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DATE:	Decem	ber 5, 2011			RENCE No.:	
				Proj	ECT NAME:	11700 NE 160 <sup>th</sup> St, Bothell, WA
To:	Depart	ment of Ecolo	gy - NWRO			
	Attn: L	ibby Goldstei	n			
	3190 16	0th Ave. SE				
	Bellevu	ie, WA 98008	-5452			
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Complete	u by: _J	ing Song [Pl	ease Print]		Signed:	Y ->

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# 2011 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

> Prepared by: Conestoga-Rovers & Associates

20818 44<sup>th</sup> Avenue West, Suite 190 Lynnwood, Washington U.S.A. 98036

Office: 425-563-6500 Fax: 425-563-6599

web: http:\\www.CRAworld.com

DECEMBER 5, 2011
REF. NO. 241809 (10)
This report is printed on recycled paper.



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SHELL-BRANDED WHOLESALE FACILITY 11700 NORTHEAST 160th STREET BOTHELL, WASHINGTON

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Jing Song

Christina McClelland

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### 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 2011.

### 1.1 <u>SITE INFORMATION</u>

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.

### 2.0 <u>SITE ACTIVITIES, FINDINGS, AND DISCUSSION</u>

### 2.1 CURRENT ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled wells according to the established monitoring program for this site.

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 <u>FINDINGS</u>

Quarter/Date 1st/ March 23, 2011

Groundwater Flow Direction Groundwater is laterally discontinuous; no

consistent flow direction

Hydraulic Gradient N/A

Depth to Water 9.12 to 49.24 feet below top of well casing

Quarter/Date 3<sup>rd</sup>/September 12, 2011

Groundwater Flow Direction Groundwater is laterally discontinuous; no

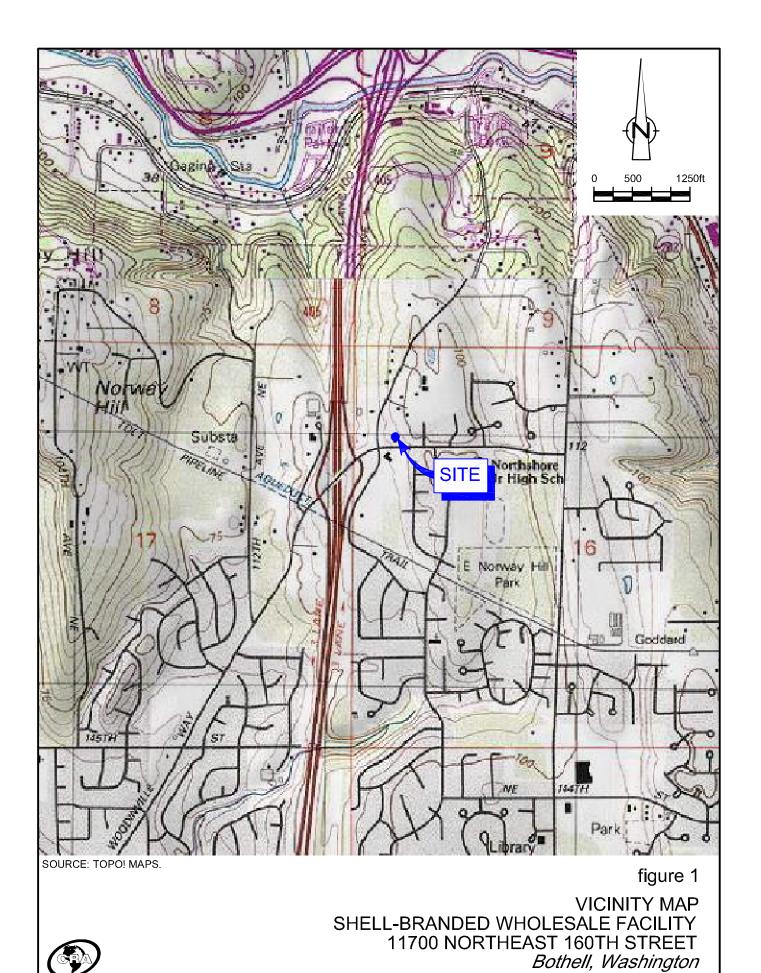
consistent flow direction

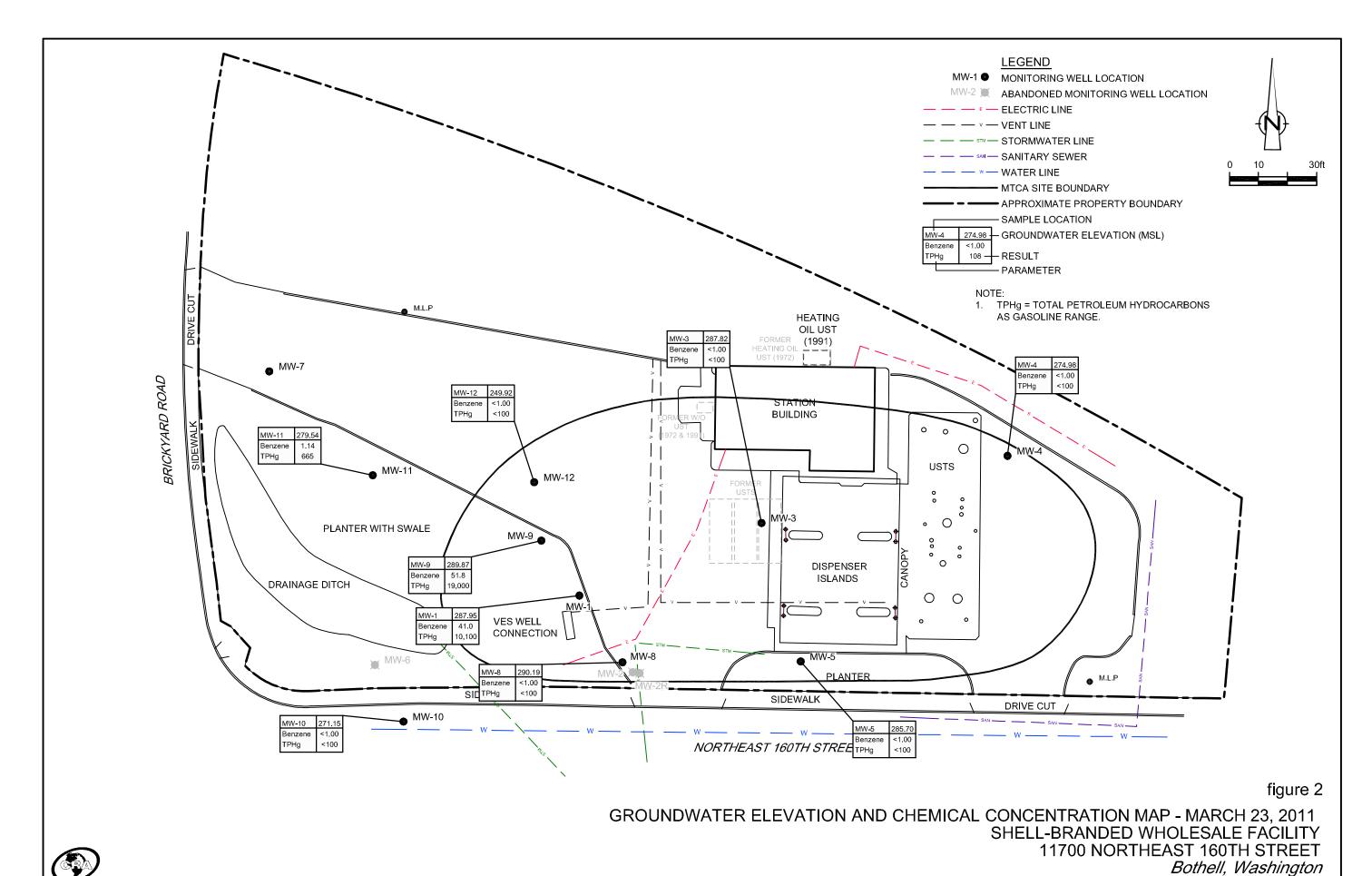
Hydraulic Gradient N/A

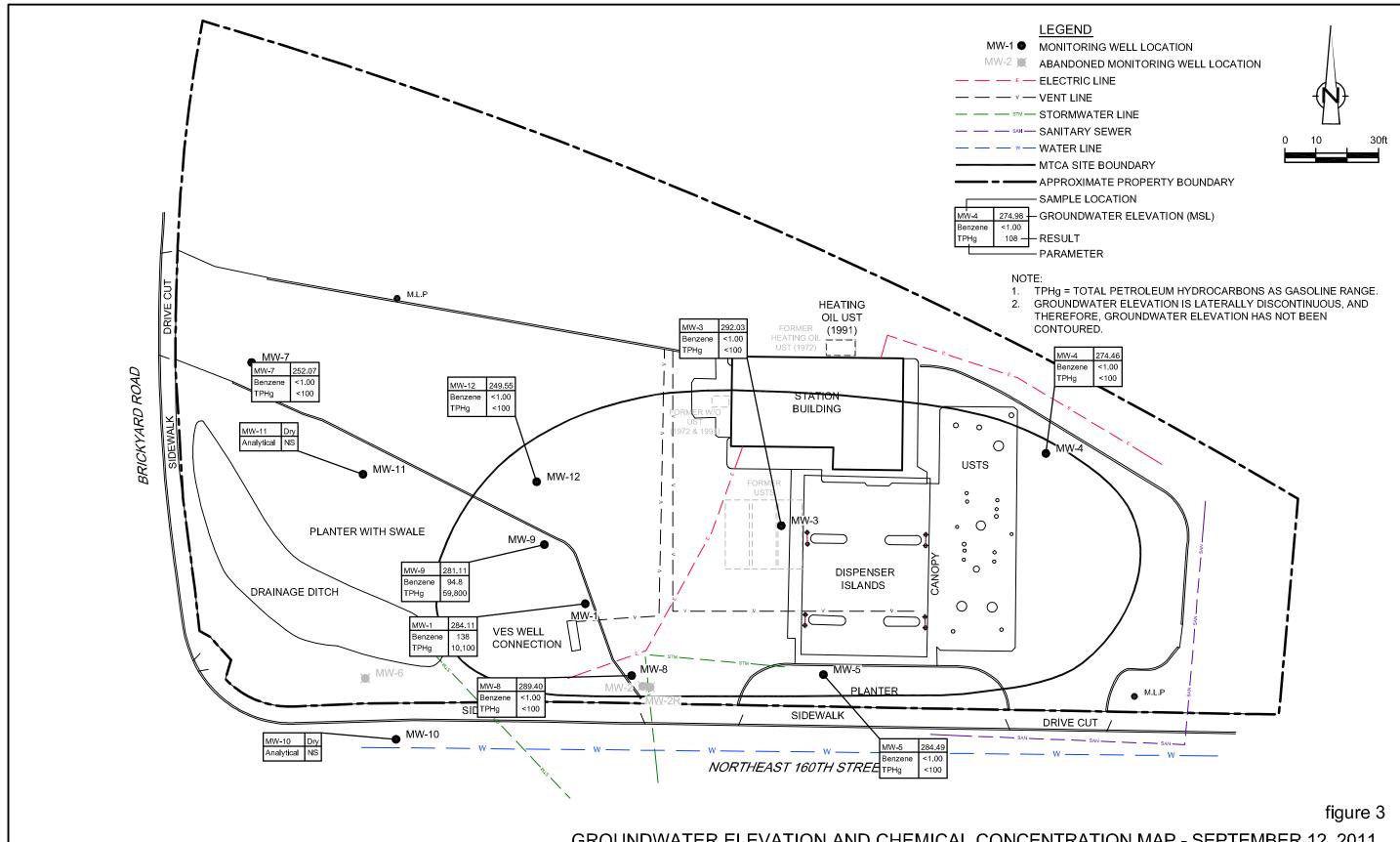
Depth to Water 9.91 to 49.61 feet below top of well casing

**FIGURES** 

241809 (10)







GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - SEPTEMBER 12, 2011 SHELL-BRANDED WHOLESALE FACILITY 11700 NORTHEAST 160TH STREET Bothell, Washington

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING INC.

241809 (10)

					HYD	ROCARBO	NS			PRIMA	RY VOCs				OX	YGENAT	ES			LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	T	Е	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Mode	el Toxics Control A	ct Method A Cl	eanup 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 <sup>c</sup>	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 <sup>c</sup>	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 <sup>c</sup>	03/21/96	94.91	13.49	81.42	64,000			300	2,600	2,500	9,300											
MW-1	06/17/96												-	nstruction								
MW-1	09/23/96													nstruction								
MW-1	12/16/96											buried duri	ing site co	nstruction	not measu	red						
MW-1	06/27/97	91.10	15.15	75.95	59,100			126	1,400	2,670	6,940											
MW-1°	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 MW-1	09/21/98	91.10 91.10	22.49 15.08	68.61 76.02	37,200			678 221	923 790	2,150 1,950	7,120											
MW-1	12/16/98 04/08/99	91.10	16.07	75.03	37,300 33,200			86.9	478	1,650	6,270 5,600			<500 e								
MW-1	10/07/99	91.10	22.27	68.83	42,200			586	1,690	2,210				<500 e								
MW-1	03/21/00	91.10	16.74	74.36	30,000			104	310	1,850	6,880 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			-5.00								
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	

					HYDI	ROCARBO	ONS			PRIMAI	RY VOCs				O	XYGENAT	ES		i	LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	T	Е	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Mode	el Toxics Control A	ct Method A Cl	leanup 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-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 Des	troyed Du	ıring Wide	ning of Nort	theast 160t	h 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 <sup>c</sup>	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 <sup>c</sup>	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 <sup>c</sup>	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 <sup>c</sup>	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°	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°	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	2.020			101	7.10	220	07.4											
MW-3 MW-3 <sup>c</sup>	06/17/96	99.57 99.57	21.25 21.25	78.32 78.32	3,920 4,290			121 87.5	7.19 6.58	238 211	87.4											
MW-3	06/17/96	99.57	22.83								115.0											
MW-3	09/23/96 12/16/96	99.57 99.57	22.66	76.74 76.91	 878			29.8	1.1	49.5	7.6											
MW-3°	12/16/96	99.57	22.66	76.91	580			29.6	1.6	41.9	7.6 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											

					HYDI	ROCARBO	NS			PRIMAI	RY VOCs				O2	XYGENAT	ES			LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	T	Е	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
	el Toxics Control A	Act Method A Cl	eanup 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	07/14/03	99.57	23.73	75.84	<250			6.9	<1	<1	1.7											
MW-3	01/23/04	99.57	23.82	75.75	<250			170	<1	<1	1.5											
MW-3	07/23/04	99.57	23.98	75.59	<250			<1	<1	<1	<1											
MW-3	01/10/05	99.57	24.25	75.32	<250			<1	<1	<1	<1											
MW-3	07/15/05	99.57	22.99	76.58	<50			<1	<1	<1	<1											
MW-3	01/11/06	99.57	23.47	76.10	<50			< 0.500	< 0.500	< 0.500	< 0.1											
MW-3	02/15/07	99.57	23.05	76.52	1,230			1.96	< 0.500	< 0.500	<3.00			< 5.00	<50.0	<1.00	<1.00	<1.00				
MW-3	09/11/07	99.57	24.63	74.94	<50.0			< 0.500	< 0.500	< 0.500	<3.00											
MW-3	02/20/08	99.57	22.73	76.84	722			1.23	< 0.500	< 0.500	<3.00			< 5.00	<50.0	<1.00	<1.00	<1.00				
MW-3	08/12/08	99.57	23.10	76.47	<100			< 0.5	<1	<1	<1											
MW-3	02/04/09	99.57	23.11	76.46	640			0.85	<1.400	<1.0	<1.0			<1.0	14.0	<2.0	<2.0	<2.0				
MW-3 *	08/13/09	303.37	23.33	280.04	<100	170 d	<100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.010	< 0.50	< 0.50	4.0	< 0.50	< 0.50	< 0.50	2.93		0.14	< 0.1
MW-3	02/05/10	303.37	21.52	281.85	430	180 d	<100	< 0.50	<1.0	<1.0	<1.0			<1.0	<10	<2.0	<2.0	<2.0				
MW-3	08/04/10	303.37	20.10	283.27	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0											
MW-3	03/23/11	303.37	15.55	287.82	<100	<97.1	160	<1.00	<1.00	<1.00	<3.00			<1.00	<20.0	<1.00	<1.00	<1.00				
MW-3	09/12/11	303.37	11.34	292.03	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00											
MW-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	02/25/02	102.75	32.41	70.34																		
MW-4	01/02/03	102.75	34.33	68.42																		
MW-4	07/14/03	102.75	33.37	69.38																		
MW-4	07/14/03	102.75	33.68	69.07																		
MW-4	07/23/04	102.75	33.87	68.88																		
1V1 V V±	07/23/04	102.73	33.07	00.00																		

					HYDI	ROCARBO	NS			PRIMA	RY VOCs				OX	XYGENAT	ES			LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	T	Е	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Mode	el Toxics Control A	ct Method A Cl	eanup 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	01/10/05	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											
3.647.5	02 /21 /0/	04.77	20.70	E0 0E	NID			NID	NID	NID	NID											
MW-5	03/21/96	94.76	20.79 20.69	73.97	ND			ND ND	ND 0.647	ND ND	ND											
MW-5	06/17/96	94.76		74.07	ND						ND											
MW-5 MW-5 <sup>c</sup>	09/23/96	94.76	22.87	71.89	ND			ND	ND	ND	ND											
MW-5	09/23/96 12/16/96	94.76	22.87 21.90	71.89 72.86	ND ND			ND ND	0.633 ND	ND ND	ND											
MW-5		94.76 94.76		73.89	ND			ND ND	ND	ND	ND											
MW-5	06/27/97 09/16/97	94.76	20.87 21.84	72.92	ND ND			ND ND	ND	ND	ND ND											
MW-5°	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																		
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

					HYDI	ROCARBO	NS			PRIMAI	RY VOCs				OX	XYGENAT	ES			LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	ТРНА	ТРНо	В	T	Е	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Mode	el Toxics Control	Act Method A Clea	nup 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	02/05/10	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-6	03/21/96	Not surveyed	Dry																			
MW-6	06/17/96									Well	Destroyed	During W	idening of	Northeast 1	.60th 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-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-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	
100	01 /20 /10	204.50	Б																			
MW-10	01/29/10	294.78	Dry																			
MW-10	02/05/10	294.78	24.30	270.48																		
MW-10	08/04/10	294.78	24.40	270.38	<100	<07.1		<1.00		<1.00				<1.00			<1.00	<1.00				
MW-10 MW-10	03/23/11	294.78 294.78	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				
10100-10	09/12/11	294.76	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		Insufficient					-1.0				-1.0	-10		-10					
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	21 7.54				1.17	~1.00					~1.00		-1.00	~1.00	<b>\1.00</b>			0.014	
141 4 4 - 1 1	57/12/11	275.07	Diy																			
MW-12	10/12/10	299.16	50.20	248.96																		
MW-12	10/12/10	299.16	50.20	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	
	,,																					

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

					HYDI	ROCARBO	ONS			PRIMAI	RY VOCs				O	YGENAT	ES			LEAD	PAHs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
Model '	Toxics Control A	Act Method A Cle	anup 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

#### 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 ( $\mu g/L$ ) 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

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
- \* = 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

241809 (10)

### WELL GAUGING DATA

Project # 11032	3-9L1 I	Date <u>3/</u>	3/11	_Client	CRA	
Site <u>Shell</u>	11700	160th	Bothe 11			

Well ID	Time	Well Size (in.)	Sheen / Odor	Thickness of Immiscible Liquid (ft.)	Immiscibles Removed	Depth to water	Depth to well bottom (ft.)	Survey Point: TOB or	Notes
MW-1	1050	4				11.58	36.12		
MW-3	1013	4				15.55	36.1Z 34.70		
mw-4	0840	4					29.44		
MW-5	0907	4					24.88		
MW-7		4				Dry			
MW-8	0924	2		 	-	9.12	24.94		
mw-9	1111	2				9.26	24.43		
MW-10	0949	ン		 		23.63	z4.80		
MW-11	1030	2							
MW-12	0816	2				13.53 49.24	59.63		
								:	

				Τ			
BTS #: //	10323-	-SL1		Site: 92	2990	5017	
Sampler:	<u> </u>	····		Date:		•	
Well I.D.:	MW-			Well Dia	1		4) 6 8
Total Well	Depth (TE	)): H	5.12	Depth to	Wate	er (DTW): //.	158
Depth to Fr	ee Produc	t:				ree Product (	
Referenced	to:	PVD	Grade	D.O. Me	<del></del>		YSI HACH
DTW with	80% Rech	arge [(H	leight of Water				-
	Bailer Disposable B Middlaburg Electric Subm	Bailer	•	Waterra Peristaltic etion Pump		Sampling Metho	Extraction Port Dedicated Tubing her:
1 Case Volume	Gals.) X	ified Volum		_ Gals.	ell <u>Diamete</u> 1" 2" 3"	0.04 4° 0.16 6°	0,00
Time	Temp (°F)	рН	Cond, (mS or as)	Turbid (NTU	-	Gals. Remove	ed Observations
1100	52.3	6.44	673	24	1		des Oder
Did well dev	water?	Yes (	No	Gallons a	ctuall	y evacuated:	
Sampling Da	ate: 3/2	3/11	Sampling Time	e: 100	>	Depth to Wat	nter: 11,58
Sample I.D.:	: GW-2419	809-03	2311- SL-MW.	Laborator	ry:	Calscience O	Other FA
Analyzed for				Other: Se	e SOW	······································	
EB I.D. (if a	pplicable)	):	@ Time			(if applicable)	).
Analyzed for	r: TPH-G	BTEX		Other:		, rr. ,	).
D.O. (if req'o	d): Pr	e-purge:		mg/L	Po	ost-purge:	mg/ <sub>I</sub>
O.R.P. (if red	q'd): Pr	e-purge:		mV	Po	ost-purge:	mV

BTS#:	10323	-561		Site: 92995017					
Sampler:	GL			Date:		3/11			
Well I.D.:	MW-3			Well I	) Diameter	<del></del>	6 8		
Total Wel	Depth (TD	)): 774	1.70	Depth to Water (DTW): 15.55					
Depth to F	ree Produc	t:	-	i		ree Product (fe			
Reference	d to:	PVO	Grade	<u> </u>	leter (if		YSI HACH		
DTW with	80% Rech	arge [(F	leight of Water	Column x 0.20) + DTW]:					
Purge Method:	Bailer Disposable B Middlaburg Electric Subn		Extrac Other	Waterra Peristaltic tion Pump		Sampling Method Othe	Sposable Bailer Extraction Port Dedicated Tubing		
1 Case Volume	(Gals.) X	fied Volum		_ Gals. lume	1" 2" 3"	0.04 4" 0.16 6" 0.37 Oth	0.65 1.47		
Time	Temp (°F)	pН	Cond. (mS or (IS)		oidity ΓUs)	Gals. Removed	Observations		
1020	54.4	6.74	286	ブ	9		doudy		
<del>,</del> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
<u> </u>				· · · · · · · · · · · · · · · · · · ·					
Did well de	ewater?	Yes (	No)	Gallons	s actually	y evacuated:			
Sampling I	Date: 3/2	3/11	Sampling Time		·	Depth to Wate	er: 1555		
Sample I.D	:: GW-2419		2311-SL-MW.3		<del></del>	Calscience Otl			
Analyzed f				-	See SOW				
EB I.D. (if		@ Time	<u></u>	<del></del> -	if applicable):				
Analyzed for	analyzed for: TPH-G BTEX MTBE TPH-D					Tr.			
D.O. (if req	.O. (if req'd): Pre-purge:					mg/L Post-purge:			
O.R.P. (if r	eq'd): Pro	e-purge:		mV Post-purge:					

BTS #: //	10323-	-561		Site: 92995017						
Sampler: 6	EL .			Date: 3/	23/11					
Well I.D.:	MW-4			Well Diameter: 2 3 4 6 8						
Total Well	Depth (TE	1): 39	1.44	Depth to Water (DTW): 7/.60						
Depth to Fr	ee Produc	t:			Free Product (fe	· · · · · · · · · · · · · · · · · · ·				
Referenced	to:	PVD	Grade	D.O. Meter (	<del></del>	YSI HACH				
DTW with	80% Rech	arge [(F	Height of Water	Column x 0.2	20) + DTW]: -					
Purge Method:	Bailer Disposable B Middlaburg Electric Subn		Extrac Other	Waterra Peristaltic tion Pump	Sampling Method Other	Extraction Port Dedicated Tubing				
1 Case Volume	Gals.) X Speci	fied Volun		1" _ Gals.	0.04 4" 0.16 6" 0.37 Othe	0.65 1.47				
Time	Temp (°F)	pН	Cond. (mS or (1S)	Turbidity (NTUs)	Gals. Removed	Observations				
0850	496	7.27	538	22		dezr				
						, , , , , , , , , , , , , , , , , , ,				
				-						
Did well de	water?	Yes (	No	Gallons actua	ally evacuated:					
Sampling D	ate: 3/2	3/11	Sampling Time	:0850	Depth to Wate	r: 31.60				
Sample I.D.	: GW-2419	809-03	2311-SL-MW.4	Laboratory:	Calscience Oth					
Analyzed fo		BTEX	•	Other: See SC	)W					
EB I.D. (if a	applicable)	:	@ Time	Duplicate I.D	. (if applicable):					
Analyzed fo	r: TPH-G	BTEX		Other:						
D.O. (if req'	d): Pr	e-purge:		mg/L Post-purge: mg/L						
O.R.P. (if re	:q'd): Pr	e-purge:		mV Post-purge: mV						

