

Minit Lube 1102 Lynnwood LUST 324012 UST #6502 October 23, 2007

Mr. John Bails Northwest Regional Office Washington Department of Ecology 3190 160<sup>th</sup> Avenue SE Bellevue, WA 98008-5452

Re: Site Investigation Report

Aloha Cafe (Former Jiffy Lube) 6808 196<sup>th</sup> Street Lynnwood, Washington SAP No. 171152 JLI No. 2069 Incident No. 97605410

Dear Mr. Bails:

DEPT. OF ECOLOGY

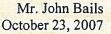
Conestoga-Rovers & Associates, Inc. (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent site investigation activities at the above referenced site. The purpose of the investigation was to further define the extent of impacted soil throughout the property boundary of the subject site.

## **EXECUTIVE SUMMARY**

- Previous assessment data indicate concentrations of petroleum-related compounds within soil and groundwater beneath the site.
- CRA supervised the drilling of five monitoring wells to evaluate the extent of impacted soil within the property boundary of the subject site.
- Soil analytical data indicate concentrations of petroleum-related compounds above the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels are present at the site.
- The impacts are believed to be related to historical use at the property as a service station and the associated former underground storage tanks (USTs).

### SITE DESCRIPTION AND BACKGROUND

The subject site is located on the corner of 196th Street and 68th Avenue W in Lynnwood, Washington (Figure 1). The property was formerly a Jiffy Lube facility and a former service





station. Currently a coffee and espresso shop called the Aloha Café uses the property and building (Figure 2). The groundwater flow direction is inferred toward the west.

# **INVESTIGATION RESULTS**

**Drilling Dates:** 

July 5-6, 2007

Drilling Company:

Cascade Drilling

Personnel:

Bryan Palmer of CRA directed the drilling activities under the supervision of Justin Foslien (Washington State Licensed

Geologist #2540).

Drilling Method:

Hollow-stem auger

Number of Borings:

Five borings were advanced and completed as monitoring wells MW-6, MW-7, MW-8, MW-9, and MW-10, during the investigation. The well specifications and soil types encountered are described on the boring logs contained in Attachment A. The boring and well locations are shown on

Figure 2.

Boring Depths:

The boring depths were completed to 21 feet below ground

surface (bgs).

Groundwater Depths:

Depth to groundwater ranged from approximately 15 to 17 feet

bgs.

Soil Disposal:

Soil generated from drilling was placed into eight 55-gallon drums. The drums were sampled and profiled prior to transport and disposal by Burlington Environmental, Inc. Waste disposal

manifests are included in Attachment B.



## **FINDINGS**

Soil: The soil chemical analytical data are summarized in Table 1. Laboratory analytical reports are presented in Attachment C.

Groundwater: No groundwater samples were collected during the installation of the monitoring wells.

# CONCLUSIONS

The laboratory results indicate the soil sample collected from monitoring well MW-8 at 15 bgs exceeded the Washington State Model Toxics Control Act (MTCA) Method A. levels for gasoline range total petroleum hydrocarbons (TPH-Gx). All remaining soil samples were below the MTCA Method A cleanup levels.

# RECOMMENDATIONS

CRA has initiated quarterly groundwater sampling at wells MW-1 through MW-10 and will forward future quarterly monitoring reports to the Washington Department of Ecology.

### CLOSING

The data collected during this investigation will be used to evaluate corrective action alternatives for this site.

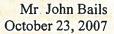
If you have any questions regarding the contents of this document, please call Justin Foslien at (425) 212-5111.

Sincerely,

Conestoga-Rovers & Associates, Inc.

Justin Foslien, LG Project Geologist







Figures:

1 - Vicinity Map

2 - Monitoring Well Location Map

Tables:

1 - Summary of Soil Analytical Data

Attachments:

A - Boring Logs

B - Waste Disposal ManifestsC - Certified Analytical Reports

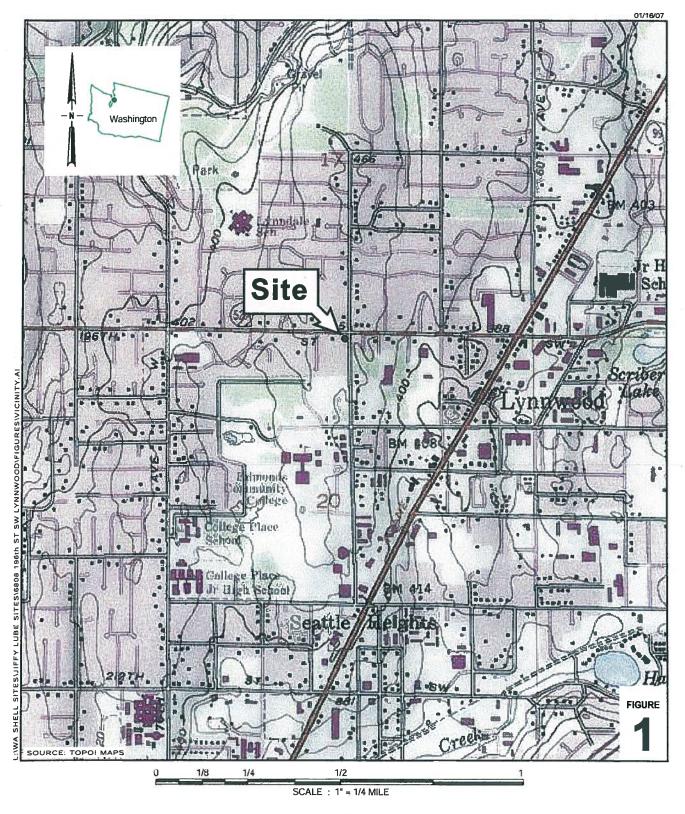
cc: Carol Campagna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810 Brian Clark, Heartland Automotive Services, Inc., 11308 Davenport Street, The Atriam Building, Omaha, NB 68154-5645

Bob Cahill, Heartland Automotive Services, Inc., 15007 Woodinville-Redmond Rd. Suite

A, Woodinville, WA 98072

I:\Everett.Shell\WA Shell Sites\Jiffy Lube Sites\6808 196th Street SW Lynnwood\Reports\SIR\_July\_5-6\Report\6808 Site Investigation Report\_July\_2007.doc

Conestoga Rovers & Associates. (CRA) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to CRA from outside sources and/or in the public domain, and partially on information supplied by CRA and its subcontractors. CRA makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by CRA. This document represents the best professional judgment of CRA. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.



Jiffy Lube No.6802

6808 196th Street Southwest Lynnwood, Washington



**Vicinity Map** 

CAMBRIA

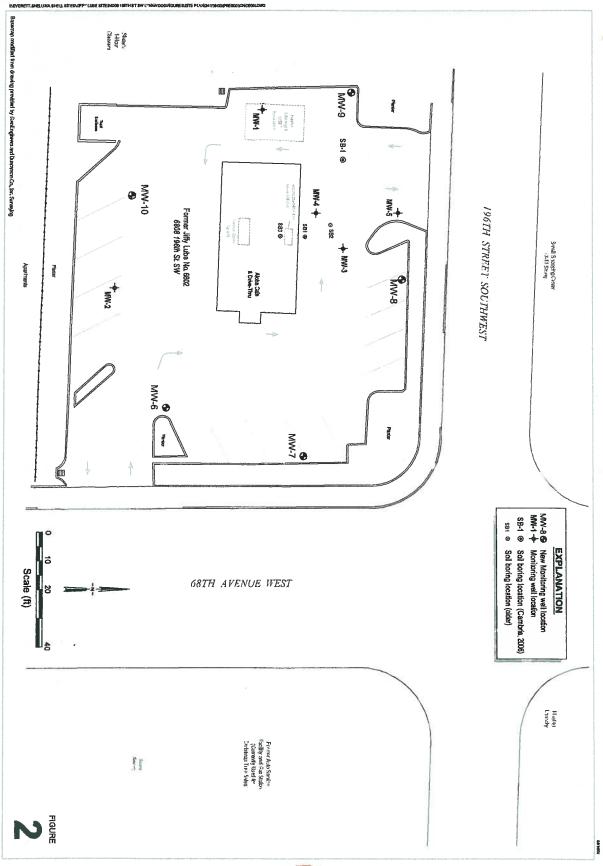


Table 1

SUMMARY OF SOIL ANALYTICAL RESULTS
SAP# 171152
JLI# 2068
6808 196th ST SW
Lynnwood, Washington

