/08/13 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*80*		*13 - 120*	*09/07/13 08:54*	*09/08/13 16:45*	*1*
Nitrobenzene-d5	*71*		*27 - 120*	*09/07/13 08:54*	*09/08/13 16:45*	*1*
2-Fluorobiphenyl (Surr)	*72*		*29 - 120*	*09/07/13 08:54*	*09/08/13 16:45*	*1*

Lab Sample ID: LCS 490-105402/2-A
Matrix: Water
Analysis Batch: 105491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.00	0.7452		ug/L		75	37 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 490-105402/2-A
Matrix: Water
Analysis Batch: 105491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105402

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*72*		*13 - 120*
Nitrobenzene-d5	*75*		*27 - 120*
2-Fluorobiphenyl (Surr)	*67*		*29 - 120*

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

Lab Sample ID: MB 490-105801/27
Matrix: Water
Analysis Batch: 105801

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/10/13 21:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*71*		*50 - 150*		*09/10/13 21:39*	*1*

Lab Sample ID: LCS 490-105801/40
Matrix: Water
Analysis Batch: 105801

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	893.1		ug/L		89	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*62*		*50 - 150*

Lab Sample ID: 490-34640-2 DU
Matrix: Water
Analysis Batch: 105801

Client Sample ID: GW-241809-90413-LB-MW-5
Prep Type: Total/NA

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

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*69*		*50 - 150*

Lab Sample ID: MB 490-106079/7
Matrix: Water
Analysis Batch: 106079

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/11/13 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*165*	*X*	*50 - 150*		*09/11/13 11:23*	*1*

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

Lab Sample ID: LCS 490-106079/5
Matrix: Water
Analysis Batch: 106079

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	1023		ug/L		102	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*144*		*50 - 150*

Lab Sample ID: LCSD 490-106079/6
Matrix: Water
Analysis Batch: 106079

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	982.2		ug/L		98	39 - 143	4	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*145*		*50 - 150*

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

Lab Sample ID: MB 490-105449/1-A
Matrix: Water
Analysis Batch: 106200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 105449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		09/07/13 14:43	09/11/13 17:03	1
C24-C40	ND		100		ug/L		09/07/13 14:43	09/11/13 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*70*		*50 - 150*	*09/07/13 14:43*	*09/11/13 17:03*	*1*

Lab Sample ID: LCS 490-105449/2-A
Matrix: Water
Analysis Batch: 106200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105449

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C24			1000	593.9		ug/L		59	51 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*74*		*50 - 150*

Lab Sample ID: 490-34640-1 DU
Matrix: Water
Analysis Batch: 106200

Client Sample ID: GW-241809-90413-LB-MW-4
Prep Type: Total/NA
Prep Batch: 105449

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C10-C24	ND			ND		ug/L				22	41
C24-C40	213			239.1		ug/L				12	41

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

Lab Sample ID: 490-34640-1 DU
Matrix: Water
Analysis Batch: 106200

Client Sample ID: GW-241809-90413-LB-MW-4
Prep Type: Total/NA
Prep Batch: 105449

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	74		50 - 150

GC/MS VOA

Analysis Batch: 106811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-1	GW-241809-90413-LB-MW-4	Total/NA	Water	8260B	
490-34640-2	GW-241809-90413-LB-MW-5	Total/NA	Water	8260B	
490-34640-3	GW-241809-90413-LB-MW-8	Total/NA	Water	8260B	
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	8260B	
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	8260B	
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	8260B	
490-34641-D-1 MS	Matrix Spike	Total/NA	Water	8260B	
490-34641-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-106811/3	Lab Control Sample	Total/NA	Water	8260B	
MB 490-106811/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 106820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34603-B-2 MS	Matrix Spike	Total/NA	Water	8260B	
490-34603-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	8260B	
LCS 490-106820/3	Lab Control Sample	Total/NA	Water	8260B	
MB 490-106820/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 105402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	3510C	
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	3510C	
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	3510C	
LCS 490-105402/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-105402/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 105491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	8270C SIM	105402
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	8270C SIM	105402
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	8270C SIM	105402
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	8270C SIM	105402
LCS 490-105402/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	105402
MB 490-105402/1-A	Method Blank	Total/NA	Water	8270C SIM	105402