BTS #:	10323-	SLI		Site: 92995017						
Sampler:	SL	~4 <u>.</u>		Date:		3/11				
Well I.D.:	MW-5			Well Diameter: 2 3 4 6 8						
Total Well	Depth (TD	): 24	1.88	Depth to Water (DTW): 17.52						
Depth to F	ree Product	t:		Thick	ness of F	ree Produ	ct (fe	et):		
Reference	i to:	PVO	Grade	D.O. 1	Meter (if	req'd):		YSI HACH		
DTW with	80% Rech	arge [(F	Ieight of Water	Colum	n x 0.20	) + DTW]	: -			
Purge Method:	Builer Disposable B Middlaburg Electric Subn		Extrac Other		3	Sampling  T Multiplier  0.04  0.16	Other:	Extraction Port Dedicated Tubing  Diameter Multiplier 0.65		
l Case Volume	-	fied Volun	nes Calculated Vo	_ Gals. lume	3"	0.37	Other	1.47 radius <sup>2</sup> * 0.163		
Time 0915	Temp (°F)	<sub>рН</sub> 7.07	Cond. (mS or (IS))	1	bidity TUs) 7	Gals. Ren	noved	Observations		
Did well de	ewater?	Yes (	No)	Gallon	s actually	y evacuate	ed· -			
Sampling I	Date: 3/2	3/11	Sampling Time					:: 17.5Z		
Sample I.D	:: GW-2418	309-03	2311-SL-MW.5	Labora		Calscience	Othe			
Analyzed f		втех		Other:	See SOW	7				
EB I.D. (if	EB I.D. (if applicable):					if applica	ble):			
Analyzed for	nalyzed for: TPH-G BTEX MTBE TPH-D									
D.O. (if rec	(d): Pr		mg/L Post-purge:				mg/L			
O.R.P. (if r	eq'd): Pro	e-purge:		mV	Po	ost-purge:		mV		

		~~~	E WELL INIO	MI OF	ming Di	ALA SHEEL					
BTS #: /	10323	-561		Site: 4	92996	5017					
Sampler: 2	FL			1	Date: 3/23/11						
Well I.D.:	MW-7			Well Diameter: 2 3 4 6 8							
Total Well	Depth (TI	)): 4c	0.14	Depth	Depth to Water (DTW):						
Depth to Fr		t:		1		ree Product (f	(				
Referenced	to:	PVC	Grade	D.O. 1	Meter (if	rea'd):	YSI HACH				
DTW with	80% Rech	arge [(F	leight of Water			<del></del>	131 HACH				
Purge Method:	•	ailer		Waterra Peristaltic etion Pump	a :	Sampling Metho	Extraction Port Dedicated Tubing				
1 Case Volume	Gals.) X Speci	fied Volun		Gals.	1" 2" 3"	0.04 4" 0.16 6" 0.37 Oth	<u>Diameter Multiplier</u>   0.65   1.47   er radius <sup>2</sup> * 0.163				
Time	Temp (°F)	рН	Cond. (mS orus)		bidity TUs)	Gals. Removed	Observations				
		wel	1 Dry -	ラト	1054	MPR					
Did well de	water?	Yes (	No	Gallon	s actually	y evacuated:					
Sampling D	ate: 3/2	8/11	Sampling Time			Depth to Wate	er:				
Sample I.D.	: GW-2419	809-03	2311-SL-MW.	Labora		<del>\</del>	her FA				
Analyzed fo		BTEX	\	Other:	See SOW	$\overline{}$					
EB I.D. (if a	:	Time	Duplicate I.D. (if applicable):								
Analyzed fo	BTEX		Other:								
D.O. (if req'	d): Pr	e-purge:		mg/L Post-purge:			mg/ <sub>L</sub>				
O.R.P. (if re	q'd): Pr	e-purge:		mV	Po	ost-purge:	mV				

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1			<del></del>								
BTS #: //	10323-	-SL1		Site: 92995017							
Sampler: 2	FL			Date:	_	3/11		****			
Well I.D.:	MW-8	•		Well Diameter: 2 3 4 6 8							
Total Well	Depth (TI	)): Z4.	94	Depth to Water (DTW): 9./2							
Depth to Fr	ee Produc	t:		Thick	ness of F	ree Produ	ct (fe	et):			
Referenced	to:	PVO	Grade	<u> </u>	Meter (if	<del></del>		YSI HACH			
DTW with	80% Rech	arge [(H	leight of Water	Column x 0.20) + DTW]:							
Purge Method:	Bailer Distosable B Middleburg Electric Subn	ailer	•	Waterra Peristaltic tion Pump	a 2	Sampling I	Method Other:	Extraction Port  Dedicated Tubing			
1 Case Volume	Gals.) X Speci	fied Volun	= Calculated Vo	_ Gals. lume	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47			
Time 0930	Temp (°F)	рН 6.98	Cond. (mS or as)		bidity TUs)	Gals. Ren	noved	Observations Cle7			
D:111 1											
Did well de						y evacuate	ed: -				
Sampling D	ate: 3/2	3/11	Sampling Time	:09	30	Depth to	Wate	r: 9.12_			
Sample I.D.	: GW-2419	809-03	2311-5L-MW8	Labora	tory:	Calscience	Oth	er PA			
Analyzed fo		BTEX		Other:	See SOW	7					
EB I.D. (if a	pplicable)	:	@ Time	Duplic	ate I.D. (	if applica	ble):				
Analyzed fo	r: TPH-G	BTEX		Other:		<u> </u>					
D.O. (if req'	d): Pr	e-purge:		mg/L	Po	ost-purge:		mg/ <sub>L</sub>			
O.R.P. (if re	q'd): Pr	e-purge:		mV	Po	ost-purge:		mV			

BTS #: /	10323		Site: 92995017							
Sampler: 2	FL			1	3/2					
Well I.D.:	MW-9			Well Diameter: 2 3 4 6 8						
Total Well	Depth (TI	)): Z4.	43	Depth	Depth to Water (DTW): 9,26					
Depth to Fr		t:		Thick	Thickness of Free Product (feet):					
Referenced	·	PVO	Grade		Meter (if			YSI HACH		
DTW with	80% Rech	arge [(F	leight of Water	Colum	n x 0.20	) + DTW	]: —			
Purge Method:	Builer Disposable B Middleburg Electric Subn		Extrac Other_	Waterry Peristaltic tion Pump	c	Sampling  Sampling  Multiplier 0.04	Other:	Extraction Port Dedicated Tubing  Diameter Multiplier		
1 Case Volume	Gals.) XSpeci	fied Volun	nes Calculated Vo	Gals.	2" 3"	0.16 0.37	4" 6" Other	0.65 1.47 radius <sup>2</sup> * 0.163		
Time	Temp (°F)	pН	Cond. (mS or (S)	1	bidity TUs)	Gals. Rer	noved	Observations		
1120	90.6	6.34	562	71	000			Sheen, Odar		
								•		
····			· · · · · · · · · · · · · · · · · · ·							
Did well de	water?	Yes (	No	Gallon	s actually	y evacuat	ed: -			
Sampling D	ate: 3/2	3/11	Sampling Time	: 112	0	Depth to	Water	: 9.26		
Sample I.D.	: GW-2419	309-03	2311-SL-MW.9	Labora		Calscience	Othe			
Analyzed fo		BTEX	•	Other:	See SOW	7	· · · · · · · · · · · · · · · · · · ·			
EB I.D. (if a	pplicable)	•	@ Time	Duplic	ate I.D. (	if applica	ble):			
Analyzed fo	r: трн-G	втех		Other:		r r				
D.O. (if req'	d): Pr	e-purge:		$^{mg}/_{L}$	Po	ost-purge:		mg/L		
O.R.P. (if re	q'd): Pro	e-purge:		mV	Po	ost-purge:		mV		

	" <del></del>			T		****				
BTS #: /	10323-	-561		Site: 92995017						
Sampler: 2	FL			Date:	3/2	3/11				
Well I.D.:	MW-10	<b>)</b>		Well Diameter: ② 3 4 6 8						
Total Well	Depth (TI	)): Z4.	80	Depth to Water (DTW): 23.63						
Depth to Fi	ee Produc	t:				ree Product (f				
Referenced	to:	PVD	Grade	<del></del>	Meter (if	<del></del>	YSI HACH			
DTW with	80% Rech	arge [(F	Ieight of Water	Column x 0.20) + DTW]:						
Purge Method:	Builer Disposable B Middleburg Electric Subn	ailer	`	Waterra Peristaltic tion Pump	1	Sampling Metho	Extraction Port Dedicated Tubing			
1 Case Volume	Gals.) X Speci	fied Volun	= Calculated Vo	Gals.	2" 3"	0.16 6" 0.37 Ot	1,47			
Time 0950	Temp (°F)	<sub>рН</sub>	Cond. (mS or as)		bidity TUs)	Gals. Remove				
							Brown			
					·					
					***					
Did well de	water?	Yes (	No)	Gallon	s actuall	Ly evacuated:				
Sampling D	ate: 3/2	3/11	Sampling Time	*	70	Depth to Wat	er: 72/2			
Sample I.D.	: GW-2419		2311-SL-MV·10		tory:		ther FA			
Analyzed fo		BTEX		Other:	See SOW					
EB I.D. (if applicable):				····						
<del>"</del>					Duplicate I.D. (if applicable):  Other:					
D.O. (if req'	O. (if req'd): Pre-purge:					mg/ <sub>L</sub> Post-purge:				
O.R.P. (if re	:q'd): Pr	e-purge:	W	$\frac{mg}{L}$ Post-purge: $\frac{mg}{L}$ $mV$ Post-purge: $mV$						
					<del></del>		1			

1		<u> </u>	****						
BTS#: 1/0323-5L	1	Site: 9299	5017						
Sampler: GL			3/11						
Well I.D.: MW- [[		Well Diameter	r:2 3 4	6 8					
Total Well Depth (TD): Z	0.15	Depth to Wate	Depth to Water (DTW): 13.53						
Depth to Free Product:		•	Thickness of Free Product (feet):						
Referenced to:	Grade	D.O. Meter (if	req'd):	YSI HACH					
DTW with 80% Recharge	[(Height of Water	Column x 0.20) + DTW]:							
Purge Method: Builer Disposable Bailer Middlaburg Electric Submersibl	Extra	Waterra Peristaltic ction Pump	Sampling Method Other	Extraction Port Dedicated Tubing					
(Gals.) X 1 Case Volume Specified V	= Calculated V		0.04 4" 0.16 6" 0.37 Othe	0.65 1.47					
Time Temp (°F) pF	Cond. (mS or (1S))	Turbidity (NTUs)	Gals. Removed	Observations					
1040 49.9 6.6	7 294	71000		Grey, Odor					
Did well dewater? Yes	(TD)	Gallons actuall	y evacuated: -						
Sampling Date: 3/23/	/ Sampling Tim	e: 1040	Depth to Wate	r: 13.53					
Sample I.D.: <b>Gw- 241809-</b>	032311-SL-MV.	Laboratory:	Calscience Oth	er FA					
Analyzed for: TPH-G BTE	X MTBE TPH-D	Other: See SOV	V						
EB I.D. (if applicable):	@ Time	Duplicate I.D.	(if applicable):						
Analyzed for: TPH-G BTE	X MTBE TPH-D	Other:							
D.O. (if req'd): Pre-pur	ge:	mg/L Post-purge:							
O.R.P. (if req'd): Pre-pur	ge:	mV P	ost-purge:	mV					

BTS #: //	10323-	·SL1		Site: 92995017						
Sampler:	FL	<u> </u>		Date:		3/11				
Well I.D.:	MW-12			Well Diameter: 2 3 4 6 8						
Total Well	Depth (TD	1): 59	1.63	Depth to	Depth to Water (DTW): 49.24					
Depth to Fr		t:				ree Produc		· /		
Referenced	to:	PVO	Grade	D.O. Me		···		YSI HACH		
DTW with	80% Rech	arge [(H	leight of Water	· Column x 0.20) + DTW]:						
Purge Method:	Bailer Disposable B Middlaburg Electric Subm			Waterra Peristaltic ction Pump	ell Diamete		Other:	Extraction Port  Dedicated Tubing		
1 Case Volume	Gals.) XSpeci	ified Volum		_ Gals.	1" 0.04 4" 0.65 2" 0.16 6" 1.47					
Time	Temp (°F)	pН	Cond. (mS or (S)	Turbic (NTU	•	Gals. Rem	oved	Observations		
0870	52.6	6.64	1749	166	, 2			doudy		
								/		
Did well de	water?					y evacuate	d: -			
Sampling D	ate: 3/2	3/11	Sampling Time	3: 087	30	Depth to \	Water	r: 49.24		
Sample I.D.	: 6W-2419	2311-5L-MV-12	Laborato	ry:	Calscience	Oth	er PA			
Analyzed fo					ee SOW	1				
EB I.D. (if a	applicable)		@ Time	Duplicate	e I.D. (	(if applicab	ole):			
Analyzed fo	r: TPH-G	BTEX		Other:		<u> </u>				
D.O. (if req'	d): Pr	e-purge:		$^{ m mg}/_{ m L}$	Po	ost-purge:		mg/ <sub>L</sub>		
O.R.P. (if re	:q'd): Pr	e-purge:		mV	Po	ost-purge:		mV		

1/0323-SE TEMPERATURE ON RECEIPT C\* Container PID Readings or Laboratory Notes INCIDENT# (ENV SERVICES) | CHECK JF NO INCIDENT # APPLIES 7/23 ٦. Shell-US-LabDataManagement@CRAwork. DATE PAGE: ξ 0 1 7 m 5 9 REQUESTED ANALYSIS 0 SAP# 2 (MIS-0728) sonoisdigeN Shell Oil Products Chain Of Custody Record 6 \_ (81709) onsxeH-r Geta H43-H4TWN 6 Š 425-563-6500 нчу-нчт ми (0203) 150-PHONE NO. AOCs Full list (8260B) Christina McClelland - 241809.2011.06 (MIZ 0708) #HA9 (2808) #BDe LAND Print Bill To Contact Name: 11700 NE 160th, Bothell Total Lead (6020) PO # EDC (8011) EDC (85e0B) 5 Oxygenates, MTBE, TBB, DIPE, TAME, ETBE (82608) SMATTER NAME (S) Prop. メメメメ 700 (8260B) NWTPH-Dx wiSilica Gel Cleanup хә-нчтми Matrix Codes - WG (groundwater), WS (surface water) WP (drinking water source), W (Trip or Temp Blank) Q NO. OF 0 0 00 B DSHELL RETAIL 8 7 STATE REIMBURSEMENT RATE APPLIES CRESULTS KEEDED ON WEEKEND RECEIPT VERIFICATION REQUESTED □ uses SHELL CONTRACT RATE APPLIES OTHER Shirred NONE PRESERVATIVE Please Check Appropriate Box TEDO NOT NEEDED H2504 king@blainetech.con HOTIVA RETAIL S CONSULTAR DOTHER HN03 Received by: [Signature) 女 X DWYNO XWA Copy final report to Shell.Lab.Billing@craworld.com, Shell.results@craworld.com, and Shell-US-**上の子|00||** X CONOSOI MW-4 0850WGX MW-10 0950 WG X MW-11 1040 WG MW. 20830 WG MW-810930 WG NW-9/1/20 WG 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 Shelf-US-LabDataManagement@CRAworld.com email folder. ☐24 HOURS TAME: http://cralabedduptoad.crawodd.com/equis/default.aspx) and/or send it to the Shell-US-KWE. WELL ID 1-mm 75 Email invoice to Shell Lab.Billing@craworld.com See Laboratory PM for WA Dept. of Ecology MTCA Method A cleanup levels for <u>minimu</u>m detection limits. SHELL PIPELINE MOTIVA SDACH D EW, SERVICES O2 DAYS Please upload the "CRA EQuIS 4-file EDD" to the CRA Website SAMPLER INTIALS 2 ょ K な どん r 26 (310) 637-5802 UST AGENCY ☐3 DAYS 116260 SAMPLEID 032511 07271) 116260 112260 116760 DATE (MINDDYY) 115250-908141 LWP 116260 14760 20735 Beishaw Avenue, Carson, CA 90746 SPECIAL INSTRUCTIONS OR NOTES: LabDataManagement@CRAworld.com LAB (LOCATION) TURNAROUND TIME (CALENDAR DAYS) PROJECT NUMBER PROJECT CONTACT OPERCOPS or PDF Report to) 241809 608/172 5081th 608/HZ -MB UA - RANQCIB REPORT FORMAT 608472 mg 608142 608/KZ "mb (310) 885-4455 x 108 241809 Blaine Tech Servicos TEST MENCA ( Reinquished by: (Signature) Reinquished by: (Signature) O CALSCIENCE ( SPt. Houston ( 3 SE. CON3X 3 OTHER C 35 orth King 3 3 2

### **WELLHEAD INSPECTION FORM**

Client: CTZA		s	ite:		she	21/	90	9	20	50	17	7			Date 3/23/11
Client: <u>CTZ-A</u> Job #: <u>1/03Z-3</u>	3-9	L 1	,		Te	chnic	cian:	<	20	_					Date <u>3/23/1/</u> Page <u>l</u> of <u>/</u>
							licates								
Well ID	Well Inspected - No Conective Action Required	Cap non-functional	Lock non-functional	Lock missing	Botts missing (list qty.)	Tabs stripped (list qty.)	Tabs broken (list qty.)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade	Other (explain in notes)	Weil Not Inspected (explain in notes)	Notes (list if cap or lock replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)
MW-1	X				_			,							
MW-3	X														
MW-7 MW-4							1/4								1/4 Helicoil
MW-G	人														
Mw-7															newcap + lock
MWS	X														
mw-9	X														
MW-10	X														
MW-11	X		<u></u>												4-4
MW-12	X														
				ļ					ļ						
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Notes:															

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instity consists and obtain a financia.	1 Date: 3 /2 3 / 1 / I mark Deare.  Heitum Calt: yes / no  Damage Claim: yes / no	OTHER	is a epropried a thour less comploated to see below)  Indian to the presentation entry  Indian to the presentation name  Signature  Signature
JOB Clearance Form CONTRACTOR INSTRUCTORS TO START OF WOOK 1, Deliver loan, cheek appropriate bases, read part spin she betten of this form: 2 I lateral adeals, manager on state representative of this job to be participated activity contents and obtain algustine.	Work Order Number: 1/0323-561	FILL BLANK SPACE)  HEARING PROTECTION  WELDING PPE  HDAY IN THE MELDING PPE	112 15A required HECKLENG-15A required Entry to Chinal spaces (e.g. lark, he hear the special product or year the special product or year the special product of the special product
Job Clearance Form	# Bothell  31 - 10 Wells	PPE REQUIRED (CHECK AND OR FILL B  SAFETY CLASSES/COCGLES  NEW CLASSES/C	
S FRICK TO START OF WOOK '11, Rollwey tolm, cleek expropri	Station Address: 11700 160 th 1875 Contacts produced in 1875 1537 150 160 th	ANS AND ALL AND THE THREE THRE	
CONTRACTOR HET RUCTONS PR	Station # State Owners on pay home	SAFETY VEST PROTECTIVE CLOTHINS	Work documents in a queneris  Exercises of Higher / Medium tasis  Details a sea: Dissipated by Contracting Contracting a sea: Dissipated beautifuned?  Has teld delivery tarvior beautifuned?  Has a led delivery duest  Has a led delivery duest  Answer was a contracted of the posted workers, the staff of Answer was contracted of the posted workers, the staff of Answer was contracted of the posted workers, the staff of Answer was contracted and the Disposed Offined task a public?  Answer was a contracted of the posted workers, the staff of Answer was contracted and the Disposed Offined task a public?

The ontext frough is arbotad-representative shall sign, is us and be soldy reporable for all the closurese from and in arbotad remains the constant for resolutions and applicable laws and applicable laws and applicable laws and in the free constant for resolution and applicable laws and applicable laws on the process. The Sie Popresentative may require the ontext in applicable laws of this formor other applicable safety requirements.

### WELL GAUGING DATA

Project #	110912-0	シレ Date	9/	12/11	Client	CRA	
	Shell		ı				

				Thickness	Volume of			Survey	
	Well	G1	Depth to	of	Immiscibles			Point:	
Time	ı	l .				_	1 -		Notes
			(III)	Diquid (IL.)	(mi)				Notes
1306	4					15.42	36.49		~~~~
1242	4					11.34	34.60		
1131	4					32.12	39.50		
1152	4								
1051	4					39.63	40.11		
						9.91	2483		
1320	2					18.02	24.40		
i !						Dry	24.98		
[300	2					Dry	20.11		
1115	2	-				49.61	59.64	3/	
								V	
	12HZ 1131 119Z 1051 1210 13Z0 1233 1300	Time (in.)  1306 4  1242 4  1131 4	Time   Size   Sheen / Odor   1306   4	Size   Sheen / Odor   Immiscible   Liquid (ft.)     1306   4	Well   Size   Sheen / Odor   Depth to   Immiscible   Immiscible   Liquid (ft.)     1306   4	Well   Size   Sheen / Odor   Depth to   Immiscible   Immiscible   Immiscible   Immiscible   Removed   (ml)     1306   4	Well   Size   Sheen / Odor   Depth to   Immiscibles   Immiscibles   Removed (ml)   Depth to water (ft.)     1306   4	Well   Size   Sheen / Odor   Depth to   Immiscible   Removed (ml)   Depth to water (ft.)   Depth to well   bottom (ft.)     1306   4	Well   Size   Sheen / Odor   Depth to   Immiscible   Immiscible   Immiscible   Removed   (ft.)   Depth to water   Depth to well   bottom (ft.)   TOB or

	1 - 1			T						
BTS #: 110912-511					Site: 92995017					
Sampler: SU					Date: 9/12/11					
Well I.D.: MW-1					Well Diameter: 2 3 4 6 8					
Total Well Depth (TD): 36.49					Depth to Water (DTW): 15.42					
Depth to Fi		t:	•	Thickness of Free Product (feet):						
Referenced	to:	(PV)	Grade	D.O. Meter (if req'd): YSI HACH						
DTW with	80% Rech	arge [(F	leight of Water	Colun	nn x 0.20	) + DTW]:				
Purge Method:	Bailer Disposable E Middleburg Electric Sabr		Extrac Other	Watern Peristalti	ic		Other:	Extraction Port  Dedicated Tubing		
(Gals.) X =   1 Case Volume Specified Volumes Calculated Vo					1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47		
Time 1315	Temp (°F)	pH 6.20	Cond. (mS or µ\$) 659	Turbidity (NTUs)		Gals. Removed		Observations OOO		
Did well der	water?	Yes <b>(</b>	-No	Gallor	e actually	y evacuated				
Sampling D	ate: 9/12	1/11	Sampling Time			· · · · · · · · · · · · · · · · · · ·		:15.42		
Sample I.D.	:GW-2418	09-0912	11-5L-MW-1	Labora		Calscience	Othe			
Analyzed fo		BTEX		Other:	See SOW	7				
EB I.D. (if a	pplicable)		@ Time	Duplic	ate I.D. (	if applicable	e)·			
Analyzed for	r: TPH-G	BTEX		Other:		T	, •			
D.O. (if req'd): Pre-purge:					Po	ost-purge:	T	mg/L		
O.R.P. (if req'd): Pre-purge:					Po	ost-purge:		mV		
								Total and the second se		

	1			1						
BTS #: /10912-511 Sampler: 51					Site: 92995017					
Sampler: SU					Date: 9/12/11					
Well I.D.: MW-3					Well Diameter: 2 3 4 6 8					
Total Well Depth (TD): 34-60					Depth to Water (DTW): 11.34					
Depth to Free Product:					Thickness of Free Product (feet):					
Referenced	l to:	PVO	Grade	D.O. Meter (if req'd): YSI HACH						
DTW with	80% Rech	arge [(F	leight of Water				***************************************			
Purge Method:	Bailer Disposable E Middleburg Electric Subr	Bailer	`	Waterr Peristalti tion Pum	a c	Sampling Meth		Bailer  Disposable Bailer  Extraction Port  Dedicated Tubing		
(Gals.) X =					]" 2" 3"	0.04 4 0.16 6	в	0.65 1.47 radius <sup>2</sup> • 0.163		
Time	Temp (°F)	pH	Cond. (mS or $\mu$ \$)	(N	rbidity TUs)	Gals. Remove	ed	Observations		
(0-)0	62.5	7-17	176	3		•		162/		
Did well dev			No	Gallon	s actually	y evacuated:				
Sampling D	ate: 9/12	/11	Sampling Time	: 12	50	Depth to Wa	ter: /	1.34		
Sample I.D.	GW. 2418	7-0912	11-5U-MW-3	Labora	tory:	Calscience (	ther C	TA)		
Analyzed for				Other:	See SOW					
EB I.D. (if a	pplicable):		@ Time	Duplic		if applicable)				
Analyzed for	r: TPH-G	BTEX		Other:		T.F. T. T. C.	-			
O.O. (if req'd): Pre-purge:					Post-purge:			mg/L		
O.R.P. (if req'd): Pre-purge:				mV D				mV		

	A		······································	<del></del>					
BTS #: //	10912-	<del>5</del> 4		Site:	9299	15017			
Sampler:	5U			Date:	~ )	111			
Well I.D.:	MW-	4		Well 1	Diameter	r: 2 3	(4)	6 8	
Total Well	Depth (TI	)): <del>Z</del>	7.50	Depth	to Wate	er (DTW):	プン	:1>-	
Depth to Fr	ee Produc	t:		Thickness of Free Product (feet):					
Referenced	to:	PVO	Grade	1	Meter (if			YSI HACH	
DTW with	80% Rech	arge [(F	leight of Water	Colum	ın x 0.20	) + DTW]:			
Purge Method:	Bailer Disposable E Middleburg Electric Sabr	Bailer		Waterr. Peristaltic	a c	Sampling N	Aethod Other:	Extraction Port Dedicated Tubing	
1 Case Volume	Gals.) XSpeci	ified Volun	nes Calculated Vo	_ Gals. lume	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47	
Time	Temp (°F)	pН	Cond. (mS or (15)	i	bidity TUs)	Gals. Rem	oved	Observations	
1140	58.1	6.65	342	2	-2-	4,4	•	clear	
							<b></b>		
				***************************************					
Did well dev	water?	Yes (	No)	Gallon	s actuall	ly evacuate	d		
Sampling D	ate: 9/12	1/11	Sampling Time			· · · · · · · · · · · · · · · · · · ·		:37.12	
		1	11-51-MW-4	Labora	tory:	Calscience	Oth		
Analyzed fo			_		See SOW				
EB I.D. (if a	pplicable)		@ Time	Duplica	ate I.D. (	if applicab	ole):		
Analyzed for	r: TPH-G	втех		Other:		7.1			
D.O. (if req'o		e-purge:	2.22.44.04.4	mg/L	Po	ost-purge:		mg/ <sub>L</sub>	
O.R.P. (if red	q'd): Pro	e-purge:		mV	Po	ost-purge:		mV	

RTS # · /	10917	- 6 - 6 - 1		Ta:.	1700	7				
BTS #: // Sampler:	0110	74		Site:	929	15017				
		<del></del>		Date:	Date: 9/12/11					
Well I.D.:	MW-	5		Well 1	Well Diameter: 2 3 4 6 8					
Total Well	Depth (TI	)): Z	4.60	Depth	Depth to Water (DTW): /8.7ラ					
Depth to Fi	ree Produc	t:		i				***************************************		
Referenced	to:	PVO	Grade	Thickness of Free Product (feet):  D.O. Meter (if req'd):  YSI HACH						
DTW with	80% Rech	arge [(F	Height of Water				•			
Purge Method:	Bailer Disposable E Middleburg Electric Subr	Bailer		Waterry Peristaltic tion/Pump	a C	Sampling l	Method:	Extraction Port Dedicated Tubing		
I Case Volume	Gals.) X Speci	fied Volun	= nes Calculated Vo	_ Gals. lume	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	Diameter Multiplier 0.65 1.47 radius <sup>2</sup> • 0.163		
Time	Temp (°F)	рН 6.87	Cond. (mS or (43)	1	bidity TUs)	Gals. Ren	noved	Observations		
					:			all		
				·						
Did well der	water?	Yes (	<b>N</b>	Calla						
Sampling D						y evacuate				
			Sampling Time			Depth to	Water	: 18.73		
		04-0412	11-51-MW-5	Labora	tory:	Calscience	Othe	er (TA)		
Analyzed fo				Other:	See SOW	7		Professional		
EB I.D. (if a			@ Time	Duplica	ate I.D. (	if applical	ole):			
Analyzed for		BTEX	MTBE TPH-D (	Other:		W				
D.O. (if req'o	d): Pre	-purge:		mg/L	Po	ost-purge:		mg/ <sub>L</sub>		
O.R.P. (if rea	q'd): Pre	-purge:		mV	Po	ost-purge:		mV		

1	. 4					······				
BTS #: //	10912-	54	1.00		Site:	9299	15017	,		
Sampler:	5U				Date:	9/12	111			
Well I.D.:	MW-	7			Well	Diameter	: 2 3	4	) 6 8 <u> </u>	
Total Well	Depth (TI	)): 40	2.11		Depth	Depth to Water (DTW): ラタ.63				
Depth to F	ree Produc	t:			1		ree Prodi		· · · · · · · · · · · · · · · · · · ·	<del></del>
Referenced	l to:	(PV)	G	rade		Meter (if			YSI HACH	<del></del>
DTW with	80% Rech	arge [(F	Height o	of Water	r Colum	ın x 0.20	) + DTW	1:		
Purge Method:	Bailer Disposable B Middleburg Electric Sabn	ailer			Watern Peristalti action Pum	well Diamete	Sampling	Method Other	Sposable Bailer Extraction Port Dedicated Tubing	
l Case Volume	Gals.) X Speci	fied Volur	nes Ca	lculated V	Gals.	2" 3"	0.16 0.37	6" Othe	1.47 r radius <sup>2</sup> • 0.163	
Time	Temp (°F) 62.4 ラよ!!!	рН 5.97 гд	1	ond. o(43) 44	(N	rbidity TUs)	Gals. Res		Observations Dark Green	<i>y</i>
	wate	21	for	12	HCI	amb	ers (	TP	-D+T741-0	<b>)</b>
Did well de	water? (	Yes	No		Gallon	e actually	V Original	a d	DW=39.84	
Sampling D		1,1	Sampli	no Tim			y evacuat	**********	700	
Sample I.D.	······································	7-0917			Labora		Depth to  Calscience	Water Oth		
Analyzed fo		BTEX		TPH-D	Other:	See SOW		- Om	er (IA)	_
EB I.D. (if a	pplicable):		@	me			if applica	hla).		-
Analyzed fo		BTEX	·····	TPH-D	Other:	ше I.D. (	п арриса	(ore):	<u></u>	-
D.O. (if req'	d): Pre	-purge:			mg/L	Po	ost-purge:			mg/L
O.R.P. (if re	q'd): Pre	-purge:		•	mV		st-purge:			mV
						L		ı	1	

1	. 4			7	·····					
BTS #: // Sampler:	10912-	54		Site: 92995017						
Sampler:	5U			Date:	Site: 92995017  Date: 9/12/11					
Well I.D.:	MW-	8_		1	Well Diameter: 2 3 4 6 8					
Total Well	Depth (TI	)): Z4	-83	Depth	Depth to Water (DTW): 9.9/					
Depth to F	ree Produc	t:		Thickness of Free Product (feet):						
Referenced	l to:	PYD	Grade		Meter (if		•	YSI HACH		
DTW with	80% Rech	arge [(F	Ieight of Water	Column x 0.20) + DTW]:						
Purge Method:	Bailer Disposable E Middleburg Electric Sabr	ailer		Waterry Peristalti- tion/Pump	a C	Sampling M	Other:	Extraction Port Dedicated Tubing		
( I Case Volume	Gals.) XSpeci	fied Volun	= nes Calculated Vo	_ Gals. lume	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	liameter Multiplier 0.65 1.47 radius <sup>2 •</sup> 0.163		
Time	Temp (°F)	pH 7.00	Cond. (mS or \$\mu s)	3	bidity TUs)	Gals. Remo	oved	Observations		
Did well de	water?	Yes (	মচ্য	Callen						
Sampling D		<del></del>			_ #:	y evacuated		00:		
······································			Sampling Time			Depth to W				
Analyzed fo			11-51-MW-8			Calscience	Othe	TA		
			@	Other:	See SOW					
EB I.D. (if a	· · · · · · · · · · · · · · · · · · ·		Time	Duplic Other:	ate I.D. (	if applicabl	le):			