Sample Location		W	MW-6	7-WM	V-7	MW-8	V-8	WW-9	6-A	MW	MW-10
Analyte	MTCA Method A Cleanup Levels	MW6@15'	MW6@20'	MW7@5'	MW7@20'	MW8@15'	MW8@20'	MW9@10'	MW9@20'	MW10@5'	MW10@20'
Sample Date		7/5/2007	7/5/2007	7/5/2007	7/5/2007	7/5/2007	7/5/2007	7/6/2007	7/6/2007	7/6/2007	7/6/2007
TPH-G (mg/kg)	100	<3.95	<3.54	<4.11	<4.36	834.00	<4.19	<0.0364	<3.72	91.8	3.99
MTBE (mg/kg)	0.1	<0.39	<0.35	17.0>	<0.44	<0.39	<0.42	<0.43	<0.37	<0.38	<0.40
Benzene (mg/kg)	0.03	<0.0158	0.0921	<0.0164	<0.0177	2.91	0.0486	0.248	0.104	611.0	0.0532
Toluene (mg/kg)	2	<0.0790	<0.0708	0.214	<0.0886	30.9	0.161	<0.0854	<0.0744	0.359	0.102
Ethylbenzene (mg/kg)	9	<0.0790	<0.0708	<0.0822	<0.0886	7.76	<0.0838	0.0854	<0.0744	<0.0756	0.131
Xylenes (mg/kg)	6	<0.237	<0.212	<0.247	<0.266	49.7	<0.252	<0.256	0.327	<0.227	<0.228
1,2-Dichloroethane (ang/kg)		<0.0790	<0.0708	<0.0822	<0.0886	<0.0789	<0.0838	<0.0854	<0.0744	<0.0756	<0.0794
1,2-Dibromoethane (mg/kg)	0.005	<0.0790	<0.0708	<0.0822	<0.0886	<0.0789	<0.0838	<0.0854	<0.0744	<0.0756	<0.0795
Total Lead (mg/kg)	250	1.45	1.93	2.34	1.85	3.29	1.46	1.96	1.29	5.91	1.54

TPH-G = gasoline range hydrocarbons (C4-C12)
TPH-D = diesel range hydrocarbons (C10-C28)
TPH-O = oil range hydrocarbons (C16-C36)
MTBE = methyl-tert-butyl-ether
Xylenes = 0-xylene + m,p xylene

Shaded concentrations indicate the result exceeds the MTCA Method A cleanup level for that analyte.

# Attachment A Boring Logs

### Conestoga-Rovers & Associates 526 Commerce Center - Building B 1420 80th Street SW, Suite A Everett, WA 98203

Everett, WA 98203 Telephone: (425) 212-5100 Fax: (425) 212-5199 **BORING/WELL LOG** 

PAGE 1 OF



MW-6 **BORING/WELL NAME CLIENT NAME** Shell Oil Products US **DRILLING STARTED** 05-Jul-07 JOB/SITE NAME LYNN6808 DRILLING COMPLETED \_ 05-Jul-07 6808 196th Street, Lynnwood, WA LOCATION WELL DEVELOPMENT DATE (YIELD) 05-Jul-07 PROJECT NUMBER 241739 **GROUND SURFACE ELEVATION** 449.87 ft above msi DRILLER **Boart Longyear Drilling** TOP OF CASING ELEVATION 452.00 ft above msl **DRILLING METHOD** Hollow-stem auger 10 to 20 fbg **BORING DIAMETER** SCREENED INTERVAL **DEPTH TO WATER (First Encountered)** 15.0 fbg (06-Jul-07) Bryan Palmer LOGGED BY NA T. Crotwell **DEPTH TO WATER (Static)** 

**REVIEWED BY** REMARKS CONTACT DEPTH (fbg) SAMPLE 1D GRAPHIC LOG (mdd) BLOW U.S.C.S. DEPTH (fbg) EXTENT WELL DIAGRAM LITHOLOGIC DESCRIPTION 윤 Asphalt
Fill SAND with trace gravel: Dark Brown; moist, non 0.5 Portland Type plastic, high permeability. SW **Bentonite Seal** 5.0 440 Sandy CLAY: Gray, wet, low plasticity, low permeability. SC 10/20 Filter Sand 10.0 15 Gravelly CLAY with trace cobbles: Gray, wet, low 21 27 plasticity, low permeability. 301 GC ☑ 15.0 2" diameter 51 Gravelly SAND with trace cobbles: Gray, wet, non plastic, 20 30 schedule 40 high permeability. 670 PVC .010 slot MW6@1 DEFAULT.GDT size SP 20.0 EVERETT I: ROCKLIN. APPSIGINT7/PROJECTS/PALMER. GPJ Bottom of MW6@2 1821 Boring @ 20 0' fbg

Conestoga-Rovers & Associates 526 Commerce Center - Building B 1420 80th Street SW, Suite A Everett, WA 98203 Telephone: (425) 212-5100 Fax: (425) 212-5199

# **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME MW-7	
JOB/SITE NAME	LYNN6808	DRILLING STARTED 05-Jul-0	7
LOCATION	6808 196th Street, Lynnwood, WA	DRILLING COMPLETED 05-Jul-0	7
PROJECT NUMBER	241739	WELL DEVELOPMENT DATE (YIELI	0) 05-Jul-07
DRILLER	Boart Longyear Drilling	GROUND SURFACE ELEVATION	450.48 ft above msl
DRILLING METHOD _	Hollow-stem auger	TOP OF CASING ELEVATION 451.	04 ft above msl
BORING DIAMETER _	8"	SCREENED INTERVAL 10 to	20 fbg
LOGGED BY	Bryan Palmer	DEPTH TO WATER (First Encounter	ed) 14.0 fbg (07-Jul-07)
REVIEWED BY	T. Crotwell	DEPTH TO WATER (Static)	NA .

REMARKS CONTACT DEPTH (fbg) SAMPLE ID GRAPHIC LOG PID (ppm) BLOW U.S.C.S. EXTENT DEPTH (fbg) LITHOLOGIC DESCRIPTION WELL DIAGRAM Asphalt
Fili SAND with trace gravel: Dark Brown; moist, non plastic, high permeability. 0.5 Portland Type 1/11 SW **Bentonite Seal** 5.0 Clayey SAND with trace gravel: Gray, moist, non plastic, medium permeability. 966 MW7@5 SC 10/20 Filter Sand 10.0 Gravelly SAND: Gray, moist, non plastic, low permeability. 120 SP Ā 15.0 2" diameter Gravelly SAND wth trace cobbles: Gray, wet, non plastic, schedule 40 PVC .010 slot high permeability. 60 WELL LOG (PID) EVERETT INROCKLIN APPSIGINT/PROJECTS/PALMER.GPJ DEFAULT.GDT size SP 20.0 Bottom of MW7@2 0' Boring @ 20 290 fbg

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# **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME MW-8
JOB/SITE NAME	LYNN6808	DRILLING STARTED 05-Jul-07
LOCATION	6808 196th Street, Lynnwood, WA	DRILLING COMPLETED 06-Jul-07
PROJECT NUMBER _	241739	WELL DEVELOPMENT DATE (YIELD) 06-Jul-07
DRILLER	Boart Longyear Drilling	GROUND SURFACE ELEVATION 451.7 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION 452.01 ft above ms
BORING DIAMETER	8"	SCREENED INTERVAL 10 to 20 fbg
LOGGED BY	Bryan Palmer	DEPTH TO WATER (First Encountered) 15.0 fbg (08-Jul-07)
REVIEWED BY	T. Crotwell	DEPTH TO WATER (Static) NA

REMARKS CONTACT DEPTH (fbg) SAMPLE ID GRAPHIC LOG PID (ppm) BLOW U.S.C.S. EXTENT DEPTH (fbg) LITHOLOGIC DESCRIPTION WELL DIAGRAM Asphait
SAND with trace cobbles (FILL): Dark Brown; moist, non 0.5 Portland Type plastic, high permeability. 1/11 SW **Bentonite Seal** 5.0 Clayey SAND with gravel: Gray, moist, non plastic, 2000+ medium permeability. SC 10/20 Filter Sand 10.0 Sandy CLAY with gravel: Gray, wet, low plasticity, low permeability. 3413 CL ☑ 15.0 WELL LOG (PID) EVERETT I:ROCKLIN.APPSIGINT7/PROJECTS/PALMER.GPJ DEFAULT.GDT 8/28/07 Sandy Clay with gravel: Gray, wet, medium plasticity, low permeability. 2" diameter schedule 40 PVC .010 slot 20 20 4450 MW8@1 size CL 20.0 30 50 **Bottom of** MW8@2 0' Boring @ 20 960 fbg

#### Conestoga-Rovers & Associates 526 Commerce Center - Building B 1420 80th Street SW, Suite A Everett, WA 98203 Telephone: (425) 212-5100 Fax: (425) 212-5199

