

Page 1  
FORM  
4  
Rev 12/05State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

RECEIVED  
2/27/2012

1. OGCC Operator Number: 100185	4. Contact Name: Chris Hines	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Encana Oil & Gas (USA) Inc.	Phone: (970) 285-2653	
3. Address: 2717 County Road 215 City: Parachute State: CO Zip: 81635	Fax: (970) 285-2705	
5. API Number 05- A15 Well Pad	OGCC Facility ID Number 335800 (Location ID)	Survey Plat
6. Well/Facility Name: N.PARACHUTE-65596W (Log #)	Well/Facility Number 15NENE (Location No)	Directional Survey
8. Location (Otr/Qt, Sec, Twp, Rng, Meridian): NENE, Sec 15, T5S-R96W, 6th PM		Surface Equipmt Diagram
9. County: Garfield	10. Field Name: Grand Valley	Technical Info Page
11. Federal, Indian or State Lease Number: NA		Other

## General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey
Bottomhole location Otr/Qt, Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest bldg, public rd, utility or RR
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No
	Distance to nearest well same formation
	Surface owner consultation date:
GPS DATA:	
Date of Measurement	PDOP Reading
	Instrument Operator's Name
<input type="checkbox"/> CHANGE SPACING UNIT	<input type="checkbox"/> Remove from surface bond
Formation	Signed surface use agreement attached
Formation Code	
Spacing order number	
Unit Acreage	
Unit configuration	
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	<input type="checkbox"/> CHANGE WELL NAME
Effective Date:	From:
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	To:
	Effective Date:
<input type="checkbox"/> ABANDONED LOCATION:	<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned:
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection:	MIT required if shut in longer than two years. Date of last MIT
<input type="checkbox"/> SPUD DATE:	<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	*submit cbl and cement job summaries
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.

## Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Report of Work Done
Approximate Start Date:	Date Work Completed: August, 2011
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: pit closure
	<input type="checkbox"/> E&P Waste Disposal
	<input type="checkbox"/> Beneficial Reuse of E&P Waste
	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans
	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Christopher C. Hines Date: 02-27-12 Email: christopher.hines@encana.com  
Print Name: Christopher C. Hines Title: Environmental Field CoordinatorCOGCC Approved: Chris Canfield Title: FOR Date: 03/02/2012

CONDITIONS OF APPROVAL, IF ANY:

Chris Canfield  
EPS NW RegionNOC  
Pit Closure  
Notification  
(2 pits)  
Pit # 425199  
# 425200

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: _____	API Number: _____
2. Name of Operator: _____	OGCC Facility ID # _____
3. Well/Facility Name: _____	Well/Facility Number: _____
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): _____	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS



# West Fork

## Grand Valley Field

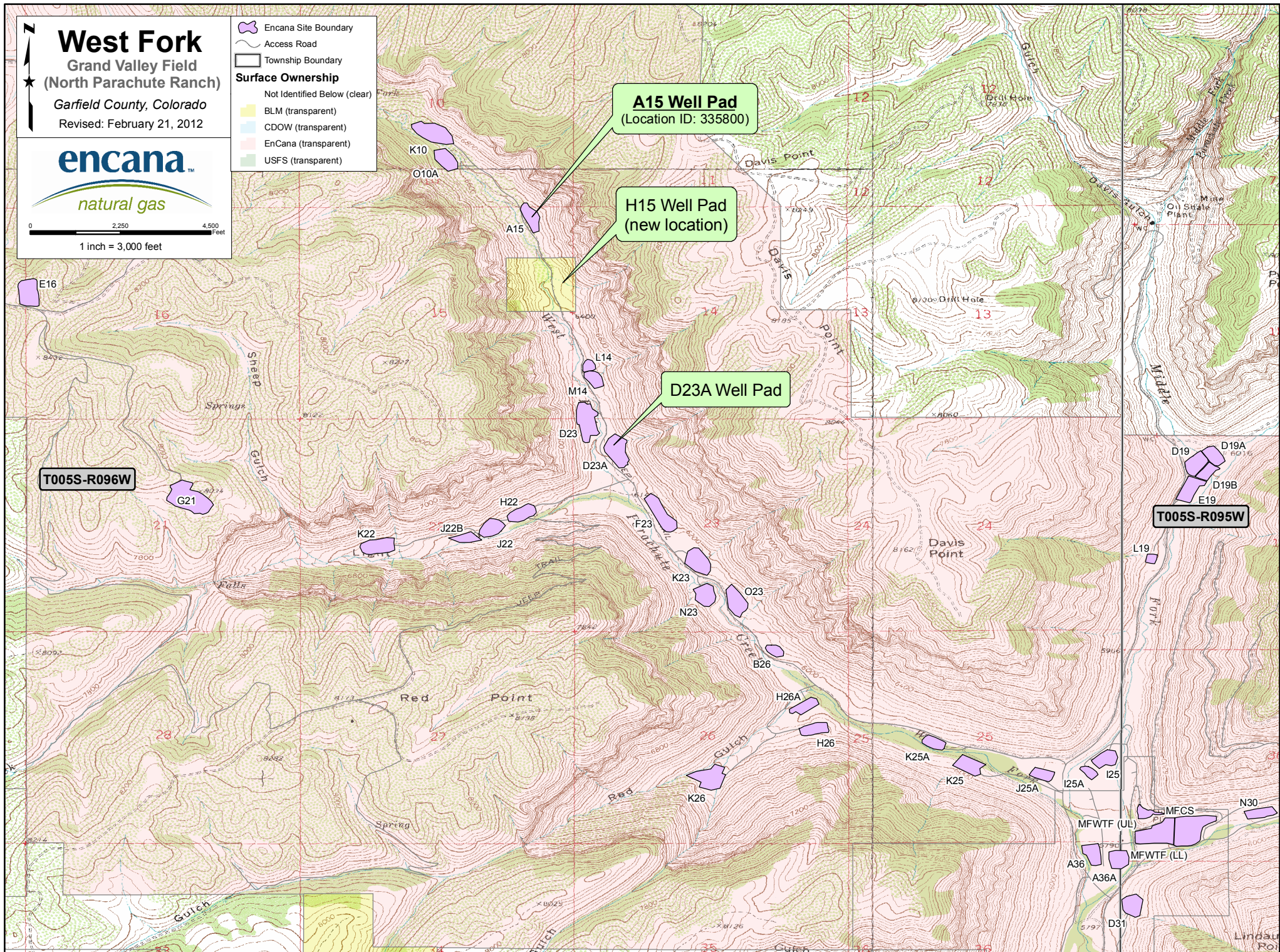
(North Parachute Ranch)