D.O. (if req'	4.5	e-purge:	WIDE ILU-D	Otner:	n.	act manuari	Т	mg/L		
O.R.P. (if re		e-purge:		mV		ost-purge: ost-purge:				
				*** 7	1.6	oor-purge.		mV[		

Site: 92995017					
Date: 9/12/11					
Well Diameter: 2 3 4 6 8					
Depth to Water (DTW): /8.0>					
Thickness of Free Product (feet):					
D.O. Meter (if req'd):  YSI HACH					
Column x 0.20	) + DTW]:				
Waterra Peristaltic tion Pump	Sampling Method	Sposable Bailer Extraction Port Dedicated Tubing			
_ Gals.   1"   2"   3"	0.04 4" 0.16 6" 0.37 Oth	0.65 1.47			
Turbidity (NTUs)	Gals. Removed	Observations			
126	•	090~			
: 1330	Depth to Wate	r: 18.02			
Laboratory:	Calscience Oth	ner (TA)			
Other: See SOW					
Duplicate I.D. (	if applicable):				
Other:					
mg/ <sub>L</sub> Po	ost-purge:	mg/t			
mV Po	ost-purge;	mV			
	Date: 9/12  Well Diameter Depth to Wate Thickness of F D.O. Meter (if Column x 0.20  Waterra Peristaltic tion/Pump  Turbidity (NTUs)  [Z6]  Gallons actuall : [37]  Laboratory: Other: See SOW Duplicate I.D. (Other:	Date: 9/12/1/ Well Diameter: 2 3 4 Depth to Water (DTW): /2 Thickness of Free Product (for D.O. Meter (if req'd): Column x 0.20) + DTW]:  Waterra Sampling Method Poistaltic tion Pump  Other: See SOW Duplicate I.D. (if applicable): Other:  Post-purge:			

BTS#: 110912-54		Site: 929	95017				
Sampler: SU		Site: 929 Date: 9/1	2/11				
Well I.D.: MW-10		Well Diamete	•	6 8			
Total Well Depth (TD): 24	:98	Depth to Water (DTW):					
Depth to Free Product:		Thickness of Free Product (feet):					
Referenced to:	Grade	D.O. Meter (i	D.O. Meter (if req'd):  YSI HACH				
DTW with 80% Recharge [(He	ight of Water	Column x 0.2	0) + DTW]:				
Purge Method: Bailer Disposable Bailer Middleburg Electric Sabmersible	``	Waterra Peristaltic stion Pump	Sampling Method Other	Extraction Port Dedicated Cubing			
(Gals.) X 1 Case Volume Specified Volumes	= s Calculated Vo	_ Gals. 1" 2"	0.04 4" 0.16 6" 0.37 Othe	0.65 1.47			
Time Temp (°F) pH	Cond. (mS or (113)	Turbidity (NTUs)	Gals. Removed	Observations			
well by	7->	No San	mple				
Did well dewater? Yes N	0	Gallons actua	ly evacuated:				
	ampling Time		Depth to Water				
Sample I.D.: Gw. 241807-09104		Laboratory:	Calscience Oth				
A see a locus of the	\	Other: See SO		er (1/t)			
EB I.D. (if applicable):	@		(if applicable):				
Analyzed for: TPH-G BTEX M		Other;	( FF. road of ).				
D.O. (if req'd): Pre-purge:		mg/L	Post-purge:	mg/1			
O.R.P. (if req'd): Pre-purge:			Post-purge:	mV			

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

	. 4							
BTS #: /	10912-	-54		Site:	9299	15017		
Sampler:	9U			Date:	_ /	411		
Well I.D.:	MW-	11		Well I	Diameter	2 3	4	6 8
Total Well	Depth (TI	)): Z	0.11	Depth	to Wate	r (DTW):	DA	·
Depth to F	ree Produc	t:		1		ree Produ	7	
Referenced	i to:	(PV)	Grade	D.O. Meter (if req'd): YSI HACH				
DTW with	80% Rech	arge [(I	Height of Water	Colum	n x 0.20	) + DTW	):	
Purge Method:	`	Bailer		Waterra Peristaltic tion Pump	a	Sampling		Bailer  Deposable Bailer  Extraction Port  Dedicated Tabing  meter Multiplier
1 Case Volume	(Gals.) XSpeci	fied Volu	= Calculated Vo	_ Gals. lume	1" 2" 3"	0,04 0,16 0,37	4" 6" Other	0.65 1.47 radius <sup>2</sup> * 0.163
Time	Temp (°F)	pН	Cond. (mS or $\mu$ s)	<b>!</b>	bidity TUs)	Gals. Ren	noved	Observations
	Well	tr	1-7	No	Sam	PIE		
Did well de	wate-2	Vaa	N					
Sampling D		Yes			s actually	y evacuate	ed: —	
		XIII	Sampling Time			Depth to	Water:	
		09-0912	11-61-MW.	Labora	tory:	Calscience	Other_	(TA)
Analyzed fo	or: TPH-G	BTEX		Other:	See SOW			
EB I.D. (if a	pplicable)		@ Time	Duplica	ate I.D. (	if applica	ble):	
Analyzed fo		BTEX		Other:				
D.O. (if req'	d): Pre	-purge:		mg/L	Po	ost-purge:		mg/L
O.R.P. (if re	q'd): Pre	-purge:		mX	Po	st-purge:		mV
							The second second	

nma " 1101 -								
BTS#: 110912-541	Site:	Site: 92995017						
Sampler: SU		Date: 9/12/11						
Well I.D.: MW-12	Wel	Diameter	r: 2 3 4	6 8				
Total Well Depth (TD): 59.64	L Dept	Depth to Water (DTW): 49.6/						
Depth to Free Product:								
Referenced to:		Thickness of Free Product (feet):  D.O. Meter (if req'd):  YSI HACH						
DTW with 80% Recharge [(Heigh	ıt of Water Colu							
Purge Method: Bailer Disposable Bailer Middleburg Electric Submersible  (Gals.) X =	Wate Peristal Extraction Pur Other	rra tic	Other    Other   Other	Extraction Port Dedicated Tubing  :  Diameter Multiplier 0.65 1.47				
1 Case Volume Specified Volumes	Calculated Volume	<u> </u>	0.37 Othe	radius <sup>2</sup> * 0.163				
		urbidity NTUs)	Gals. Removed	Observations				
1120 578 6.13	452 71	200		Brown				
Did well dewater? Yes No	Gallo	ns actuall	y evacuated:					
Sampling Date: 9/12/11 Sam	pling Time: [[7	20	Depth to Wate	r: 49.61				
Sample I.D.: GW-241809-091211-61	-Mw-12 Labor	atory:	Calscience Oth					
Analyzed for: трн-с втех мтві		See SOW						
EB I.D. (if applicable):	Time Dupli		(if applicable):					
Analyzed for: TPH-G BTEX MTBE			applicable).					
D.O. (if req'd): Pre-purge:	mg	L Po	ost-purge:	mg, L				
O.R.P. (if req'd): Pre-purge:	m\	_	ost-purge:	mV				

109/2-52 TEMPERATURE ON RECEIPT Container PID Readings of Laboratory Notes INCIDENT # (ENV. SERVICES) | CLORECATE NO HEIGHT & APPLIES 7 Snei-LUS-LabDataManagement@CRAworld.com PAGE: DATE 1 2 0 5 3 REQUESTED ANALYSIS SAP# O-H4T 6 X (NNS-0758) zanoledique Shell Oil Products Chain Of Custody Record 6 наэ-надми 0 × 425-563-6500 H9V-H9TWN Print Bill To Contact Name: (0908) 1396 Christina McClelland - 241809,2011.06 AOCe Enil Het (8560B) (MIZ OTOS) SHA9 CB3 (8085) 11700 NE 160th, Bothell (020a) based (s020) # 0d Come EDC (8011) SITE ADORESS; Street and City EDC (8580B) CRA, Seattle, WA (85eoB) MTBE, TBA, DIPE, TAME, ETBE X X X (80asa) X3TE 又又又又 NWTPH-Dx wiSliles Gel Cleanup XD-H4TWN Mairix Codes - WG (groundwaler), WS (surface water), WP (drinking water source), W (frip or Temp Blank) SHELL RETAIL No. of b STATE REJAUGESEMENT RATE APPLIES

GEDO NOT NEEDED

RECEPT VERIFICATION REQUESTED 80 00 00  $\infty$ DRESULTS NEEDED ON WEEKEND Dunges SHELL CONTRACT RATE APPLIES 7.0 NONE Please Check Appropriate Box: shipped king@blainetech.com H2504 HOTTVA RETAIL Потнея E CORSULTANT KNOS sceined by (Signature) calved by: (Signature ¥ Copy final report to Sheli.Lab.Billing@craworld.com, Sheli.rssults@craworld.com, and Sheli.US-るのうるア MW-4 1140 WG X No. 5 1200 100 X X 500 0011 7-00 大| 500|022| 8-m X 500 250 6:50 X 20120 127 129 1) Please upload the "CRA EQUIS 4-file EDD" to the CRA Website (AhD/Izralabedupload, craword, confrequisdefault aspx) and/or send it to the Shell-US. (AhD/Izralabedupload, craword, come mail folder. 2) Please inforcae that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to defiver the final PDF report to the Shell-US-LabDalahManagement@CRAword.com email stider. 13/2 NO XISTAM DA HOURS 71HE SC 100.1 SUM JA WELL 10 Email invoice to Sheli.Lab.Billing@craword.com See Laboratory PM for WA Dept. of Ecology WTCA Method A cleanup levels for ☐ HOTTVA SD&CH SHELL PUPELINE ENV. SERVICES O 2 DAYS かん かか V. N かん くが (310) 637-5802 UST AGENCY SAMPLEID DATE (MMDDYY) 11-2160 112160 112160 112160 12160 112160 112160 112160 PO8145 WE 20735 Bolshaw Avenue, Carson, CA 90746 SPECIAL INSTRUCTIONS OR NOTES. LabDataManagement@CRAworld,com LAB (LOCATION) PROJECT NUMBER 108/47/20 2001-15 CT 7462 12/2/88 ☐ LA - RWQCB REPORT FORWAT 33 24 BB 2007 14 80g (310) 885-4455 x 108 241809 in detection limits. Biaine Tech Services DIEST AMERICA L Reinquished by: (Signature) Resinquished by: (Signature) SPL Houston ( DOUSCIENCE L OTHER C Dxevco L Lorin King Š 338

# WELLHEAD INSPECTION FORM

Client:	<u>CRA</u> 110912		_	ite:	_	5h	e11	9	12	99	5	01	7			Date 9/12/11
Job#:	_110912	1-91	1			T	echn	ician:	-	51	L					Page! of
					,			dicates								-
	Well ID	Well Inspected - No Corrective Action Required	Cap non-functional	Lock nan-functional	Lock missing	Bolts missing (list qty.)	Tabs stripped (list qty.)	Tabs broken (list qty.)	Annular seal incomplete	Apron damaged	1 Lid broken	Trip Hazard	ow Grade	Other (explain in notes)	Well Not Inspected (explain in notes)	Notes (list if cap or lock replaced, if there are access issues associated with repairs, if traffic control is
		× 3 8	Ö	3	್ತಿ	89	Ta	Ta	₹ F	Apr	Ä	ᄩ	98	용	(exp	required, if stand pipe damaged, or any specific details not covered by checklist)
	MW-3	メ														
	MW-1 MW-3 MW-4							1/4								
	MW-5	×						2 8								
	MW-5 MW-7 MW-8 MW-9	メ				•										
	MW-8	グ														
	MW.9	×														
/	MW-10						2/3									
	MW-10 MW-11	X														
	MW-12	×														
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BLAINE T	ECH SERVICES, INC.		SAN JO	vec		ACDANS				······································				<del></del>	<del></del>	

LOS ANGELES

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Station# Station Address: 1/200	160th (30thell	Work Order Number: 1/09/2-54/	Das: 9/12//
Contraction Constant Nature Conference Parts Conference P	COLOCKE PRINCE IN CONTROL OF THE CON	(Attacket) Start Time: End Time:	Libot lineri Vin Imm Diante.
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	SHAWAY SANGER WAS BEQUIRED (CHECK AND OR FILE BLANK SPACE)	R FI I.S BI ANK SDACSI SERVERS CONTRACTOR SERVINGS AND SERVERS CONTRACTOR SERVERS CONTRAC	Danage Galm: yes/ no
PROTECTIVE CLOTHINS SELOTES	<del>12\</del>	HEARING PROTECTION S   WELDING PPE	ESPIRATOR OTHER
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	गाउँ (लाग ताना थ्या रहेगा है प्राप्त कर रहेगा है	d Leiren matemate change or add the mail becomes toominad ू SIGN OUT	Contracts signature
Opensking sters in the signed by Contract Representative	SKN SKN	GENERAL SAFETY CHECKS	
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Has led chivay sarios beaniformed?     Has led chivay sarios bean formed?     Has led chivay sarios bean formed?	Signature Signature	. Are thanges to opportant coursering and communicated? Site representative narra. Albrichtus, near includes, untale standing reproad?	Signature Signature Signature and Signature and Signature states and Sig
· ba tha definery dust  · Har a bod after procedures been agreed · bot outing out?	ak Loope	2	Sass
As week from condensed of the probact worker, the staff is publical.			
PARTS . Dickered, Replaced and or Dispased Of find tuck gooded and seeial go as appropriate)	ννάν)		
The contract fraceh is atherized in presentive shall sign, issue and be solely responsible for all jich cleasers forms and the obligators sating has under explicable to he work. This bon cosess imposes principles and not ferroded to takes the contracer frame ability posturing the work in completions which the explicable has a contract to a stroil is notice as a spirit in comply with he explicable has a city form on the applicable has a city of the form of the spirit in or other applicable takes that he contract in a stroil is noticed to a stroil is noticed as a stroil is noticed to comply with he explicable has a city form on the applicable has a city of the spirit	ittle for all jub clearans forms and the obligations artings have under explicable by pactoming the work to compliance with all explicable lears and explaines.  So for or any of lie workers are shippy to comply with the requirements in the explicit	b he work. Ubilums of tis furnor ohe appicable salety requierans.	

# APPENDIX B LABORATORY ANALYTICAL REPORTS

241809 (10)



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Road Nashville, TN 37204 Tel: 800-765-0980

## TestAmerica Job ID: NUC4095

Client Project/Site: SAP 120531

Client Project Description: 11700 NE 160th, Bothel, WA

#### For:

Conestoga-Rovers & Asso. (Everett)/ Shell 20818 44th Avenue West, Suite 190 Lynnwood, WA 98036

Attn: Christina McClelland

Um Ryan Fitzuater

Authorized for release by: 04/07/2011 08:03:52 PM

Ryan Fitzwater Project Manager

Ryan.Fitzwater@testamericainc.com

Review your project results through Total Access

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Ask
The Expert

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

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# **Sample Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUC4095-01	GW-241809_SL-MW-1	Ground Water	03/23/11 11:00	03/24/11 08:30
NUC4095-02	GW-241809_SL-MW-3	Ground Water	03/23/11 10:20	03/24/11 08:30
NUC4095-03	GW-241809_SL-MW-4	Ground Water	03/23/11 08:50	03/24/11 08:30
NUC4095-04	GW-241809_SL-MW-5	Ground Water	03/23/11 09:15	03/24/11 08:30
NUC4095-05	GW-241809_SL-MW-8	Ground Water	03/23/11 09:30	03/24/11 08:30
NUC4095-06	GW-241809_SL-MW-9	Ground Water	03/23/11 11:20	03/24/11 08:30
NUC4095-07	GW-241809_SL-MW-10	Ground Water	03/23/11 09:50	03/24/11 08:30
NUC4095-08	GW-241809_SL-MW-11	Ground Water	03/23/11 10:40	03/24/11 08:30
NUC4095-09	GW-241809_SL-MW-12	Ground Water	03/23/11 08:30	03/24/11 08:30

3

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Q

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# **Qualifier Definition/Glossary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

## **Qualifiers**

## **GCMS Volatiles**

Qualifier	Qualifier Description
72	Surrogate recovery was above the acceptance limits. Data not impacted

#### **GCMS Semivolatiles**

Qualifier	Qualifier Description
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.

#### **GC Volatiles**

Qualifier	Qualifier Description
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

#### **GC Semivolatiles**

Qualifier	Qualifier Description
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.
QP5	There was insufficient contamination present to perform a pattern match.
QP6	The contamination did not match any standards in our library.
QP7	The hydrocarbon pattern most closely resembles a gasoline product.

## Glossary

Appreviation	These commonly used appreviations may or may not be present in this report.
<del>\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

2

4

8

9

10

Sampler Name: S. Lane

Analyte

Diesel

Client Sample ID: GW-241809\_SL-MW-1

Date Collected: 03/23/11 11:00 Date Received: 03/24/11 08:30

Lab Sample ID: NUC4095-01

**Matrix: Ground Water** 

Sampler Phone Number: (425) 563-6511

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Benzene	41.0		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Toluene	11.5		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Xylenes, total	333		3.00		ug/L		03/25/11 10:11	03/30/11 16:00	1.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	130		63 - 140				03/25/11 10:11	03/30/11 16:00	1.0
Dibromofluoromethane	114		73 - 131				03/25/11 10:11	03/30/11 16:00	1.0
Toluene-d8	101		80 - 120				03/25/11 10:11	03/30/11 16:00	1.0
4-Bromofluorobenzene	94		79 - 125				03/25/11 10:11	03/30/11 16:00	1.0
Method: SW846 8260B - Vo									
Analyte		Qualifier	RL —	MDL		<u>D</u>	Prepared	Analyzed	Dil Fa
Ethylbenzene	206		5.00		ug/L		03/25/11 10:11	03/31/11 19:07	5.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	121		63 - 140				03/25/11 10:11	03/31/11 19:07	5.0
Dibromofluoromethane	110		73 - 131				03/25/11 10:11	03/31/11 19:07	5.0
Toluene-d8	101		80 - 120				03/25/11 10:11	03/31/11 19:07	5.0
4-Bromofluorobenzene	96		79 - 125				03/25/11 10:11	03/31/11 19:07	5.0
Method: SW846 8270CSIM	- Polyaromatic Hydr	ocarbons b	_						
Analyte		Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Naphthalene	47.9		0.962		ug/L		03/25/11 13:40	03/27/11 03:47	10.
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Nitrobenzene-d5	60		27 - 120				03/25/11 13:40	03/27/11 03:47	10.
2-Fluorobiphenyl	50		29 - 120				03/25/11 13:40	03/27/11 03:47	10.
Terphenyl-d14	40		13 - 120				03/25/11 13:40	03/27/11 03:47	10.
Method: NWTPH-Gx - Purg	eable Petroleum Hy	drocarbons	- RE1						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
GRO (C4-C12) NW	10100		1000		ug/L		04/01/11 10:00	04/01/11 20:06	10.
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
a,a,a-Trifluorotoluene	143		50 - 150				04/01/11 10:00	04/01/11 20:06	10.
Method: NWTPH-Dx - Extra						_			B.: E
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Motor Oil	201	QP6	100		ug/L		03/26/11 14:20	03/29/11 04:18	1.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o-Terphenyl	76		50 <sub>-</sub> 150				03/26/11 14:20	03/29/11 04:18	1.0

Analyzed

03/29/11 16:59

Dil Fac

4.00

Prepared

03/26/11 14:20

RL

400

Result Qualifier

1780 QP7

MDL Unit

ug/L

**Matrix: Ground Water** 

Project/Site: SAP 120531

Client Sample ID: GW-241809\_SL-MW-3 Lab Sample ID: NUC4095-02

Date Collected: 03/23/11 10:20 Date Received: 03/24/11 08:30

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Sampler Name: S. Lane Sampler Phone Number: (425) 563-6511

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Benzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 16:26	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	117		63 - 140				03/25/11 10:11	03/30/11 16:26	1.00
Dibromofluoromethane	107		73 - 131				03/25/11 10:11	03/30/11 16:26	1.00
Toluene-d8	105		80 - 120				03/25/11 10:11	03/30/11 16:26	1.00
4-Bromofluorobenzene	102		79 - 125				03/25/11 10:11	03/30/11 16:26	1.00

		drocarbons							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		03/31/11 15:00	04/01/11 03:13	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150				03/31/11 15:00	04/01/11 03:13	1.00
		/drocarbon	s with Silica Ge	I Treatm	ent				
			s with Silica Ge				Dranarad	Analyzad	Dil Ess
Analyte	Result	Qualifier	RL		Unit	<u>D</u>	Prepared 03/26/11 14:20	Analyzed	Dil Fac
Analyte Diesel	Result ND	Qualifier	<b>RL</b> 97.1		Unit ug/L	<u>D</u>	03/26/11 14:20	03/29/11 04:36	1.00
Analyte	Result ND		RL		Unit	<u>D</u>			
Analyte Diesel	Result ND	Qualifier QP6	<b>RL</b> 97.1		Unit ug/L	<u>D</u>	03/26/11 14:20	03/29/11 04:36	1.00

RL

1.00

1.00

1.00

MDL Unit

ug/L

ug/L

ug/L

Analyzed

03/30/11 16:51

03/30/11 16:51

03/30/11 16:51

Analyte

Benzene

Ethylbenzene

Tert-Amyl Methyl Ether

Project/Site: SAP 120531

Client Sample ID: GW-241809\_SL-MW-4

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Result Qualifier

ND

ND

ND

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Date Collected: 03/23/11 08:50 Date Received: 03/24/11 08:30

Sampler Name: S. Lane Sampler Phone Number: (425) 563-6511

Lab Sample ID: NUC4095-03 **Matrix: Ground Water** 

Prepared

03/25/11 10:11

03/25/11 10:11

03/25/11 10:11

Dil Fac

1.00

1.00

1.00

Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 16:51	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	130		63 - 140				03/25/11 10:11	03/30/11 16:51	1.00
Dibromofluoromethane	111		73 - 131				03/25/11 10:11	03/30/11 16:51	1.00
Toluene-d8	101		80 - 120				03/25/11 10:11	03/30/11 16:51	1.00
TOTUETTE-UO								03/30/11 16:51	1.00
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte	Result	drocarbons Qualifier	RL	MDL		<u>D</u>	03/25/11 10:11 Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte GRO (C4-C12) NW	able Petroleum Hyd Result ND	Qualifier	RL 100	MDL	Unit ug/L	<u>D</u>	Prepared 03/31/11 15:00	<b>Analyzed</b> 04/01/11 03:43	<b>Dil Fac</b> 1.00
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte GRO (C4-C12) NW  Surrogate	able Petroleum Hyo	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge	able Petroleum Hyde Result ND % Recovery 89	Qualifier  Qualifier	RL 100 <i>Limits</i> 50 - 150		ug/L ent	<u>D</u>	Prepared 03/31/11 15:00 Prepared	Analyzed 04/01/11 03:43  Analyzed	Dil Fac  1.00  Dil Fac  1.00
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extract	able Petroleum Hyde Result ND % Recovery 89	Qualifier  Qualifier  drocarbon	RL 100	el Treatm	ug/L ent		Prepared 03/31/11 15:00  Prepared 03/31/11 15:00	Analyzed 04/01/11 03:43  Analyzed 04/01/11 03:43	Dil Fac  1.00  Dil Fac  1.00  Dil Fac
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extract Analyte Diesel	able Petroleum Hyde Result ND % Recovery 89 Stable Petroleum Hyde Result Result	Qualifier  Qualifier  drocarbon	RL 100  Limits 50 - 150  s with Silica Ge	el Treatm	ug/L ent Unit		Prepared 03/31/11 15:00  Prepared 03/31/11 15:00  Prepared	Analyzed 04/01/11 03:43  Analyzed 04/01/11 03:43  Analyzed	Dil Fac  1.00  Dil Fac  1.00  Dil Fac  1.00
4-Bromofluorobenzene  Method: NWTPH-Gx - Purge Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extrac	able Petroleum Hyde Result ND % Recovery 89 Stable Petroleum Hyde Result ND	Qualifier  Qualifier  drocarbon Qualifier	RL 100  Limits 50 - 150  s with Silica Ge RL 98.0	el Treatm	ent Unit ug/L		Prepared 03/31/11 15:00  Prepared 03/31/11 15:00  Prepared 03/26/11 14:20	Analyzed 04/01/11 03:43  Analyzed 04/01/11 03:43  Analyzed 03/29/11 04:55	Dil Fac

Client Sample ID: GW-241809\_SL-MW-5

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Date Collected: 03/23/11 09:15 Date Received: 03/24/11 08:30

Sampler Name: S. Lane **Sampler Phone Number: (425) 563-6511** 

Lab Sample ID: NUC4095-04

**Matrix: Ground Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Benzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 17:16	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	136		63 - 140				03/25/11 10:11	03/30/11 17:16	1.00
Dibromofluoromethane	113		73 - 131				03/25/11 10:11	03/30/11 17:16	1.00
Toluene-d8	99		80 - 120				03/25/11 10:11	03/30/11 17:16	1.00
4-Bromofluorobenzene	101		79 - 125				03/25/11 10:11	03/30/11 17:16	1.00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		03/31/11 15:00	04/01/11 04:12	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		50 - 150				03/31/11 15:00	04/01/11 04:12	1.00
Method: NWTPH-Dx - Extra	•					n	Propared	Analyzod	Dil Fac
Analyte	•	drocarbon	RL	l Treatmo		<u>D</u>	Prepared	Analyzed	Dil Fac
	•					<u>D</u>	Prepared 03/26/11 14:20	Analyzed 03/29/11 05:13	<b>Dil Fac</b>
Analyte	Result ND		RL		Unit	<u>D</u>			
Analyte Diesel	Result ND	Qualifier QP6	RL 94.3		Unit ug/L	<u>D</u>	03/26/11 14:20	03/29/11 05:13	1.00

Client Sample ID: GW-241809\_SL-MW-8

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Date Collected: 03/23/11 09:30 Date Received: 03/24/11 08:30

Sampler Name: S. Lane

**Matrix: Ground Water** 

**Sampler Phone Number: (425) 563-6511** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Benzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 17:41	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	137		63 - 140				03/25/11 10:11	03/30/11 17:41	1.00
Dibromofluoromethane	114		73 - 131				03/25/11 10:11	03/30/11 17:41	1.00
Toluene-d8	101		80 - 120				03/25/11 10:11	03/30/11 17:41	1.00

GRO (C4-C12) NW	ND ND		100		ug/L		04/01/11 10:00	04/01/11 19:36	1.00	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Method: NWTPH-Gx - Purge	eable Petroleum Hyd	Irocarbons	- RE1							
4-Biomonuoropenzene	103		79 - 125				03/25/11 10.11	03/30/11 17.41	1.00	
4-Bromofluorobenzene	103		79 - 125				03/25/11 10:11	03/30/11 17:41	1.00	
Toluene-d8	101		80 - 120				03/25/11 10:11	03/30/11 17:41	1.00	

a,a,a-Trifluorotoluene	103		50 _ 150				04/01/11 10:00	04/01/11 19:36	1.00
– Method: NWTPH-Dx - Ex	tractable Petroleum Hy	/drocarbon	s with Silica Ge	el Treatme	ent				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	ND ND		98.0	-	ug/L		03/26/11 14:20	03/29/11 05:32	1.00
Motor Oil	193	QP6	98.0		ug/L		03/26/11 14:20	03/29/11 05:32	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150				03/26/11 14:20	03/29/11 05:32	1.00

Client Sample ID: GW-241809\_SL-MW-9

Date Collected: 03/23/11 11:20

**Matrix: Ground Water** Date Received: 03/24/11 08:30

Lab Sample ID: NUC4095-06

**Sampler Phone Number: (425) 563-6511** 

Sampler Name: S. Lane	oler Name: S. Lane							Sampler Phone Number: (425) 563-6511				
Method: SW846 8260B - Vo	latile Organic Comp	ounds by E	PA Method 826	0B								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Benzene	51.8		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Toluene	30.5		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 18:07	1.00			
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4	129		63 - 140				03/25/11 10:11	03/30/11 18:07	1.00			
Dibromofluoromethane	111		73 - 131				03/25/11 10:11	03/30/11 18:07	1.00			
Toluene-d8	96		80 - 120				03/25/11 10:11	03/30/11 18:07	1.00			
4-Bromofluorobenzene	105		79 - 125				03/25/11 10:11	03/30/11 18:07	1.00			

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	551		10.0		ug/L		03/25/11 10:11	03/31/11 19:32	10.0
Xylenes, total	857		30.0		ug/L		03/25/11 10:11	03/31/11 19:32	10.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	116		63 - 140				03/25/11 10:11	03/31/11 19:32	10.0
Dibromofluoromethane	105		73 - 131				03/25/11 10:11	03/31/11 19:32	10.0