# **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME MW-9
JOB/SITE NAME	LYNN6808	DRILLING STARTED 05-Jul-07
LOCATION	6808 196th Street, Lynnwood, WA	DRILLING COMPLETED 06-Jul-07
PROJECT NUMBER	241739	WELL DEVELOPMENT DATE (YIELD) 06-Jul-07
DRILLER	Boart Longyear Drilling	GROUND SURFACE ELEVATION 452.18 ft above msi
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION 452.28 ft above msl
BORING DIAMETER _	8" 110 0 10 10 10 10 10 10 10 10 10 10 10	SCREENED INTERVAL 10 to 20 fbg
LOGGED BY	Bryan Palmer	DEPTH TO WATER (First Encountered) 16.0 fbg (09-Jul-07)
REVIEWED BY	T. Crotwell	DEPTH TO WATER (Static) NA

REMARKS CONTACT DEPTH (fbg) PID (ppm) SAMPLE ID GRAPHIC LOG BLOW U.S.C.S. DEPTH (fbg) EXTENT WELL DIAGRAM LITHOLOGIC DESCRIPTION 0.5 Asphalt
Fill SAND with trace gravel: Dark Brown; dry, non plastic, Portland Type high permeability. MI SW Bentonite Seal 5.0 Fill SAND with trace gravel: Dark Brown; moist, non plastic, high permeability. 201 SW 10/20 Filter Sand 10.0 Sandy CLAY with trace gravel: Gray, moist, low plasticity, MW9@1 2000+ medium permeability. CL 15.0 2" diameter Clayey SAND with gravel: Gray, wet, non plastic, medium permeability. 1250 schedule 40 PVC .010 slot WELL LOG (PID) EVERETT INROCKLIN APPSIGINT TAROJECT SIPALMER. GPJ DEFAULT. GDT size SC 20.0 MW9@2 Bottom of 300+ Boring @ 20 fbg

# Conestoga-Rovers & Associates 526 Commerce Center - Building B 1420 80th Street SW, Suite A Everett, WA 98203 Telephone: (425) 212-5100 Fax: (425) 212-5199

# **BORING/WELL LOG**

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME MW-10
JOB/SITE NAME	LYNN6808	DRILLING STARTED 05-Jul-07
LOCATION	6808 196th Street, Lynnwood, WA	DRILLING COMPLETED 06-Jul-07
PROJECT NUMBER	241739	WELL DEVELOPMENT DATE (YIELD) 06-Jul-07
DRILLER _	Boart Longyear Drilling	GROUND SURFACE ELEVATION 451.72 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION 451.58 ft above msl
BORING DIAMETER	8"	SCREENED INTERVAL 10 to 20 fbg
LOGGED BY	Bryan Palmer	DEPTH TO WATER (First Encountered) 17.0 fbg (10-Jul-07)
REVIEWED BY	T. Crotwell	DEPTH TO WATER (Static) NA
DEMARKS		

REMARKS CONTACT DEPTH (fbg) GRAPHIC LOG SAMPLE ID PID (ppm) BLOW COUNTS EXTENT U.S.C.S. DEPTH (fbg) LITHOLOGIC DESCRIPTION WELL DIAGRAM Asphalt
Gravelly SAND with trace cobbles (FILL): Dark Brown;
moist, non plastic, high permeability. 0.5 Portland Type 1/11 SW Bentonite Seal 5.0 25 Graveliy SAND with trace cobbles: Gray with Dark Brown streaks; wet, non plastic, high to medium permeability. 900 MW10@ CL 10/20 Filter Sand 10.0 Sandy CLAY with trace gravel: Gray, wet, low plasticity, 63 low permeability. CL 15.0 WELL LOG (PID) EVERETT I: ROCKLIN APPSIGINT/VPROJECTSIPALMER.GPJ DEFAULT.GDT 8/28/07 2" diameter Clayey SAND with trace gravel: Gray, wet, non plastic, schedule 40 480 medium permeability. PVC .010 slot Ţ. size CL 20.0 Bottom of MW10@ ₹ 50 Boring @ 20 360 fbg PAGE 1 OF

# Attachment B Waste Disposal Manifest

# \*\*\*24 HOUR EMERGENCY RESPONSE, CALL (800) 567-7455 \*\*\*



# SHIPPING PAPER

Lading Manifest: 64582-07

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\*\*\*24 HOUR EMERGENCY RESPONSE, CALL (800) 567-7455 \*\*\*



# SHIPPING PAPER

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CITY, STATE, ZIP		•			
LYNNWOOD WA 98036 CARRIER / TRANSPORTER	PHONE #				
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# Attachment C Certified Analytical Reports



11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

July 20, 2007

Justin Foslien Conestoga-Rovers & Associates - Everett 8620 Holly Drive, Suite 210 Everett, WA 98208

RE: Shell - 6808 196th Street SW, Lynnwood

Enclosed are the results of analyses for samples received by the laboratory on 07/06/07 13:55. The following list is a summary of the Work Orders contained in this report, generated on 07/20/07 17:48.

If you have any questions concerning this report, please feel free to contact me.

Work Order	<u>Project</u>	<u>ProjectNumber</u>	
BQG0147	Shell - 6808 196th Street SW,	248-1627-02	

TestAmerica - Seattle, WA





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210

Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW6@15 <sup>1</sup>	BQG0147-01	Soil	07/05/07 13:10	07/06/07 13:55
MW7@5'	BQG0147-02	Soil	07/05/07 14:30	07/06/07 13:55
MW8@15'	BQG0147-03	Soil	07/05/07 15:50	07/06/07 13:55
MW9@10'	BQG0147-04	Soil	07/06/07 10:10	07/06/07 13:55
MW10@5'	BQG0147-05	Soil	07/06/07 11:30	07/06/07 13:55
MW6@20'	BQG0147-06	Soil	07/05/07 13:00	07/06/07 13:55
MW7@20'	BQG0147-07	Soil	07/05/07 14:40	07/06/07 13:55
MW8@20'	BQG0147-08	Soil	07/05/07 16:00	07/06/07 13:55
MW9@20'	BQG0147-09	Soil	07/06/07 10:00	07/06/07 13:55
MW10@20'	BQG0147-10	Soil	07/06/07 11:20	07/06/07 13:55

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Name:

Shell - 6808 196th Street SW, Lynnwood

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

# Volatile Petroleum Products by NWTPH-Gx

TestAmerica - Seattle, WA

Analyte	Method	Result M	DL* MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-01 (MW6@15')		Soil		Sampl	led: 07/0	05/07 13:10		ZII_ 114	
Gasoline Range Hydrocarbons	NWTPH-Gx	ND ·	3,95	mg/kg dry	lx	7G11019	07/11/07 09:36	07/11/07 12:09	
Surrogate(s): 4-BFB (FID)	<del></del> ·	90.59	6	50 - 150 %	"				
BQG0147-02 (MW7@5')		Soil	,	Sampl	led: 07/0	05/07 14:30			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND ·	4.11	mg/kg dry	lx	7G11019	07/11/07 09:36	07/11/07 13:15	
Surrogate(s): 4-BFB (FID)		93.09	6	50 - 150 %	"			"	
BQG0147-03 (MW8@15')		Soil		Samp	led: 07/6	05/07 15:50			
Gasoline Range Hydrocarbons	NWTPH-Gx	834	39.4	mg/kg dry	10x	7G11019	07/11/07 09:36	07/11/07 15;28	
Surrogate(s): 4-BFB (FID)		1229	6	50 - 150 %	lx			н	
BQG0147-04 (MW9@10')		Soil		Sampl	led: 07/0	06/07 10:10			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND -	0,0364	mg/kg dry	lx	7G11019	07/11/07 09:36	07/11/07 17:49	St 52.5
Surrogate(s): 4-BFB (FID)		89.69	6	50 - 150 %	u			н	
BQG0147-05 (MW10@5')		Soil		Samp	led: 07/0	06/07 11:30			
Gasoline Range Hydrocarbons	NWTPH-Gx	8.16	4.43	mg/kg dry	1×	7G11019	07/11/07 09:36	07/11/07 18:31	
Surrogate(s): 4-BFB (FID)		91,79	6	50 - 150 %	μ		*	и	
BQG0147-06 (MW6@20')		Soil		Samp	led: 07/	05/07 13:00			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND -	3,54	mg/kg dry	lx	7 <b>G</b> 11019	07/11/07 09:36	07/11/07 19:09	
Surrogate(s): 4-BFB (FID)		88.89	6	50 - 150 %	н			u	
BQG0147-07 (MW7@20')		Soil	200	Samp	led: 07/	05/07 14:40			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND -	4.36	mg/kg dry	lx	7 <b>G</b> 11019	07/11/07 09:36	07/11/07 19:45	
Surrogate(s): 4-BFB (FID)		90.59	6	50 - 150 %	"			"	
BQG0147-08 (MW8@20')		Soil		Samp	led: 07/	05/07 16:00			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND -	4.19	mg/kg dry	lx	7G11019	07/11/07 09:36	07/11/07 20:20	
Surrogate(s): 4-BFB (FID)		91.69	6	50 - 150 %	н				