GC VOA

Analysis Batch: 105801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-1	GW-241809-90413-LB-MW-4	Total/NA	Water	NWTPH-Gx	
490-34640-2	GW-241809-90413-LB-MW-5	Total/NA	Water	NWTPH-Gx	
490-34640-2 DU	GW-241809-90413-LB-MW-5	Total/NA	Water	NWTPH-Gx	
490-34640-3	GW-241809-90413-LB-MW-8	Total/NA	Water	NWTPH-Gx	
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	NWTPH-Gx	
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	NWTPH-Gx	
LCS 490-105801/40	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
MB 490-105801/27	Method Blank	Total/NA	Water	NWTPH-Gx	

GC VOA (Continued)

Analysis Batch: 106079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	NWTPH-Gx	
LCS 490-106079/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-106079/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-106079/7	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 105449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-1	GW-241809-90413-LB-MW-4	Total/NA	Water	3510C	
490-34640-1 DU	GW-241809-90413-LB-MW-4	Total/NA	Water	3510C	
490-34640-2	GW-241809-90413-LB-MW-5	Total/NA	Water	3510C	
490-34640-3	GW-241809-90413-LB-MW-8	Total/NA	Water	3510C	
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	3510C	
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	3510C	
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	3510C	
LCS 490-105449/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-105449/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 106200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-1	GW-241809-90413-LB-MW-4	Total/NA	Water	NWTPH-Dx	105449
490-34640-1 DU	GW-241809-90413-LB-MW-4	Total/NA	Water	NWTPH-Dx	105449
490-34640-2	GW-241809-90413-LB-MW-5	Total/NA	Water	NWTPH-Dx	105449
490-34640-3	GW-241809-90413-LB-MW-8	Total/NA	Water	NWTPH-Dx	105449
490-34640-4	GW-241809-90413-LB-MW-11	Total/NA	Water	NWTPH-Dx	105449
490-34640-5	GW-241809-90413-LB-MW-12	Total/NA	Water	NWTPH-Dx	105449
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	NWTPH-Dx	105449
LCS 490-105449/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	105449
MB 490-105449/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	105449

Analysis Batch: 106531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34640-6	GW-241809-90413-LB-MW-13	Total/NA	Water	NWTPH-Dx	105449

Client Sample ID: GW-241809-90413-LB-MW-4

Lab Sample ID: 490-34640-1

Date Collected: 09/04/13 09:52

Matrix: Water

Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 04:01	JJR	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	105801	09/10/13 22:09	GWM	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 17:35	JML	TAL NSH

Client Sample ID: GW-241809-90413-LB-MW-5

Lab Sample ID: 490-34640-2

Date Collected: 09/04/13 10:46

Matrix: Water

Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 04:28	JJR	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	105801	09/10/13 22:39	GWM	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 18:07	JML	TAL NSH

Client Sample ID: GW-241809-90413-LB-MW-8

Lab Sample ID: 490-34640-3

Date Collected: 09/04/13 11:32

Matrix: Water

Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 04:55	JJR	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	105801	09/10/13 23:39	GWM	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 18:23	JML	TAL NSH

Client Sample ID: GW-241809-90413-LB-MW-11

Lab Sample ID: 490-34640-4

Date Collected: 09/04/13 12:25

Matrix: Water

Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 05:22	JJR	TAL NSH
Total/NA	Prep	3510C			105402	09/07/13 08:54	CLH	TAL NSH
Total/NA	Analysis	8270C SIM		1	105491	09/08/13 20:22	BES	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	105801	09/11/13 00:09	GWM	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 18:39	JML	TAL NSH

Lab Chronicle

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-90413-LB-MW-12

Lab Sample ID: 490-34640-5

Date Collected: 09/04/13 09:05
Matrix: Water
Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 05:49	JJR	TAL NSH
Total/NA	Prep	3510C			105402	09/07/13 08:54	CLH	TAL NSH
Total/NA	Analysis	8270C SIM		1	105491	09/08/13 20:45	BES	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	105801	09/11/13 00:39	GWM	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 18:55	JML	TAL NSH