	00		80 - 120				03/25/11 10:11	03/31/11 19:32	10.0
Toluene-d8	99		60 - 120				03/23/11 10.11	03/31/11 19.32	10.0

Analyte Naphthalene	Result 42.0	Qualifier	- <b>RL</b> 1.98	MDL	Unit ug/L	<u>D</u>	Prepared 03/25/11 13:40	Analyzed 03/27/11 04:08	20.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5			27 - 120				03/25/11 13:40	03/27/11 04:08	20.0
2-Fluorobiphenyl	60		29 - 120				03/25/11 13:40	03/27/11 04:08	20.0
Terphenyl-d14	60		13 - 120				03/25/11 13:40	03/27/11 04:08	20.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	19000		2500		ug/L		04/01/11 10:00	04/01/11 20:35	25.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	97		50 - 150				04/01/11 10:00	04/01/11 20:35	25.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	191	QP6	95.2		ug/L		03/26/11 14:20	03/29/11 05:50	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	70		50 - 150				03/26/11 14:20	03/29/11 05:50	1.00

Method: NWTPH-Dx - Extractable Petroleum Hydrocarbons with Silica Gel Treatment - RE1									
	Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Diesel	2890	QP7	381	ug/L		03/26/11 14:20	03/29/11 17:15	4.00

Analyte

Benzene

Toluene

Ethylbenzene

Tert-Amyl Methyl Ether

Ethyl tert-Butyl Ether

Methyl tert-Butyl Ether

Tertiary Butyl Alcohol

Diisopropyl Ether

Xylenes, total

Client Sample ID: GW-241809\_SL-MW-10

Result Qualifier

ND

ND

ND

ND

ND

ND

ND

ND

ND

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Date Collected: 03/23/11 09:50 Date Received: 03/24/11 08:30

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Sampler Name: S. Lane

RL

1.00

1.00

1.00

1.00

1.00

1.00

1.00

20.0

3.00

MDL Unit

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

.ab	Samp	le	ID:	NU	C4095-07	
				_		

**Matrix: Ground Water** 

Sai	mpler Phone N	lumber: (425) 5	63-6511
D	Prepared	Analyzed	Dil Fac
_	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00
	03/25/11 10:11	03/30/11 18:32	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	108		63 - 140	03/25/11 10:11	03/30/11 18:32	1.00
Dibromofluoromethane	106		73 - 131	03/25/11 10:11	03/30/11 18:32	1.00
Toluene-d8	100		80 - 120	03/25/11 10:11	03/30/11 18:32	1.00
4-Bromofluorobenzene	98		79 - 125	03/25/11 10:11	03/30/11 18:32	1.00

Method: NWTPH-Gx - Purge	eable Petroleum Hyd	arocarbons							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND ND		100		ug/L		03/31/11 15:00	04/01/11 05:40	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	113		50 - 150				03/31/11 15:00	04/01/11 05:40	1.00
_ Method: NWTPH-Dx - Extra	ctable Petroleum Hy	/drocarbon	s with Silica Ge	l Treatm	ent				
Method: NWTPH-Dx - Extra Analyte	•	drocarbon Qualifier	s with Silica Ge	el Treatme		D	Prepared	Analyzed	Dil Fac
	•			MDL		<u>D</u>	Prepared 03/26/11 14:20	Analyzed 03/29/11 06:08	Dil Fac
Analyte	Result		RL	MDL	Unit	<u>D</u>			
Analyte Diesel	Result ND	Qualifier	97.1 —	MDL	Unit ug/L	<u>D</u>	03/26/11 14:20	03/29/11 06:08	1.00

Client Sample ID: GW-241809\_SL-MW-11

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons

Method: NWTPH-Dx - Extractable Petroleum Hydrocarbons with Silica Gel Treatment

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Date Collected: 03/23/11 10:40 Date Received: 03/24/11 08:30

Sampler Name: S. Lane

Lab Sample ID: NUC4095-08

**Matrix: Ground Water** 

Sampler Phone Number: (425) 563-6511

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Benzene	1.14		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 18:57	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4			63 - 140				03/25/11 10:11	03/30/11 18:57	1.00
Dibromofluoromethane	106		73 - 131				03/25/11 10:11	03/30/11 18:57	1.00
Toluene-d8	103		80 - 120				03/25/11 10:11	03/30/11 18:57	1.00
4-Bromofluorobenzene	99		79 - 125				03/25/11 10:11	03/30/11 18:57	1.00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.814		0.0980		ug/L		03/25/11 13:40	03/27/11 11:32	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	71		27 - 120				03/25/11 13:40	03/27/11 11:32	1.00
2-Fluorobiphenyl	58		29 - 120				03/25/11 13:40	03/27/11 11:32	1.00
Terphenyl-d14	39		13 - 120				03/25/11 13:40	03/27/11 11:32	1.00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	665		100		ug/L		03/31/11 15:00	04/01/11 06:09	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		50 - 150				03/31/11 15:00	04/01/11 06:09	1.00

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel	155	QP5	105	ug/L		03/26/11 14:20	03/29/11 06:27	1.00
Motor Oil	ND		105	ug/L		03/26/11 14:20	03/29/11 06:27	1.00
Surrogate	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150			03/26/11 14:20	03/29/11 06:27	1.00

Client Sample ID: GW-241809\_SL-MW-12

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons

Method: NWTPH-Dx - Extractable Petroleum Hydrocarbons with Silica Gel Treatment

Date Collected: 03/23/11 08:30 Date Received: 03/24/11 08:30

Sampler Name: S. Lane Sampler Phone Number: (425) 563-6511

Lab Sample ID: NUC4095-09

**Matrix: Ground Water** 

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Benzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Toluene	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Diisopropyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Methyl tert-Butyl Ether	ND		1.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
	Tertiary Butyl Alcohol	ND		20.0		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
ı	Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/30/11 19:22	1.00
l										

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	126		63 - 140	03/25/11 10:11	03/30/11 19:22	1.00
Dibromofluoromethane	111		73 - 131	03/25/11 10:11	03/30/11 19:22	1.00
Toluene-d8	101		80 - 120	03/25/11 10:11	03/30/11 19:22	1.00
4-Bromofluorobenzene	101		79 - 125	03/25/11 10:11	03/30/11 19:22	1.00

Method: SW846 8270CSI	M - Polyaromatic Hydr	ocarbons b	y EPA 8270C S	IM					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND ND		0.0990		ug/L		03/25/11 13:40	03/27/11 11:53	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		27 - 120				03/25/11 13:40	03/27/11 11:53	1.00
2-Fluorobiphenyl	61		29 - 120				03/25/11 13:40	03/27/11 11:53	1.00
Terphenyl-d14	59		13 - 120				03/25/11 13:40	03/27/11 11:53	1 00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		03/31/11 15:00	04/01/11 06:38	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	66		50 <sub>-</sub> 150				03/31/11 15:00	04/01/11 06:38	1.00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	ND		98.0		ug/L		03/26/11 14:20	03/29/11 06:45	1.00
Motor Oil	ND		98.0		ug/L		03/26/11 14:20	03/29/11 06:45	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150				03/26/11 14:20	03/29/11 06:45	1.00

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Project/Site: SAP 120531

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11C6289-BLK1

**Matrix: Water** 

Analysis Batch: U005364

Client Sample ID: 11C6289-BLK1

**Prep Type: total** 

Prep Batch: 11C6289\_P

	Biank	Biank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		03/25/11 10:11	03/31/11 14:54	1.00
Ethylbenzene	ND		1.00		ug/L		03/25/11 10:11	03/31/11 14:54	1.00
Toluene	ND		1.00		ug/L		03/25/11 10:11	03/31/11 14:54	1.00
Xylenes, total	ND		3.00		ug/L		03/25/11 10:11	03/31/11 14:54	1.00

	Blank E	Blank			
Surrogate	% Recovery C	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	137	63 - 14	03/25/11 10:11	03/31/11 14:54	1.00
Dibromofluoromethane	116	73 - 13	03/25/11 10:11	03/31/11 14:54	1.00
Toluene-d8	100	80 - 120	03/25/11 10:11	03/31/11 14:54	1.00
4-Bromofluorobenzene	101	79 - 12	5 03/25/11 10:11	03/31/11 14:54	1.00

Lab Sample ID: 11C6289-BS1

**Matrix: Water** 

Analysis Batch: U005364

Client Sample ID: 11C6289-BS1 **Prep Type: total** 

Prep Batch: 11C6289\_P

	Spike	LCS	LCS				% Rec.
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzene	20.0	19.9		ug/L		100	80 - 121
Ethylbenzene	20.0	22.2		ug/L		111	78 - 133
Toluene	20.0	21.0		ug/L		105	78 - 125
Xylenes, total	60.0	69.2		ug/L		115	78 - 134

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	142	Z2	63 - 140
Dibromofluoromethane	114		73 - 131
Toluene-d8	100		80 - 120
4-Bromofluorobenzene	95		79 - 125

Lab Sample ID: 11C6289-MS1

**Matrix: Water** 

Analysis Batch: U005364

Client Sample ID: GW-241809\_SL-MW-1 **Prep Type: total** 

Client Sample ID: GW-241809\_SL-MW-1

Prep Batch: 11C6289\_P

	Sample	Sample	Spike	Matrix Spike	Matrix Spil	(e			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	42.8		250	267		ug/L		90	65 - 151	
Ethylbenzene	206		250	483		ug/L		111	68 - 157	
Toluene	12.8		250	254		ug/L		97	61 - 153	
Xylenes, total	343		750	1190		ug/L		112	68 - 158	

	імаціх эріке	watrix Spike	•	
Surrogate	% Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4	132		63 - 140	
Dibromofluoromethane	120		73 - 131	
Toluene-d8	100		80 - 120	
4-Bromofluorobenzene	94		79 - 125	
	1,2-Dichloroethane-d4 Dibromofluoromethane Toluene-d8	Surrogate         % Recovery           1,2-Dichloroethane-d4         132           Dibromofluoromethane         120           Toluene-d8         100	Surrogate         % Recovery         Qualifier           1,2-Dichloroethane-d4         132           Dibromofluoromethane         120           Toluene-d8         100	1,2-Dichloroethane-d4     132     63 - 140       Dibromofluoromethane     120     73 - 131       Toluene-d8     100     80 - 120

Lab Sample ID: 11C6289-MSD1

Matrix: Water									Pre	p Type	: total
Analysis Batch: U005364									Prep Batch	: 11C6	289_P
	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spi	ike Dup			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	42.8		250	282		ug/L		96	65 - 151	5	12

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Project/Site: SAP 120531

# Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11C6289-MSD1 Client Sample ID: GW-241809\_SL-MW-1 **Matrix: Water Prep Type: total** Analysis Batch: U005364 Prep Batch: 11C6289\_P

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spi	ke Dup			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Ethylbenzene	206		250	461		ug/L		102	68 - 157	5	12
Toluene	12.8		250	251		ug/L		95	61 - 153	1	35
Xylenes, total	343		750	1110		ug/L		102	68 - 158	6	18

	Matrix Spike Dup	Matrix Spike Dup		
Surrogate	% Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4	125		63 - 140	
Dibromofluoromethane	115		73 - 131	
Toluene-d8	100		80 - 120	
4-Bromofluorobenzene	97		79 - 125	

Lab Sample ID: 11C6600-BLK1

**Matrix: Water** 

Analysis Batch: U005345

Client Sample ID: 11C6600-BLK1 **Prep Type: total** 

Prep Batch: 11C6600\_P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Benzene	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Ethylbenzene	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Ethyl tert-Butyl Ether	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Toluene	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Diisopropyl Ether	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Tertiary Butyl Alcohol	ND		20.0		ug/L		03/26/11 13:02	03/30/11 14:33	1.00
Xylenes, total	ND		3.00		ug/L		03/26/11 13:02	03/30/11 14:33	1.00

	Blank	Blank				
Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	140		63 - 140	03/26/11 13:02	03/30/11 14:33	1.00
Dibromofluoromethane	114		73 - 131	03/26/11 13:02	03/30/11 14:33	1.00
Toluene-d8	100		80 - 120	03/26/11 13:02	03/30/11 14:33	1.00
4-Bromofluorobenzene	101		79 - 125	03/26/11 13:02	03/30/11 14:33	1.00

Lab Sample ID: 11C6600-BS1

**Matrix: Water** 

Analysis Batch: U005345

Client Sample ID: 11C6600-BS1 **Prep Type: total** 

Prep Batch: 11C6600\_P

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Tert-Amyl Methyl Ether	20.0	15.7		ug/L		79	70 - 133	
Benzene	20.0	20.8		ug/L		104	80 - 121	
Ethylbenzene	20.0	22.6		ug/L		113	78 - 133	
Ethyl tert-Butyl Ether	20.0	17.5		ug/L		88	68 - 138	
Toluene	20.0	21.9		ug/L		109	78 - 125	
Diisopropyl Ether	20.0	19.7		ug/L		98	63 - 136	
Methyl tert-Butyl Ether	20.0	19.9		ug/L		100	76 - 120	
Tertiary Butyl Alcohol	200	209		ug/L		105	60 - 140	
Xylenes, total	60.0	69.7		ug/L		116	78 - 134	

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	135		63 - 140
Dibromofluoromethane	112		73 - 131

Project/Site: SAP 120531

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11C6600-BS1

**Matrix: Water** 

Analysis Batch: U005345

Client Sample ID: 11C6600-BS1

**Prep Type: total** 

Prep Batch: 11C6600\_P

LCS LCS

Surrogate	% Recovery	Qualifier	Limits	
Toluene-d8	99		80 - 120	
4-Bromofluorobenzene	97		79 - 125	

Lab Sample ID: 11C6600-MS1

**Matrix: Water** 

Analysis Batch: U005345

Client Sample ID: NUC4104-04RE1

**Prep Type: total** 

Prep Batch: 11C6600\_P

% Rec. Sample Sample Spike Matrix Spike Matrix Spike Analyte Result Qualifier Added Result Qualifier Unit % Rec Limits Tert-Amyl Methyl Ether 2500 69 - 139 ND 1960 ug/L 78 2500 Benzene 3390 5440 ug/L 82 65 - 151 2500 Ethylbenzene 1060 3440 ug/L 95 68 - 157 Ethyl tert-Butyl Ether ND 2500 2070 83 68 - 139 ug/L Toluene 888 2500 3300 ug/L 97 61 - 153 Diisopropyl Ether ND 2500 2300 ug/L 92 59 - 145 Methyl tert-Butyl Ether ND 2500 2190 ug/L 88 56 - 152 Tertiary Butyl Alcohol ND 25000 23300 ug/L 93 14 - 200 Xylenes, total 3740 7500 10400 ug/L 89 68 - 158

Matrix Spike Matrix Spike

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	99		63 - 140
Dibromofluoromethane	100		73 - 131
Toluene-d8	101		80 - 120
4-Bromofluorobenzene	102		79 - 125

Lab Sample ID: 11C6600-MSD1

**Matrix: Water** 

Analysis Batch: U005345

Client Sample ID: NUC4104-04RE1

Prep Type: total

Prep Batch: 11C6600\_P

Spike Matrix Spike Dup Matrix Spike Dup RPD Sample Sample % Rec. Analyte Result Qualifier Added Result Qualifier Unit % Rec Limits RPD Limit Tert-Amyl Methyl Ether ND 2500 1980 ug/L 79 69 - 139 0.9 16 3390 2500 5400 0.6 12 Benzene ug/L 80 65 - 151 Ethylbenzene 1060 2500 3430 95 68 - 157 0.2 12 ug/L 83 Ethyl tert-Butyl Ether ND 2500 2080 ug/L 68 - 139 0.3 16 Toluene 888 2500 3240 ug/L 94 61 - 153 2 35 ND 2500 2240 90 3 32 Diisopropyl Ether ug/L 59 - 145 Methyl tert-Butyl Ether ND 2500 2200 ug/L 88 56 - 152 0.2 32 Tertiary Butyl Alcohol ND 25000 24100 ug/L 96 14 - 200 3 30 7500 10500 Xylenes, total 3740 ug/L 90 68 - 158 0.4 18

Matrix Spike Dup Matrix Spike Dup

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	103		63 - 140
Dibromofluoromethane	102		73 - 131
Toluene-d8	100		80 - 120
4-Bromofluorobenzene	99		79 - 125

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# Method: SW846 8270CSIM - Polyaromatic Hydrocarbons by EPA 8270C SIM

Lab Sample ID: 11C6253-BLK1

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

**Matrix: Water** 

Analysis Batch: 11C6253

Client Sample ID: 11C6253-BLK1

**Prep Type: total** 

Prep Batch: 11C6253\_P

7 maryolo Batom 1100200							•	. rop Batom 110020		
	Blank	Blank								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Acenaphthylene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Anthracene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Benzo (a) anthracene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Benzo (a) pyrene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Benzo (b) fluoranthene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Benzo (g,h,i) perylene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Benzo (k) fluoranthene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Chrysene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Dibenz (a,h) anthracene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Fluoranthene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Fluorene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Indeno (1,2,3-cd) pyrene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
1-Methylnaphthalene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
2-Methylnaphthalene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Naphthalene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Phenanthrene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	
Pyrene	ND		0.100		ug/L		03/25/11 13:40	03/26/11 18:25	1.00	

Blank Blank

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	86		27 - 120	03/25/11 13:40	03/26/11 18:25	1.00
2-Fluorobiphenyl	75		29 - 120	03/25/11 13:40	03/26/11 18:25	1.00
Terphenyl-d14	78		13 - 120	03/25/11 13:40	03/26/11 18:25	1.00

Lab Sample ID: 11C6253-BS1

**Matrix: Water** 

Analysis Batch: 11C6253

Client Sample ID: 11C6253-BS1

**Prep Type: total** 

Prep Batch: 11C6253\_P

LCS LCS Spike % Rec. Analyte Added Result Qualifier Unit % Rec Limits Acenaphthene 1.00 0.630 MNR1 ug/L 63 43 - 122 0.560 MNR1 56 Acenaphthylene 1.00 ug/L 43 - 129 Anthracene 1.00 0.640 MNR1 64 50 - 138 ug/L 65 Benzo (a) anthracene 1.00 0.650 MNR1 50 - 135 ug/L Benzo (a) pyrene 1.00 0.730 MNR1 ug/L 73 46 - 136 0.590 MNR1 59 37 - 147 Benzo (b) fluoranthene 1.00 ug/L Benzo (g,h,i) perylene 1.00 0.660 MNR1 ug/L 66 30 - 145 ug/L Benzo (k) fluoranthene 1.00 0.960 MNR1 96 47 - 135 47 - 138 Chrysene 1.00 0.810 MNR1 ug/L 81 Dibenz (a,h) anthracene 1.00 0.580 MNR1 ug/L 58 36 - 144 Fluoranthene 1.00 0.640 MNR1 ug/L 64 51 - 139 Fluorene 1.00 0.640 MNR1 ug/L 64 47 - 128 Indeno (1,2,3-cd) pyrene 1.00 0.580 MNR1 58 32 - 142 ug/L 0.530 MNR1 53 37 - 126 1-Methylnaphthalene 1.00 ug/L 2-Methylnaphthalene 58 1.00 0.580 MNR1 ug/L 41 - 121 Naphthalene 1.00 0.630 MNR1 ug/L 63 38 - 120 Phenanthrene 1.00 0.750 MNR1 75 45 - 133 ug/L Pyrene 1.00 0.750 MNR1 ug/L 75 50 - 146

Method: SW846 8270CSIM - Polyaromatic Hydrocarbons by EPA 8270C SIM (Continued)

Lab Sample ID: 11C6253-BS1 Client Sample ID: 11C6253-BS1

**Matrix: Water** 

Analysis Batch: 11C6253

**Prep Type: total** 

Prep Batch: 11C6253\_P

LCS LCS Surrogate % Recovery Qualifier Limits Nitrobenzene-d5 27 - 120 80 2-Fluorobiphenyl 72 29 - 120 13 - 120 Terphenyl-d14 83

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons

Lab Sample ID: 11C7961-BLK1 Client Sample ID: 11C7961-BLK1

**Matrix: Water** 

Analysis Batch: U005465

**Prep Type: total** Prep Batch: 11C7961\_P Blank Blank

Result Qualifier RL MDL Unit Dil Fac Analyte Prepared Analyzed GRO (C4-C12) NW ND 100 03/31/11 00:00 03/31/11 19:24 ug/L 1.00 Blank Blank

% Recovery Qualifier Surrogate

Limits Dil Fac Prepared Analyzed a,a,a-Trifluorotoluene 124 50 - 150 03/31/11 00:00 03/31/11 19:24 1.00

Lab Sample ID: 11C7961-BLK2 Client Sample ID: 11C7961-BLK2

**Matrix: Water** 

Analysis Batch: U005465

**Prep Type: total** Prep Batch: 11C7961\_P Blank Blank

Result Qualifier RL MDL Unit Prepared Dil Fac Analyzed GRO (C4-C12) NW 100 03/31/11 00:00 04/01/11 02:15 ND ug/L 1.00

Blank Blank

Qualifier Surrogate % Recovery Limits Prepared Dil Fac Analyzed 109 50 - 150 03/31/11 00:00 a,a,a-Trifluorotoluene 04/01/11 02:15 1.00

Lab Sample ID: 11C7961-BS1

**Matrix: Water** 

**Analysis Batch: U005465** 

Client Sample ID: 11C7961-BS1 **Prep Type: total** 

Prep Batch: 11C7961 P

Spike LCS LCS % Rec.

Added Result Qualifier Limits Analyte Unit % Rec GRO (C4-C12) NW 1000 1030 103 70 - 130 ug/L

LCS LCS

Surrogate % Recovery Qualifier Limits 171 Z2 50 - 150 a,a,a-Trifluorotoluene

Lab Sample ID: 11C7961-BS2 Client Sample ID: 11C7961-BS2

**Matrix: Water** 

**Analysis Batch: U005465** 

**Prep Type: total** Prep Batch: 11C7961 P

Spike LCS LCS % Rec. Result Qualifier Unit D

Added Limits Analyte % Rec GRO (C4-C12) NW 1000 1040 ug/L 104 70 - 130

LCS LCS

Surrogate Qualifier Limits % Recovery a,a,a-Trifluorotoluene 167 Z2 50 - 150

Project/Site: SAP 120531

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons (Continued)

Lab Sample ID: 11C7961-BSD1 Client Sample ID: 11C7961-BSD1 **Matrix: Water Prep Type: total Analysis Batch: U005465** Prep Batch: 11C7961 P

Spike LCS Dup LCS Dup % Rec. **RPD** Added Result Qualifier Unit % Rec Limits **RPD** Limit GRO (C4-C12) NW 1000 993 99 70 - 130 37 ug/L

LCS Dup LCS Dup Surrogate % Recovery Qualifier Limits a,a,a-Trifluorotoluene 202 Z2 50 - 150

Lab Sample ID: 11C7961-MS1 Client Sample ID: NUC4249-03

**Matrix: Water** Prep Type: total

Prep Batch: 11C7961\_P Analysis Batch: U005465 % Rec. Sample Sample Spike Matrix Spike Matrix Spike

Result Qualifier Added Result Qualifier Limits GRO (C4-C12) NW 1000 163 1020 ug/L 86 58 - 139

Matrix Spike Matrix Spike % Recovery Qualifier Limits Surrogate 50 - 150 a,a,a-Trifluorotoluene 187 ZX

Lab Sample ID: 11C7961-MS2 Client Sample ID: GW-241809\_SL-MW-4 Prep Type: total

**Matrix: Water** 

Analysis Batch: U005465 Prep Batch: 11C7961 P Sample Sample Spike Matrix Spike Matrix Spike % Rec.

Result Qualifier Analyte Result Qualifier Added Unit D % Rec Limits GRO (C4-C12) NW ND 1000 1160 ug/L 116 58 - 139

Matrix Spike Matrix Spike Surrogate % Recovery Qualifier Limits 50 - 150 172 ZX a,a,a-Trifluorotoluene

Lab Sample ID: 11C7961-MSD1 Client Sample ID: NUC4249-03 **Prep Type: total** 

**Matrix: Water** 

Analysis Batch: U005465 Prep Batch: 11C7961 P Spike Matrix Spike Dup Matrix Spike Dup

Sample Sample % Rec. Result Qualifier Added Result Qualifier Unit % Rec Limits Analyte D RPD Limit GRO (C4-C12) NW 163 1000 1040 ug/L 88 58 - 139 2 37

Matrix Spike Dup Matrix Spike Dup

% Recovery Qualifier Surrogate Limits 178 ZX a,a,a-Trifluorotoluene 50 - 150

Lab Sample ID: 11C7961-MSD2 Client Sample ID: GW-241809\_SL-MW-4

**Matrix: Water Prep Type: total** Analysis Batch: U005465 Prep Batch: 11C7961 P

Sample Sample Spike Matrix Spike Dup Matrix Spike Dup % Rec. RPD Result Qualifier Added Result Qualifier Unit D % Rec Limits RPD Limit GRO (C4-C12) NW ND 1000 1200 ug/L 120 58 - 139

Matrix Spike Dup Matrix Spike Dup Surrogate % Recovery Qualifier Limits a,a,a-Trifluorotoluene 180 ZX 50 - 150

Client Sample ID: 11D0230-BLK1

Client Sample ID: 11D0230-BLK2

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Lab Sample ID: 11D0230-BLK1

Lab Sample ID: 11D0230-BLK2

a,a,a-Trifluorotoluene

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons (Continued)

Lab Sample ID: 11C7961-DUP Matrix: Water Analysis Batch: U005465						С	lient Sample	e ID: GW-241809 Prep Prep Batch	p Type	: total 961_P
	Sample	Sample		Duplicate	Duplicate					RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D		RPD	Limit
GRO (C4-C12) NW	665			673		ug/L			1	37
	Duplicate	Duplicate								
Surrogate	% Recovery	Qualifier	Limits							
a,a,a-Trifluorotoluene	105		50 - 150							

Matrix: Water							_	Prep Ty	•
Analysis Batch: U005529	Blank	Blank					,	Prep Batch: 11D	00230_P
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		04/01/11 00:00	04/01/11 18:31	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		50 - 150				04/01/11 00:00	04/01/11 18:31	1.00

Matrix: water								Prep Typ	e: totai
Analysis Batch: 11D0230							F	rep Batch: 11D	)0230_P
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		04/01/11 00:00	04/02/11 00:59	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a a a Trifluorataluana	112		EO 150				04/01/11 00:00	04/02/11 00:50	1.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	112		50 - 150	04/01/11 00:00	04/02/11 00:59	1.00
Lab Sample ID: 11D0230-BLK3				Client Sam	nple ID: 11D023	0-BLK3
Matrix: Water					Prep Ty	e: total
Analysis Batch: U005529				P	rep Batch: 11D	0230_P
	Blank	Blank				

	Dialik	Dialik							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		04/01/11 00:00	04/02/11 07:49	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	72		50 - 150				04/01/11 00:00	04/02/11 07:49	1.00

Lab Sample ID: 11D0230-BS1 Matrix: Water Analysis Batch: U005529									ample ID: 11D02 Prep Typ Prep Batch: 11D	e: total
			Spike	LCS	LCS				% Rec.	
Analyte			Added	Result	Qualifier	Unit	D	% Rec	Limits	
GRO (C4-C12) NW			1000	1030		ug/L		103	70 - 130	
	LCS	LCS								
Surrogate	% Recovery	Qualifier	Limits							

50 - 150

183 Z2

Project/Site: SAP 120531

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons (Continued)

Lab Sample ID: 11D0230-BS2 Client Sample ID: 11D0230-BS2 **Matrix: Water Prep Type: total Analysis Batch: U005529** Prep Batch: 11D0230\_P Spike LCS LCS % Rec. Added Result Qualifier Unit % Rec Limits Analyte

GRO (C4-C12) NW 1000 985 70 - 130 ug/L 99 LCS LCS

Surrogate % Recovery Qualifier Limits a,a,a-Trifluorotoluene 181 Z2 50 - 150

Lab Sample ID: 11D0230-BS3 Client Sample ID: 11D0230-BS3

**Matrix: Water** Prep Type: total Prep Batch: 11D0230\_P **Analysis Batch: U005529** 

Spike LCS LCS % Rec. Added Result Qualifier Unit Limits GRO (C4-C12) NW 1000 895 ug/L 90 70 - 130

LCS LCS % Recovery Qualifier Surrogate I imits 175 Z2 50 - 150 a,a,a-Trifluorotoluene

Lab Sample ID: 11D0230-BSD3 Client Sample ID: 11D0230-BSD3 Prep Type: total