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JAW LHUNG

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

Cate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210

Project Number:

248-1627-02

Report Created:

Everett, WA 98208

Project Manager:

Justin Foslien

07/20/07 17:48

# Volatile Petroleum Products by NWTPH-Gx

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Analyte	Method	Result	MDL*	MRL Units	Dil Batch	Prepared	Analyzed	Notes
BQG0147-09 (MW9@20')		Soil		Sampl	ed: 07/06/07 10:	00		901
Gasoline Range Hydrocarbons	NWTPH-Gx	ND		3.72 mg/kg dry	1x 7G110	19 07/11/07 09:36	07/11/07 20:54	
Surrogate(s): 4-BFB (FID)			89.3%	50 - 150 %	tr .		n	4.00
BQG0147-10 (MW10@20')		Soil		Sampl	ed: 07/06/07 11:	20	773744	Said
Gasoline Range Hydrocarbons	NWTPH-Gx	3.99		3.97 mg/kg dry	lx 7G110	19 07/11/07 09:36	07/12/07 00:49	
Surrogate(s): 4-BFB (FID)			92.0%	50 - 150 %	"		н	

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien

Report Created: 07/20/07 17:48

# Total Metals by EPA 6000/7000 Series Methods

TestAmerica - Seattle, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-01	(MW6@15')		Soil			Samp	led: 07/0	5/07 13:10		s Compile	
Lead	11 11	EPA 6020	1.45		0.533	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:13	
BQG0147-02	(MW7@5')	100000000000000000000000000000000000000	Soil	_		Samp	led: 07/0	5/07 14:30	30 te		
Lead		EPA 6020	2.34		0.520	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:19	
BQG0147-03	(MW8@15')		Soil			Samp	led: 07/0	5/07 15:50	_		
Lead		EPA 6020	3.29		0,571	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:25	
BQG0147-04	(MW9@10')		Soil			Samp	led: 07/0	06/07 10:10			
Lead		EPA 6020	1.96		0.522	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:31	
BQG0147-05	(MW10@5')	354084 No. 1	Soil			Samp	led: 07/0	6/07 11:30		9- 100-E-S	
Lead		EPA 6020	5.91	-	0,537	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:37	
BQG0147-06	(MW6@20')		Soil			Samp	led: 07/0	5/07 13:00			
Lead	183 Statistic	EPA 6020	1.93		0,593	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:43	
BQG0147-07	(MW7@20')		Soil			Samp	led: 07/0	05/07 14:40		1	
Lead		EPA 6020	1.85		0.575	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:49	
BQG0147-08	(MW8@20')		Soil			Samp	led: 07/0	5/07 16:00			
Lead		EPA 6020	1.46		0.590	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 15:55	
BQG0147-09	(MW9@20')		Soil			Samp	led: 07/0	06/07 10:00			
Lead	-2. 1892	EPA 6020	1.29	_	0.509	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 16:01	
BQG0147-10	(MW10@20')		Soil			Samp	led: 07/0	06/07 11:20			
Lead	(4	EPA 6020	1.54		0.588	mg/kg dry	lx	7G11012	07/11/07 09:19	07/11/07 16:07	

TestAmerica - Seattle, WA





SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400 80THELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien

Report Created: 07/20/07 17:48

# Volatile Organic Compounds (Special List) by EPA Method 8260B

TestAmerica - Seattle WA

				TestAmeric	ca - Seat	tle, WA		11			
Analyte	Ē	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-01 (MV	W6@15')		S	oil		Sampl	led: 07/0	5/07 13:10			шп
Benzene		EPA 8260B	ND		0.0158	mg/kg dry	1x	7G12064	07/12/07 19:30	07/13/07 05:40	
1,2-Dibromoethane		н	ND		0.0790		•	*	*	и	
1,2-Dichloroethane		n	ND		0.0790		•		*	*	
Ethylbenzene			ND	-	0.0790	"			*	n	
Toluene		•	ND		0.0790	**	10	•	n		
Total Xylenes		h	ND		0.237	11	10	*	*	•	
Surrogate(s): 1,2-	-DCA-d4			102%		75 - 125 %	н			"	
Tols	uene-d8			98.0%		75 - 125 %	**			b	
4-B	'FB			97.7%		75 - 125 %	"			u	
BQG0147-02 (MV	V7@5')		S	oil		Sampl	led: 07/0	5/07 14:30			
Benzene		EPA 8260B	ND		0.0164	mg/kg dry	lx	7G12064	07/12/07 19:30	07/13/07 06:09	
,2-Dibromoethane		и	ND		0.0822	n			q	n =	
1,2-Dichloroethane		н	ND		0.0822	•			**	H	
Ethylbenzene		W	ND		0.0822	*		*			
Toluene .		н	0.214		0.0822	**	•	"	*		
Total Xylenes		т	ND	*****	0.247	H		н		· ·	
Surrogate(s): 1,2-	DCA-d4			101%		75 - 125 %	,,			н	· -
Toli	uene-d8			99.6%		75 - 125 %	a			"	
4-Bi	FB			96.8%		75 - 125 %	n			"	
BQG0147-03 (MW	V8@15')		S	oil		Sampl	led: 07/0	5/07 15:50		é	
Benzene		EPA 8260B	2.91		0.0158	mg/kg dry	1x	7G12064	07/12/07 19:30	07/13/07 06:54	
,2-Dibromoethane			ND		0.0789	н	٠	н .	н	н	
1,2-Dichloroethane		"	ND		0.0789	*	*	н	н	.2	
Ethylbenzene		н	7.76		0.0789	**			36	n	
l'oluene		н	29.8		0.0789	*	*				
Total Xylenes		н	48.8	****	0.237	*	*				
Surrogate(s): 1,2-1	DCA-d4			119%		75 - 125 %	"	•		н	
0 17	iene-d8			95.9%		75 - 125 %				"	
4-BI				89.6%		75 - 125 %	,,			n	

TestAmerica - Seattle, WA





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien

Report Created: 07/20/07 17:48

# Volatile Organic Compounds (Special List) by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	St	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-03RE	(MW8@15')		So	il		Sampl	ed: 07/0	5/07 15:50		h h	
Toluene		EPA 8260B	30.9		0.789	mg/kg dry	10x	7G13043	07/12/07 19:30	07/13/07 19:34	
Total Xylenes		н	49.7		2.37	н	ч	"	н	"	
Surrogate(s):	1,2-DCA-d4			100%	ia III	75 - 125 %	lx				
	Toluene-d8			98.8%		75 - 125 %	**			"	
	4-BFB			92.4%		75 - 125 %	"			н	
BQG0147-04	(MW9@10')		So	il		Sampl	ed: 07/0	6/07 10:10			
Benzene		EPA 8260B	0.248		0.0171	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 19:06	
,2-Dibromoethane		и	ND		0.0854		*	*	*	н	
1,2-Dichloroethane			ND		0.0854	#		(i = 4	*	н	
Ethylbenzene			0.0854		0.0854		**		н		
Toluene			ND		0.0854	#	n	sa		и	
Total Xylenes		*	ND		0,256	н	4	н	и	м	
Surrogate(s):	1,2-DCA-d4			93.5%		75 - 125 %	"			n .	
	Toluene-d8			101%		75 - 125 %	"			"	
	4-BFB			98.0%		75 - 125 %	u			"	
3QG0147-05	(MW10@5')		Soi	i		Sampl	ed: 07/0	6/07 11:30			
Benzene		EPA 8260B	0.119		0.0151	mg/kg dry	lx	7G12064	07/12/07 19:30	07/13/07 07:54	
,2-Dibromoethane		47	ND		0.0756	li .	м	· u		N	
,2-Dichloroethane		и	ND		0.0756	11		11		н	
Ethylbenzene		а	ND		0.0756	4		11		u u	
foluene		н	0.359		0.0756	н	*	n		4	
Total Xylenes			ND		0.227	M	P		*		
Surrogate(s):	1,2-DCA-d4			99.7%		75 - 125 %	"			u	
	Toluene-d8			102%		75 - 125 %	**			"	
	4-BFB			97.8%		75 - 125 %	H			"	
QG0147-06	(MW6@20')		Soi	1		Sampl	ed: 07/0	5/07 13:00			
lenzene		EPA 8260B	0.0921		0.0142	mg/kg dry	lx	7G13043	07/13/07 19:30	07/13/07 20:04	
,2-Dibromoethane		W	ND		0.0708		u	н	*	п	
,2-Dichloroethane		н	ND		0.0708		R.	0.7	н	*	
Ethylbenzene			ND		0,0708	n	9.	<u>e</u>	н	*	
oluene		н	ND	****	0,0708	N		"	u	*	
Total Xylenes		п .	ND		0.212			н		n	
Surrogate(s):	1,2-DCA-d4			92.1%		75 - 125 %	а			н	
	Toluene-d8			102%		75 - 125 %	**				
	1 DIMENC-MO										