Garfield County, Colorado  
Revised: February 21, 2012

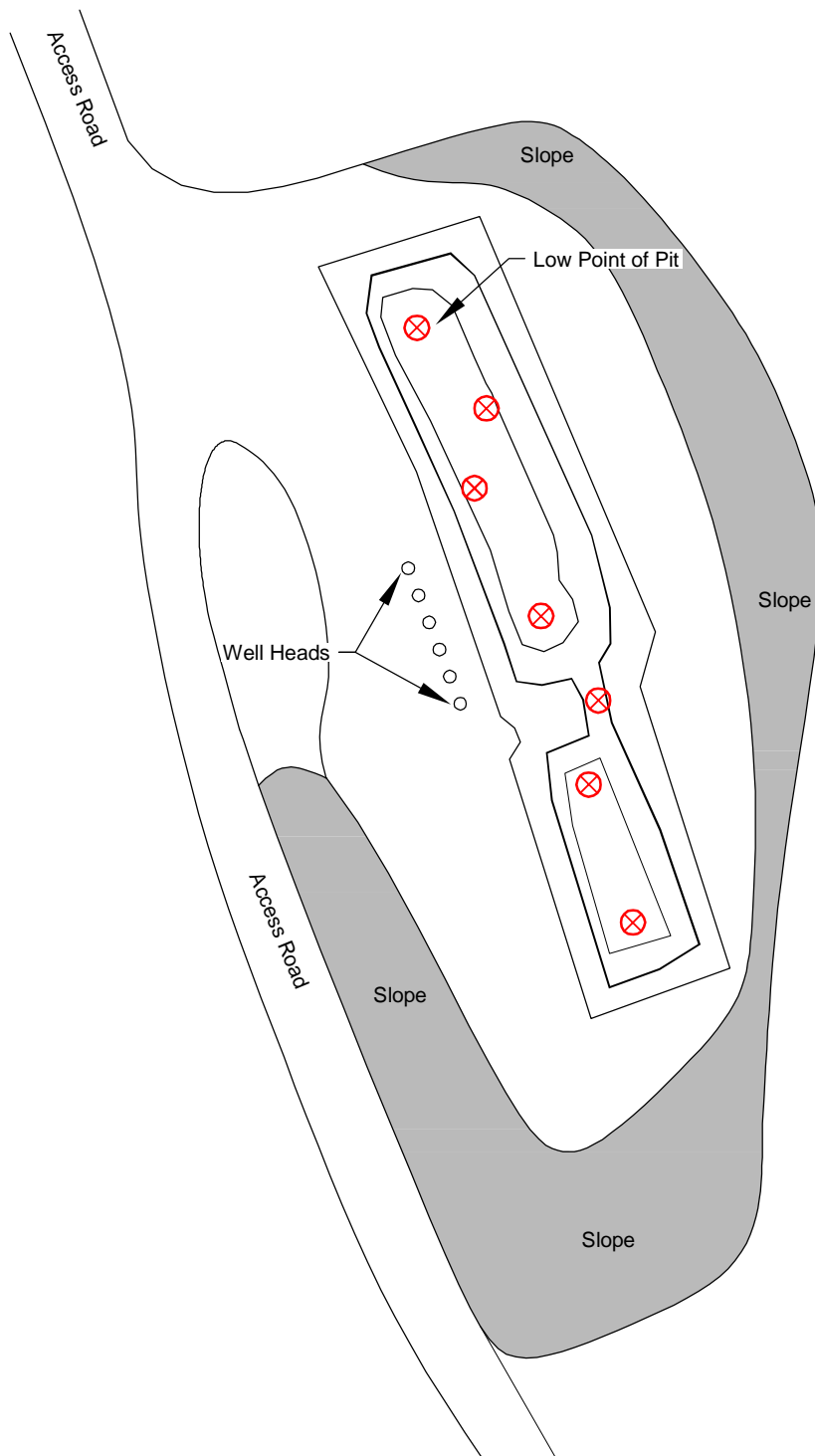
**encana**  
natural gas

0 2,250 4,500 Feet  
1 inch = 3,000 feet

- Encana Site Boundary
- Access Road
- Township Boundary
- Surface Ownership**
  - Not Identified Below (clear)
  - BLM (transparent)
  - CDOW (transparent)
  - EnCana (transparent)
  - USFS (transparent)



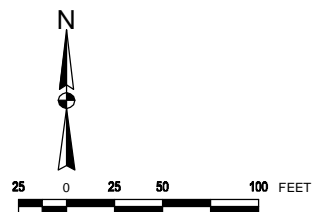




NE1/4 NE1/4, Section 15, T5S, R96W

#### LEGEND

⊗ Sample Location



**Rule** Engineering, LLC  
Solutions to Regulations for Industry



A15 Pit Diagram  
Garfield County, Colorado

DATE: 2/10/12

FILE: A15-Pit-Diagram.dwg

FIGURE: 1

## Laboratory Results Summary Table

02/27/2012

## A15 Pit Investigation

Allowable Concentration →				Organic Compounds in Soil (mg/kg [ppm])																		Inorganics in Soil				Metals in Soil (mg/kg [ppm])														
Location	Sample Date:	Sample Matrix	Matrix Notes	TPH (total volatile and extractable petroleum hydrocarbons)	TPH-GRO (G6-C10) Low Fraction	TPH-DRO (C10-C36) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Acenaphthene	Anthracene	Benzo(A)anthracene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Benzo(A)pyrene	Chrysene	Dibenzo(A,H)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-CD)pyrene	Naphthalene	Pyrene	EC (<4 mmhos/cm or 2x background)	SAR (calculation)	pH	Arsenic	Barium - EPA Total Barium	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead (inorganic)	Mercury	Nickel (soluble salts)	Selenium	Silver	Zinc		
A15	05/17/11	Pit	S pit - low point - W side (A15-PB-SB-051711)	1904	4	1900	0.003	BDL	0.011	0.0098	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.08	BDL																	
A15	05/17/11	Pit	S pit - S side (A15-PB-SB-051711)	94	BDL	94	BDL	BDL	BDL	0.042	0.14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.2	BDL	0.43	BDL																
A15	05/17/11	Pit	S pit - center (A15-PB-CB-051711)	853.7	3.7	850	0.016	0.095	0.011	0.31	0.048	0.14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.21	BDL	0.45	BDL																
A15	05/17/11	Pit	S pit - N side (A15-PB-NB-051711)	64250	250	64000	0.47	3.1	0.7	13	0.015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.016	BDL	0.024	0.022	2.8	40	7.7	3.9	3400	BDL	27	BDL	38	14	6.2	9.8	BDL	1.2	75	
A15	05/17/11	Pit	S pit - weir (A15-S-WEIR-051711)	393.8	3.8	390	0.0031	BDL	0.0034	0.032	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																
A15	05/17/11	Pit	N pit - weir (A15-N-WEIR-051711)	650	BDL	650	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.051	BDL																
A15	05/19/11	Pit	N pit - center (A15-PIT-10(6")-051911)	191.5	1.5	190	BDL	BDL	BDL	0.039	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.029	BDL	0.12	BDL																
A15	05/19/11	Pit	N pit - NE (A15-PIT-12(6")-051911)	143.6	3.6	140	0.033	0.15	0.018	0.69	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.035	BDL	0.16	0.0063																
A15	05/19/11	Pit	N pit - N center (A15-PIT-13(8")-051911)	126.6	6.6	120	0.069	0.47	0.052	1.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.039	BDL	0.15	BDL																
A15	05/19/11	Pit	N pit - N center (A15-PIT-16(8")-051911)	274	64	210	0.21	1.6	0.38	5.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.053	BDL	0.3	BDL																
A15	06/07/11	Pit	W wall (A15-PITX-W WALL-060711)	150	BDL	150	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.007	BDL	BDL	BDL	BDL	BDL	0.006	0.013	BDL	0.055	0.016	3.4	17	9.1	14	6200	0.83	26	BDL	26	17	0.028	18	BDL	BDL	62	
A15	06/07/11	Pit	E wall (A15-PITX-N BOTTOM-060711)	55	BDL	55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	14	8.5	20	1200	BDL	28	BDL	27	17	BDL	18	BDL	BDL	58	
A15	06/07/11	Pit	E wall (A15-PITX-E WALL-060711)	27	BDL	27	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.8	17	9	21	370	BDL	28	BDL	28	19	BDL	17	1.1	BDL	57	
A15	06/13/11	Pit	spoil	280	BDL	280	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.1	21	8.2	15	4300	0.54	23	BDL	29	15	0.068	15	1.5	BDL	50	
A15	06/13/11	Pit	S pit - N end (A15-PITX-N. END SOIL)	80	BDL	80	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.016	BDL				17												
A15	06/13/11	Pit	E middle (A15-PITX-ME BOTTOM-060711)	43.2	1.2	42	BDL	BDL	BDL	1.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				22												
A15	06/13/11	Pit	S pit - SW end (A15-PITX-SW SOIL)	34	BDL	34	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				20												
A15	06/13/11	Pit	middle (A15-PITX-MID BOTTOM-060711)	22	BDL	22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				18												
D23A	06/13/11	Pit	A15 pit spoil	160	BDL	160	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.046	BDL	0.071	0.032	2.2	21	9.2	32	6300	1.7	25	BDL	28	16	0.029	18	7.7	BDL	65	
D23A	06/27/11	Pit	soil spoil 2	1000	BDL	1000	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 6	830	BDL	830	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 8	771.1	770	1.1	BDL	BDL	0.0074	0.09	0.064	BDL	0.022	0.035	BDL	0.021	0.034	BDL	0.062	0.077	0.016	0.23	0.085	4.4	34	12	13	3500	2.7	18	BDL	23	19	0.04	16	7.3	BDL	71		
D23A	06/27/11	Pit	soil spoil 5	300	BDL	300	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 9	300	BDL	300	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 4	200	BDL	200	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 1	180	BDL	180	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 3	180	BDL	180	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 7	160	BDL	160	BDL	BDL	BDL	BDL																														
D23A	06/27/11	Pit	soil spoil 7	160	BDL	160	BDL	BDL	BDL	BDL																														
D23A	06/28/11	Pit	soil spoil 24	960	BDL	960	BDL	BDL	BDL	BDL																														
D23A	06/28/11	Pit	soil spoil 10	760.54	0.54	760	BDL	BDL	BDL	BDL																														
D23A	06/28/11	Pit	soil spoil 25	710	BDL	710	BDL	BDL	BDL	BDL																														
D23A	06/28/11	Pit	soil spoil 17	640	BDL	640	BDL	BDL	BDL	BDL																														
D23A	06/28/11	Pit	soil spoil 13	530	BDL	530	BDL	BDL	BDL	0.01																														
D23A	06/28/11	Pit	soil spoil 19	500	BDL	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.079	BDL	BDL	BDL	4.4	14	8.6	13	3600	1.2	21	BDL	19	11	0.044	13	10	BDL	46	
D23A	06/28/11	Pit	soil spoil 15	470	BDL	470	BDL	BDL	BDL	BDL																														
D23A	06/																																							