Client Sample ID: GW-241809-90413-LB-MW-13

Lab Sample ID: 490-34640-6

Date Collected: 09/04/13 13:09
Matrix: Water
Date Received: 09/05/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	106811	09/13/13 06:15	JJR	TAL NSH
Total/NA	Analysis	8260B		10	106820	09/13/13 19:03	JJR	TAL NSH
Total/NA	Prep	3510C			105402	09/07/13 08:54	CLH	TAL NSH
Total/NA	Analysis	8270C SIM		1	105491	09/08/13 21:10	BES	TAL NSH
Total/NA	Analysis	8270C SIM		20	105491	09/08/13 23:09	BES	TAL NSH
Total/NA	Analysis	NWTPH-Gx		10	106079	09/11/13 13:03	GWM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	106200	09/11/13 19:11	JML	TAL NSH
Total/NA	Prep	3510C			105449	09/07/13 14:43	CG	TAL NSH
Total/NA	Analysis	NWTPH-Dx		5	106531	09/12/13 11:41	JML	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 Bothell WA

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 490-34640-1
SDG: SAP 120531 / 241809

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FC

490-34640 Chain of Custody

Cooler Received/Opened On 9/5/2013@ 0830

1. Tracking # 1115 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 12080142

2. Temperature of rep. sample or temp blank when opened: 35 *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) _____

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

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

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

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

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

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

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

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

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

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

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

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) EH

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) EH

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
34640

Cooler Received/Opened On: 9/5/13 @ 8:30

1. Tracking # 5041 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID: 17610176

2. Temperature of rep. sample or temp blank when opened: 4.4 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) AJH

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

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

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

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

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

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

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

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

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

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

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

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) [illegible]

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) [illegible]

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

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

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ 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

PO #:

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

SAP #: 1 2 0 5 3 1

DATE: 9/4/13

PAGE: 1 of 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-LB1

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:

SPECIAL INSTRUCTIONS OR NOTES:

1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabedduplod.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)

REQUESTED ANALYSIS

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-O	NWTPH-VPH	NWTPH-EPH			Container PID Readings or Laboratory Notes
1	GW	241809	090413	LB	MW-4	0952	WG	X					8	X	X	X												X					
2	GW	241809	090413	LB	MW-5	1046	WG	X					8	X	X	X												X					
3	GW	241809	090413	LB	MW-8	1132	WG	X					8	X	X	X												X					
4	GW	241809	090413	LB	MW-11	1225	WG	X			X		10	X	X	X												X	X				
5	GW	241809	090413	LB	MW-12	0955	WG	X			X		10	X	X	X												X	X				
6	GW	241809	090413	LB	MW-13	1309	WG	X			X		10	X	X	X												X	X				

Loc: 490
34640

Relinquished by: (Signature)		Received by: (Signature) SHIPPED VIA FEDEX	Date: 9/4/13	Time:
Relinquished by: (Signature)		Received by: (Signature) TIAN	Date: 9-5-13	Time: 08:30
Relinquished by: (Signature)		Received by: (Signature)	Date:	Time:

9/16/2013

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-34640-1
SDG Number: SAP 120531 / 241809

Login Number: 34640
List Number: 1
Creator: Ford, Easton

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	

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: 490-42170-1
TestAmerica Sample Delivery Group: SAP 120531 / 241809
Client Project/Site: 11700 NE 160th, Bothell, WA

For:
Conestoga-Rovers & Associates, Inc.
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Suite 190
Lynnwood, Washington 98036

Attn: Christina McClelland

Authorized for release by:
12/23/2013 9:18:09 AM

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Sample Summary

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-42170-1	GW-241809-120513-RK-MW-3	Ground Water	12/05/13 14:29	12/09/13 09:00
490-42170-2	GW-241809-120513-RK-MW-13	Ground Water	12/05/13 13:49	12/09/13 09:00

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Job ID: 490-42170-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-42170-1

Comments
No additional comments.