Conestoga-Rovers & Associates - Everett

SEATTLE, WA

11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Project Name: Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Project Number:
Everett, WA 98208 Project Manager:

ject Number: 248-1627-02 ject Manager: Justin Foslien Report Created: 07/20/07 17:48

# Volatile Organic Compounds (Special List) by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-07	(MW7@20')		So	il		Sampl	ed: 07/0	05/07 14:40	**************************************		Fire
Benzene		EPA 8260B	ND		0.0177	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 20:43	
1,2-Dibromoethane		8	ND		0.0886			(*)	*	н	
1,2-Dichloroethane			ND		0.0886		•		*	•	
Ethylbenzene			ND		0.0886		0.00	590		260	
Toluene			ND		0.0886		2.0	5 M.)	*		
Total Xylenes		н	ND		0,266	н		н	e	*	
Surrogate(s):	1,2-DCA-d4		4	93.9%		75 - 125 %	и			"	
	Toluene-d8			101%		75 - 125 %	#			п	
	4-BFB			95.2%		75 - 125 %	"			**	
BQG0147-08	(MW8@20')		So	il		Sampl	ed: 07/6	05/07 16:00			
Benzene		EPA 8260B	0.0486		0,0168	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 21:13	
,2-Dibromoethane		н.	ND		0.0838	*				*	
,2-Dichloroethane		ĸ	ND		0.0838	**			4	0 <b>0</b> 0	
Ethylbenzene		•	ND		0.0838		2.47		*		
l'oluene			0.161		0.0838	и				•	
Total Xylenes		*	ND		0.252		n	*			
Surrogate(s):	1,2-DCA-d4			93.4%		75 - 125 %	"			"	
	Toluene-d8			100%		75 - 125 %	"			— и	
	4-BFB			95.5%		75 - 125 %	"			и	
BQG0147-09	(MW9@20')		So	il		Sampl	ed: 07/0	06/07 10:00			
lenzene		EPA 8260B	0.104	****	0.0149	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 21:43	
,2-Dibromoethane			ND		0.0744	•	•				
,2-Dichloroethane		((素)	ND		0.0744	*			*6		
Ethylbenzene			ND		0.0744	*	•		•		
oluene		1060	ND		0.0744	*	*				
otal Xylenes		*	0.327		0.223	19	*	и	33*	и	
Surrogate(s):	1,2-DCA-d4			96.2%		75 - 125 %	n			и	
	Toluene-d8			103%		75 - 125 %	*			н	
	4-BFB			96.8%		75 - 125 %	n			"	

TestAmerica - Seattle, WA

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11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created:

Everett, WA 98208

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07/20/07 17:48

# Volatile Organic Compounds (Special List) by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-10 (MW10@20')		Soi	1		Sampl	ed: 07/6	06/07 11:20			
Benzene	EPA 8260B	0.0532		0.0159	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 22:12	
1,2-Dibromoethane	w	ND		0.0794		**	*		*	
1,2-Dichloroethane		ND		0.0794	9		W	w		
Ethylbenzene		0.131	*****	0.0794	·				100	
Toluene		0.102		0,0794			*		9.0	
Total Xylenes	*	ND		0.238	*	¥	e	10	*	
Surrogate(s): 1,2-DCA-d4			96.0%		75 - 125 %	н	***************************************		"	
Toluene-d8			99.2%		75 - 125 %	u			n	
4-BFB			96.7%		75 - 125 %	#			н	

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

# Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Seattle, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-01	(MW6@15')		Soil			Sam	pled: 07/	05/07 13:10			
Dry Weight		BSOPSPL003R0 8	91.9		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-02	(MW7@5')		Soil			Sam	pled: 07/	05/07 14:30			
Dry Weight		BSOPSPL003R0 8	88.2		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-03	(MW8@15')		Soil			Samı	pled: 07/	05/07 15:50			
Dry Weight		BSOPSPL003R0 8	88.4	*****	1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-04	(MW9@10')		Soil			Samı	oled: 07/0	06/07 10:10			
Dry Weight		BSOPSPL003R0 8	91.2	2000	1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-05	(MW10@5')		Soil	1.50		Samj	oled: 07/	06/07 11:30	-082-000-000-000-00		
Dry Weight		BSOPSPL003 R0 8	87.8		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-06	(MW6@20')		Soil			Samı	pled: 07/	05/07 13:00			
Dry Weight		BSOPSPL003R0 8	88.7		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	8
BQG0147-07	(MW7@20')		Soil			Samj	oled: 07/	05/07 14:40			
Dry Weight		BSOPSPL003R0 8	88.7		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-08	(MW8@20')	Ð	Soil			Samı	oled: 07/	05/07 16:00			
Dry Weight		BSOPSPL003R0 8	87.3	*****	1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-09	(MW9@20')		Soil			Samı	pled: 07/	06/07 10:00			
Dry Weight		BSOPSPL003R0 8	93.5		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	
BQG0147-10	(MW10@20')		Soil			Sam	pled: 07/	06/07 11:20		10 - 14 - 74 - 17 - 17 - 17 - 17 - 17 - 17	
Dry Weight		BSOPSPL003R0 8	88.5		1.00	%	lx	7G16067	07/16/07 17:56	07/17/07 00:00	W-200

TestAmerica - Seattle, WA

Kate Haney Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Name:

Shell - 6808 196th Street SW, Lynnwood

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created:

07/20/07 17:48

# Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method		MDL*	MRL		_	Batch	Prepared	Analyzed	Notes
BQG0147-01 (MW6@15')		So	il		Sample	ed: 07/0	5/07 13:10			
tert-Amyl Methyl Ether	EPA 8260B	ND		0.39	mg/kg dry	lx	7G12064	07/12/07 19:30	07/13/07 05:40	100
tert-Butyl Alcohol	n	ND		3.9	*	n	n		•	
Diisopropyl ether	н -	ND		0.39	н					
Ethyl tert-butyl ether	*	ND		0.39	#	•	и		*	
Methyl tert-butyl ether		ND		0.39	8	•			19	
Surrogate(s): 1,2-DCA-d4			102%		75 - 125 %	"			**	
Toluene-d8			98.0%		75 - 125 %	"			"	
4-BFB			97.7%		75 - 125 %	*			"	
BQG0147-02 (MW7@5')		So	il		Sample	ed: 07/0	05/07 14:30			
	EPA 8260B			0.41				07/12/07 10:30	07/17/07 07 00	
ert-Amyl Methyl Ether	EFA 8200D	ND		= 0.41 4.1	mg/kg dry	lx "	7G12064	07/12/07 19:30	07/13/07 06:09	
ert-Butyl Alcohol		ND			,,		- 4	9		
Diisopropyl ether	D.	ND		0.41				17.		
Ethyl tert-butyl ether		ND		0.41	"	-	-		22	
Methyl tert-butyl ether		ND		0.41	" 				*	
Surrogate(s): 1,2-DCA-d4			101%		75 - 125 %	и			H	
Toluene-d8			99.6%		75 - 125 %	"			u	
4-BFB			96.8%		75 - 125 %	"		7	н	
3QG0147-03 (MW8@15')		So	il		Sampl	ed: 07/0	5/07 15:50			
ert-Amyl Methyl Ether	EPA 8260B	ND		0.39	mg/kg dry	lx	7G12064	07/12/07 19:30	07/13/07 06:54	
ert-Butyl Alcohol	н	ND		3,9		4	н		н П	
•	Ħ	ND		0.39	**	11		*	n	
Diisopropyl ether	17 86	ND ND		0.39 0.39	**	*		<b>4</b>	"	
Diisopropyl ether Ethyl tert-butyl ether	er W				n n	14 16		77	e	
Disopropyl ether Othyl tert-butyl ether Methyl tert-butyl ether	" "	ND		0.39	" " 75 - 125 %	14 15 16		7		
Diisopropyl ether Sthyl tert-butyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4	# "	ND		0.39	" " 75 - 125 % 75 - 125 %	14 16 17 27		•		
Disopropyl ether Othyl tert-butyl ether Methyl tert-butyl ether		ND	119%	0.39		#4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #			u d	
Diisopropyl ether Ethyl tert-butyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8 4-BFB	и и	ND	119% 95.9% 89.6%	0.39	75 - 125 % 75 - 125 %	#	06/07 10:10	9		
Disopropyl ether Ethyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8  4-BFB  BQG0147-04 (MW9@10')	" " " EPA 8260B	ND ND	119% 95.9% 89.6%	0.39	75 - 125 % 75 - 125 %	#	06/07 10:10 7G13043	07/12/07 19:30	07/13/07 19:06	R =C
Disopropyl ether Ethyl tert-butyl ether  Methyl tert-butyl ether  Surrogale(s): 1,2-DCA-d4  Toluene-d8  4-BFB  BQG0147-04 (MW9@10')  ert-Amyl Methyl Ether	" " " EPA 8260B	ND ND	119% 95.9% 89.6%	0.39	75 - 125 % 75 - 125 % Sampl	" ed: 07/0		07/12/07 19:30	07/13/07 19:06	R =C
Disopropyl ether Ethyl tert-butyl ether  Surrogale(s): 1,2-DCA-d4  Toluene-d8  4-BFB  BQG0147-04 (MW9@10')  ert-Amyl Methyl Ether ert-Butyl Alcohol	EPA 8260B	ND ND So	119% 95.9% 89.6%	0.39 0,39	75 - 125 % 75 - 125 % Sampl	" ed: 07/0		07/12/07 19:30	07/13/07 19:06	R =Cx
Disopropyl ether Ethyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8  4-BFB  BQG0147-04 (MW9@10')  ert-Amyl Methyl Ether ert-Butyl Alcohol Disopropyl ether	EPA 8260B	ND ND So ND ND ND	119% 95,9% 89,6%	0.39 0.39	75 - 125 % 75 - 125 % Sampl	" ed: 07/0		07/12/07 19:30	07/13/07 19:06	R seco
Disopropyl ether Ethyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8  4-BFB  BQG0147-04 (MW9@10')  ert-Amyl Methyl Ether ert-Butyl Alcohol Disopropyl ether Ethyl tert-butyl ether	EPA 8260B	ND ND So ND ND	119% 95.9% 89.6%	0.39 0.39 0.43 4.3 0.43	75 - 125 % 75 - 125 % Sampl	" ed: 07/0		07/12/07 19:30	07/13/07 19:06	A =0
Disopropyl ether Ethyl tert-butyl ether  Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8  4-BFB   BQG0147-04 (MW9@10')  ert-Amyl Methyl Ether ert-Butyl Alcohol Disopropyl ether Ethyl tert-butyl ether Methyl tert-butyl ether	EPA 8260B	ND ND So ND ND ND ND ND	119% 95.9% 89.6%	0.39 0.39 0.43 4.3 0.43 0.43	75 - 125 % 75 - 125 % Sampl	" ed: 07/0		07/12/07 19:30	07/13/07 19:06	
Diisopropyl ether Ethyl tert-butyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  Toluene-d8 4-BFB	EPA 8260B	ND ND So ND ND ND ND ND	119% 95.9% 89.6% ii	0.39 0.39 0.43 4.3 0.43 0.43	75 - 125 % 75 - 125 % Sampl mg/kg dry " " "	ed: 07/4		07/12/07 19:30	07/13/07 19:06	