Laboratory Results Summary Table

Allowable Concentration -->				Organic Compounds in Soil (mg/kg [ppm])																		Inorganics in Soil			Metals in Soil (mg/kg [ppm])													
Location	Sample Date:	Sample Matrix	Matrix Notes	TPH (total volatile and extractable petroleum hydrocarbons)	TPH-GRO (G6-C10) Low Fraction	TPH-DRO (C10-C36) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Acenaphthene	Anthracene	Benzo(A)anthracene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Benzo(A)pyrene	Chrysene	Dibenzo(A,H)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-C,D)pyrene	Naphthalene	Pyrene	EC (<4 mmhos/cm or 2x background)	SAR (calculation)	pH	Arsenic	Barium - EPA Total Barium	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead (inorganic)	Mercury	Nickel (soluble salts)	Selenium	Silver	Zinc
D23A	06/28/11	Pit	soil spoil 23	59	BDL	59	BDL	BDL	BDL																													
D23A	06/28/11	Pit	soil spoil 20	58	BDL	58	BDL	BDL	BDL																													
A15	06/30/11	Pit	Soil Spoil 3	180	BDL	180	BDL	BDL	BDL																													
A15	06/30/11	Pit	Soil Spoil 4	170	BDL	170	BDL	BDL	BDL	BDL																												
A15	06/30/11	Pit	Soil spoil 1	120	BDL	120	BDL	BDL	BDL	BDL																												
A15	06/30/11	Pit	Soil Spoil 5	96	BDL	96	BDL	BDL	BDL	BDL																												
A15	06/30/11	Pit	Soil spoil 2	73	BDL	73	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 9	420	BDL	420	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 20	270	BDL	270	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 15	250	BDL	250	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.066	BDL	4.8	24	8.2	9			20	BDL							
D23A	08/01/11	Pit	spoil 19	210	BDL	210	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 24	210	BDL	210	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 14	190	BDL	190	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 12	180	BDL	180	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.014	BDL	0.022	0.007	3.4	25	8.4	18	3600	0.78	21	BDL	21	14	0.032	20	BDL	BDL	52
D23A	08/01/11	Pit	spoil 23	170	BDL	170	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 29	170	BDL	170	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 3	160	BDL	160	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 5	150	BDL	150	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 6	150	BDL	150	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 8	150	BDL	150	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 17	150	BDL	150	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 2	140	BDL	140	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 10	140	BDL	140	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 7	130	BDL	130	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 28	130	BDL	130	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 11	120	BDL	120	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 25	120	BDL	120	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 30	120	BDL	120	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 1	110	BDL	110	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 4	110	BDL	110	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 27	110	BDL	110	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 13	98	BDL	98	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 26	91	BDL	91	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 16	90	BDL	90	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 22	89	BDL	89	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	Spoil 18	84	BDL	84	BDL	BDL	BDL	BDL																												
D23A	08/01/11	Pit	spoil 21	74	BDL	74	BDL	BDL	BDL	BDL																												

# Laboratory Results Summary Table

02/27/2012

West Fork Background Arsenic

Location	Sample Date:	Sample Matrix	Matrix Notes	Metals in
				Allowable Concentration --> 0.39
H15	12/29/11	Background	N	59
H15	12/29/11	Background	SE	52
K26	05/31/11	Background	SW	43
K22	11/10/10	Background	E	28
H26	11/10/10	Background	SSW	27
K26	05/31/11	Background	W	27
H26A	08/26/11	Background	N	26
K25A	06/29/10	Background	NW background	24.7
B26	08/26/11	Background	NNE	24
D23	06/29/10	Background	SW	24
H26	11/10/10	Background	S	24
B26	08/26/11	Background	N	22
K25A	06/29/10	Background	NE background	21.6
F23	08/29/11	Background	NE	20
H26A	08/26/11	Background	W	20
H26A	08/26/11	Background	SE	20
A15	05/17/11	Background	N	19
B26	08/26/11	Background	NE	19
H15	12/29/11	Background	NE	19
H26	11/10/10	Background	SW	19
H26	11/10/10	Background	SSE	19
A15	05/17/11	Background	S	18
H26A	08/26/11	Background	NW	18
H26A	08/26/11	Background	SW	18
J22	07/17/09	Background		17.4
A15	05/17/11	Background	NW	16
F23	08/29/11	Background	N	16
H15	12/29/11	Background	E	16
J25A	09/26/11	Background	Monitoring well inst	16
D23	06/29/10	Background	NW	15.7
A15	05/17/11	Background	E	15
F23	08/29/11	Background	SE	15
K22	11/10/10	Background	W	15
K26	05/31/11	Background	N	15
K22	07/22/09	Background		14.5
B26	08/26/11	Background	E	14
F23	08/29/11	Background	E	14
K26	05/31/11	Background	S	14
K26	05/31/11	Background	SE	14
J25A	07/22/09	Background		13.5
F23	08/29/11	Background	NW	13
K22	11/10/10	Background	SW	13
K22	11/10/10	Background	N	13
B26	08/26/11	Background	SE	12
A15	05/17/11	Background	NE	11
H15	12/29/11	Background	S	9.7
H26	11/10/10	Background	SE	7.7



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Est. 1970

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

## Report Summary

Sunday May 22, 2011

Report Number: L516547

Samples Received: 05/18/11

Client Project:

Description: A15 Pit

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jayred Willis , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-PB-SLP-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 10:20

ESC Sample # : L516547-01

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0030	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/18/11	5
Ethylbenzene	0.011	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	0.0098	0.0075	mg/kg	8021/8015	05/18/11	5
TPH (GC/FID) Low Fraction	4.0	0.50	mg/kg	GRO	05/18/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	05/18/11	5
a,a,a-Trifluorotoluene(PID)	104.		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	1900	80.	mg/kg	3546/DRO	05/19/11	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	05/19/11	20
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluorene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Naphthalene	0.080	0.030	mg/kg	8270C-SIM	05/21/11	5
Phenanthrene	0.050	0.030	mg/kg	8270C-SIM	05/21/11	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
1-Methylnaphthalene	0.096	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Methylnaphthalene	0.18	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Chloronaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Surrogate Recovery						
Nitrobenzene-d5	86.4		% Rec.	8270C-SIM	05/21/11	5
2-Fluorobiphenyl	93.0		% Rec.	8270C-SIM	05/21/11	5
p-Terphenyl-d14	105.		% Rec.	8270C-SIM	05/21/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/22/11 11:34 Printed: 05/22/11 11:35