Receipt
The samples were received on 12/9/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 3.2º C.

GC/MS VOA
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Job ID: 490-42170-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-42170-2

Comments
No additional comments.

Receipt
The samples were received on 12/9/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 3.2º C.

GC/MS Semi VOA
Method(s) 8270C SIM: Surrogate recovery for the following sample was outside control limits: GW-241809-120513-RK-MW-13 (490-42170-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 128047.

No other analytical or quality issues were noted.

GC VOA
Method(s) NWTPH-Gx: Surrogate recovery for the continuing calibration verification (CCV) associated with Batch 128431 was outside control limits. Individual TPH Range GRO recoveries, however, meet method requirements for data integrity; and CCV chromatography pattern for Surrogate matches that established during most recent ICAL event. Therefore, samples associated with this CCV were not repeated. Surrogate recovery for samples were within limits.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern that most closely resembles a Gasoline product used by the laboratory for quantitative purposes: GW-241809-120513-RK-MW-13 (490-42170-2).

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern that most closely resembles the Diesel Fuel #2 and Motor oil products used by the laboratory for quantitative purposes: GW-241809-120513-RK-MW-3 (490-42170-1).

Job ID: 490-42170-2 (Continued)

Laboratory: TestAmerica Nashville (Continued)

No other analytical or quality issues were noted.

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 128047.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 128128.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-120513-RK-MW-3
Date Collected: 12/05/13 14:29
Date Received: 12/09/13 09:00

Lab Sample ID: 490-42170-1
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			12/11/13 14:59	1
Ethylbenzene	ND		1.00		ug/L			12/11/13 14:59	1
Xylenes, Total	ND		3.00		ug/L			12/11/13 14:59	1
Toluene	ND		1.00		ug/L			12/11/13 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*12/11/13 14:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*12/11/13 14:59*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*12/11/13 14:59*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*12/11/13 14:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			12/13/13 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*63*		*50 - 150*		*12/13/13 00:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	**3280**		105		ug/L		12/11/13 12:28	12/13/13 00:48	1
C24-C40	**295**		105		ug/L		12/11/13 12:28	12/13/13 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*12/11/13 12:28*	*12/13/13 00:48*	*1*

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-120513-RK-MW-13
Date Collected: 12/05/13 13:49
Date Received: 12/09/13 09:00

Lab Sample ID: 490-42170-2
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	162		1.00		ug/L			12/11/13 15:24	1
Ethylbenzene	339		10.0		ug/L			12/19/13 18:37	10
Xylenes, Total	738		30.0		ug/L			12/19/13 18:37	10
Toluene	21.1		1.00		ug/L			12/11/13 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*12/11/13 15:24*	*1*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*12/19/13 18:37*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*12/11/13 15:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*12/19/13 18:37*	*10*
Toluene-d8 (Surr)	*101*		*70 - 130*		*12/11/13 15:24*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*12/19/13 18:37*	*10*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*12/11/13 15:24*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*12/19/13 18:37*	*10*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	93.4		2.27		ug/L		12/11/13 10:04	12/12/13 15:48	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*83*		*13 - 120*	*12/11/13 10:04*	*12/11/13 22:16*	*1*
Nitrobenzene-d5	*432*	*X*	*27 - 120*	*12/11/13 10:04*	*12/11/13 22:16*	*1*
2-Fluorobiphenyl (Surr)	*73*		*29 - 120*	*12/11/13 10:04*	*12/11/13 22:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	14900	*	1000		ug/L			12/13/13 13:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*50 - 150*		*12/13/13 13:01*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	3400		426		ug/L		12/11/13 12:28	12/13/13 10:40	4
C24-C40	ND		106		ug/L		12/11/13 12:28	12/13/13 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*74*		*50 - 150*	*12/11/13 12:28*	*12/13/13 01:03*	*1*