ΓestAmerica - Seattle, WA

Malo Dhuy

to House Project Manager





SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created:

07/20/07 17:48

# Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-05 (MW10@5')		Se	oil		Sampl	ed: 07/0	6/07 11:30		- WW -	
tert-Amyl Methyl Ether	EPA 8260B	ND	*****	0.38	mg/kg dry	lx	7G12064	07/12/07 19:30	07/13/07 07:54	3.
tert-Butyl Alcohol	н	ND		3.8		"		. 9		
Diisopropyl ether	0	ND		0.38	*	•	₩.	•		
Ethyl tert-butyl ether		ND	*****	0.38	n	1+		ы	11	
Methyl tert-butyl ether	н	ND		0.38	*	*	н	19	м	
Surrogate(s): 1,2-DCA-d4			99.7%		75 - 125 %	н			"	
Toluene-d8			102%		75 - 125 %	"			"	
4-BFB			97.8%		75 - 125 %	"			"	
BQG0147-06 (MW6@20')	×6-	So	il		Sampl	ed: 07/0	5/07 13:00			
tert-Amyl Methyl Ether	EPA 8260B	ND		0.35	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 20:04	
ert-Butyl Alcohol	tr	ND		3.5	н	*	*	ы		
Diisopropyl ether	W	ND	******	0.35	μ	*	н	16	н	
Ethyl tert-butyl ether	n	ND		0.35	n	*:	н .	10.		
Methyl tert-butyl ether	H	ND		0.35	*	•	•	II.	н	
Surrogate(s): 1,2-DCA-d4			92.1%		75 - 125 %	н			"	
Toluene-d8			102%		75 - 125 %	"			**	
4-BFB			94.9%		75 - 125 %				# k2	
BQG0147-07 (MW7@20')		So	il		Sampl	ed: 07/0	5/07 14:40			
ert-Amyl Methyl Ether	EPA 8260B	ND		0.44	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 20:43	
ert-Butyl Alcohol	**	ND		4.4	*		н	и	Ħ	
Diisopropyl ether	er .	ND		0.44	*	47	н	"	Ħ	
Ethyl tert-butyl ether	"	ND		0.44	U	**	н	<b>H</b>	47	
Methyl tert-butyl ether		ND		0.44	н	*	н		n	
Surrogate(s): 1,2-DCA-d4			93.9%		75 - 125 %	*			"	
Toluene-d8			101%		75 - 125 %	er			"	
4-BFB			95.2%		75 - 125 %	"			"	
3QG0147-08 (MW8@20')		So	il epe		Sampl	ed: 07/0	5/07 16:00			
ert-Amyl Methyl Ether	EPA 8260B	ND		0.42	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 21:13	
ert-Butyl Alcohol	w	ND		4.2	μ		P	u		
Diisopropyl ether	8	ND	*****	0.42	· ·	*	· n		м	
Ethyl tert-butyl ether	н	ND		0.42	**	н	н	*	**	
Methyl tert-butyl ether	*:	ND		0.42	u	**	н	w	и	
Surrogate(s): 1,2-DCA-d4	'n		93.4%		75 - 125 %	"			"	
Toluene-d8			100%		75 - 125 %	**			н	
4-BFB			95.5%		75 - 125 %					





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

8620 Holly Drive, Suite 210

Everett, WA 98208

Project Name:

Shell - 6808 196th Street SW, Lynnwood

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created:

07/20/07 17:48

# Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BQG0147-09 (M	W9@20')		So:	il		Samp	led: 07/6	06/07 10:00		id.	
tert-Amyl Methyl Ether		EPA 8260B	ND		0.37	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 21:43	-41
tert-Butyl Alcohol			ND		3.7		н				
Diisopropyl ether			ND		0.37		*:	*		196	
Ethyl tert-butyl ether			ND	*****	0.37		w				
Methyl tert-butyl ether		п	ND		0.37	*	n	44	н		
Surrogate(s): 1,.	2-DCA-d4		_	96.2%		75 - 125 %	"			"	
To	lue ne-d8			103%		75 - 125 %	**			"	
4-,	BFB			96.8%		75 - 125 %	н			H	
BQG0147-10 (M	W10@20')	100	Soi	il		Samp	led: 07/0	06/07 11:20	_		
tert-Amyl Methyl Ether	TV	EPA 8260B	ND	*****	0.40	mg/kg dry	lx	7G13043	07/12/07 19:30	07/13/07 22:12	
tert-Butyl Alcohol		1.75	ND		4.0			*	н	*	
Diisopropyl ether			ND		0.40		*	•	*		
Ethyl tert-butyl ether			ND		0.40						
Methyl tert-butyl ether		•	ND		0.40	*	*	м	н	н	
Surrogate(s): 1,2	2-DCA-d4			96.0%		75 - 125 %	"	_		н	-
To	lue ne -d8			99.2%		75 - 125 %	"			"	
4-1	BFB			96.7%		75 - 125 %	"			H	

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Spike % (Limits) % (Limits) Analyzed

Extracted: 07/11/07 09:36

Conestoga-Rovers & Associates - Everett

Method

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Number: Project Manager: 248-1627-02 Justin Foslien

Dil

Source

Result

Report Created: 07/20/07 17:48

Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results

TestAmerica - Seattle, WA

MDL\*

QC	Batch:	7G11019	!
		mucha et a	_

Matrix Spike (7G11019-MS1)

Analyte

Soil Preparation Method: EPA 5030B (P/T)

Result

Blank (7G11019-BLK1)						Extr	acted: (	07/11/07 09	:36	
Gasoline Range Hydrocarbons	NWTPH-Gx	ND		5.00 mg/kg wet	lx	 				 07/11/07 11:00
Surrogate(s): 4-BFB (FID)		Recovery: 8:	9.0%	Limits: 50-150%	"	 				 07/11/07 11:00