**Matrix: Water** 

Prep Batch: 11D0230\_P Analysis Batch: U005529 Spike LCS Dup LCS Dup % Rec. RPD

Analyte Added Result Qualifier Unit % Rec Limits RPD Limit GRO (C4-C12) NW 1000 894 ug/L 89 70 - 130 0.1 37

LCS Dup LCS Dup Surrogate % Recovery Qualifier Limits 50 - 150 a,a,a-Trifluorotoluene 139

Lab Sample ID: 11D0230-MS1 Client Sample ID: NUC4426-01 **Matrix: Water Prep Type: total** 

Analysis Batch: U005529 Prep Batch: 11D0230 P Spike Matrix Spike Matrix Spike % Rec. Sample Sample

Result Qualifier Added Result Qualifier % Rec Limits Analyte Unit GRO (C4-C12) NW 154 1000 1090 ug/L 93 58 - 139

Matrix Spike Matrix Spike Qualifier Limits Surrogate % Recovery 50 - 150 176 Z2 a,a,a-Trifluorotoluene

Lab Sample ID: 11D0230-MS2 Client Sample ID: NUC4132-01

**Matrix: Water Prep Type: total** Analysis Batch: U005529 Prep Batch: 11D0230 P

Sample Sample Spike Matrix Spike Matrix Spike % Rec. Result Qualifier Added Result Qualifier Unit % Rec Limits GRO (C4-C12) NW ND 1000 1030 ug/L 103 58 - 139

Matrix Spike Matrix Spike Surrogate % Recovery Qualifier Limits a,a,a-Trifluorotoluene 188 Z2 50 - 150

Project/Site: SAP 120531

Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons (Continued)

Lab Sample ID: 11D0230-MSD1 Client Sample ID: NUC4426-01 **Matrix: Water Prep Type: total Analysis Batch: U005529** Prep Batch: 11D0230 P Sample Sample Spike Matrix Spike Dup Matrix Spike Dup % Rec. **RPD** 

Result Qualifier Added Result Qualifier Unit % Rec Limits RPD Limit GRO (C4-C12) NW 154 1000 1190 104 58 - 139 37 ug/L

Matrix Spike Dup Matrix Spike Dup Surrogate % Recovery Qualifier Limits a,a,a-Trifluorotoluene 172 Z2 50 - 150

Lab Sample ID: 11D0230-MSD2 Client Sample ID: NUC4132-01

**Matrix: Water** Prep Type: total Prep Batch: 11D0230 P Analysis Batch: U005529

% Rec. RPD Sample Sample Spike Matrix Spike Dup Matrix Spike Dup Result Qualifier Added Result Qualifier Limits RPD Limit D GRO (C4-C12) NW 1000 ND 1080 ug/L 108 58 - 139 37

Matrix Spike Dup Matrix Spike Dup % Recovery Qualifier Surrogate Limits 192 Z2 50 - 150 a,a,a-Trifluorotoluene

Lab Sample ID: 11D0230-DUP1 Client Sample ID: NUC4319-05 **Matrix: Water** 

**Prep Type: total Analysis Batch: U005529** Prep Batch: 11D0230 P Sample Sample **Duplicate Duplicate** RPD

Analyte Result Qualifier Result Qualifier Unit D **RPD** Limit GRO (C4-C12) NW 394 359 ug/L 37

**Duplicate Duplicate** Surrogate % Recovery Qualifier Limits 50 - 150 a,a,a-Trifluorotoluene 114

Method: NWTPH-Dx - Extractable Petroleum Hydrocarbons with Silica Gel Treatment

Lab Sample ID: 11C6256-BLK1 Client Sample ID: 11C6256-BLK1

**Matrix: Water Prep Type: total** Analysis Batch: U005121 Prep Batch: 11C6256\_P

Blank Blank Qualifier RL MDL Unit Dil Fac Analyte Result Prepared Analyzed 100 1.00 Diesel ND 03/25/11 09:27 03/29/11 03:23 ug/L ND Motor Oil 100 ug/L 03/25/11 09:27 03/29/11 03:23 1.00

Blank Blank Surrogate % Recovery Qualifier Limits Prepared Analyzed Dil Fac 50 - 150 03/25/11 09:27 o-Terphenyl 03/29/11 03:23 1.00

Lab Sample ID: 11C6256-BS1 Client Sample ID: 11C6256-BS1

**Matrix: Water Prep Type: total** Analysis Batch: U005121 Prep Batch: 11C6256\_P

Spike % Rec. LCS LCS Added Analyte Result Qualifier Unit % Rec Limits Diesel 1000 982 MNR1 98 57 - 132 ug/L

LCS LCS Surrogate % Recovery Qualifier Limits o-Terphenyl 90 50 - 150

# **QC Association Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

# **GCMS Volatiles**

# Prep Batch: 11C6289\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6289-BS1	11C6289-BS1	total	Water	EPA 5030B	
11C6289-BLK1	11C6289-BLK1	total	Water	EPA 5030B	
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	<b>Ground Water</b>	EPA 5030B	
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	EPA 5030B	
11C6289-MS1	GW-241809_SL-MW-1	total	Water	EPA 5030B	
11C6289-MSD1	GW-241809_SL-MW-1	total	Water	EPA 5030B	

## Prep Batch: 11C6600\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6600-BS1	11C6600-BS1	total	Water	EPA 5030B	
11C6600-BLK1	11C6600-BLK1	total	Water	EPA 5030B	
NUC4095-01	GW-241809_SL-MW-1	total	Ground Water	EPA 5030B	
NUC4095-02	GW-241809_SL-MW-3	total	Ground Water	EPA 5030B	
NUC4095-03	GW-241809_SL-MW-4	total	Ground Water	EPA 5030B	
NUC4095-04	GW-241809_SL-MW-5	total	Ground Water	EPA 5030B	
NUC4095-05	GW-241809_SL-MW-8	total	Ground Water	EPA 5030B	
NUC4095-06	GW-241809_SL-MW-9	total	Ground Water	EPA 5030B	
NUC4095-07	GW-241809_SL-MW-10	total	Ground Water	EPA 5030B	
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	EPA 5030B	
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	EPA 5030B	
11C6600-MS1	NUC4104-04RE1	total	Water	EPA 5030B	
11C6600-MSD1	NUC4104-04RE1	total	Water	EPA 5030B	

## **Analysis Batch: U005345**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6600-BS1	11C6600-BS1	total	Water	SW846 8260B	11C6600_P
11C6600-BLK1	11C6600-BLK1	total	Water	SW846 8260B	11C6600_P
NUC4095-01	GW-241809_SL-MW-1	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-02	GW-241809_SL-MW-3	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-03	GW-241809_SL-MW-4	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-04	GW-241809_SL-MW-5	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-05	GW-241809_SL-MW-8	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-06	GW-241809_SL-MW-9	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-07	GW-241809_SL-MW-10	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	SW846 8260B	11C6600_P
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	SW846 8260B	11C6600_P
11C6600-MS1	NUC4104-04RE1	total	Water	SW846 8260B	11C6600_P
11C6600-MSD1	NUC4104-04RE1	total	Water	SW846 8260B	11C6600_P

# Analysis Batch: U005364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6289-BS1	11C6289-BS1	total	Water	SW846 8260B	11C6289_P
11C6289-BLK1	11C6289-BLK1	total	Water	SW846 8260B	11C6289_P
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	<b>Ground Water</b>	SW846 8260B	11C6289_P
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	SW846 8260B	11C6289_P
11C6289-MS1	GW-241809_SL-MW-1	total	Water	SW846 8260B	11C6289_P
11C6289-MSD1	GW-241809_SL-MW-1	total	Water	SW846 8260B	11C6289_P

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# **QC Association Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

# **GCMS Semivolatiles**

# Analysis Batch: 11C6253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6253-BLK1	11C6253-BLK1	total	Water	SW846 8270CSIM	11C6253_P
11C6253-BS1	11C6253-BS1	total	Water	SW846 8270CSIM	11C6253_P
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	Ground Water	SW846 8270CSIM	11C6253_P
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	SW846 8270CSIM	11C6253_P
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	SW846 8270CSIM	11C6253_P
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	SW846 8270CSIM	11C6253_P

# Prep Batch: 11C6253\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6253-BLK1	11C6253-BLK1	total	Water	EPA 3510C	
11C6253-BS1	11C6253-BS1	total	Water	EPA 3510C	
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	<b>Ground Water</b>	EPA 3510C	
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	EPA 3510C	
NUC4095-08	GW-241809_SL-MW-11	total	<b>Ground Water</b>	EPA 3510C	
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	EPA 3510C	

## **GC Volatiles**

## Prep Batch: 11C7961\_P

Client Sample ID	Prep Type	Matrix	Method	Prep Batc
11C7961-BLK1	total	Water	EPA 5030B	
11C7961-BS1	total	Water		
			, ,	
11C7961-BSD1	total	Water		
11C/961-BLK2	total	Water		
OW 044000 CL MW 2	total	O		
GVV-241809_SL-MVV-3	totai	Ground water		
CM 244900 CL MM 4	total	Cround Mater		
GVV-241009_5L-IVIVV-4	เงเลเ	Ground Water		
GW-241809 SL-MW-5	total	Ground Water		
CVV 241000_0L WVV 0	total	Ground Water		
GW-241809 SL-MW-10	total	Ground Water	, ,	
5.1. 2.1.000 <u>_</u> 02	1014	Cidana Water		
GW-241809 SL-MW-11	total	Ground Water		
_			(GC)	
GW-241809_SL-MW-12	total	Ground Water	EPA 5030B	
			(GC)	
11C7961-BS2	total	Water	EPA 5030B	
			(GC)	
GW-241809_SL-MW-11	total	Water	EPA 5030B	
NUC4249-03	total	Water		
NUC4249-03	total	Water		
014 044000 01 11144 4			, ,	
GW-241809_SL-MW-4	total	Water		
OW 044000 CL MW 4		\\/_+		
GVV-241809_SL-MVV-4	totai	vvater		
	11C7961-BS1 11C7961-BSD1 11C7961-BLK2 GW-241809_SL-MW-3 GW-241809_SL-MW-4 GW-241809_SL-MW-5 GW-241809_SL-MW-10 GW-241809_SL-MW-11 GW-241809_SL-MW-12 11C7961-BS2	11C7961-BS1       total         11C7961-BSD1       total         11C7961-BLK2       total         GW-241809_SL-MW-3       total         GW-241809_SL-MW-4       total         GW-241809_SL-MW-5       total         GW-241809_SL-MW-10       total         GW-241809_SL-MW-11       total         GW-241809_SL-MW-12       total         11C7961-BS2       total         GW-241809_SL-MW-11       total         NUC4249-03       total         NUC4249-03       total         GW-241809_SL-MW-4       total	11C7961-BS1       total       Water         11C7961-BSD1       total       Water         11C7961-BLK2       total       Water         GW-241809_SL-MW-3       total       Ground Water         GW-241809_SL-MW-4       total       Ground Water         GW-241809_SL-MW-5       total       Ground Water         GW-241809_SL-MW-10       total       Ground Water         GW-241809_SL-MW-11       total       Ground Water         GW-241809_SL-MW-12       total       Water         11C7961-BS2       total       Water         GW-241809_SL-MW-11       total       Water         NUC4249-03       total       Water         NUC4249-03       total       Water         GW-241809_SL-MW-4       total       Water	11C7961-BS1

## Analysis Batch: 11D0230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0230-BLK2	11D0230-BLK2	total	Water	NWTPH-Gx	11D0230_P

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C Association Summary

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

#### **GC Volatiles (Continued)**

#### Prep Batch: 11D0230\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0230-BS1	11D0230-BS1	total	Water	EPA 5030B	<del>-</del>
				(GC)	
11D0230-BLK1	11D0230-BLK1	total	Water	EPA 5030B	
NUIO 4005 05 DE4	014/044000 01 1444/0	1.1.1	0	(GC)	
NUC4095-05 - RE1	GW-241809_SL-MW-8	total	Ground Water	EPA 5030B (GC)	
NUC4095-01 - RE1	GW-241809 SL-MW-1	total	Ground Water	EPA 5030B	
11004030 01 TKE1	GVV 241003_02 WVV 1	total	Ground Water	(GC)	
NUC4095-06 - RE1	GW-241809 SL-MW-9	total	Ground Water	EPA 5030B	
				(GC)	
11D0230-BS2	11D0230-BS2	total	Water	EPA 5030B	
				(GC)	
11D0230-BLK2	11D0230-BLK2	total	Water	EPA 5030B	
				(GC)	
11D0230-BSD3	11D0230-BSD3	total	Water	EPA 5030B	
11D0000 DLV0	11D0230-BLK3	total	Water	(GC) EPA 5030B	
11D0230-BLK3	TIDUZ3U-BLK3	total	vvalei	(GC)	
11D0230-DUP1	NUC4319-05	total	Water	EPA 5030B	
1120200 201 1	1100101000	total	Water	(GC)	
11D0230-MS1	NUC4426-01	total	Water	EPA 5030B	
				(GC)	
11D0230-MSD1	NUC4426-01	total	Water	EPA 5030B	
				(GC)	
11D0230-MS2	NUC4132-01	total	Water	EPA 5030B	
44D0000 MCD0	NU 10 4422 04		10/-4	(GC)	
11D0230-MSD2	NUC4132-01	total	Water	EPA 5030B (GC)	
11D0230-BS3	11D0230-BS3	total	Water	(GC) EPA 5030B	
1100200 000	1100200 000	total	vvaici	(GC)	

#### **Analysis Batch: U005465**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C7961-BLK1	11C7961-BLK1	total	Water	NWTPH-Gx	11C7961_P
11C7961-BS1	11C7961-BS1	total	Water	NWTPH-Gx	11C7961_P
11C7961-BSD1	11C7961-BSD1	total	Water	NWTPH-Gx	11C7961_P
11C7961-BLK2	11C7961-BLK2	total	Water	NWTPH-Gx	11C7961_P
NUC4095-02	GW-241809_SL-MW-3	total	Ground Water	NWTPH-Gx	11C7961_P
NUC4095-03	GW-241809_SL-MW-4	total	Ground Water	NWTPH-Gx	11C7961_P
NUC4095-04	GW-241809_SL-MW-5	total	Ground Water	NWTPH-Gx	11C7961_P
NUC4095-07	GW-241809_SL-MW-10	total	Ground Water	NWTPH-Gx	11C7961_P
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	NWTPH-Gx	11C7961_P
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	NWTPH-Gx	11C7961_P
11C7961-BS2	11C7961-BS2	total	Water	NWTPH-Gx	11C7961_P
11C7961-DUP1	GW-241809_SL-MW-11	total	Water	NWTPH-Gx	11C7961_P
11C7961-MS1	NUC4249-03	total	Water	NWTPH-Gx	11C7961_P
11C7961-MSD1	NUC4249-03	total	Water	NWTPH-Gx	11C7961_P
11C7961-MS2	GW-241809_SL-MW-4	total	Water	NWTPH-Gx	11C7961_P
11C7961-MSD2	GW-241809_SL-MW-4	total	Water	NWTPH-Gx	11C7961_P

#### Analysis Batch: U005529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0230-BS1	11D0230-BS1	total	Water	NWTPH-Gx	11D0230_P
11D0230-BLK1	11D0230-BLK1	total	Water	NWTPH-Gx	11D0230_P
NUC4095-05 - RE1	GW-241809_SL-MW-8	total	<b>Ground Water</b>	NWTPH-Gx	11D0230_P
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	Ground Water	NWTPH-Gx	11D0230_P
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	<b>Ground Water</b>	NWTPH-Gx	11D0230_P
11D0230-BS2	11D0230-BS2	total	Water	NWTPH-Gx	11D0230_P
11D0230-BSD3	11D0230-BSD3	total	Water	NWTPH-Gx	11D0230_P

TestAmerica Nashville 04/07/2011

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

#### **GC Volatiles (Continued)**

#### **Analysis Batch: U005529 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0230-BLK3	11D0230-BLK3	total	Water	NWTPH-Gx	11D0230_P
11D0230-DUP1	NUC4319-05	total	Water	NWTPH-Gx	11D0230_P
11D0230-MS1	NUC4426-01	total	Water	NWTPH-Gx	11D0230_P
11D0230-MSD1	NUC4426-01	total	Water	NWTPH-Gx	11D0230_P
11D0230-MS2	NUC4132-01	total	Water	NWTPH-Gx	11D0230_P
11D0230-MSD2	NUC4132-01	total	Water	NWTPH-Gx	11D0230_P
11D0230-BS3	11D0230-BS3	total	Water	NWTPH-Gx	11D0230_P
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#### **GC Semivolatiles**

#### Prep Batch: 11C6256\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6256-BLK1	11C6256-BLK1	total	Water	EPA 3510C	
11C6256-BS1	11C6256-BS1	total	Water	EPA 3510C	
NUC4095-01	GW-241809_SL-MW-1	total	Ground Water	EPA 3510C	
NUC4095-02	GW-241809_SL-MW-3	total	Ground Water	EPA 3510C	
NUC4095-03	GW-241809_SL-MW-4	total	Ground Water	EPA 3510C	
NUC4095-04	GW-241809_SL-MW-5	total	Ground Water	EPA 3510C	
NUC4095-05	GW-241809_SL-MW-8	total	Ground Water	EPA 3510C	
NUC4095-06	GW-241809_SL-MW-9	total	Ground Water	EPA 3510C	
NUC4095-07	GW-241809_SL-MW-10	total	Ground Water	EPA 3510C	
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	EPA 3510C	
NUC4095-09	GW-241809_SL-MW-12	total	Ground Water	EPA 3510C	
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	Ground Water	EPA 3510C	
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	EPA 3510C	

#### Analysis Batch: U005121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11C6256-BLK1	11C6256-BLK1	total	Water	NWTPH-Dx	11C6256_P
11C6256-BS1	11C6256-BS1	total	Water	NWTPH-Dx	11C6256_P
NUC4095-01	GW-241809_SL-MW-1	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-02	GW-241809_SL-MW-3	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-03	GW-241809_SL-MW-4	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-04	GW-241809_SL-MW-5	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-05	GW-241809_SL-MW-8	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-06	GW-241809_SL-MW-9	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-07	GW-241809_SL-MW-10	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-08	GW-241809_SL-MW-11	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-09	GW-241809 SL-MW-12	total	Ground Water	NWTPH-Dx	11C6256 P

#### **Analysis Batch: U005177**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUC4095-01 - RE1	GW-241809_SL-MW-1	total	Ground Water	NWTPH-Dx	11C6256_P
NUC4095-06 - RE1	GW-241809_SL-MW-9	total	Ground Water	NWTPH-Dx	11C6256_P

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TestAmerica Nashville 04/07/2011

TestAmerica Job ID: NUC4095

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Client Sample ID: GW-241809\_SL-MW-1

Date Collected: 03/23/11 11:00 Date Received: 03/24/11 08:30 Lab Sample ID: NUC4095-01

Matrix: Ground Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 16:00	JJR	TestAmerica Nashville
total	Prep	EPA 5030B	RE1	1.00	11C6289_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B	RE1	5.00	U005364	03/31/11 19:07	JJR	TestAmerica Nashville
total	Prep	EPA 3510C	RE1	0.962	11C6253_P	03/25/11 13:40	RCH2	TestAmerica Nashville
total	Analysis	SW846 8270CSIM	RE1	10.0	11C6253	03/27/11 03:47	BES	TestAmerica Nashville
total	Prep	EPA 5030B (GC)	RE1	1.00	11D0230_P	04/01/11 10:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx	RE1	10.0	U005529	04/01/11 20:06	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		1.00	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 04:18	cec	TestAmerica Nashville
total	Prep	EPA 3510C	RE1	1.00	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx	RE1	4.00	U005177	03/29/11 16:59	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-3

Date Collected: 03/23/11 10:20 Date Received: 03/24/11 08:30 Lab Sample ID: NUC4095-02

Matrix: Ground Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 16:26	JJR	TestAmerica Nashville
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 03:13	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.971	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 04:36	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-4

Date Collected: 03/23/11 08:50 Date Received: 03/24/11 08:30

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Lab Sample ID: NUC4095-04

**Matrix: Ground Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 16:51	JJR	TestAmerica Nashville
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 03:43	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.980	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 04:55	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-5

Date Collected: 03/23/11 09:15

Date Received: 03/24/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville

TestAmerica Nashville 04/07/2011

**Matrix: Ground Water** 

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Client Sample ID: GW-241809\_SL-MW-5

Date Collected: 03/23/11 09:15 Date Received: 03/24/11 08:30

Lab Sample ID: NUC4095-04

**Matrix: Ground Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 17:16	JJR	TestAmerica Nashville
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 04:12	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.943	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 05:13	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-8 Lab Sample ID: NUC4095-05 Date Collected: 03/23/11 09:30 **Matrix: Ground Water** 

Date Received: 03/24/11 08:30

Batch Batch Dilution Batch Prepared Method Factor Number Or Analyzed **Prep Type** Type Run Analyst Lab Prep EPA 5030B 11C6600\_P 03/25/11 10:11 TSP total 1.00 TestAmerica Nashville SW846 8260B total Analysis 1.00 U005345 03/30/11 17:41 JJR TestAmerica Nashville EPA 5030B total Prep RE1 1.00 11D0230\_P 04/01/11 10:00 AMC2 TestAmerica Nashville (GC) NWTPH-Gx RE1 total Analysis 1.00 U005529 04/01/11 19:36 AMC2 TestAmerica Nashville total EPA 3510C 0.980 11C6256 P 03/26/11 14:20 TestAmerica Nashville Prep MAH NWTPH-Dx total Analysis 1.00 U005121 03/29/11 05:32 TestAmerica Nashville cec

Client Sample ID: GW-241809\_SL-MW-9

Date Collected: 03/23/11 11:20 Date Received: 03/24/11 08:30 Lab Sample ID: NUC4095-06 **Matrix: Ground Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B	_	1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 18:07	JJR	TestAmerica Nashville
total	Prep	EPA 5030B	RE1	1.00	11C6289_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B	RE1	10.0	U005364	03/31/11 19:32	JJR	TestAmerica Nashville
total	Prep	EPA 3510C	RE1	0.990	11C6253_P	03/25/11 13:40	RCH2	TestAmerica Nashville
total	Analysis	SW846 8270CSIM	RE1	20.0	11C6253	03/27/11 04:08	BES	TestAmerica Nashville
total	Prep	EPA 5030B (GC)	RE1	1.00	11D0230_P	04/01/11 10:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx	RE1	25.0	U005529	04/01/11 20:35	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.952	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 05:50	cec	TestAmerica Nashville
total	Prep	EPA 3510C	RE1	0.952	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx	RE1	4.00	U005177	03/29/11 17:15	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-10

Date Collected: 03/23/11 09:50

Date Received: 03/24/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 18:32	JJR	TestAmerica Nashville

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**Matrix: Ground Water** 

Lab Sample ID: NUC4095-07

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Client Sample ID: GW-241809\_SL-MW-10

Date Collected: 03/23/11 09:50 Date Received: 03/24/11 08:30 Lab Sample ID: NUC4095-07

Matrix: Ground Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 05:40	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.971	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 06:08	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-11

Date Collected: 03/23/11 10:40 Date Received: 03/24/11 08:30 Lab Sample ID: NUC4095-08

**Matrix: Ground Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 18:57	JJR	TestAmerica Nashville
total	Prep	EPA 3510C		0.980	11C6253_P	03/25/11 13:40	RCH2	TestAmerica Nashville
total	Analysis	SW846 8270CSIM		1.00	11C6253	03/27/11 11:32	BES	TestAmerica Nashville
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 06:09	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		1.05	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 06:27	cec	TestAmerica Nashville

Client Sample ID: GW-241809\_SL-MW-12

Date Collected: 03/23/11 08:30 Date Received: 03/24/11 08:30

Lab Sample ID: NUC4095-09

**Matrix: Ground Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1.00	11C6600_P	03/25/11 10:11	TSP	TestAmerica Nashville
total	Analysis	SW846 8260B		1.00	U005345	03/30/11 19:22	JJR	TestAmerica Nashville
total	Prep	EPA 3510C		0.990	11C6253_P	03/25/11 13:40	RCH2	TestAmerica Nashville
total	Analysis	SW846 8270CSIM		1.00	11C6253	03/27/11 11:53	BES	TestAmerica Nashville
total	Prep	EPA 5030B (GC)		1.00	11C7961_P	03/31/11 15:00	AMC2	TestAmerica Nashville
total	Analysis	NWTPH-Gx		1.00	U005465	04/01/11 06:38	AMC2	TestAmerica Nashville
total	Prep	EPA 3510C		0.980	11C6256_P	03/26/11 14:20	MAH	TestAmerica Nashville
total	Analysis	NWTPH-Dx		1.00	U005121	03/29/11 06:45	cec	TestAmerica Nashville

# **Method Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUC4095

Method	Method Description	Protocol	Laboratory
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B	-	TAL NSH
SW846 8270CSIM	Polyaromatic Hydrocarbons by EPA 8270C SIM		TAL NSH
NWTPH-Gx	Purgeable Petroleum Hydrocarbons		TAL NSH
NWTPH-Dx	Extractable Petroleum Hydrocarbons with Silica Gel Treatment		TAL NSH

#### Protocol References:

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

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TestAmerica Job ID: NUC4095

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Laboratory	Authority	Program	EPA Region	Certification ID
estAmerica Nashville		AIHA		100790
estAmerica Nashville		USDA		S-48469
estAmerica Nashville	A2LA	A2LA	0	0453.07
estAmerica Nashville	A2LA	WY UST	0	453.07
estAmerica Nashville	Alabama	State Program	4	41150
estAmerica Nashville	Alaska	Alaska UST	10	UST-087
estAmerica Nashville	Arizona	State Program	9	AZ0473
estAmerica Nashville	Arkansas	State Program	6	88-0737
estAmerica Nashville	CALA	CALA	0	3744
estAmerica Nashville	California	NELAC	9	1168CA
estAmerica Nashville	Colorado	State Program	8	N/A
estAmerica Nashville	Connecticut	State Program	1	PH-0220
estAmerica Nashville	Florida	NELAC	4	E87358
estAmerica Nashville	Illinois	NELAC	5	200010
estAmerica Nashville	Iowa	State Program	7	131
estAmerica Nashville	Kansas	NELAC	7	E-10229
estAmerica Nashville	Kentucky	Kentucky UST	4	19
estAmerica Nashville	Kentucky	State Program	4	90038
estAmerica Nashville	Louisiana	NELAC	6	30613
estAmerica Nashville	Louisiana	NELAC	6	LA100011
estAmerica Nashville	Massachusetts	State Program	1	M-TN032
estAmerica Nashville	Minnesota	NELAC	5	047-999-345
estAmerica Nashville	Mississippi	State Program	4	N/A
estAmerica Nashville	Montana	MT DEQ UST	8	NA
estAmerica Nashville	Nevada	State Program	9	TN00032
estAmerica Nashville	New Hampshire	NELAC	1	2963
estAmerica Nashville	New Jersey	NELAC	2	TN965
estAmerica Nashville	New York	NELAC	2	11342
estAmerica Nashville	North Carolina	North Carolina DENR	4	387
estAmerica Nashville	North Dakota	State Program	8	R-146
estAmerica Nashville	Ohio	OVAP	5	CL0033
estAmerica Nashville	Oklahoma	State Program	6	9412
estAmerica Nashville	Oregon	NELAC	10	TN200001
estAmerica Nashville	Pennsylvania	NELAC	3	68-00585
estAmerica Nashville	Rhode Island	State Program	1	LAO00268