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

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

Lab Sample ID: MB 490-128054/7
Matrix: Water
Analysis Batch: 128054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			12/11/13 13:17	1
Ethylbenzene	ND		1.00		ug/L			12/11/13 13:17	1
Xylenes, Total	ND		3.00		ug/L			12/11/13 13:17	1
Toluene	ND		1.00		ug/L			12/11/13 13:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*12/11/13 13:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*12/11/13 13:17*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*12/11/13 13:17*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*12/11/13 13:17*	*1*

Lab Sample ID: LCS 490-128054/3
Matrix: Water
Analysis Batch: 128054

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	50.37		ug/L		101	80 - 121		
Ethylbenzene			50.0	49.90		ug/L		100	80 - 130		
Xylenes, Total			150	149.9		ug/L		100	80 - 132		
Toluene			50.0	50.52		ug/L		101	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 490-128054/4
Matrix: Water
Analysis Batch: 128054

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	52.95		ug/L		106	80 - 121	5	17
Ethylbenzene			50.0	52.80		ug/L		106	80 - 130	6	15
Xylenes, Total			150	158.5		ug/L		106	80 - 132	6	15
Toluene			50.0	54.14		ug/L		108	80 - 126	7	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*112*		*70 - 130*

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

Lab Sample ID: 490-42273-B-9 MS
Matrix: Water
Analysis Batch: 128054

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	48.63		ug/L		97	75 - 133
Ethylbenzene	ND		50.0	48.78		ug/L		98	79 - 139
Xylenes, Total	ND		150	144.7		ug/L		96	74 - 141
Toluene	ND		50.0	50.47		ug/L		101	75 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*

Lab Sample ID: 490-42273-C-9 MSD
Matrix: Water
Analysis Batch: 128054

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	49.45		ug/L		99	75 - 133	2	17
Ethylbenzene	ND		50.0	49.20		ug/L		98	79 - 139	1	15
Xylenes, Total	ND		150	146.4		ug/L		98	74 - 141	1	15
Toluene	ND		50.0	50.80		ug/L		102	75 - 136	1	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 490-130223/7
Matrix: Water
Analysis Batch: 130223

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			12/19/13 15:02	1
Ethylbenzene	ND		1.00		ug/L			12/19/13 15:02	1
Xylenes, Total	ND		3.00		ug/L			12/19/13 15:02	1
Toluene	ND		1.00		ug/L			12/19/13 15:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*		*12/19/13 15:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*12/19/13 15:02*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*12/19/13 15:02*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*12/19/13 15:02*	*1*

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

Lab Sample ID: LCS 490-130223/3
Matrix: Water
Analysis Batch: 130223

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	48.14		ug/L		96	80 - 121		
Ethylbenzene			50.0	53.46		ug/L		107	80 - 130		
Xylenes, Total			150	145.7		ug/L		97	80 - 132		
Toluene			50.0	44.95		ug/L		90	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 490-130223/4
Matrix: Water
Analysis Batch: 130223

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	47.19		ug/L		94	80 - 121	2	17
Ethylbenzene			50.0	52.16		ug/L		104	80 - 130	2	15
Xylenes, Total			150	143.2		ug/L		95	80 - 132	2	15
Toluene			50.0	44.99		ug/L		90	80 - 126	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*

Lab Sample ID: 490-42769-B-1 MS
Matrix: Water
Analysis Batch: 130223

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	ND		50.0	46.16		ug/L		92	75 - 133		
Ethylbenzene	ND		50.0	50.73		ug/L		101	79 - 139		
Xylenes, Total	ND		150	138.2		ug/L		92	74 - 141		
Toluene	ND		50.0	42.91		ug/L		86	75 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*

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

Lab Sample ID: 490-42769-C-1 MSD
Matrix: Water
Analysis Batch: 130223

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	48.02		ug/L		96	75 - 133	4	17
Ethylbenzene	ND		50.0	51.32		ug/L		103	79 - 139	1	15
Xylenes, Total	ND		150	140.2		ug/L		93	74 - 141	1	15
Toluene	ND		50.0	43.83		ug/L		88	75 - 136	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*95*		*70 - 130*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 490-128047/1-A
Matrix: Water
Analysis Batch: 128139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/L		12/11/13 10:04	12/11/13 19:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*86*		*13 - 120*	*12/11/13 10:04*	*12/11/13 19:07*	*1*
Nitrobenzene-d5	*71*		*27 - 120*	*12/11/13 10:04*	*12/11/13 19:07*	*1*
2-Fluorobiphenyl (Surr)	*71*		*29 - 120*	*12/11/13 10:04*	*12/11/13 19:07*	*1*