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-PB-SB-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 10:29

ESC Sample # : L516547-02

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/18/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	05/18/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	05/18/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.7		% Rec.	8021/8015	05/18/11	5
a,a,a-Trifluorotoluene(PID)	104.		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	94.	4.0	mg/kg	3546/DRO	05/19/11	1
Surrogate recovery(%)						
o-Terphenyl	71.6		% Rec.	3546/DRO	05/19/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.14	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthene	0.042	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthylene	0.15	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluorene	0.20	0.030	mg/kg	8270C-SIM	05/21/11	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Naphthalene	0.43	0.030	mg/kg	8270C-SIM	05/21/11	5
Phenanthrene	0.23	0.030	mg/kg	8270C-SIM	05/21/11	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
1-Methylnaphthalene	0.40	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Methylnaphthalene	1.1	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Chloronaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Surrogate Recovery						
Nitrobenzene-d5	129.		% Rec.	8270C-SIM	05/21/11	5
2-Fluorobiphenyl	78.1		% Rec.	8270C-SIM	05/21/11	5
p-Terphenyl-d14	79.3		% Rec.	8270C-SIM	05/21/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-PB-CB-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 10:38

ESC Sample # : L516547-03

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.016	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	0.095	0.025	mg/kg	8021/8015	05/18/11	5
Ethylbenzene	0.011	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	0.31	0.0075	mg/kg	8021/8015	05/18/11	5
TPH (GC/FID) Low Fraction	3.7	0.50	mg/kg	GRO	05/18/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.		% Rec.	8021/8015	05/18/11	5
a,a,a-Trifluorotoluene(PID)	104.		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	850	80.	mg/kg	3546/DRO	05/19/11	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	05/19/11	20
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.14	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthene	0.048	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthylene	0.16	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluorene	0.21	0.030	mg/kg	8270C-SIM	05/21/11	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Naphthalene	0.45	0.030	mg/kg	8270C-SIM	05/21/11	5
Phenanthrene	0.25	0.030	mg/kg	8270C-SIM	05/21/11	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
1-Methylnaphthalene	0.45	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Methylnaphthalene	1.3	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Chloronaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Surrogate Recovery						
Nitrobenzene-d5	141.		% Rec.	8270C-SIM	05/21/11	5
2-Fluorobiphenyl	67.6		% Rec.	8270C-SIM	05/21/11	5
p-Terphenyl-d14	72.7		% Rec.	8270C-SIM	05/21/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit  
Sample ID : A15-PB-NB-051711  
Collected By : Bob Stockton  
Collection Date : 05/17/11 10:48

ESC Sample # : L516547-04

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	10.	mg/kg	3060A/7196A	05/20/11	5
Chromium, Trivalent	27.	10.	mg/kg	Calc.	05/19/11	1
ORP	120		mV	2580	05/20/11	1
pH	7.7		su	9045D	05/20/11	1
Sodium Adsorption Ratio	40.			Calc.	05/19/11	1
Specific Conductance	2800		umhos/cm	9050AMod	05/20/11	1
Mercury	6.2	0.40	mg/kg	7471	05/19/11	20
Arsenic	3.9	1.0	mg/kg	6010B	05/19/11	1
Barium	3400	0.25	mg/kg	6010B	05/19/11	1
Cadmium	BDL	0.25	mg/kg	6010B	05/19/11	1
Chromium	27.	0.50	mg/kg	6010B	05/19/11	1
Copper	38.	1.0	mg/kg	6010B	05/19/11	1
Lead	14.	0.25	mg/kg	6010B	05/19/11	1
Nickel	9.8	1.0	mg/kg	6010B	05/19/11	1
Selenium	BDL	1.0	mg/kg	6010B	05/19/11	1
Silver	1.2	0.50	mg/kg	6010B	05/19/11	1
Zinc	75.	1.5	mg/kg	6010B	05/19/11	1
Benzene	0.47	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	3.1	0.25	mg/kg	8021/8015	05/19/11	50
Ethylbenzene	0.70	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	13.	0.075	mg/kg	8021/8015	05/19/11	50
TPH (GC/FID) Low Fraction	250	5.0	mg/kg	GRO	05/19/11	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	109.		% Rec.	8021/8015	05/19/11	50
a,a,a-Trifluorotoluene(PID)	92.2		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	64000	800	mg/kg	3546/DRO	05/19/11	200
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	05/19/11	200
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Acenaphthene	0.015	0.0060	mg/kg	8270C-SIM	05/19/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L516547-04 (PH) - 7.7@21.6c

L516547-04 (CR6) - Diluted due to sample color interference.

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-PB-NB-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 10:48

ESC Sample # : L516547-04

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Fluorene	0.016	0.0060	mg/kg	8270C-SIM	05/19/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Naphthalene	0.024	0.0060	mg/kg	8270C-SIM	05/19/11	1
Phenanthrene	0.022	0.0060	mg/kg	8270C-SIM	05/19/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
1-Methylnaphthalene	0.062	0.0060	mg/kg	8270C-SIM	05/19/11	1
2-Methylnaphthalene	0.077	0.0060	mg/kg	8270C-SIM	05/19/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	05/19/11	1
Surrogate Recovery						
Nitrobenzene-d5	110.		% Rec.	8270C-SIM	05/19/11	1
2-Fluorobiphenyl	77.6		% Rec.	8270C-SIM	05/19/11	1
p-Terphenyl-d14	82.2		% Rec.	8270C-SIM	05/19/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L516547-04 (PH) - 7.7@21.6c

L516547-04 (CR6) - Diluted due to sample color interference.

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-S-WEIR-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 11:10

ESC Sample # : L516547-05

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0031	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/19/11	5
Ethylbenzene	0.0034	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	0.032	0.0075	mg/kg	8021/8015	05/19/11	5
TPH (GC/FID) Low Fraction	3.8	0.50	mg/kg	GRO	05/19/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	85.1		% Rec.	8021/8015	05/19/11	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	390	4.0	mg/kg	3546/DRO	05/19/11	1
Surrogate recovery(%)						
o-Terphenyl	125.		% Rec.	3546/DRO	05/19/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluorene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Naphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Phenanthrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
1-Methylnaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Methylnaphthalene	0.056	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Chloronaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Surrogate Recovery						
Nitrobenzene-d5	99.0		% Rec.	8270C-SIM	05/21/11	5
2-Fluorobiphenyl	94.0		% Rec.	8270C-SIM	05/21/11	5
p-Terphenyl-d14	92.5		% Rec.	8270C-SIM	05/21/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 05/22/11 11:34 Printed: 05/22/11 11:35  
L516547-05 (SV8270PAHSIM) - Dilution due to matrix



REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 22, 2011

Date Received : May 18, 2011  
Description : A15 Pit

Sample ID : A15-N-WEIR-051711

Collected By : Bob Stockton  
Collection Date : 05/17/11 11:18

ESC Sample # : L516547-06

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	05/18/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/18/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	05/18/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	05/18/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	05/18/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	8021/8015	05/18/11	5
a,a,a-Trifluorotoluene(PID)	104.		% Rec.	8021/8015	05/18/11	5
TPH (GC/FID) High Fraction	650	80.	mg/kg	3546/DRO	05/19/11	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	05/19/11	20
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Acenaphthylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Benzo(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Fluorene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Naphthalene	0.051	0.030	mg/kg	8270C-SIM	05/21/11	5
Phenanthrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
1-Methylnaphthalene	0.033	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Methylnaphthalene	0.11	0.030	mg/kg	8270C-SIM	05/21/11	5
2-Chloronaphthalene	BDL	0.030	mg/kg	8270C-SIM	05/21/11	5
Surrogate Recovery						
Nitrobenzene-d5	111.		% Rec.	8270C-SIM	05/21/11	5
2-Fluorobiphenyl	94.5		% Rec.	8270C-SIM	05/21/11	5
p-Terphenyl-d14	96.8		% Rec.	8270C-SIM	05/21/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/22/11 11:34 Printed: 05/22/11 11:35  
L516547-06 (SV8270PAHSIM) - Dilution due to matrix