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	Tennessee	State Program	4	2008
estAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
estAmerica Nashville	Utah	NELAC	8	TAN
estAmerica Nashville	Virginia	State Program	3	00323
estAmerica Nashville	Washington	State Program	10	C789
estAmerica Nashville	<del>-</del>	West Virginia DEP	3	219
estAmerica Nashville	West Virginia Wisconsin	State Program	5 5	998020430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Nashville, TN

#### COOLER RECE!



NUC4095

Cooler Received/Opened On 3/24/2011@ 8:30	NUC4(
1. Tracking #(last 4 digits, FedEx)	
Courier: Fedex IR Gun ID Raynger	
2. Temperature of rep. sample or temp blank when opened Could 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?  If yes, how many and where:	YEŞNONA
	ØES NO NA
5. Were the seals intact, signed, and dated correctly?	YESNONA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES (O) and Intact	YESNO(NA)
Were these signed and dated correctly?	YESNO.
8. Packing mat'l used Bubblewran Plastic bag Peanuts Vermiculite Foam Insert Paper	Other None
9. Cooling process: Ice-pack Ice (direct contact) Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	TESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	TESNONA
12. Did all container labels and tags agree with custody papers?	YES)NONA
13a. Were VOA vials received?	YES NO NA
b. Was there any observable headspace present in any VOA vial?	YES.(.NONA
14. Was there a Trip Blank in this cooler? YES(NONA If multiple coolers, sequenc	e # <i>M</i>
I certify that I unloaded the cooler and answered questions 7-14 (intial)	4
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO(NA)
b. Did the bottle labels indicate that the correct preservatives were used	YESNONA
16. Was residual chlorine present?	YESNONA
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	SH
17. Were custody papers properly filled out (ink, signed, etc)?	(ES)NONA
18. Did you sign the custody papers in the appropriate place?	YES NONA
19. Were correct containers used for the analysis requested?	/E3NONA
20. Was sufficient amount of sample sent in each container?	YESNONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	<i>H</i>
certify that I attached a label with the unique LIMS number to each container (intial)	TH
21. Were there Non-Conformance issues at login? YES NO Was a PIPE generated? YES N	ð#

BIS = Broken in shipment Cooler Receipt Form.doc

LF-1 End of Form

Revised 6/24/09

# TestAmerica THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN

#### **COOLER RECEIPT FORM**

Cooler Received/Opened On 3/24/2011 @ 08:30	
1. Tracking # 5 609 (last 4 digits, FedEx)	
Courier: FEDEX IR Gun ID 96210146	
2. Temperature of rep. sample or temp blank when opened:	Isius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozei	1? YES.(.NO)NA
4. Were custody seals on outside of cooler?	YESNONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	VESNONA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers:  YES  No and Intact	YESNO(NA)
Were these signed and dated correctly?	YESNO (NA)
8. Packing mat'l used? Pubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pag	er Other None
9. Cooling process: tce. lce-pack lce (direct contact) Dry id	ce Other None
10. Did all containers arrive in good condition (unbroken)?	YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YESNONA
12. Did all container labels and tags agree with custody papers?	YES!NONA
13a. Were VOA vials received?	YES. NO. NA
b. Was there any observable headspace present in any VOA vial?	YESNO.
14. Was there a Trip Blank in this cooler? YESNA If multiple coolers, se	quence #114
I certify that I unloaded the cooler and answered questions 7-14 (intial)	W/
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level	? YESNONA
b. Did the bottle labels indicate that the correct preservatives were used	YE9NONA
16. Was residual chlorine present?	YES. (NONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	OH
17. Were custody papers properly filled out (ink, signed, etc)?	YES:NONA
18. Did you sign the custody papers in the appropriate place?	YES NONA
19. Were correct containers used for the analysis requested?	YES:).NONA
20. Was sufficient amount of sample sent in each container?	YESNONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	THA
Lertify that I attached a label with the unique LIMS number to each container (intial)	14/
21. Were there Non-Conformance issues at login? YES. No Was a PIPE generated? YES.	NO#

Nashville, TN

# **COOLER RECEIPT FORM**

NUC4095

04/07/11 23:59

Cooler Received/Opened On\_03/24/11 @ 08:30

1. Tracking #5583 (last 4 digits, FedEx)	
Courier:FED-EX IR-GUN-97310166	
2. Temperature of rep. sample or temp blank when opened:	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	n2 VES NO NA
4. Were custody seals on outside of cooler?	YESNONA
If yes, how many and where:	145114014F
5. Were the seals intact, signed, and dated correctly?	ÆSNONA
6. Were custody papers inside cooler?	VESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES (NG) and Intact	YESNONA
Were these signed and dated correctly?	YESNO. NA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pap	
9. Cooling process: Ice lce-pack Ice (direct contact) Dry ic	
10. Did all containers arrive in good condition (unbroken)?	YEŞNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YESNONA
12. Did all container labels and tags agree with custody papers?	YES NO NA
13a. Were VOA vials received?	YES. NONA
b. Was there any observable headspace present in any VOA vial?	YESNO. (NA
14. Was there a Trip Blank in this cooler? YES. NA If multiple coolers, sequer	_
I certify that I unloaded the cooler and answered questions 7-14 (intial)	11
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	(YESPNONA
16. Was residual chlorine present?	YES. NO.NA
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	014
17. Were custody papers properly filled out (ink, signed, etc)?	(FE\$NONA
18. Did you sign the custody papers in the appropriate place?	(YES)NONA
19. Were correct containers used for the analysis requested?	(YES)NONA
20. Was sufficient amount of sample sent in each container?	YE9NONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	1/
I certify that I attached a label with the unique LIMS number to each container (intial)	#/
21. Were there Non-Conformance issues at login? YES. NO Was a PIPE generated? YES.	16/1_#

BIS = Broken in shipment Cooler Receipt Form.doc

LF-1 End of Form

Revised 9/6/07

# **COOLER RECEIPT FORM**

**NUC4095** 04/07/11 23:59

	04/07/11
Cooler Received/Opened On 3/24/2011 @ 08:30	•
1. Tracking #5_6 (last 4 digits, FedEx)	
Courier: FEDEX IR Gun ID 96210146	
2. Temperature of rep. sample or temp blank when opened:	ius
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. NONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	ESNONA
6. Were custody papers inside cooler?	ESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES (NO) and Intact	YESNO.
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	r Other None
9. Cooling process: (direct contact) Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	YES NONA
11. Were all container labels complete (#, date, signed, pres., etc)?	(ES)NONA
12. Did all container labels and tags agree with custody papers?	(YESINONA
13a. Were VOA vials received?	YES (NO).NA
b. Was there any observable headspace present in any VOA vial?	YESNO.(NA
14. Was there a Trip Blank in this cooler? YES. NO. NA If multiple coolers, sequ	ience #
I certify that I unloaded the cooler and answered questions 7-14 (intial)	VH_
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNONA;
b. Did the bottle labels indicate that the correct preservatives were used	YESNO. (NA)
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	WH_
17. Were custody papers properly filled out (ink, signed, etc)?	YESNONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	ÆSL.NONA
20. Was sufficient amount of sample sent in each container?	YES NONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	11/
I certify that I attached a label with the unique LIMS number to each container (intial)	14
21. Were there Non-Conformance issues at login? YES. (NO) Was a PIPE generated? YES.	10/.#

## **COOLER RECEIPT FORM**

04/07/11 23:59

Cooler Received/Opened On 3/24/2011 @ 8:30	
1. Tracking #(last 4 digits, FedEx)	
Courier: FEDEX IR Gun ID 12080142	
2. Temperature of rep. sample or temp blank when opened: 2. 1Degrees Cels	sius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	? YESNONA
4. Were custody seals on outside of cooler?	ESNONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	YESNONA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers:  YES  And Intact	YESNONA
Were these signed and dated correctly?	YESNO (NA)
8. Packing mat'l used? Subblewrap Plastic bag Peanuts Vermiculite Foam Insert Pap	er Other None
9. Cooling process: (direct contact) Dry ic	e Other None
10. Did all containers arrive in good condition (unbroken)?	YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YESNONA
12. Did all container labels and tags agree with custody papers?	YESNONA
13a. Were VOA vials received?	YES(10)NA
b. Was there any observable headspace present in any VOA vial?	YESNO.
14. Was there a Trip Blank in this cooler? YESO. NA If multiple coolers, sec	quence # <u>114</u>
certify that I unloaded the cooler and answered questions 7-14 (intial)	<i>H</i>
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level	? YESNO(AA)
b. Did the bottle labels indicate that the correct preservatives were used	YESNO.
16. Was residual chlorine present?	YESNO).NA
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	
17. Were custody papers properly filled out (ink, signed, etc)?	YESNONA
18. Did you sign the custody papers in the appropriate place?	YESNONA
19. Were correct containers used for the analysis requested?	YESNONA
20. Was sufficient amount of sample sent in each container?	YES NONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	VH
certify that I attached a label with the unique LIMS number to each container (intial)	THE
21. Were there Non-Conformance issues at login? YES. (NO Was a PIPE generated? YES.	.NQ#

# COOLER RECEIPT FORM

**NUC4095** 04/07/11 23:59

Cooler Received/Opened On 3/24/2011 @ 08:30	
1. Tracking # 5572 (last 4 digits, FedEx)	
Courier: FEDEX IR Gun ID 96210146	
2. Temperature of rep. sample or temp blank when opened:  Degrees Cels	tine
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	
4. Were custody seals on outside of cooler?	YESNONA
If yes, how many and where:	1123.7.NONA
5. Were the seals intact, signed, and dated correctly?	YES)NONA
6. Were custody papers inside cooler?	(ES.).NONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers:  YES AND and Intact	YESNO.
Were these signed and dated correctly?	YESNO.(NA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper	er Other None
9. Cooling process: (Ice   lce-pack   lce (direct contact)   Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	<b>γε3</b> ΝΟΝΑ
11. Were all container labels complete (#, date, signed, pres., etc)?	YES NONA
12. Did all container labels and tags agree with custody papers?	YESįNONA
13a. Were VOA vials received?	YES. NO NA
b. Was there any observable headspace present in any VOA vial?	YESNO.(.NA)
14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, seq	uence #
I certify that I unloaded the cooler and answered questions 7-14 (intial)	4
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO (NA)
b. Did the bottle labels indicate that the correct preservatives were used	YESNOMA
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	OTH
17. Were custody papers properly filled out (ink, signed, etc)?	(ESNONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	YESNONA
20. Was sufficient amount of sample sent in each container?	(YES)NONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	TIA
L certify that I attached a label with the unique LIMS number to each container (intial)	114
21. Were there Non-Conformance issues at login? YES. NO Was a PIPE generated? YES. 1	vd#

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NUC4095

04/07/11 23:59

# COOLER RECEIPT FORM

Cooler Received/Opened On\_03/24/11 @ 08:30

1. Tracking #	
Courier:FED-EX IR-GUN-97310166	
2. Temperature of rep. sample or temp blank when Q	
3. If Item #2 temperature is 0°C or less, was the representative	_
If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozer  Were custody seals on outside of cooler?	1? YES NONA
If yes, how many and where:	YESNONA
5. Were the seals intact, signed, and dated correctly?	
6. Were custody papers inside cooler?	ESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	YESNONA
7. Were custody seals on containers:	
Were these signed and dated correctly?	YESNO. MA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape  9. Cooling process:	YESNO.(.NA)
	r Other None
lce-pack lce (direct contact) Dry ice  10. Did all containers arrive in good condition (unbroken)?	Other None
11. Were all container labels complete (#, date, signed, pres., etc)?	E3NONA
12. Did all container labels and tags agree with custody papers?	E9NONA
13a. Were VOA vials received?	YESNONA
b. Was there any observable headspace present in any VOA vial?	ES.NONA
14. Was there a Trip Blank in this cools 2	YES NO NA
Legrify that I unloaded the cooler and answered questions 7-14 (intial)	# MA
15a. On pres'd bottles, did nH test strips suggest and answered questions 7-14 (intial)	4
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? You b. Did the bottle labels indicate that the correct preservatives were used	ESNONA
16. Was residual chlorine present?	YESNONA
	YESNONA
1 certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) 17. Were custody papers properly filled out (ink, signed, etc)?	CVH.
	ES).NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	ESNONA
20. Was sufficient amount of sample sent in each container?	ES)NONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	VH
1 certify that I attached a label with the unique LIMS number to each container (intial)	#_
21. Were there Non-Conformance issues at login? YES. NO Was a PIFE generated? YES. NO	Q.#

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\_04/07/2011



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Road Nashville, TN 37204 Tel: 800-765-0980

#### TestAmerica Job ID: NUI1393

Client Project/Site: SAP 120531

Client Project Description: 11700 NE 160th, Bothel, WA

#### For:

Conestoga-Rovers & Asso. (Everett)/ Shell 20818 44th Avenue West, Suite 190 Lynnwood, WA 98036

Attn: Christina McClelland

Authorized for release by: 09/27/2011 12:58:54 PM

Um Ryan Fitzuater

Ryan Fitzwater Project Manager

Ryan.Fitzwater@testamericainc.com

Review your project results through Total Access

Have a Question?

Ask
The

Visit us at: www.testamericainc.com

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

Page 1 of 30 09/27/2011

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Table of Contents	2
Sample Summary	3
Case Narrative	
Definitions	5
Client Sample Results	6
QC Sample Results	14
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Chronicle	23
Method Summary	26
Certification Summary	27
Chain of Custody	28

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# **Sample Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUI1393-01	GW-241809-091211-SL-MW-1	Water	09/12/11 13:15	09/13/11 08:35
NUI1393-02	GW-241809-091211-SL-MW-3	Water	09/12/11 12:50	09/13/11 08:35
NUI1393-03	GW-241809-091211-SL-MW-4	Water	09/12/11 11:40	09/13/11 08:35
NUI1393-04	GW-241809-091211-SL-MW-5	Water	09/12/11 12:00	09/13/11 08:35
NUI1393-05	GW-241809-091211-SL-MW-7	Water	09/12/11 11:00	09/13/11 08:35
NUI1393-06	GW-241809-091211-SL-MW-8	Water	09/12/11 12:20	09/13/11 08:35
NUI1393-07	GW-241809-091211-SL-MW-9	Water	09/12/11 13:30	09/13/11 08:35
NUI1393-08	GW-241809-091211-SL-MW-12	Water	09/12/11 11:20	09/13/11 08:35

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#### **Case Narrative**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

#### Job ID: NUI1393

**Laboratory: TestAmerica Nashville** 

#### Narrative

All samples were received in good condition, properly preserved, and properly labeled. All analyses were completed within holding times. There were no relevant protocol specific QC and/or performance standard non-conformances to report with the following exceptions:

No 8270C SIM PAH matrix spike or matrix spike duplicate analyzed for sample batch 11I2330due to insufficient sample volume.

No TPH DRO byNWTPH-Dx matrix spike or matrix spike duplicate analyzed for sample batch 11I2330 due to insufficient sample volume. The TPH DRO by NWTPH-Dx sample surrogate, o-Terphenyl, for sample GW-241809-091211-SL-MW-9 (NUI1393-07) is below QC limits. No sample volume remaining for re-extraction and re-analysis of the sample.

The TPH NWTPH-Gx duplicate (DUP1) RPD for batch 11I2548 exceeds the acceptance limit.

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# **Definitions/Glossary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Toxicity Equivalent Quotient (Dioxin)

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

#### **Qualifiers**

#### **GCMS Semivolatiles**

Qualifier	Qualifier Description
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.

#### **GC Volatiles**

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.

#### **GC Semivolatiles**

Qualifier	Qualifier Description
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.
QP5	There was insufficient contamination present to perform a pattern match.
QP7	The hydrocarbon pattern most closely resembles a gasoline and lightweight hydrocarbon product.
QP6	The contamination did not match any standards in our library.
S10	Insufficient sample available for reanalysis.
Z6	Surrogate recovery was below acceptance limits.

#### Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Client Sample ID: GW-241809-091211-SL-MW-1

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-01

Matrix: Water

Date Collected: 09/12/11 13:15 Date Received: 09/13/11 08:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	138		10.0		ug/L		09/13/11 11:35	09/14/11 05:15	10.0
Ethylbenzene	255		10.0		ug/L		09/13/11 11:35	09/14/11 05:15	10.0
Toluene	33.4		10.0		ug/L		09/13/11 11:35	09/14/11 05:15	10.0
Xylenes, total	686		30.0		ug/L		09/13/11 11:35	09/14/11 05:15	10.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	102		70 - 130				09/13/11 11:35	09/14/11 05:15	10.0
Dibromofluoromethane	96		70 - 130				09/13/11 11:35	09/14/11 05:15	10.0
Toluene-d8	107		70 - 130				09/13/11 11:35	09/14/11 05:15	10.0
4-Bromofluorobenzene	97		70 - 130				09/13/11 11:35	09/14/11 05:15	10.0
Method: SW846 8270CSIM	- Polyaromatic Hydr	ocarbons b	v EPA 8270C SI	М					
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	58.5		0.0980		ug/L		09/13/11 14:50	09/19/11 22:07	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		27 - 120				09/13/11 14:50	09/19/11 22:07	1.00
2-Fluorobiphenyl	62		29 - 120				09/13/11 14:50	09/19/11 22:07	1.00
Terphenyl-d14	77		13 - 120				09/13/11 14:50	09/19/11 22:07	1.00

Method: NWTPH-Gx - Purgeable F	Petroleum Hyd	drocarbons	- RE1						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	10100		500		ug/L		09/12/11 13:15	09/14/11 16:32	5.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	106		50 - 150				09/12/11 13:15	09/14/11 16:32	5.00

Method: NWTPH-Dx - Ex	xtractable Petroleum Hy	/drocarbon	s with Silica Ge	el Treatm	ent				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	ND	QP5	248		ug/L		09/14/11 06:00	09/14/11 14:46	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				09/14/11 06:00	09/14/11 14:46	1.00

Method: NWTPH-Dx - Extractable I	Petroleum Hy	drocarbon	s with Silica	Gel Treatmo	ent - R	<b>≣1</b>			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	2290	QP7	198		ug/L		09/14/11 06:00	09/15/11 10:42	2.00

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Client Sample ID: GW-241809-091211-SL-MW-3

Project/Site: SAP 120531

Surrogate

o-Terphenyl

\_\_\_\_\_

Lab Sample ID: NUI1393-02

TestAmerica Job ID: NUI1393

Matrix: Water

Dil Fac

1.00

Analyzed

09/14/11 15:10

Prepared

09/14/11 06:00

Date Collected: 09/12/11 12:50

Date Received: 09/13/11 08:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:25	1.00
Ethylbenzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:25	1.00
Toluene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:25	1.00
Xylenes, total	ND		3.00		ug/L		09/13/11 11:35	09/14/11 01:25	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	109		70 - 130				09/13/11 11:35	09/14/11 01:25	1.00
Dibromofluoromethane	106		70 - 130				09/13/11 11:35	09/14/11 01:25	1.00
Toluene-d8	103		70 - 130				09/13/11 11:35	09/14/11 01:25	1.00
4-Bromofluorobenzene	95		70 - 130				09/13/11 11:35	09/14/11 01:25	1.00
+-DIOMONUOIODENZENE -	30		70 - 750					00/1/// 07/20	7.00
Method: NWTPH-Gx - Purg		drocarbons						00.1 // 17 0.12	7.00
-	eable Petroleum Hyd	drocarbons Qualifier		MDL	Unit	D	Prepared	Analyzed	
Method: NWTPH-Gx - Purg Analyte	eable Petroleum Hyd		- RE1	MDL	Unit ug/L	<u>D</u>			Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW	eable Petroleum Hyo	Qualifier	- RE1	MDL		<u>D</u>	Prepared	Analyzed	<b>Dil Fac</b>
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW Surrogate	eable Petroleum Hyd Result ND	Qualifier	- RE1 RL 100	MDL		<u>D</u>	Prepared 09/12/11 12:50	<b>Analyzed</b> 09/14/11 14:20	Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene	eable Petroleum Hyde Result ND 86 86 86 86 86 86 86 86 86 86 86 86 86	Qualifier  Qualifier	- RE1  RL  100  Limits  50 - 150		ug/L	<u>D</u>	Prepared 09/12/11 12:50  Prepared	Analyzed 09/14/11 14:20  Analyzed	Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extra	eable Petroleum Hyde Result ND   **Recovery 96**  actable Petroleum Hyden ND	Qualifier  Qualifier	- RE1  RL  100  Limits  50 - 150	l Treatm	ug/L	<u>D</u>	Prepared 09/12/11 12:50  Prepared	Analyzed 09/14/11 14:20  Analyzed	Dil Fac  1.00  Dil Fac  1.00
Method: NWTPH-Gx - Purg	eable Petroleum Hyde Result ND   **Recovery 96**  actable Petroleum Hyden ND	Qualifier  Qualifier  /drocarbons	- RE1  RL 100  Limits 50 - 150  s with Silica Ge	l Treatm	ug/L ent		Prepared 09/12/11 12:50  Prepared 09/12/11 12:50	Analyzed 09/14/11 14:20  Analyzed 09/14/11 14:20	Dil Fac  1.00  Dil Fac  1.00  Dil Fac  1.00

Limits

50 - 150

% Recovery Qualifier

94

TestAmerica Nashville 09/27/2011

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Client Sample ID: GW-241809-091211-SL-MW-4

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-03

latrix:	Water

Date Collected: 09/12/11 11:40	
Date Received: 09/13/11 08:35	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:51	1.00
Ethylbenzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:51	1.00
Toluene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 01:51	1.00
Xylenes, total	ND		3.00		ug/L		09/13/11 11:35	09/14/11 01:51	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	108		70 - 130				09/13/11 11:35	09/14/11 01:51	1.00
Dibromofluoromethane	103		70 - 130				09/13/11 11:35	09/14/11 01:51	1.00
Toluene-d8	104		70 - 130				09/13/11 11:35	09/14/11 01:51	1.00
4-Bromofluorobenzene	94		70 - 130				09/13/11 11:35	09/14/11 01:51	1.00
: Method: NWTPH-Gx - Purg	eable Petroleum Hyd						03/10/11/11.00	00,7 11,77 01.07	
: Method: NWTPH-Gx - Purg	eable Petroleum Hyd						03/10/11/11.00	00,7 11,77 01.07	
: Method: NWTPH-Gx - Purg Analyte	eable Petroleum Hyo	drocarbons Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
: Method: NWTPH-Gx - Purg	eable Petroleum Hyd			MDL	Unit ug/L	<u>D</u>			Dil Fac
: Method: NWTPH-Gx - Purg Analyte	eable Petroleum Hyo	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	<b>Dil Fac</b>
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW	eable Petroleum Hyd Result ND	Qualifier	RL 100	MDL		<u> </u>	Prepared 09/13/11 17:30	<b>Analyzed</b> 09/14/11 02:40	Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW Surrogate	eable Petroleum Hyd Result ND  **Recovery** 92	Qualifier  Qualifier	RL 100  Limits 50 - 150		ug/L	<u>D</u>	Prepared 09/13/11 17:30 Prepared	Analyzed 09/14/11 02:40  Analyzed	Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene	eable Petroleum Hyde Result ND % Recovery 92 nctable Petroleum Hy	Qualifier  Qualifier	RL 100  Limits 50 - 150		ug/L ent	<u>D</u>	Prepared 09/13/11 17:30 Prepared	Analyzed 09/14/11 02:40  Analyzed	Dil Fac 1.00 Dil Fac 1.00