Lab Sample ID: LCS 490-128047/2-A
Matrix: Water
Analysis Batch: 128139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128047

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			1.00	0.6391		ug/L		64	37 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*77*		*13 - 120*
Nitrobenzene-d5	*67*		*27 - 120*
2-Fluorobiphenyl (Surr)	*68*		*29 - 120*

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

Lab Sample ID: MB 490-128431/6
Matrix: Water
Analysis Batch: 128431

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			12/12/13 15:06	1

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

Lab Sample ID: MB 490-128431/6
Matrix: Water
Analysis Batch: 128431

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	77		50 - 150		12/12/13 15:06	1

Lab Sample ID: LCS 490-128431/4
Matrix: Water
Analysis Batch: 128431

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	725.5		ug/L		73	39 - 143		

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

Lab Sample ID: 490-42168-E-2 DU
Matrix: Water
Analysis Batch: 128431

Client Sample ID: Duplicate
Prep Type: Total/NA

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

Surrogate	DU %Recovery	DU Qualifier	Limits
a,a,a-Trifluorotoluene	74		50 - 150

Lab Sample ID: MB 490-128584/6
Matrix: Water
Analysis Batch: 128584

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			12/13/13 08:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150		12/13/13 08:49	1

Lab Sample ID: LCS 490-128584/5
Matrix: Water
Analysis Batch: 128584

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	921.0		ug/L		92	39 - 143		

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

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

Lab Sample ID: 490-42122-E-2 DU
Matrix: Water
Analysis Batch: 128584

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	ND	*		ND	*	ug/L				NC	18

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*95*		*50 - 150*

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

Lab Sample ID: MB 490-128128/1-A
Matrix: Water
Analysis Batch: 128373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		12/11/13 12:28	12/12/13 19:10	1
C24-C40	ND		100		ug/L		12/11/13 12:28	12/12/13 19:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*64*		*50 - 150*	*12/11/13 12:28*	*12/12/13 19:10*	*1*

Lab Sample ID: LCS 490-128128/2-A
Matrix: Water
Analysis Batch: 128373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128128

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C24			1000	729.3		ug/L		73	51 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*83*		*50 - 150*

Lab Sample ID: 490-42169-G-1-B DU
Matrix: Water
Analysis Batch: 128373

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 128128

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C10-C24	290			284.0		ug/L				2	41
C24-C40	ND			ND		ug/L				NC	41

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*51*		*50 - 150*

GC/MS VOA

Analysis Batch: 128054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42170-1	GW-241809-120513-RK-MW-3	Total/NA	Ground Water	8260B	
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	8260B	
490-42273-B-9 MS	Matrix Spike	Total/NA	Water	8260B	
490-42273-C-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-128054/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-128054/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-128054/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 130223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	8260B	
490-42769-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
490-42769-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-130223/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-130223/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-130223/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 128047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	3510C	
LCS 490-128047/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-128047/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 128139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	8270C SIM	128047
LCS 490-128047/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	128047
MB 490-128047/1-A	Method Blank	Total/NA	Water	8270C SIM	128047

Analysis Batch: 128455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	8270C SIM	128047

GC VOA

Analysis Batch: 128431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42168-E-2 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
490-42170-1	GW-241809-120513-RK-MW-3	Total/NA	Ground Water	NWTPH-Gx	
LCS 490-128431/4	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
MB 490-128431/6	Method Blank	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 128584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42122-E-2 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	NWTPH-Gx	
LCS 490-128584/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
MB 490-128584/6	Method Blank	Total/NA	Water	NWTPH-Gx	