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L516547-01	WG535938	SAMP	o-Terphenyl	R1692609	J7
L516547-02	WG536064	SAMP	Nitrobenzene-d5	R1694509	J1
L516547-03	WG536064	SAMP	Nitrobenzene-d5	R1694509	J1
	WG535938	SAMP	o-Terphenyl	R1692609	J7
L516547-04	WG536562	SAMP	pH	R1694969	J3
	WG536313	SAMP	Chromium, Hexavalent	R1694831	O
	WG535938	SAMP	o-Terphenyl	R1692609	J7
L516547-06	WG535938	SAMP	o-Terphenyl	R1692609	J7

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



Summary of Remarks For Samples Printed  
05/22/11 at 11:35:27

TSR Signing Reports: 358  
R3 - Rush: Two Day

Sample: L516547-01 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34  
Sample: L516547-02 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34  
Sample: L516547-03 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34  
Sample: L516547-04 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34  
Sample: L516547-05 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34  
Sample: L516547-06 Account: ENCANACO Received: 05/18/11 09:00 Due Date: 05/20/11 00:00 RPT Date: 05/22/11 11:34



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

May 22, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
TPH (GC/FID) High Fraction	< 4	ppm			WG535938	05/19/11 01:05
o-Terphenyl		% Rec.	78.05	50-150	WG535938	05/19/11 01:05
Benzene	< .0005	mg/kg			WG536255	05/18/11 13:49
Ethylbenzene	< .0005	mg/kg			WG536255	05/18/11 13:49
Toluene	< .005	mg/kg			WG536255	05/18/11 13:49
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG536255	05/18/11 13:49
Total Xylene	< .0015	mg/kg			WG536255	05/18/11 13:49
a,a,a-Trifluorotoluene(FID)		% Rec.	101.4	59-128	WG536255	05/18/11 13:49
a,a,a-Trifluorotoluene(PID)		% Rec.	105.9	54-144	WG536255	05/18/11 13:49
Mercury	< .02	mg/kg			WG536285	05/19/11 10:05
Toluene	< .005	mg/kg			WG536486	05/19/11 17:52
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG536486	05/19/11 17:52
Total Xylene	< .0015	mg/kg			WG536486	05/19/11 17:52
a,a,a-Trifluorotoluene(FID)		% Rec.	81.57	59-128	WG536486	05/19/11 17:52
a,a,a-Trifluorotoluene(PID)		% Rec.	77.23	54-144	WG536486	05/19/11 17:52
Arsenic	< 1	mg/kg			WG536335	05/19/11 12:12
Barium	< .25	mg/kg			WG536335	05/19/11 12:12
Cadmium	< .25	mg/kg			WG536335	05/19/11 12:12
Chromium	< .5	mg/kg			WG536335	05/19/11 12:12
Copper	< 1	mg/kg			WG536335	05/19/11 12:12
Lead	< .25	mg/kg			WG536335	05/19/11 12:12
Nickel	< 1	mg/kg			WG536335	05/19/11 12:12
Selenium	< 1	mg/kg			WG536335	05/19/11 12:12
Silver	< .5	mg/kg			WG536335	05/19/11 12:12
Zinc	< 1.5	mg/kg			WG536335	05/19/11 12:12
1-Methylnaphthalene	< .006	mg/kg			WG536064	05/19/11 14:59
2-Chloronaphthalene	< .006	mg/kg			WG536064	05/19/11 14:59
2-Methylnaphthalene	< .006	mg/kg			WG536064	05/19/11 14:59
Acenaphthene	< .006	mg/kg			WG536064	05/19/11 14:59
Acenaphthylene	< .006	mg/kg			WG536064	05/19/11 14:59
Anthracene	< .006	mg/kg			WG536064	05/19/11 14:59
Benzo(a)anthracene	< .006	mg/kg			WG536064	05/19/11 14:59
Benzo(a)pyrene	< .006	mg/kg			WG536064	05/19/11 14:59
Benzo(b)fluoranthene	< .006	mg/kg			WG536064	05/19/11 14:59
Benzo(g,h,i)perylene	< .006	mg/kg			WG536064	05/19/11 14:59
Benzo(k)fluoranthene	< .006	mg/kg			WG536064	05/19/11 14:59
Chrysene	< .006	mg/kg			WG536064	05/19/11 14:59
Dibenz(a,h)anthracene	< .006	mg/kg			WG536064	05/19/11 14:59
Fluoranthene	< .006	mg/kg			WG536064	05/19/11 14:59
Fluorene	< .006	mg/kg			WG536064	05/19/11 14:59
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG536064	05/19/11 14:59
Naphthalene	< .006	mg/kg			WG536064	05/19/11 14:59
Phenanthrene	< .006	mg/kg			WG536064	05/19/11 14:59
Pyrene	< .006	mg/kg			WG536064	05/19/11 14:59
2-Fluorobiphenyl		% Rec.	70.05	21-120	WG536064	05/19/11 14:59
Nitrobenzene-d5		% Rec.	70.29	33-114	WG536064	05/19/11 14:59
p-Terphenyl-d14		% Rec.	86.63	18-142	WG536064	05/19/11 14:59

\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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May 22, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Specific Conductance	1.40	umhos/cm			WG536551	05/20/11 13:42
Chromium, Hexavalent	< 2	mg/kg			WG536313	05/20/11 13:15
pH	4.50	su			WG536562	05/20/11 14:20

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Mercury	mg/kg	0.00850	0.00750	12.5	20	L516495-13	WG536285
Arsenic	mg/kg	14.0	15.0	5.48	20	L516540-06	WG536335
Cadmium	mg/kg	0.380	0.280	29.0*	20	L516540-06	WG536335
Chromium	mg/kg	22.0	19.0	12.3	20	L516540-06	WG536335
Copper	mg/kg	24.0	19.0	22.8*	20	L516540-06	WG536335
Lead	mg/kg	20.0	14.0	33.8*	20	L516540-06	WG536335
Selenium	mg/kg	0	0	0	20	L516540-06	WG536335
Silver	mg/kg	0	0	0	20	L516540-06	WG536335
Barium	mg/kg	5400	5900	9.78	20	L516540-06	WG536335
Nickel	mg/kg	14.0	12.0	18.2	20	L516540-06	WG536335
Zinc	mg/kg	72.0	68.0	5.44	20	L516540-06	WG536335
Specific Conductance	umhos/cm	260.	240.	7.11	20	L516495-39	WG536551
Specific Conductance	umhos/cm	3000	2800	5.89	20	L516547-04	WG536551
Chromium, Hexavalent	mg/kg	0	0	0	20	L516414-01	WG536313
pH	su	7.70	7.80	1.29*	1	L516495-59	WG536562
pH	su	7.60	7.70	1.31*	1	L516547-04	WG536562
ORP	mV	110.	98.0	10.6	20	L516426-01	WG536585
ORP	mV	110.	110.	3.57	20	L516685-09	WG536585

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
TPH (GC/FID) High Fraction	ppm	60	47.6	79.3	50-150	WG535938
o-Terphenyl				76.87	50-150	WG535938
Benzene	mg/kg	.05	0.0493	98.6	76-113	WG536255
Ethylbenzene	mg/kg	.05	0.0513	103.	78-115	WG536255
Toluene	mg/kg	.05	0.0501	100.	76-114	WG536255
Total Xylene	mg/kg	.15	0.153	102.	81-118	WG536255
a,a,a-Trifluorotoluene (PID)				106.5	54-144	WG536255
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.33	115.	67-135	WG536255
a,a,a-Trifluorotoluene (FID)				109.5	59-128	WG536255
Mercury	mg/kg	8.77	7.84	89.4	71.6-127.7	WG536285