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extra Analyte	eable Petroleum Hyde Result ND % Recovery 92 nctable Petroleum Hy	Qualifier  Qualifier	RL 100	el Treatm	ug/L ent	<u> </u>	Prepared 09/13/11 17:30  Prepared 09/13/11 17:30	Analyzed 09/14/11 02:40  Analyzed 09/14/11 02:40	Dil Fac
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extra Analyte Diesel	eable Petroleum Hyde Result ND % Recovery 92 Actable Petroleum Hyde Result Result	Qualifier  Qualifier	RL 100  Limits 50 - 150  s with Silica Ge RL	el Treatm	ug/L ent Unit	<u> </u>	Prepared 09/13/11 17:30  Prepared 09/13/11 17:30  Prepared	Analyzed 09/14/11 02:40  Analyzed 09/14/11 02:40  Analyzed	Dil Fac  1.00  Dil Fac  1.00  Dil Fac  1.00
Method: NWTPH-Gx - Purg Analyte GRO (C4-C12) NW  Surrogate a,a,a-Trifluorotoluene Method: NWTPH-Dx - Extra	eable Petroleum Hyde Result ND    **Recovery 92**  **actable Petroleum Hy Result ND    **ND    **Recovery 92**  **Actable Petroleum Hy Result ND    **ND    **Recovery 92**  **Actable Petroleum Hy Result ND    **Act	Qualifier  Qualifier  drocarbons Qualifier	RL 100  Limits 50 - 150  s with Silica Ge RL 96.2	el Treatm	ent Unit ug/L	<u> </u>	Prepared 09/13/11 17:30  Prepared 09/13/11 17:30  Prepared 09/14/11 06:00	Analyzed 09/14/11 02:40  Analyzed 09/14/11 02:40  Analyzed 09/14/11 15:34	Dil Fac  1.00  Dil Fac  1.00  Dil Fac  1.00  Dil Fac  1.00  Dil Fac

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Client Sample ID: GW-241809-091211-SL-MW-5

Project/Site: SAP 120531

Lab Sample ID: NUI1393-04

TestAmerica Job ID: NUI1393

Matrix: Water

Date Collected: 09/12/11 12:00 Date Received: 09/13/11 08:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:16	1.00
Ethylbenzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:16	1.00
Toluene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:16	1.00
Xylenes, total	ND		3.00		ug/L		09/13/11 11:35	09/14/11 02:16	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	109		70 - 130				09/13/11 11:35	09/14/11 02:16	1.00
Dibromofluoromethane	100		70 - 130				09/13/11 11:35	09/14/11 02:16	1.00
Toluene-d8	103		70 - 130				09/13/11 11:35	09/14/11 02:16	1.00
4-Bromofluorobenzene	98		70 - 130				09/13/11 11:35	09/14/11 02:16	1.00

Method: NWTPH-Gx - Purgeable P	etroleum Hyd	drocarbons							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		09/13/11 17:30	09/14/11 03:13	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150				09/13/11 17:30	09/14/11 03:13	1.00

Method: NWTPH-Dx - E	xtractable Petroleum Hy	/drocarbon	s with Silica Ge	I Treatm	ent				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	ND		98.0		ug/L		09/14/11 06:00	09/14/11 15:58	1.00
Motor Oil	ND		245		ug/L		09/14/11 06:00	09/14/11 15:58	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	96		50 - 150				09/14/11 06:00	09/14/11 15:58	1.00

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-05

Matrix: Water

Client Sample ID: GW-241809-091211-SL-MW-7

Date Collected: 09/12/11 11:00 Date Received: 09/13/11 08:35

Method: SW846 8260B - Vol	atile Organic Compounds	by EPA Method 826	60B - RE1				
Analyte	Result Qualifie	er RL	MDL Uni	t D	Prepared	Analyzed	Dil Fac
Benzene	ND ND	1.00	ug/l		09/13/11 11:35	09/14/11 11:57	1.00
Ethylbenzene	ND	1.00	ug/l	L	09/13/11 11:35	09/14/11 11:57	1.00
Toluene	ND	1.00	ug/l	L	09/13/11 11:35	09/14/11 11:57	1.00
Xylenes, total	ND	3.00	ug/l	Ĺ	09/13/11 11:35	09/14/11 11:57	1.00
Surrogate	% Recovery Qualific	er Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	110	70 _ 130			09/13/11 11:35	09/14/11 11:57	1.00
Dibromofluoromethane	103	70 - 130			09/13/11 11:35	09/14/11 11:57	1.00
Toluene-d8	103	70 - 130			09/13/11 11:35	09/14/11 11:57	1.00
4-Bromofluorobenzene	100	70 - 130			09/13/11 11:35	09/14/11 11:57	1.00

_ Method: NWTPH-Gx - Purgeable Pe	etroleum Hyd	drocarbons							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		09/13/11 17:30	09/14/11 03:46	1.00
Surrogate a,a,a-Trifluorotoluene	% Recovery	Qualifier	Limits 50 - 150				Prepared 09/13/11 17:30	Analyzed 09/14/11 03:46	<b>Dil Fac</b>

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Client Sample ID: GW-241809-091211-SL-MW-8

Project/Site: SAP 120531

Motor Oil

Surrogate

o-Terphenyl

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-06

09/14/11 06:00

Prepared

09/14/11 06:00

09/14/11 16:22

Analyzed

09/14/11 16:22

Matrix: Water

Date Collected: 09/12/11 12:20 Date Received: 09/13/11 08:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:42	1.00
Ethylbenzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:42	1.00
Toluene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 02:42	1.00
Xylenes, total	ND		3.00		ug/L		09/13/11 11:35	09/14/11 02:42	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	110		70 - 130				09/13/11 11:35	09/14/11 02:42	1.00
Dibromofluoromethane	106		70 - 130				09/13/11 11:35	09/14/11 02:42	1.00
Toluene-d8	101		70 - 130				09/13/11 11:35	09/14/11 02:42	1.00
4-Bromofluorobenzene	98		70 - 130				09/13/11 11:35	09/14/11 02:42	1.00
Method: NWTPH-Gx - Purgeable	e Petroleum Hyd	drocarbons							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		09/13/11 17:30	09/14/11 04:18	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		50 - 150				09/13/11 17:30	09/14/11 04:18	1.00
Method: NWTPH-Dx - Extractab	le Petroleum Hy	drocarbons	with Silica Ge	l Treatm	ent				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	ND		99.0		ug/L		09/14/11 06:00	09/14/11 16:22	1.00

248

Limits

50 - 150

ug/L

ND

% Recovery Qualifier

99

1.00

Dil Fac

1.00

TestAmerica Nashville 09/27/2011
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Project/Site: SAP 120531

Analyte

Diesel

Client Sample ID: GW-241809-091211-SL-MW-9

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Date Collected: 09/12/11 13:30 Date Received: 09/13/11 08:35

Lab Sample ID: NUI1393-07

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Benzene	94.8		10.0		ug/L		09/13/11 11:35	09/14/11 06:07	10
oluene	424		10.0		ug/L		09/13/11 11:35	09/14/11 06:07	10
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
,2-Dichloroethane-d4	101		70 - 130				09/13/11 11:35	09/14/11 06:07	1
Dibromofluoromethane	100		70 - 130				09/13/11 11:35	09/14/11 06:07	1
Toluene-d8	104		70 - 130				09/13/11 11:35	09/14/11 06:07	1
l-Bromofluorobenzene	91		70 - 130				09/13/11 11:35	09/14/11 06:07	1
Method: SW846 8260B - Vo	olatile Organic Comp	ounds by E	PA Method 826	0B - RE1	1				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil I
Ethylbenzene	2380		50.0		ug/L		09/13/11 11:35	09/14/11 13:40	5
(ylenes, total	12200		150		ug/L		09/13/11 11:35	09/14/11 13:40	5
urrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil
2-Dichloroethane-d4	108		70 - 130				09/13/11 11:35	09/14/11 13:40	- 5
ibromofluoromethane	107		70 - 130				09/13/11 11:35	09/14/11 13:40	
oluene-d8	102		70 - 130				09/13/11 11:35	09/14/11 13:40	
			70 - 130				09/13/11 11:35	09/14/11 13:40	
lethod: SW846 8270CSIM	Result	ocarbons b	y EPA 8270C S	IM MDL		<u>D</u>	Prepared	Analyzed	
lethod: SW846 8270CSIM nalyte	- Polyaromatic Hydr		oy EPA 8270C S		Unit ug/L	<u>D</u>		Analyzed 09/19/11 22:27	
lethod: SW846 8270CSIM nalyte aphthalene	- Polyaromatic Hydr		y EPA 8270C S			<u>D</u>	Prepared		
Method: SW846 8270CSIM nalyte aphthalene	- Polyaromatic Hydr Result 51.3	Qualifier	ey EPA 8270C S RL 0.0980			<u>D</u>	Prepared 09/13/11 14:50	09/19/11 22:27	Dil
Method: SW846 8270CSIM unalyte laphthalene surrogate litrobenzene-d5	- Polyaromatic Hydr Result 51.3 % Recovery	Qualifier	y EPA 8270C S RL 0.0980			<u>D</u>	Prepared 09/13/11 14:50 Prepared	09/19/11 22:27  Analyzed	
Method: SW846 8270CSIM unalyte laphthalene surrogate litrobenzene-d5 -Fluorobiphenyl	- Polyaromatic Hydr Result 51.3 % Recovery 46	Qualifier	y EPA 8270C S RL 0.0980  Limits 27 - 120			<u>D</u>	Prepared 09/13/11 14:50  Prepared 09/13/11 14:50	09/19/11 22:27  Analyzed  09/19/11 22:27	Dil 1
Method: SW846 8270CSIM nalyte laphthalene  urrogate litrobenzene-d5 -Fluorobiphenyl lerphenyl-d14  Method: NWTPH-Gx - Purg	- Polyaromatic Hydr Result 51.3 % Recovery 46 64 52	Qualifier  Qualifier	y EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1	MDL	ug/L	<u>D</u>	Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27	Dil 1
Method: SW846 8270CSIM nalyte aphthalene urrogate litrobenzene-d5 -Fluorobiphenyl erphenyl-d14 Method: NWTPH-Gx - Purg	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52  geable Petroleum Hydr Result	Qualifier  Qualifier	y EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL		ug/L Unit	<u>D</u>	Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27	Dil Dil
Method: SW846 8270CSIM Analyte Laphthalene Surrogate Uitrobenzene-d5 P-Fluorobiphenyl Ferphenyl-d14 Method: NWTPH-Gx - Purg	- Polyaromatic Hydr Result 51.3	Qualifier  Qualifier	y EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1	MDL	ug/L		Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27	Dil Dil
Method: SW846 8270CSIM Analyte Laphthalene Surrogate Ultrobenzene-d5 P-Fluorobiphenyl Terphenyl-d14 Method: NWTPH-Gx - Purg Analyte SRO (C4-C12) NW Surrogate	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52  geable Petroleum Hydr Result	Qualifier  Qualifier	y EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL	MDL	ug/L Unit		Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27	Dil 5
Method: SW846 8270CSIM Analyte Iaphthalene Surrogate Iitrobenzene-d5Fluorobiphenyl Terphenyl-d14 Method: NWTPH-Gx - Purg Analyte SRO (C4-C12) NW	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52  geable Petroleum Hydr Result 59800	Qualifier  Qualifier  drocarbons Qualifier	Py EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL 5000	MDL	ug/L Unit		Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50  Prepared 09/12/11 13:30	09/19/11 22:27  Analyzed 09/19/11 22:27 09/19/11 22:27 09/19/11 22:27  Analyzed 09/14/11 15:59	
Method: SW846 8270CSIM  Inalyte Inalyt	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52  eable Petroleum Hydr Result 59800  % Recovery 98	Qualifier  Qualifier  drocarbons Qualifier  Qualifier	Py EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL 5000  Limits 50 - 150  s with Silica Ge	MDL	ug/L  Unit ug/L		Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50  Prepared 09/12/11 13:30  Prepared	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27  Analyzed  09/14/11 15:59  Analyzed	Dill 5
Method: SW846 8270CSIM nalyte paphthalene surrogate litrobenzene-d5 -Fluorobiphenyl erphenyl-d14  Method: NWTPH-Gx - Purg nalyte sRO (C4-C12) NW surrogate a,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extra nalyte	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52 teable Petroleum Hydr Result 59800  % Recovery 98 actable Petroleum Hydr Result	Qualifier  Qualifier  Qualifier  Qualifier  Qualifier  Qualifier	Py EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL 5000  Limits 50 - 150  s with Silica Ge RL	MDL	Unit ug/L ent Unit		Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50  Prepared 09/12/11 13:30  Prepared 09/12/11 13:30	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27  Analyzed  09/14/11 15:59  Analyzed  09/14/11 15:59	Dill 5
Method: SW846 8270CSIM Inalyte	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52 eable Petroleum Hydr Result 59800  % Recovery 98 actable Petroleum Hydr	Qualifier  Qualifier  drocarbons Qualifier  Qualifier	Py EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL 5000  Limits 50 - 150  s with Silica Ge	MDL MDL	ug/L  Unit ug/L  ent	<u>D</u>	Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50  Prepared 09/12/11 13:30  Prepared 09/12/11 13:30	09/19/11 22:27  Analyzed 09/19/11 22:27 09/19/11 22:27 09/19/11 22:27  Analyzed 09/14/11 15:59  Analyzed 09/14/11 15:59	Dill to Dill t
Method: SW846 8270CSIM  Inalyte Inaphthalene  Surrogate Iitrobenzene-d5 -Fluorobiphenyl Ferphenyl-d14  Method: NWTPH-Gx - Purg Inalyte ISRO (C4-C12) NW  Surrogate I,a,a-Trifluorotoluene  Method: NWTPH-Dx - Extra Inalyte	- Polyaromatic Hydr Result 51.3  % Recovery 46 64 52 eable Petroleum Hydresult 59800  % Recovery 98 ectable Petroleum Hydresult 271  % Recovery	Qualifier  Qualifier  Qualifier  Qualifier  Qualifier  Qualifier  QP6  Qualifier	Py EPA 8270C S RL 0.0980  Limits 27 - 120 29 - 120 13 - 120  - RE1 RL 5000  Limits 50 - 150  s with Silica Ge RL	MDL MDL	Unit ug/L ent Unit	<u>D</u>	Prepared 09/13/11 14:50  Prepared 09/13/11 14:50 09/13/11 14:50 09/13/11 14:50  Prepared 09/12/11 13:30  Prepared 09/12/11 13:30	09/19/11 22:27  Analyzed  09/19/11 22:27  09/19/11 22:27  09/19/11 22:27  Analyzed  09/14/11 15:59  Analyzed  09/14/11 15:59	Dill 5

Analyzed

09/15/11 11:06

Dil Fac

5.00

RL

500

Result Qualifier

5440 QP7

MDL Unit

ug/L

Prepared

09/14/11 06:00

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-08

Matrix: Water

Client Sample ID: GW-241809-091211-SL-MW-12

Date Collected: 09/12/11 11:20 Date Received: 09/13/11 08:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 03:08	1.00
Ethylbenzene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 03:08	1.00
Toluene	ND		1.00		ug/L		09/13/11 11:35	09/14/11 03:08	1.00
Xylenes, total	ND		3.00		ug/L		09/13/11 11:35	09/14/11 03:08	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	109		70 - 130				09/13/11 11:35	09/14/11 03:08	1.00
Dibromofluoromethane	105		70 - 130				09/13/11 11:35	09/14/11 03:08	1.00
Toluene-d8	102		70 - 130				09/13/11 11:35	09/14/11 03:08	1.00
4-Bromofluorobenzene	97		70 - 130				09/13/11 11:35	09/14/11 03:08	1.00

ı	Method: SW846 8270CSIM - Polya	romatic Hydr	ocarbons by	/ EPA 8270C S	SIM					
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Naphthalene	1.43		0.0971		ug/L		09/13/11 14:50	09/19/11 22:47	1.00
	Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	Nitrobenzene-d5	69		27 - 120				09/13/11 14:50	09/19/11 22:47	1.00
İ	2-Fluorobiphenyl	64		29 - 120				09/13/11 14:50	09/19/11 22:47	1.00
	Terphenyl-d14	76		13 - 120				09/13/11 14:50	09/19/11 22:47	1.00

Method: NWTPH-Gx - Purgeable P	etroleum Hyd	drocarbons	- RE1						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12) NW	ND		100		ug/L		09/12/11 11:20	09/14/11 14:53	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150				09/12/11 11:20	09/14/11 14:53	1.00

•								
Petroleum Hy	/drocarbons	s with Silica Ge	l Treatm	ent				
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		98.0		ug/L		09/14/11 06:00	09/14/11 17:10	1.00
ND		245		ug/L		09/14/11 06:00	09/14/11 17:10	1.00
% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
82		50 - 150				09/14/11 06:00	09/14/11 17:10	1.00
_	Result ND ND ND	Result Qualifier  ND  ND  % Recovery Qualifier	Result         Qualifier         RL           ND         98.0           ND         245	Result         Qualifier         RL         MDL           ND         98.0           ND         245	ND         98.0         ug/L           ND         245         ug/L           % Recovery         Qualifier         Limits	Result         Qualifier         RL         MDL         Unit         D           ND         98.0         ug/L           ND         245         ug/L	Result         Qualifier         RL         MDL ug/L         D         Prepared           ND         98.0         ug/L         09/14/11 06:00           ND         245         ug/L         09/14/11 06:00           % Recovery         Qualifier         Limits         Prepared	Result ND         Qualifier         RL ND         MDL Unit Unit Unit Unit Unit Unit Unit Unit

Project/Site: SAP 120531

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11I1981-BLK1 Matrix: Water

Analysis Batch: U016246

Client Sample ID: Method Blank Prep Type: Total

Prep Batch: 11I1981\_P

	Blank Blank						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.00	ug/L		09/10/11 16:54	09/13/11 22:51	1.00
Ethylbenzene	ND	1.00	ug/L		09/10/11 16:54	09/13/11 22:51	1.00
Toluene	ND	1.00	ug/L		09/10/11 16:54	09/13/11 22:51	1.00
Xylenes, total	ND	3.00	ug/L		09/10/11 16:54	09/13/11 22:51	1.00

Blank Blank

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4	109		70 - 130	09/10/11 16:54	09/13/11 22:51	1.00	
Dibromofluoromethane	103		70 - 130	09/10/11 16:54	09/13/11 22:51	1.00	
Toluene-d8	103		70 - 130	09/10/11 16:54	09/13/11 22:51	1.00	
4-Bromofluorobenzene	101		70 - 130	09/10/11 16:54	09/13/11 22:51	1.00	

Lab Sample ID: 11I1981-BS1

**Matrix: Water** 

Analysis Batch: U016246

Client Sample ID: Lab Control Sample

Prep Type: Total Prep Batch: 11I1981\_P

	Spike	LCS	LCS			% Rec.	
Analyte	Added	Result	Qualifier	Unit D	% Rec	Limits	
Benzene	20.0	21.3		ug/L	106	80 - 121	
Ethylbenzene	20.0	22.0		ug/L	110	80 - 130	
Toluene	20.0	23.0		ug/L	115	80 - 126	
Xylenes total	60.0	68.0		ua/l	113	80 132	

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	105		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8	104		70 - 130
4-Bromofluorobenzene	94		70 - 130

Lab Sample ID: 11I1981-MS1 Client Sample ID: Matrix Spike

**Matrix: Water** 

**Analysis Batch: U016246** 

Prep Type: Total
Prep Batch: 1111981\_P

-	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.	-
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	ND		50.0	52.5		ug/L		105	75 - 133	
Ethylbenzene	ND		50.0	56.0		ug/L		112	79 - 139	
Toluene	ND		50.0	57.3		ug/L		115	75 - 136	
Xylenes, total	ND		150	172		ug/L		114	74 - 141	

Matrix Spike Matrix Spike

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	102		70 - 130
Dibromofluoromethane	107		70 - 130
Toluene-d8	102		70 - 130
4-Bromofluorobenzene	93		70 - 130

Lab Sample ID: 11I1981-MSD1

**Matrix: Water** 

Analysis Batch: U016246

<b>Client Sample</b>	ID:	Matrix	Spike	Duplicate

Prep Type: Total Prep Batch: 11I1981\_P

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dur				% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Red	Limits	RPD	Limit
Benzene	ND		50.0	51.3		ug/L		103	75 - 133	2	17

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11I1981-MSD1

**Matrix: Water** 

Analysis Batch: U016246

Client Sample ID: Matrix Spike Duplicate **Prep Type: Total** 

Prep Batch: 11I1981\_P

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spil	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Ethylbenzene	ND		50.0	53.3		ug/L		107	79 - 139	5	15
Toluene	ND		50.0	54.9		ug/L		110	75 - 136	4	15
Xylenes, total	ND		150	162		ug/L		108	74 - 141	6	15

Matrix Spike Dup Matrix Spike Dup

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	107		70 - 130
Dibromofluoromethane	109		70 - 130
Toluene-d8	101		70 - 130
4-Bromofluorobenzene	90		70 - 130

Client Sample ID: Method Blank

**Prep Type: Total** Prep Batch: 11I2637\_P

**Matrix: Water** 

Analysis Batch: U016319

Lab Sample ID: 11I2637-BLK1

Blank Blank

Analyte	Result Qual	lifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.00	ug/L		09/14/11 00:00	09/14/11 11:32	1.00
Ethylbenzene	ND	1.00	ug/L		09/14/11 00:00	09/14/11 11:32	1.00
Toluene	ND	1.00	ug/L		09/14/11 00:00	09/14/11 11:32	1.00
Xylenes, total	ND	3.00	ug/L		09/14/11 00:00	09/14/11 11:32	1.00

Blank Blank

Surrogate	% Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	107		70 - 130	_	09/14/11 00:00	09/14/11 11:32	1.00
Dibromofluoromethane	102		70 - 130		09/14/11 00:00	09/14/11 11:32	1.00
Toluene-d8	105		70 - 130		09/14/11 00:00	09/14/11 11:32	1.00
4-Bromofluorobenzene	98		70 - 130		09/14/11 00:00	09/14/11 11:32	1.00

Lab Sample ID: 11I2637-BS1

**Matrix: Water** 

Analysis Batch: U016319

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total** 

Prep Batch: 11I2637\_P

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	20.0	22.7		ug/L		114	80 - 121	
Ethylbenzene	20.0	23.0		ug/L		115	80 - 130	
Toluene	20.0	24.0		ug/L		120	80 - 126	
Xylenes, total	60.0	71.7		ug/L		120	80 - 132	

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	107		70 - 130
Dibromofluoromethane	109		70 - 130
Toluene-d8	103		70 - 130
4-Bromofluorobenzene	93		70 - 130

Lab Sample ID: 11I2637-MS1 Client Sample ID: Matrix Spike

**Matrix: Water Prep Type: Total** Analysis Batch: U016319 Prep Batch: 11I2637\_P

	Sample	Sample	Spike	Matrix Spike	Matrix Spil	(e			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	616		2500	3050		ug/L		97	75 - 133	
Ethylbenzene	1440		2500	3870		ug/L		97	79 <sub>-</sub> 139	

TestAmerica Job ID: NUI1393

Project/Site: SAP 120531

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11I2637-MS1 Client Sample ID: Matrix Spike **Matrix: Water Prep Type: Total** Prep Batch: 11I2637 P **Analysis Batch: U016319** 

Sample Sample Spike Matrix Spike Matrix Spike % Rec. Analyte Result Qualifier Result Qualifier Added Unit % Rec Limits Toluene 2500 2780 75 - 136 49.5 ug/L 109 ug/L Xylenes, total 5600 7500 12200 88 74 - 141

	Matrix Spike	Matrix Spike	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	95		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8	105		70 - 130
4-Bromofluorobenzene	97		70 - 130

Lab Sample ID: 11I2637-MSD1 Client Sample ID: Matrix Spike Duplicate

**Matrix: Water Prep Type: Total** 

Analysis Batch: U016319 Prep Batch: 11I2637\_P

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spil	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	616		2500	3090		ug/L		99	75 - 133	1	17
Ethylbenzene	1440		2500	3890		ug/L		98	79 - 139	0.4	15
Toluene	49.5		2500	2740		ug/L		108	75 - 136	1	15
Xylenes, total	5600		7500	12300		ug/L		89	74 - 141	0.7	15

Matrix Spike Dup Matrix Spike Dup Surrogate Qualifier % Recovery Limits 70 - 130 1,2-Dichloroethane-d4 94 Dibromofluoromethane 105 70 - 130 Toluene-d8 105 70 - 130 70 - 130 4-Bromofluorobenzene 93

#### Method: SW846 8270CSIM - Polyaromatic Hydrocarbons by EPA 8270C SIM

Lab Sample ID: 11I2330-BLK1 Client Sample ID: Method Blank **Matrix: Water Prep Type: Total** Analysis Batch: 11I2330 Prep Batch: 11I2330\_P Blank Blank

	DIAIIK	DIAIIK							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Acenaphthylene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Anthracene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Benzo (a) anthracene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Benzo (a) pyrene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Benzo (b) fluoranthene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Benzo (g,h,i) perylene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Benzo (k) fluoranthene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Chrysene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Dibenz (a,h) anthracene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Fluoranthene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Fluorene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Indeno (1,2,3-cd) pyrene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
1-Methylnaphthalene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
2-Methylnaphthalene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Naphthalene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00
Phenanthrene	ND		0.100		ug/L		09/13/11 14:50	09/19/11 21:07	1.00

TestAmerica Nashville 09/27/2011

TestAmerica Job ID: NUI1393

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

#### Method: SW846 8270CSIM - Polyaromatic Hydrocarbons by EPA 8270C SIM (Continued)

Lab Sample ID: 11I2330-BLK1

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 11I2330

Lab Sample ID: 11I2330-BS1

Client Sample ID: Method Blank **Prep Type: Total** 

Prep Batch: 11I2330\_P

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND	0.100	ug/L		09/13/11 14:50	09/19/11 21:07	1.00

Blank Blank

Blank Blank

1		Dialik	Dialik				
l	Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Nitrobenzene-d5	73		27 - 120	09/13/11 14:50	09/19/11 21:07	1.00
ı	2-Fluorobiphenyl	68		29 - 120	09/13/11 14:50	09/19/11 21:07	1.00
	Terphenyl-d14	90		13 - 120	09/13/11 14:50	09/19/11 21:07	1.00

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total** 

Analysis Batch: 11I2330	Spike	LCS	LCS				Prep Batch: 11I2330_P
Analyte	Added		Qualifier	Unit	D	% Rec	Limits
Acenaphthene	1.00	0.780	MNR1	ug/L		78	46 - 120
Acenaphthylene	1.00	0.790	MNR1	ug/L		79	48 - 120
Anthracene	1.00	0.850	MNR1	ug/L		85	58 - 130
Benzo (a) anthracene	1.00	0.900	MNR1	ug/L		90	57 - 120
Benzo (a) pyrene	1.00	0.810	MNR1	ug/L		81	57 - 124
Benzo (b) fluoranthene	1.00	0.830	MNR1	ug/L		83	51 <sub>-</sub> 125
Benzo (g,h,i) perylene	1.00	0.840	MNR1	ug/L		84	51 - 123
Benzo (k) fluoranthene	1.00	0.780	MNR1	ug/L		78	51 - 120