Units

MRL

LCS (7G11019-BS1)	Extracted: 07/11/07 09:36													
Gasoline Range Hydrocarbons	NWTPH-Gx	51.2		5.00	mg/kg wet	ìx		50.0	102%	(75-125)	***	••	07/11/07 11:34	
Summandala 4 PEP (EID)		Pagauanu 00	004	,	imite: 50 1500	, ,							07/11/07 11-1/	

Duplicate (7G11019-DUP1)			QC Source: BQG0147-01	Extracte	d: 07/11/07 09:36		2
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	3.95 mg/kg dry lx	ND	- 32.5% (40	07/11/07 12:42	R4
Surrogate(s): 4-BFB (FID)		Recovery: 91.2%	Limits: 50-150% "			07/11/07 12:42	

Duplicate (7G11019-DUP2)				QC Source	ce: BQG0147-	02		Ext	racted: (	07/11/07	09:36		
Gasoline Range Hydrocarbons	NWTPH-Gx	ND		4.11	mg/kg dry	lx	ND		••	-	0.589% (40)	07/11/07 13:48	R4
Surrogate(s): 4-BFB (FID)		Recovery	95.9%	i	Limits: 50-1509	6 "						07/11/07 13:48	

QC Source: BQG0147-01

Gasoline Range Hydrocarbons	NWTPH-Gx	43.7		3.95 mg/kg dry	lx	0.773	39.5	109%	(42-125)	 **	07/11/07 16:03
Surrogate(s): 4-BFB (FID)		Recovery: 98.	8%	Limits: 50-150%	"						07/11/07 16:03

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

	Total Metal	s by EPA 60			ethods - 1 - Seattle, W		tory Qu	ality Co	ntro	Results				
QC Batch: 7G11012	Soil Pre	paration Met	hod: EPA	3050B		-11	All s						4 110	
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7G11012-BLK1)								Extra	cted:	07/11/07 09	19			-U
Lead	EPA 6020	ND		0.500	mg/kg wet	lx							07/11/07 14:31	
LCS_(7G11012-BS1)					41-2000			Extra	acted:	07/11/07 09	:19	ASS		
Lead	EPA 6020	40.9	-	0.500	mg/kg wet	lx	<b>W</b>	40.0	102%	(80-120)	-		07/11/07 14:25	ion
Duplicate (7G11012-DUP1)		-		QC Source	: BQG0167-	D1		Extra	scted:	07/11/07 09	:19			
Lead	EPA 6020	5.54		0.535	mg/kg dry	lx	5.36		-		3.34%	(30)	07/11/07 14:49	
Matrix Spike (7G11012-MS1)	**************************************			QC Source	:: BQG0167-	01		Extra	acted:	07/11/07 09	:19			
Lead	EPA 6020	48.3	773	0,535	mg/kg dry	lx	5.36	42.8	100%	(29-166)	77.		07/11/07 14:43	
Post Spike (7G11012-PS1)				QC Source	:: BQG0167-	01		Extra	acted:	07/11/07 09	:19			
Lead	EPA 6020	0.105	13		ug/ml	lx	0.0100	0.0800	119%	(75-125)			07/11/07 14:37	

TestAmerica - Seattle, WA

Kate Haney, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien

Report Created: 07/20/07 17:48

Volatile Organic Compounds (Special List) by EPA Method 8260B - Laboratory Quality Control Results

	SUL SELECTION					- Seattle, WA			Light.					er from the second	
QC Batch:	7G12064	Soil Pro	eparation N	fethod: EPA	5030B										
Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Note
Blank (7G1206	4-BLK1)		المراكزة المراكزة				Al-		Ext	racted:	07/12/07 19	:30			1
Benzene		EPA 8260B	ND		0.0200	mg/kg wet	lx	-						07/13/07 02:56	
1,2-Dibromoethane		•	ND		0.100	н	*	0		**	**			н	
1,2-Dichloroethane		*	ND		0.100		*								
Ethylbenzene			ND		0.100	н								¥	
Toluene		•	ND		0.100	н	*							n	
Total Xylenes			ND		0,300	*	*					_ (=			
	1,2-DCA-d4 Toluene-d8 1-BFB	H H E	Recovery:	99,9% 98.4% 97.4%	L	imits: 75-125% 75-125% 75-125%	" "							07/13/07 02:56	
LCS (7G12064-	BS1)								Ext	racted:	07/12/07 19	:30			
1,2-Dibromoethane (EI	OB)	EPA 8260B	1.97		0.100	mg/kg wet	lx		2.00	98.5%	(80-120)			07/13/07 01:42	
,2-Dichloroethane (EI	OC)		2.01	•••	0.100	н			ty	101%				4	
Benzene			1.94	•••	0.0200	н		-		97.0%	(75-125)				
Ethylbenzene			1.93		0,100	н	н		п	96.3%	(80-120)			*	
Toluene			1.93		0.100	**	•		*	96,6%	#				
Total Xylenes		#	5.89		0.300		10	-	6.00	98.1%					
Surrogate(s):	1,2-1 CA-d4		Recovery:	101%	L	imits: 75-125%	"							07/13/07 01:42	
7	Coluene-d8			99.0%		75-125%	*							,,	
4	1-BFB			100%		75-125%	н							•	
LCS Dup (7G12	2064-BSD1)								Ext	racted:	07/12/07 19	:30			
1,2-Dichloroethane (EI	OC)	EPA 8260B	1,96		0.100	mg/kg wet	l×	-	2,00	98.0%	(80-120)	2.67%	6 (20)	07/13/07 02:26	
,2-Dibromoethane (EI	OB)	() <b>#</b> (?)	1,96		0.100	(90)		-		98.1%	•	0.4079	% "	*	
Benzene		(50)	1.85	***	0.0200	*	н		н	92.4%	(75-125)	4.86%	6 "		
Ethylbenzene		•	1.84		0.100	**	10	•		92.0%	(80-120)	4.51%	6 "	н	
l'oluene			1,87	•••	0.100		**	••	er	93,6%	*	3.05%	6 "	w	
Total Xylenes		н	5.71		0.300		•		6.00	95.1%	*	3.07%	6 **	*	
Surrogate(s): 1	, 2-DCA-d4		Recovery:	100%	L	imits: 75-125%	"							07/13/07 02:26	
	Coluene-d8			100%		75-125%	**							"	
4	I-BFB			100%		75-125%	**							н	

TestAmerica - Seattle, WA





11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208 Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

Volatile Organic Compounds (Special List) by EPA Method 8260B - Laboratory Quality Control Results TestAmerica - Seattle, WA QC Batch: 7G13043 Soil Preparation Method: EPA 5030B REC (Limits) % RPD Source Spike Analyte Method Result MDL\* MRI. Units Dil Result Amt Blank (7G13043-BLK1) 07/13/07 13:03 Extracted: EPA 8260B ND 0.0200 Benzene mg/kg wet 07/13/07 18:40 1,2-Dibromoethane ND 0.100 ND 1.2-Dichloroethane 0.100 Ethylbenzene ND 0.100 ND Toluene 0.100 ND 0.300 Total Xylenes 1,2-DCA-d4 Recovery: 106% Limits: 75-125% Surrogate(s): 07/13/07 18:40 Toluene-d8 101% 75-125% 4-RFR 95.8% 75-125% LCS (7G13043-BS1) Extracted: 07/13/07 13:03 1.81 **EPA 8260B** 0.0200 mg/kg wet 2.00 90.4% (75-125) 07/13/07 17:31 1,2-Dibromoethane 1.90 0.100 95.2% 1,2-Dichloroethane 1.98 0.100 99.0% Ethylbenzene 1.86 0.100 93.0% 1.86 0.100 92.8% Total Xylenes 5.68 0.300 6,00 94.7% Surrogate(s): 1.2-DCA-d4 Recovery: 105% Limits: 75-125% 07/13/07 17:31 101% Toluene-d8 75-125% 4-BFB 99.0% 75-125% LCS Dup (7G13043-BSD1) Extracted: 07/13/07 13:03 EPA 8260B 1.92 0.0200 Benzene mg/kg wet 2.00 96.0% (75-125)6.06% (20) 07/13/07 17:54 lx 1,2-Dibromoethane 1.93 0.100 96.6% 1.41% 2.03 1,2-Dichloroethane 0.100 101% 2.30% Ethylbenzene 1.96 0.100 98.0% 5.29% 1.97 0.100 Toluene 98.6% 6.11% Total Xvienes 6.00 0.300 6.00 100% 5.55% 1,2-DCA-d4 Limits: 75-125% Surrogate(s): Recovery: 07/13/07 17:54

75-125%

75-125%

TestAmerica - Seattle, WA

Manymu

Toluene-d8

4-BFB

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



100%

98.1%



11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210

Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created:

07/20/07 17:48

Physical Parameters by APHA/ASTM/EPA Methods	- Laboratory Quality Control Resul	ts
--	------------------------------------	----

%

TestAmerica - Seattle, WA

QC Batch: 7G16067

Soil Preparation Method:

Result

100

Dry Weight

Analyte

Dry Weight

Blank (7G16067-BLK1)

Method

BSOPSPL00

3R08

MDL\* MRL Units Dil

lx

Source Result

Spike % (Limits) % (Limits) Analyzed Amt REC

1.00

Extracted: 07/16/07 17:56

07/17/07 00:00

TestAmerica - Seattle, WA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full,

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11720 NORTH CREEK PKWY N, SUITE 400 BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Conestoga-Rovers & Associates - Everett

Project Name:

Shell - 6808 196th Street SW, Lynnwood

8620 Holly Drive, Suite 210 Everett, WA 98208

Project Number: Project Manager: 248-1627-02 Justin Foslien Report Created: 07/20/07 17:48

		Oxyg	enates by	EPA M	ethod 826 TestAmer				Quality C	ontrol	Resu	lts				
QC Bate	h: 7G12064	Soil Pre	paration M	lethod:	EPA 5030	В		q=E	THE S			16, 19			<u> 141 - 1</u>	
Analyte		Method	Result	М	DL* M	RL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits	) Analyzed	Note
Blank (7G120	64-BLK1)						CARLES .			Ext	racted:	07/12/07 19	:30		Tan I	
tert-Amyl Methyl Et	her	EPA 8260B	ND		- 0.	50 mg	/kg wet	lx							07/13/07 02:56	
tert-Butyl Alcohol		u	ND		- 5	5.0	*									
Diisopropyl ether		*	ND		- 0,	50	*	*			**				*	
Ethyl tert-butyl ether			ND		- 0.:	50									*	
Methyl tert-butyl eth	er	P	ND		- 0,:	50	*	•							*	
Surrogate(s):	1,2-DCA-d4 Toluene-d8 4-BFB		Recovery:	99.9% 98.4% 97.4%		Limits	75-125% 75-125% 75-125%	H H				, , , , ,			07/13/07 02:56	
LCS (7G12064	4-BS1)									Ext	acted:	07/12/07 19	:30			
tert-Butyl Alcohol		EPA 8260B	8,7		- 5	5,0 mg	/kg wet	lx	•••	10.0	87.4%	(70-130)			07/13/07 01:42	
Diisopropyl ether		ж.	2.0	-	- 0.:	50	**	*		2.00	98.7%	100	7.7		N	
Methyl tert-butyl ethe	er	*	1.9		- 0.:	50	4	н			95.8%	**				
Surrogate(s):	1,2-DCA-d4 Toluene-d8 4-BFB	3 <b>4</b> 3 23	Recovery	101% 99 0% 100%		Limits	75-125% 75-125% 75-125%	"			2				07/13/07 01:42	
LCS Dup (7G)	12064-BSD1)		IA THE							Ext	acted:	07/12/07 19	9:30			
ert-Butyl Alcohol		EPA 8260B	8.6		- 5	5.0 mg	/kg wet	lx	144	10.0	85.6%	(70-130)	2.019	6 (40)	07/13/07 02:26	
Diisopropyl ether		*	2,0		- 0,:	50	n	•		2.00	98.2%	•	0,457	/o *		
Methyl tert-butyl ethe	er	н	2.0		- 0.5	50		и	2. <del>53</del> 9	44	98.2%	п	2.53%	6 H		
Surrogate(s):	1, 2-DCA-d4 Toluene-d8 4-BFB		Recovery:	100% 100% 100%		Limits	75-125% 75-125% 75-125%	"				0	i		07/13/07 02:26	





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# Oxygenates by EPA Method 8260B - Laboratory Quality Control Results

QC Batch: 7G13043	Soil Pro	paration M	lethod: El	PA 5030B			EUR II -							
Analyte	Method	Result	MDL	* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits	) Analyzed	Notes
Blank (7G13043-BLK1)								Extr	acted:	07/13/07 13	:03			18,
tert-Amyl Methyl Ether	EPA 8260B	ND	***	0.50	mg/kg wet	lx	-						07/13/07 18:40	
tert-Butyl Alcohol	*	ND	5775	5,0				**	**	**	**	••	*	
Diisopropyl ether	*	ND		0.50		W.				-				
Ethyl tert-butyl ether		ND	1000	0.50		50	**							
Methyl tert-butyl ether	**	ND		0,50	•									
Surrogate(s): 1,2-DCA-d4 Toluene-d8		Recovery:	106% 101%	1	imits: 75-125%	"							07/13/07 18:40	
4-BFB			95.8%		75-125%	"							C+1 # 1	
I CC /#C12042 DC1\								Pot-	antada .	07/13/07 12	-03			
LCS (7G13043-BS1)								Extr	acted:	07/13/07 13	:03			
	EPA 8260B	8.7		5.0	mg/kg wet	lx	-	10,0	87.5%	-			07/13/07 17:31	-
tert-Butyl Alcohol		2,0		5.0 0.50	mg/kg wet	lx "	:	-		-	 	 	07/13/07 17:31	
tert-Butyl Alcohol Diisopropyl ether	-				mg/kg wet	lx *		10,0	87.5%	-	 			
tert-Butyl Alcohol Diisopropyl ether		2,0	***	0.50 0.50	mg/kg wet " " imits: 75-125%	lx "		10,0	87.5% 100%	(70-130)				
Toluene-d8		2,0 2,0	105%	0.50 0.50	" imits: 75-125% 75-125%			10,0	87.5% 100%	(70-130)			" 07/13/07 17:31	
tert-Butyl Alcohol Disopropyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4		2,0 2,0	105%	0.50 0.50	imits: 75-125%			10,0	87.5% 100%	(70-130)			* "	
tert-Butyl Alcohol Disopropyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4 Toluene-d8 4-BFB		2,0 2,0	105%	0.50 0.50	" imits: 75-125% 75-125%			10,0	87.5% 100% 98.9%	(70-130)		-	" 07/13/07 17:31	
tert-Butyl Alcohol Disopropyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4 Toluene-d8 4-BFB  LCS Dup (7G13043-BSD1)		2,0 2,0	105%	0.50 0.50	" imits: 75-125% 75-125%			10,0	87.5% 100% 98.9%	(70-130)			" 07/13/07 17:31	
ert-Butyl Alcohol  Disopropyl ether  Methyl tert-butyl ether  Surrogate(s): 1.2-DCA-d4  Toluene-d8  4-BFB  LCS Dup (7G13043-BSD1)  ert-Butyl Alcohol		2.0 2.0 Recovery:	105% 101% 99.0%	0.50 0.50	imils: 75-125% 75-125% 75-125%	H H		10,0 2,00 "	87.5% 100% 98.9%	(70-130) " "		(40)	07/13/07 17:31 "	
tert-Butyl Alcohol Diisopropyl ether Methyl tert-butyl ether  Surrogate(s): 1,2-DCA-d4  To luene-d8	" " EPA 8260B	2.0 2.0 Recovery:	105% 101% 99.0%	0.50 0.50 <i>L</i>	imils: 75-125% 75-125% 75-125%	H H		10.0 2.00 " Extr	87.5% 100% 98.9% acted:	(70-130) " " 07/13/07 13 (70-130)	  5:03	(40)	07/13/07 17:31 " " 07/13/07 17:54	
tert-Butyl Alcohol  Disopropyl ether  Methyl tert-butyl ether  Surrogate(s): 1.2-DCA-d4  Toluene-d8  4-BFB  LCS Dup (7G13043-BSD1)  ert-Butyl Alcohol  Disopropyl ether	EPA 8260B	2.0 2.0 Recovery:	105% 101% 99.0%	0.50 0.50 <i>L</i> 5,0 0.50 0.50	imits: 75-125% 75-125% 75-125% cng/kg wet	" " " " "		10.0 2.00 " Extr 10.0 2.00	87.5% 100% 98.9% acted: 102% 112%	(70-130)  "  07/13/07 13  (70-130)	3:03 -15,4%	(40)	07/13/07 17:31 " " 07/13/07 17:54	

75-125% "

98.1%

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4-BFB





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#### Notes and Definitions

#### Report Specific Notes:

Ε

Concentration exceeds the calibration range and therefore result is semi-quantitative.

R4

Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

#### Laboratory Reporting Conventions:

DET Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND

Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA \_ Not Reported / Not Available

Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight. dry

Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported wet

on a Wet Weight Basis.

RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries). **RPD** 

MRL METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. MDL\* \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution

found on the analytical raw data.

Reporting -Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and Limits percent solids, where applicable.

- Electronic Signature added in accordance with TestAmerica's Electronic Reporting and Electronic Signatures Policy. Electronic Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Signature Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