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Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Toluene	mg/kg	.05	0.0540	108.	76-114	WG536486
Total Xylene	mg/kg	.15	0.160	107.	81-118	WG536486
a,a,a-Trifluorotoluene(PID)				91.87	54-144	WG536486
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.13	111.	67-135	WG536486
a,a,a-Trifluorotoluene(FID)				104.9	59-128	WG536486
Arsenic	mg/kg	192	166.	86.5	78.6-120.8	WG536335
Barium	mg/kg	420	366.	87.1	78.8-121.4	WG536335
Cadmium	mg/kg	70.1	61.0	87.0	78.5-121.5	WG536335
Chromium	mg/kg	168	151.	89.9	80.4-120.2	WG536335
Copper	mg/kg	122	112.	91.8	81.6-119.7	WG536335
Lead	mg/kg	113	99.6	88.1	77.3-122.1	WG536335
Nickel	mg/kg	74.1	66.4	89.6	78.8-121.2	WG536335
Selenium	mg/kg	176	156.	88.6	75.6-125.0	WG536335
Silver	mg/kg	115	104.	90.4	66-133.9	WG536335
Zinc	mg/kg	437	384.	87.9	78.5-121.7	WG536335
1-Methylnaphthalene	mg/kg	.033	0.0293	88.9	41-110	WG536064
2-Chloronaphthalene	mg/kg	.033	0.0277	83.9	43-109	WG536064
2-Methylnaphthalene	mg/kg	.033	0.0262	79.3	38-104	WG536064
Acenaphthene	mg/kg	.033	0.0278	84.3	48-103	WG536064
Acenaphthylene	mg/kg	.033	0.0282	85.3	43-106	WG536064
Anthracene	mg/kg	.033	0.0271	82.1	51-110	WG536064
Benzo(a)anthracene	mg/kg	.033	0.0309	93.8	38-126	WG536064
Benzo(a)pyrene	mg/kg	.033	0.0269	81.4	47-118	WG536064
Benzo(b)fluoranthene	mg/kg	.033	0.0258	78.1	47-118	WG536064
Benzo(g,h,i)perylene	mg/kg	.033	0.0291	88.2	40-125	WG536064
Benzo(k)fluoranthene	mg/kg	.033	0.0327	99.1	45-121	WG536064
Chrysene	mg/kg	.033	0.0295	89.5	35-135	WG536064
Dibenz(a,h)anthracene	mg/kg	.033	0.0285	86.3	41-124	WG536064
Fluoranthene	mg/kg	.033	0.0250	75.7	50-114	WG536064
Fluorene	mg/kg	.033	0.0277	83.8	49-109	WG536064
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0288	87.1	40-126	WG536064
Naphthalene	mg/kg	.033	0.0251	76.0	36-100	WG536064
Phenanthrene	mg/kg	.033	0.0288	87.2	46-108	WG536064
Pyrene	mg/kg	.033	0.0325	98.5	30-136	WG536064
2-Fluorobiphenyl				74.90	33-114	WG536064
Nitrobenzene-d5				79.99	21-120	WG536064
p-Terphenyl-d14				89.55	18-142	WG536064
Specific Conductance	umhos/cm	556	550.	98.9	85-115	WG536551
Chromium,Hexavalent	mg/kg	132	97.0	73.5	50-150	WG536313
pH	su	6.3	6.30	100.	97.98-102.02	WG536562
ORP	mV	229	220.	96.1	95.6-104.37	WG536585

Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref				
TPH (GC/FID) High Fraction	ppm	46.0	47.6	77.0	50-150	3.35	WG535938
o-Terphenyl				73.45	50-150		WG535938

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May 22, 2011

Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Benzene	mg/kg	0.0487	0.0493	97.0		76-113	1.15	20	WG536255
Ethylbenzene	mg/kg	0.0507	0.0513	101.		78-115	1.13	20	WG536255
Toluene	mg/kg	0.0493	0.0501	98.0		76-114	1.80	20	WG536255
Total Xylene	mg/kg	0.152	0.153	101.		81-118	0.990	20	WG536255
a,a,a-Trifluorotoluene(PID)				105.0		54-144			WG536255
TPH (GC/FID) Low Fraction	mg/kg	6.16	6.33	112.		67-135	2.78	20	WG536255
a,a,a-Trifluorotoluene(FID)				108.6		59-128			WG536255
Toluene	mg/kg	0.0500	0.0540	100.		76-114	7.76	20	WG536486
Total Xylene	mg/kg	0.145	0.160	97.0		81-118	10.2	20	WG536486
a,a,a-Trifluorotoluene(PID)				84.98		54-144			WG536486
TPH (GC/FID) Low Fraction	mg/kg	5.42	6.13	99.0		67-135	12.2	20	WG536486
a,a,a-Trifluorotoluene(FID)				102.7		59-128			WG536486
1-Methylnaphthalene	mg/kg	0.0315	0.0293	95.0		41-110	7.06	24	WG536064
2-Chloronaphthalene	mg/kg	0.0309	0.0277	94.0		43-109	11.0	21	WG536064
2-Methylnaphthalene	mg/kg	0.0319	0.0262	97.0		38-104	19.8	24	WG536064
Acenaphthene	mg/kg	0.0284	0.0278	86.0		48-103	2.14	20	WG536064
Acenaphthylene	mg/kg	0.0282	0.0282	85.0		43-106	0.0676	20	WG536064
Anthracene	mg/kg	0.0307	0.0271	93.0		51-110	12.5	22	WG536064
Benzo(a)anthracene	mg/kg	0.0297	0.0309	90.0		38-126	4.21	20	WG536064
Benzo(a)pyrene	mg/kg	0.0280	0.0269	85.0		47-118	3.99	20	WG536064
Benzo(b)fluoranthene	mg/kg	0.0341	0.0258	103.		47-118	27.7	29	WG536064
Benzo(g,h,i)perylene	mg/kg	0.0313	0.0291	95.0		40-125	7.21	20	WG536064
Benzo(k)fluoranthene	mg/kg	0.0375	0.0327	114.		45-121	13.7	31	WG536064
Chrysene	mg/kg	0.0328	0.0295	99.0		35-135	10.5	20	WG536064
Dibenz(a,h)anthracene	mg/kg	0.0309	0.0285	94.0		41-124	8.11	20	WG536064
Fluoranthene	mg/kg	0.0281	0.0250	85.0		50-114	11.7	20	WG536064
Fluorene	mg/kg	0.0292	0.0277	89.0		49-109	5.57	19	WG536064
Indeno(1,2,3-cd)pyrene	mg/kg	0.0309	0.0288	94.0		40-126	7.13	20	WG536064
Naphthalene	mg/kg	0.0257	0.0251	78.0		36-100	2.30	24	WG536064
Phenanthrene	mg/kg	0.0288	0.0288	87.0		46-108	0.179	21	WG536064
Pyrene	mg/kg	0.0301	0.0325	91.0		30-136	7.57	20	WG536064
2-Fluorobiphenyl				79.03		33-114			WG536064
Nitrobenzene-d5				77.47		21-120			WG536064
p-Terphenyl-d14				82.71		18-142			WG536064
Specific Conductance	umhos/	550.	550.	99.0		85-115	0	20	WG536551
Chromium,Hexavalent	mg/kg	110.	97.0	83.0		50-150	12.6	20	WG536313
pH	su	6.30	6.30	100.		97.98-102.02	0	20	WG536562
ORP	mV	220.	220.	96.0		95.6-104.37	0	20	WG536585

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
TPH (GC/FID) High Fraction	ppm	40.1	0	60	66.8	50-150	L515977-42	WG535938
o-Terphenyl					65.54	50-150		WG535938
Benzene	mg/kg	0.193	0.0140	.05	71.4	32-137	L516414-01	WG536255

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'





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Quality Assurance Report  
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May 22, 2011