Chrysene	1.00	0.780	MNR1	ug/L		78	55 - 120
Dibenz (a,h) anthracene	1.00	0.720	MNR1	ug/L		72	50 - 125
Fluoranthene	1.00	0.860	MNR1	ug/L		86	56 - 120
Fluorene	1.00	0.820	MNR1	ug/L		82	52 <sub>-</sub> 120
Indeno (1,2,3-cd) pyrene	1.00	0.830	MNR1	ug/L		83	54 - 125
1-Methylnaphthalene	1.00	0.630	MNR1	ug/L		63	36 - 120
2-Methylnaphthalene	1.00	0.750	MNR1	ug/L		75	31 - 120
Naphthalene	1.00	0.830	MNR1	ug/L		83	37 - 120
Phenanthrene	1.00	0.810	MNR1	ug/L		81	56 - 120
Pyrene	1.00	0.830	MNR1	ug/L		83	53 - 122

LCS LCS

Blank Blank

95

Surrogate	% Recovery	Qualifier	Limits
Nitrobenzene-d5	75		27 - 120
2-Fluorobiphenyl	70		29 - 120
Terphenyl-d14	91		13 - 120

#### Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons

Lab Sample ID: 11I2449-BLK1

**Matrix: Water** 

a,a,a-Trifluorotoluene

Analysis Batch: U016237

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I2449 P

09/13/11 00:00 09/13/11 20:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
GRO (C4-C12) NW	ND		100		ug/L		09/13/11 00:00	09/13/11 20:36	1.00	
	Blank	Blank								
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	

50 - 150

1.00

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

a,a,a-Trifluorotoluene

**Method: NWTPH-Gx - Purgeable Petroleum Hydrocarbons (Continued)** 

Lab Sample ID: 11I2449-BS1			Client Sample ID: Lab Control Sample
Matrix: Water			Prep Type: Total
Analysis Batch: U016237			Prep Batch: 11I2449_P
	Spike	LCS LCS	% Rec.

 Analyte
 Added GRO (C4-C12) NW
 Result 1000
 Qualifier 1040
 Unit ug/L
 D wig/L
 Rec Limits 104
 Limits 204
 Lab Sample ID: 11I2449-DUP1 Client Sample ID: Duplicate
Matrix: Water Prep Type: Total

Matrix: Water Prep Type: Total Analysis Batch: U016237 Prep Batch: 11I2449\_P

 Analyte
 Result
 Qualifier
 Result
 Qualifier
 Unit
 D
 RPD
 Limit

 GRO (C4-C12) NW
 291
 294
 294
 ug/L
 1
 18

Surrogate% Recovery a,a,a-TrifluorotolueneQualifier 99Limits 50 - 150

Lab Sample ID: 11I2548-BLK1

Matrix: Water

Prep Type: Total

Analysis Batch: U016303 Prep Batch: 1112548\_P

MDL Result Qualifier RL Unit D Prepared Analyzed Dil Fac ug/L 09/14/11 00:00 GRO (C4-C12) NW ND 100 09/14/11 13:07 1.00 Blank Blank

 Surrogate
 % Recovery a,a,a-Trifluorotoluene
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 09/14/11 00:00
 09/14/11 13:07
 1.00

Lab Sample ID: 11I2548-BS1

Matrix: Water

Client Sample ID: Lab Control Sample
Prep Type: Total

Analysis Batch: U016303

Prep Batch: 1112548\_P

Spike

LCS LCS

Rec.

 Analyte
 Added GRO (C4-C12) NW
 Result 1000
 Qualifier 1000
 Unit ug/L
 D ug/L
 % Rec valt 108
 Limits 20 value 108

94

Lab Sample ID: 11I2548-DUP1 Client Sample ID: Duplicate

Matrix: Water Prep Type: Total
Analysis Batch: U016303 Prep Batch: 11I2548\_P

**Duplicate Duplicate** RPD Sample Sample Analyte Result Qualifier Result Qualifier Unit RPD Limit GRO (C4-C12) NW 101 77.4 R2 ug/L 27 18

 GRO (C4-C12) NW
 101
 77.4
 R2
 ug/L
 27

 Duplicate

 Surrogate
 % Recovery
 Qualifier
 Limits

50 - 150

## **QC Sample Results**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

**Matrix: Water** 

Lab Sample ID: 11I2436-BLK1

Analysis Batch: U016270

TestAmerica Job ID: NUI1393

Client Sample ID: Method Blank

**Prep Type: Total** 

Prep Batch: 11I2436\_P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	ND		100		ug/L		09/14/11 06:00	09/14/11 13:58	1.00
Motor Oil	ND		250		ug/L		09/14/11 06:00	09/14/11 13:58	1.00

Blank Blank

Method: NWTPH-Dx - Extractable Petroleum Hydrocarbons with Silica Gel Treatment

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150	09/14/11 06:00	09/14/11 13:58	1.00

Lab Sample ID: 11I2436-BS1 Client Sample ID: Lab Control Sample **Matrix: Water Prep Type: Total** 

Analysis Batch: U016270 Prep Batch: 11I2436\_P LCS LCS % Rec. Snike

	Opino					/0 I to 0.	
Analyte	Added	Result Qualifier	Unit	D	% Rec	Limits	
Diesel	1000	1160 MNR1	ug/L		116	51 - 132	

LCS LCS

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

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

#### **GCMS Volatiles**

#### Analysis Batch: U016246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I1981-BLK1	Method Blank	Total	Water	SW846 8260B	11I1981_P
11I1981-BS1	Lab Control Sample	Total	Water	SW846 8260B	11I1981_P
11I1981-MS1	Matrix Spike	Total	Water	SW846 8260B	11I1981_P
11I1981-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	11I1981_P
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	SW846 8260B	11I1981_P
NUI1393-02	GW-241809-091211-SL-MW-3	Total	Water	SW846 8260B	11I1981_P
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	SW846 8260B	11I1981_P
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	SW846 8260B	11I1981_P
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	SW846 8260B	11I1981_P
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	SW846 8260B	11I1981_P
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	SW846 8260B	11I1981_P

#### **Analysis Batch: U016319**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2637-BLK1	Method Blank	Total	Water	SW846 8260B	11I2637_P
11I2637-BS1	Lab Control Sample	Total	Water	SW846 8260B	11I2637_P
11I2637-MS1	Matrix Spike	Total	Water	SW846 8260B	11I2637_P
11I2637-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	11I2637_P
NUI1393-05 - RE1	GW-241809-091211-SL-MW-7	Total	Water	SW846 8260B	11I2637_P
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	SW846 8260B	11I2637_P

#### Prep Batch: 11I1981\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I1981-BLK1	Method Blank	Total	Water	EPA 5030B	
11I1981-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11I1981-MS1	Matrix Spike	Total	Water	EPA 5030B	
11I1981-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	EPA 5030B	
NUI1393-02	GW-241809-091211-SL-MW-3	Total	Water	EPA 5030B	
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	EPA 5030B	
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	EPA 5030B	
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	EPA 5030B	
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	EPA 5030B	
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	EPA 5030B	

#### Prep Batch: 11I2637\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2637-BLK1	Method Blank	Total	Water	EPA 5030B	
11I2637-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11I2637-MS1	Matrix Spike	Total	Water	EPA 5030B	
11I2637-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NUI1393-05 - RE1	GW-241809-091211-SL-MW-7	Total	Water	EPA 5030B	
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	EPA 5030B	

#### **GCMS Semivolatiles**

#### Analysis Batch: 11I2330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2330-BLK1	Method Blank	Total	Water	SW846	11I2330_P
				8270CSIM	
11I2330-BS1	Lab Control Sample	Total	Water	SW846	11I2330_P
				8270CSIM	

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

#### **GCMS Semivolatiles (Continued)**

#### Analysis Batch: 11I2330 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	SW846	11I2330_P
				8270CSIM	
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	SW846	11I2330_P
				8270CSIM	
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	SW846	11I2330_P
				8270CSIM	

#### Prep Batch: 11I2330\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2330-BLK1	Method Blank	Total	Water	EPA 3510C	
11I2330-BS1	Lab Control Sample	Total	Water	EPA 3510C	
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	EPA 3510C	
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	EPA 3510C	
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	EPA 3510C	

#### **GC Volatiles**

#### **Analysis Batch: U016237**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2449-BLK1	Method Blank	Total	Water	NWTPH-Gx	11I2449_P
11I2449-BS1	Lab Control Sample	Total	Water	NWTPH-Gx	11I2449_P
11I2449-DUP1	Duplicate	Total	Water	NWTPH-Gx	11I2449_P
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	NWTPH-Gx	11I2449_P
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	NWTPH-Gx	11I2449_P
NUI1393-05	GW-241809-091211-SL-MW-7	Total	Water	NWTPH-Gx	11I2449_P
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	NWTPH-Gx	11I2449_P

#### **Analysis Batch: U016303**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2548-BLK1	Method Blank	Total	Water	NWTPH-Gx	11I2548_P
11I2548-BS1	Lab Control Sample	Total	Water	NWTPH-Gx	11I2548_P
11I2548-DUP1	Duplicate	Total	Water	NWTPH-Gx	11I2548_P
NUI1393-01 - RE1	GW-241809-091211-SL-MW-1	Total	Water	NWTPH-Gx	11I2548_P
NUI1393-02 - RE1	GW-241809-091211-SL-MW-3	Total	Water	NWTPH-Gx	11I2548_P
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	NWTPH-Gx	11I2548_P
NUI1393-08 - RE1	GW-241809-091211-SL-MW-12	Total	Water	NWTPH-Gx	11I2548_P

#### Prep Batch: 11I2449\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2449-BLK1	Method Blank	Total	Water	EPA 5030B (GC)	
11I2449-BS1	Lab Control Sample	Total	Water	EPA 5030B (GC)	
11I2449-DUP1	Duplicate	Total	Water	EPA 5030B (GC)	
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	EPA 5030B (GC)	
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	EPA 5030B (GC)	
NUI1393-05	GW-241809-091211-SL-MW-7	Total	Water	EPA 5030B (GC)	
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	EPA 5030B (GC)	

#### Prep Batch: 11I2548\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2548-BLK1	Method Blank	Total	Water	EPA 5030B (GC)	
11I2548-BS1	Lab Control Sample	Total	Water	EPA 5030B (GC)	
11I2548-DUP1	Duplicate	Total	Water	EPA 5030B (GC)	
NUI1393-01 - RE1	GW-241809-091211-SL-MW-1	Total	Water	EPA 5030B (GC)	

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

#### **GC Volatiles (Continued)**

#### Prep Batch: 11I2548\_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUI1393-02 - RE1	GW-241809-091211-SL-MW-3	Total	Water	EPA 5030B (GC)	
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	EPA 5030B (GC)	
NUI1393-08 - RE1	GW-241809-091211-SL-MW-12	Total	Water	EPA 5030B (GC)	

#### **GC Semivolatiles**

#### **Analysis Batch: U016270**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2436-BLK1	Method Blank	Total	Water	NWTPH-Dx	11I2436_P
11I2436-BS1	Lab Control Sample	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-02	GW-241809-091211-SL-MW-3	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	NWTPH-Dx	11I2436_P

#### Analysis Batch: U016310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUI1393-01 - RE1	GW-241809-091211-SL-MW-1	Total	Water	NWTPH-Dx	11I2436_P
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	NWTPH-Dx	11I2436_P

#### Prep Batch: 11I2436\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I2436-BLK1	Method Blank	Total	Water	EPA 3510C	
11I2436-BS1	Lab Control Sample	Total	Water	EPA 3510C	
NUI1393-01	GW-241809-091211-SL-MW-1	Total	Water	EPA 3510C	
NUI1393-01 - RE1	GW-241809-091211-SL-MW-1	Total	Water	EPA 3510C	
NUI1393-02	GW-241809-091211-SL-MW-3	Total	Water	EPA 3510C	
NUI1393-03	GW-241809-091211-SL-MW-4	Total	Water	EPA 3510C	
NUI1393-04	GW-241809-091211-SL-MW-5	Total	Water	EPA 3510C	
NUI1393-06	GW-241809-091211-SL-MW-8	Total	Water	EPA 3510C	
NUI1393-07	GW-241809-091211-SL-MW-9	Total	Water	EPA 3510C	
NUI1393-07 - RE1	GW-241809-091211-SL-MW-9	Total	Water	EPA 3510C	
NUI1393-08	GW-241809-091211-SL-MW-12	Total	Water	EPA 3510C	

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Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Client Sample ID: GW-241809-091211-SL-MW-1 Lab Samp

Date Collected: 09/12/11 13:15 Date Received: 09/13/11 08:35 Lab Sample ID: NUI1393-01

Matrix: Water

Matrix: Water

**Matrix: Water** 

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		10.0	U016246	09/14/11 05:15	JJR	TAL NSH
Total	Prep	EPA 3510C		0.980	11I2330_P	09/13/11 14:50	MSR	TAL NSH
Total	Analysis	SW846 8270CSIM		1.00	1112330	09/19/11 22:07	CLJ	TAL NSH
Total	Prep	EPA 5030B (GC)	RE1	1.00	11I2548_P	09/12/11 13:15	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx	RE1	5.00	U016303	09/14/11 16:32	KAR2	TAL NSH
Total	Prep	EPA 3510C		0.990	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 14:46	KKH	TAL NSH
Total	Prep	EPA 3510C	RE1	0.990	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx	RE1	2.00	U016310	09/15/11 10:42	KKH	TAL NSH

Client Sample ID: GW-241809-091211-SL-MW-3 Lab Sample ID: NUI1393-02

Date Collected: 09/12/11 12:50

Date Received: 09/13/11 08:35

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U016246	09/14/11 01:25	JJR	TAL NSH
Total	Prep	EPA 5030B (GC)	RE1	1.00	11I2548_P	09/12/11 12:50	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx	RE1	1.00	U016303	09/14/11 14:20	KAR2	TAL NSH
Total	Prep	EPA 3510C		0.980	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 15:10	KKH	TAL NSH

Client Sample ID: GW-241809-091211-SL-MW-4 Lab Sample ID: NUI1393-03

Date Collected: 09/12/11 11:40

Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U016246	09/14/11 01:51	JJR	TAL NSH
Total	Prep	EPA 5030B (GC)		1.00	11I2449_P	09/13/11 17:30	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx		1.00	U016237	09/14/11 02:40	KAR2	TAL NSH
Total	Prep	EPA 3510C		0.962	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 15:34	KKH	TAL NSH

Client Sample ID: GW-241809-091211-SL-MW-5 Lab Sample ID: NUI1393-04

Date Collected: 09/12/11 12:00 Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U016246	09/14/11 02:16	JJR	TAL NSH
Total	Prep	EPA 5030B (GC)		1.00	11l2449_P	09/13/11 17:30	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx		1.00	U016237	09/14/11 03:13	KAR2	TAL NSH

Client: Conestoga-Rovers & Asso. (Everett)/ Shell Project/Site: SAP 120531

Client Sample ID: GW-241809-091211-SL-MW-5

Lab Sample ID: NUI1393-04 Date Collected: 09/12/11 12:00

Matrix: Water

Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 3510C		0.980	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 15:58	KKH	TAL NSH

Lab Sample ID: NUI1393-05 Client Sample ID: GW-241809-091211-SL-MW-7

Date Collected: 09/12/11 11:00 Matrix: Water

Date Received: 09/13/11 08:35

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.00	11I2637_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	U016319	09/14/11 11:57	JJR	TAL NSH
Total	Prep	EPA 5030B (GC)		1.00	11I2449_P	09/13/11 17:30	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx		1.00	U016237	09/14/11 03:46	KAR2	TAL NSH

Client Sample ID: GW-241809-091211-SL-MW-8 Lab Sample ID: NUI1393-06

Date Collected: 09/12/11 12:20 **Matrix: Water** 

Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U016246	09/14/11 02:42	JJR	TAL NSH
Total	Prep	EPA 5030B (GC)		1.00	11I2449_P	09/13/11 17:30	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx		1.00	U016237	09/14/11 04:18	KAR2	TAL NSH
Total	Prep	EPA 3510C		0.990	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 16:22	KKH	TAL NSH

Lab Sample ID: NUI1393-07 Client Sample ID: GW-241809-091211-SL-MW-9

Date Collected: 09/12/11 13:30 **Matrix: Water** 

Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		10.0	U016246	09/14/11 06:07	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11I2637_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U016319	09/14/11 13:40	JJR	TAL NSH
Total	Prep	EPA 3510C		0.980	11I2330_P	09/13/11 14:50	MSR	TAL NSH
Total	Analysis	SW846 8270CSIM		1.00	1112330	09/19/11 22:27	CLJ	TAL NSH
Total	Prep	EPA 5030B (GC)	RE1	1.00	11I2548_P	09/12/11 13:30	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx	RE1	50.0	U016303	09/14/11 15:59	KAR2	TAL NSH
Total	Prep	EPA 3510C		1.00	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 16:46	KKH	TAL NSH
Total	Prep	EPA 3510C	RE1	1.00	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx	RE1	5.00	U016310	09/15/11 11:06	KKH	TAL NSH

#### **Lab Chronicle**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Lab Sample ID: NUI1393-08

Matrix: Water

Client Sample ID: GW-241809-091211-SL-MW-12 Date Collected: 09/12/11 11:20

Date Received: 09/13/11 08:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11I1981_P	09/13/11 11:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U016246	09/14/11 03:08	JJR	TAL NSH
Total	Prep	EPA 3510C		0.971	11I2330_P	09/13/11 14:50	MSR	TAL NSH
Total	Analysis	SW846 8270CSIM		1.00	1112330	09/19/11 22:47	CLJ	TAL NSH
Total	Prep	EPA 5030B (GC)	RE1	1.00	11I2548_P	09/12/11 11:20	KAR2	TAL NSH
Total	Analysis	NWTPH-Gx	RE1	1.00	U016303	09/14/11 14:53	KAR2	TAL NSH
Total	Prep	EPA 3510C		0.980	11I2436_P	09/14/11 06:00	MSR	TAL NSH
Total	Analysis	NWTPH-Dx		1.00	U016270	09/14/11 17:10	KKH	TAL NSH

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

# **Method Summary**

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

TestAmerica Job ID: NUI1393

Method	Mathad Daggintian	Protocol	Labaratam
wethod	Method Description	Protocol	Laboratory
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH
SW846 8270CSIM	Polyaromatic Hydrocarbons by EPA 8270C SIM		TAL NSH
NWTPH-Gx	Purgeable Petroleum Hydrocarbons		TAL NSH
NWTPH-Dx	Extractable Petroleum Hydrocarbons with Silica Gel Treatment		TAL NSH

#### **Protocol References:**

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

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TestAmerica Job ID: NUI1393

Client: Conestoga-Rovers & Asso. (Everett)/ Shell

Project/Site: SAP 120531

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHA	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	CALA	CALA		3744
TestAmerica Nashville	California	NELAC	9	1168CA
estAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
estAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
estAmerica Nashville	Louisiana	NELAC	6	30613
estAmerica Nashville	Louisiana	NELAC	6	LA100011
estAmerica Nashville	Maryland	State Program	3	316
estAmerica Nashville	Massachusetts	State Program	1	M-TN032
estAmerica Nashville	Minnesota	NELAC	5	047-999-345
estAmerica Nashville	Mississippi	State Program	4	N/A
estAmerica Nashville	Montana	MT DEQ UST	8	NA
estAmerica Nashville	Nevada	State Program	9	TN00032
estAmerica Nashville	New Hampshire	NELAC	1	2963
estAmerica Nashville	New Jersey	NELAC	2	TN965
estAmerica Nashville	New York	NELAC	2	11342
estAmerica Nashville	North Carolina	North Carolina DENR	4	387
estAmerica Nashville	North Dakota	State Program	8	R-146
estAmerica Nashville	Ohio	OVAP	5	CL0033
estAmerica Nashville	Oklahoma	State Program	6	9412
estAmerica Nashville	Oregon	NELAC	10	TN200001
estAmerica Nashville	Pennsylvania	NELAC	3	68-00585
estAmerica Nashville	Rhode Island	State Program	1	LAO00268
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	Tennessee	State Program	4	2008
estAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
estAmerica Nashville	USDA	USDA		S-48469
estAmerica Nashville	Utah	NELAC	8	TAN
estAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
estAmerica Nashville	Washington	State Program	10	C789
FestAmerica Nashville	West Virginia	West Virginia DEP	3	219

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Nashville, TN

# **COOLER RECI**



Cooler Received/Opened On <u>9/13/2011 @ 0835</u>	NUI1393
1. Tracking # 0435 (last 4 digits, FedEx)	14011393
Courier: FedEx IR Gun ID 97460373	
2. Temperature of rep. sample or temp blank when opened:	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozer	i? YES NO MÍA
4. Were custody seals on outside of cooler?	ESNONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	€8NONA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	0
7. Were custody seals on containers:  YES NO and Intact	YESNONA
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	er Other None
9. Cooling process: (Ice Ice-pack Ice (direct contact) Dry ice	
10. Did all containers arrive in good condition (unbroken)?	(YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	(YES NONA
12. Did all container labels and tags agree with custody papers?	YES NONA
13a. Were VOA vials received?	ESNONA
b. Was there any observable headspace present in any VOA vial?	YES.(NONA
14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence	
I certify that I unloaded the cooler and answered questions 7-14 (intial)	
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YES NOON
b. Did the bottle labels indicate that the correct preservatives were used	YESNONA
16. Was residual chlorine present?	YESNO.(NA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	CB-
17. Were custody papers properly filled out (ink, signed, etc)?	YESNONA
18. Did you sign the custody papers in the appropriate place?	YESNONA
19. Were correct containers used for the analysis requested?	YESNONA
20. Was sufficient amount of sample sent in each container?	PESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	3
certify that I attached a label with the unique LIMS number to each container (intial)	R
21. Were there Non-Conformance issues at login? YES. NO Was a PIPE generated? YES. NO	D#
	·

**NUI1393** 09/27/11 23 59

# COOLER RECEIPT FORM

Cooler Received/Opened On 9/13/2011 @ 0835	
1. Tracking #(last 4 digits, FedEx)	
Courier: FedEx IR Gun ID 97460373	
2. Temperature of rep. sample or temp blank when opened: Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank froze	
4. Were custody seals on outside of cooler?	
If yes, how many and where:	YES NONA
5. Were the seals intact, signed, and dated correctly?	
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	YES. NONA
7. Were custody seals on containers:  YES (NO) and Intact	
Were these signed and dated correctly?	YESNO. (NA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pap	YESNONA
9. Cooling process:	
10. Did all containers arrive in good condition (unbroken)?	
11. Were all container labels complete (#, date, signed, pres., etc)?	YESNONA
12. Did all container labels and tags agree with custody papers?	VESNONA
13a. Were VOA vials received?	YES NONA
b. Was there any observable headspace present in any VOA vial?	YESNA
14. Was there a Trip Blank in this sealed	YESNO. (NA
Leertify that I unloaded the cooler and answered questions 7-14 (intial)	ice #
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	
b. Did the bottle labels indicate that the correct preservatives were used	$\sim$
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	YESNO(NA
17. Were custody papers properly filled out (ink, signed, etc)?	00
18. Did you sign the custody papers in the appropriate place?	YESNONA
19. Were correct containers used for the analysis requested?	YESNONA
20. Was sufficient amount of sample sent in each container?	YESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	YESNONA
I certify that I attached a label with the unique LIMS number to each container (intial)	0
21. Were there Non-Conformance issues at login? YES. NO Was a PIPE generated? YES. N	2 "
The same of the sa	U#

NUI1393  09/27/11 23.59  SERVICES)   CONTINUING PAINT & AUPLIES  0 1 7 DATE: 7 2 7 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	TEMPERATURE ON RECEIPT C*	Container PID Readings or Laboratory Notes		Tree 8:35
(ENV 4 4 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	REQUESTED ANALYSIS	MMTPH-EPH  NWTPH-EPH	XX XXX	11/2/16 90 /3 //
Print Bill To Contact Name: Christina McClelland - 241809.2011.06 PO # SITE ADDRESS: Street and City 11700 NE 160th, Botheil	Vovatile, WA  Vovatile, WA  THE ETTRE  THE TABLE  THE T	X X NWTPH-Gx Wishica Gel Clea	× × × × × × × × × × × × × × × × × × ×	day of the state o
Please Check Appropriate Box:    MONTAN RETAIL   GINEER RETAIL	king@blainetech.com   Results Nebed on Weekend   Results Nebed on Weekend   Results Nebed on Weekend   Shell-US.   Edd Not Nebed of Shell-US.   Edd Not Nebed of Shell-US.   Edd Not Nebed   Contract Nebed of Shell-US.   Edd Not Nebed Officer.   Contract Nebed Offic	Hd. com, and Shell-US.  Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Temp Blank)  TIME    Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Temp Blank)    Matrix Codes - WG (groundwater), WS (surface water), WS (surfa	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Recived by (Signatus)  Hereweg by (Signatus)
O MOTIVA SD&CM  SHELL PIPELINE	(310) 637-5802   Exertance  13 DAYS   D.2 DAYS   D.2 TAYS   D.2 TA	Amethod A cleanup levels for TID  SAMPLER  NELLID  NITALER  NELLID  THURSER  NELLID  THURSER  NELLID  THURSER  NELLID  THURSER  NELLID  THURSER  TH		
LAB (LOCATION)  Last Houston  The Houston  The Test America  OTHER  SAMPLING COMPANY  Baltine Tech Services  Abaltine Tech Services  20735 Best Naw Avenue, Carson, CA 80746  Lorin King	1310) 885-4455 x 108	agement@cRaw to Shell.Lab Billin to Shell.Lab Billin y PM for WA Dept ction limits. 241809 241835 241835 241835	112/60-608/42/46 6w 24/869-09/2/1 6w 24/869-09/2/1	Refrequence by (Signature)  Refrequence by (Signature)