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

GC Semi VOA

Prep Batch: 128128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42169-G-1-B DU	Duplicate	Total/NA	Water	3510C	
490-42170-1	GW-241809-120513-RK-MW-3	Total/NA	Ground Water	3510C	
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	3510C	
LCS 490-128128/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-128128/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 128373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-42169-G-1-B DU	Duplicate	Total/NA	Water	NWTPH-Dx	128128
490-42170-1	GW-241809-120513-RK-MW-3	Total/NA	Ground Water	NWTPH-Dx	128128
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	NWTPH-Dx	128128
490-42170-2	GW-241809-120513-RK-MW-13	Total/NA	Ground Water	NWTPH-Dx	128128
LCS 490-128128/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	128128
MB 490-128128/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	128128

Lab Chronicle

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Client Sample ID: GW-241809-120513-RK-MW-3

Lab Sample ID: 490-42170-1

Date Collected: 12/05/13 14:29

Matrix: Ground Water

Date Received: 12/09/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	128054	12/11/13 14:59	FKG	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	128431	12/13/13 00:47	AMC	TAL NSH
Total/NA	Prep	3510C			950 mL	1 mL	128128	12/11/13 12:28	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			128373	12/13/13 00:48	JML	TAL NSH

Client Sample ID: GW-241809-120513-RK-MW-13

Lab Sample ID: 490-42170-2

Date Collected: 12/05/13 13:49

Matrix: Ground Water

Date Received: 12/09/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	128054	12/11/13 15:24	FKG	TAL NSH
Total/NA	Analysis	8260B		10	10 mL	10 mL	130223	12/19/13 18:37	MJH	TAL NSH
Total/NA	Prep	3510C			880 mL	1 mL	128047	12/11/13 10:04	FXM	TAL NSH
Total/NA	Analysis	8270C SIM		1			128139	12/11/13 22:16	BES	TAL NSH
Total/NA	Analysis	8270C SIM		20			128455	12/12/13 15:48	BES	TAL NSH
Total/NA	Analysis	NWTPH-Gx		10	5 mL	5 mL	128584	12/13/13 13:01	AMC	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			128373	12/13/13 01:03	JML	TAL NSH
Total/NA	Prep	3510C			940 mL	1 mL	128128	12/11/13 12:28	FXM	TAL NSH
Total/NA	Analysis	NWTPH-Dx		4			128373	12/13/13 10:40	JML	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, Bothell, WA

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 490-42170-1
SDG: SAP 120531 / 241809

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM


490-42170 Chain of Custody

Cooler Received/Opened On 12/9/2013 @ 0900

1. Tracking # 1505 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID Raynger

2. Temperature of rep. sample or temp blank when opened: 3.2 *Degrees Celsius*

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

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

If yes, how many and where:

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

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

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

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

Vials Only

ALL vials

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

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

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) ID

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) MM

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

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

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
42170

Cooler Received/Opened On 12/9/2013 @ 0900

1. Tracking # 1479 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID Raynger

2. Temperature of rep. sample or temp blank when opened: 1.5 *Degrees Celsius*

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

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

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) JD

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

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

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

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

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

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

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

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

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

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

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

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) JD

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) JD

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

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

BIS = Broken in shipment

Shell Oil Products Chain Of Custody Record

12/23/2013

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: 12/5/13

PAGE: 1 of 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.: 130205-PM2

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

SAMPLER NAME(S) (Print): Peter Dhanpat

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://cralabedduploa d.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)

Loc: 490
42170

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)				Naphthalenes (8270-SIM)	TPH-O	NWTPH-VPH	NWTPH-EPH			Container PID Readings or Laboratory Notes
	GW	241809	120513	PK	MW-3	1429	WG	X			None		8	X	X	X													X					
	GW	241809	120513	PK	MW-13	1349	W	X			X		10	X	X	X													X	X				

Relinquished by: (Signature)

Received by: (Signature) Shipped via FedEx

Date: 12/5/13

Time:

Relinquished by: (Signature)

Received by: (Signature) IAN

Date: 12/6/13 0900

Time: 3.2/1.5

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-42170-1
SDG Number: SAP 120531 / 241809

Login Number: 42170
List Number: 1
Creator: Buckingham, Paul

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