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Ethylbenzene	mg/kg	0.182	0	.05	72.8	10-150	L516414-01	WG536255
Toluene	mg/kg	0.192	0	.05	76.6	20-142	L516414-01	WG536255
Total Xylene	mg/kg	0.557	0	.15	74.2	16-141	L516414-01	WG536255
a,a,a-Trifluorotoluene(PID)					103.9	54-144		WG536255
TPH (GC/FID) Low Fraction	mg/kg	16.2	0	5.5	58.8	55-109	L516414-01	WG536255
a,a,a-Trifluorotoluene(FID)					104.0	59-128		WG536255
Mercury	mg/kg	0.256	0.00750	.25	99.4	70-130	L516495-13	WG536285
Toluene	mg/kg	0.207	0	.05	83.0	20-142	L516618-01	WG536486
Total Xylene	mg/kg	0.693	0.0156	.15	90.3	16-141	L516618-01	WG536486
a,a,a-Trifluorotoluene(PID)					83.39	54-144		WG536486
TPH (GC/FID) Low Fraction	mg/kg	22.1	0	5.5	80.4	55-109	L516618-01	WG536486
a,a,a-Trifluorotoluene(FID)					99.72	59-128		WG536486
Arsenic	mg/kg	59.2	15.0	50	88.4	75-125	L516540-06	WG536335
Cadmium	mg/kg	36.9	0.280	50	73.2*	75-125	L516540-06	WG536335
Chromium	mg/kg	56.7	19.0	50	75.4	75-125	L516540-06	WG536335
Copper	mg/kg	64.3	19.0	50	90.6	75-125	L516540-06	WG536335
Lead	mg/kg	57.7	14.0	50	87.4	75-125	L516540-06	WG536335
Selenium	mg/kg	39.4	0	50	78.8	75-125	L516540-06	WG536335
Silver	mg/kg	42.6	0	50	85.2	75-125	L516540-06	WG536335
Barium	mg/kg	5110	5900	10	0*	75-125	L516540-06	WG536335
Nickel	mg/kg	59.3	12.0	10	94.6	75-125	L516540-06	WG536335
Zinc	mg/kg	117.	68.0	10	98.0	75-125	L516540-06	WG536335
1-Methylnaphthalene	mg/kg	0.0521	0.0530	.033	0*	19-131	L516190-07	WG536064
2-Chloronaphthalene	mg/kg	0.0268	0	.033	81.2	38-117	L516190-07	WG536064
2-Methylnaphthalene	mg/kg	0.0370	0.0220	.033	45.5	18-125	L516190-07	WG536064
Acenaphthene	mg/kg	0.0497	0.0320	.033	53.6	31-120	L516190-07	WG536064
Acenaphthylene	mg/kg	0.0295	0	.033	89.4	34-116	L516190-07	WG536064
Anthracene	mg/kg	0.0355	0	.033	108.	32-131	L516190-07	WG536064
Benzo(a)anthracene	mg/kg	0.0267	0	.033	81.0	32-131	L516190-07	WG536064
Benzo(a)pyrene	mg/kg	0.0293	0	.033	88.9	28-130	L516190-07	WG536064
Benzo(b)fluoranthene	mg/kg	0.0292	0	.033	88.4	37-130	L516190-07	WG536064
Benzo(g,h,i)perylene	mg/kg	0.0246	0	.033	74.6	10-134	L516190-07	WG536064
Benzo(k)fluoranthene	mg/kg	0.0313	0	.033	94.7	31-129	L516190-07	WG536064
Chrysene	mg/kg	0.0293	0	.033	88.8	25-137	L516190-07	WG536064
Dibenz(a,h)anthracene	mg/kg	0.0246	0	.033	74.6	20-134	L516190-07	WG536064
Fluoranthene	mg/kg	0.0288	0	.033	87.4	27-138	L516190-07	WG536064
Fluorene	mg/kg	0.0482	0.0320	.033	49.2	26-136	L516190-07	WG536064
Indeno(1,2,3-cd)pyrene	mg/kg	0.0245	0	.033	74.3	16-135	L516190-07	WG536064
Naphthalene	mg/kg	0.0312	0	.033	94.6	22-121	L516190-07	WG536064
Phenanthrene	mg/kg	0.0966	0.0890	.033	23.1*	27-133	L516190-07	WG536064
Pyrene	mg/kg	0.0297	0	.033	90.1	22-133	L516190-07	WG536064
2-Fluorobiphenyl					74.29	33-114		WG536064
Nitrobenzene-d5					95.08	21-120		WG536064
p-Terphenyl-d14					76.08	18-142		WG536064
Chromium,Hexavalent	mg/kg	14.0	0	20	70.0	50-150	L516414-02	WG536313

\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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May 22, 2011

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
TPH (GC/FID) High Fraction	ppm	39.1	40.1	65.1	50-150	2.55	25	L515977-42		WG535938
o-Terphenyl				62.15	50-150					WG535938
Benzene	mg/kg	0.173	0.193	63.5	32-137	10.9	39	L516414-01		WG536255
Ethylbenzene	mg/kg	0.156	0.182	62.3	10-150	15.6	44	L516414-01		WG536255
Toluene	mg/kg	0.162	0.192	64.9	20-142	16.5	42	L516414-01		WG536255
Total Xylene	mg/kg	0.481	0.557	64.2	16-141	14.5	46	L516414-01		WG536255
a,a,a-Trifluorotoluene(PID)				104.1	54-144					WG536255
TPH (GC/FID) Low Fraction	mg/kg	14.7	16.2	53.4*	55-109	9.56	20	L516414-01		WG536255
a,a,a-Trifluorotoluene(FID)				104.2	59-128					WG536255
Mercury	mg/kg	0.278	0.256	108.	70-130	8.24	20	L516495-13		WG536285
Toluene	mg/kg	0.209	0.207	83.7	20-142	0.830	42	L516618-01		WG536486
Total Xylene	mg/kg	0.692	0.693	90.1	16-141	0.180	46	L516618-01		WG536486
a,a,a-Trifluorotoluene(PID)				93.60	54-144					WG536486
TPH (GC/FID) Low Fraction	mg/kg	23.0	22.1	83.6	55-109	3.86	20	L516618-01		WG536486
a,a,a-Trifluorotoluene(FID)				101.6	59-128					WG536486
Arsenic	mg/kg	55.1	59.2	80.2	75-125	7.17	20	L516540-06		WG536335
Cadmium	mg/kg	37.7	36.9	74.8*	75-125	2.14	20	L516540-06		WG536335
Chromium	mg/kg	56.0	56.7	74.0*	75-125	1.24	20	L516540-06		WG536335
Copper	mg/kg	62.8	64.3	87.6	75-125	2.36	20	L516540-06		WG536335
Lead	mg/kg	55.4	57.7	82.8	75-125	4.07	20	L516540-06		WG536335
Selenium	mg/kg	40.4	39.4	80.8	75-125	2.51	20	L516540-06		WG536335
Silver	mg/kg	43.3	42.6	86.6	75-125	1.63	20	L516540-06		WG536335
Barium	mg/kg	4940	5110	0*	75-125	3.38	20	L516540-06		WG536335
Nickel	mg/kg	56.6	59.3	89.2	75-125	4.66	20	L516540-06		WG536335
Zinc	mg/kg	115.	117.	94.0	75-125	1.72	20	L516540-06		WG536335
1-Methylnaphthalene	mg/kg	0.0742	0.0521	64.3	19-131	35.0*	30	L516190-07		WG536064
2-Chloronaphthalene	mg/kg	0.0307	0.0268	92.9	38-117	13.4	26	L516190-07		WG536064
2-Methylnaphthalene	mg/kg	0.0422	0.0370	61.2	18-125	13.1	29	L516190-07		WG536064
Acenaphthene	mg/kg	0.0657	0.0497	102.	31-120	27.7	30	L516190-07		WG536064
Acenaphthylene	mg/kg	0.0323	0.0295	97.8	34-116	8.96	29	L516190-07		WG536064
Anthracene	mg/kg	0.0359	0.0355	109.	32-131	0.996	26	L516190-07		WG536064
Benzo(a)anthracene	mg/kg	0.0289	0.0267	87.5	32-131	7.71	31	L516190-07		WG536064
Benzo(a)pyrene	mg/kg	0.0302	0.0293	91.5	28-130	2.84	28	L516190-07		WG536064
Benzo(b)fluoranthene	mg/kg	0.0277	0.0292	84.0	37-130	5.19	41	L516190-07		WG536064
Benzo(g,h,i)perylene	mg/kg	0.0239	0.0246	72.4	10-134	3.01	26	L516190-07		WG536064
Benzo(k)fluoranthene	mg/kg	0.0310	0.0313	93.9	31-129	0.862	42	L516190-07		WG536064
Chrysene	mg/kg	0.0301	0.0293	91.2	25-137	2.61	22	L516190-07		WG536064
Dibenz(a,h)anthracene	mg/kg	0.0241	0.0246	72.9	20-134	2.31	25	L516190-07		WG536064
Fluoranthene	mg/kg	0.0278	0.0288	84.1	27-138	3.87	35	L516190-07		WG536064
Fluorene	mg/kg	0.0545	0.0482	68.3	26-136	12.3	30	L516190-07		WG536064
Indeno(1,2,3-cd)pyrene	mg/kg	0.0238	0.0245	72.1	16-135	2.96	26	L516190-07		WG536064
Naphthalene	mg/kg	0.0435	0.0312	132.*	22-121	33.0*	30	L516190-07		WG536064
Phenanthrene	mg/kg	0.142	0.0966	161.*	27-133	38.2*	36	L516190-07		WG536064
Pyrene	mg/kg	0.0321	0.0297	97.2	22-133	7.50	33	L516190-07		WG536064
2-Fluorobiphenyl				91.70	33-114					WG536064
Nitrobenzene-d5				154.4*	21-120					WG536064
p-Terphenyl-d14				75.04	18-142					WG536064
Chromium,Hexavalent	mg/kg	15.0	14.0	75.0	50-150	6.90	20	L516414-02		WG536313

\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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May 22, 2011

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Batch number /Run number / Sample number cross reference

WG535938: R1692609: L516547-01 02 03 04 05 06  
WG536255: R1692629: L516547-01 02 03 04 05 06  
WG536285: R1693454: L516547-04  
WG536486: R1693909: L516547-04 05  
WG536335: R1694295: L516547-04  
WG536378: R1694376: L516547-04  
WG536064: R1694509: L516547-01 02 03 04 05 06  
WG536551: R1694830: L516547-04  
WG536313: R1694831: L516547-04  
WG536562: R1694969: L516547-04  
WG536585: R1695269: L516547-04

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



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Parachute, CO 81635

## Report Summary

Wednesday May 25, 2011

Report Number: L517168

Samples Received: 05/21/11

Client Project: NPR A15 PAD

Description: A15 Pit Samples

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jayred Willis , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
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NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 25, 2011

Date Received : May 21, 2011  
Description : A15 Pit Samples  
Sample ID : A15-PIT-10-051911 6IN  
Collected By : Scotty Mann  
Collection Date : 05/19/11 14:45

ESC Sample # : L517168-01

Site ID : A15

Project # : NPR A15 PAD

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	05/22/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	05/22/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	05/22/11	5
Total Xylene	0.039	0.0075	mg/kg	8021/8015	05/22/11	5
TPH (GC/FID) Low Fraction	1.5	0.50	mg/kg	GRO	05/22/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	05/22/11	5
a,a,a-Trifluorotoluene(PID)	106.		% Rec.	8021/8015	05/22/11	5
TPH (GC/FID) High Fraction	190	4.0	mg/kg	3546/DRO	05/24/11	1
Surrogate recovery(%)						
o-Terphenyl	80.9		% Rec.	3546/DRO	05/24/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthylene	0.015	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluorene	0.029	0.0060	mg/kg	8270C-SIM	05/24/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Naphthalene	0.12	0.0060	mg/kg	8270C-SIM	05/24/11	1
Phenanthrene	0.030	0.0060	mg/kg	8270C-SIM	05/24/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
1-Methylnaphthalene	0.080	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Methylnaphthalene	0.26	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Surrogate Recovery						
Nitrobenzene-d5	117.		% Rec.	8270C-SIM	05/24/11	1
2-Fluorobiphenyl	67.0		% Rec.	8270C-SIM	05/24/11	1
p-Terphenyl-d14	76.1		% Rec.	8270C-SIM	05/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/25/11 16:56 Printed: 05/25/11 16:56



REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 25, 2011

Date Received : May 21, 2011  
Description : A15 Pit Samples  
Sample ID : A15-PIT-12-051911 6IN  
Collected By : Scotty Mann  
Collection Date : 05/19/11 15:00

ESC Sample # : L517168-02

Site ID : A15

Project # : NPR A15 PAD

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.033	0.0025	mg/kg	8021/8015	05/22/11	5
Toluene	0.15	0.025	mg/kg	8021/8015	05/22/11	5
Ethylbenzene	0.018	0.0025	mg/kg	8021/8015	05/22/11	5
Total Xylene	0.69	0.0075	mg/kg	8021/8015	05/22/11	5
TPH (GC/FID) Low Fraction	3.6	0.50	mg/kg	GRO	05/22/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	05/22/11	5
a,a,a-Trifluorotoluene(PID)	105.		% Rec.	8021/8015	05/22/11	5
TPH (GC/FID) High Fraction	140	4.0	mg/kg	3546/DRO	05/25/11	1
Surrogate recovery(%)						
o-Terphenyl	60.3		% Rec.	3546/DRO	05/25/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluorene	0.035	0.0060	mg/kg	8270C-SIM	05/24/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Naphthalene	0.16	0.0060	mg/kg	8270C-SIM	05/24/11	1
Phenanthrene	0.044	0.0060	mg/kg	8270C-SIM	05/24/11	1
Pyrene	0.0063	0.0060	mg/kg	8270C-SIM	05/24/11	1
1-Methylnaphthalene	0.11	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Methylnaphthalene	0.36	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Surrogate Recovery						
Nitrobenzene-d5	130.		% Rec.	8270C-SIM	05/24/11	1
2-Fluorobiphenyl	70.4		% Rec.	8270C-SIM	05/24/11	1
p-Terphenyl-d14	91.6		% Rec.	8270C-SIM	05/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/25/11 16:56 Printed: 05/25/11 16:56

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 25, 2011

Date Received : May 21, 2011  
Description : A15 Pit Samples  
Sample ID : A15-PIT-13-051911 8IN  
Collected By : Scotty Mann  
Collection Date : 05/19/11 15:15

ESC Sample # : L517168-03

Site ID : A15

Project # : NPR A15 PAD

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.069	0.0025	mg/kg	8021/8015	05/22/11	5
Toluene	0.47	0.025	mg/kg	8021/8015	05/22/11	5
Ethylbenzene	0.052	0.0025	mg/kg	8021/8015	05/22/11	5
Total Xylene	1.4	0.0075	mg/kg	8021/8015	05/22/11	5
TPH (GC/FID) Low Fraction	6.6	0.50	mg/kg	GRO	05/22/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	05/22/11	5
a,a,a-Trifluorotoluene(PID)	106.		% Rec.	8021/8015	05/22/11	5
TPH (GC/FID) High Fraction	120	4.0	mg/kg	3546/DRO	05/25/11	1
Surrogate recovery(%)						
o-Terphenyl	55.7		% Rec.	3546/DRO	05/25/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthylene	0.018	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluorene	0.039	0.0060	mg/kg	8270C-SIM	05/24/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Naphthalene	0.15	0.0060	mg/kg	8270C-SIM	05/24/11	1
Phenanthrene	0.031	0.0060	mg/kg	8270C-SIM	05/24/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
1-Methylnaphthalene	0.13	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Methylnaphthalene	0.42	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Surrogate Recovery						
Nitrobenzene-d5	115.		% Rec.	8270C-SIM	05/24/11	1
2-Fluorobiphenyl	75.0		% Rec.	8270C-SIM	05/24/11	1
p-Terphenyl-d14	77.0		% Rec.	8270C-SIM	05/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 25, 2011

Date Received : May 21, 2011  
Description : A15 Pit Samples  
Sample ID : A15-PIT-16-051911 8IN  
Collected By : Scotty Mann  
Collection Date : 05/19/11 15:30

ESC Sample # : L517168-04

Site ID : A15

Project # : NPR A15 PAD

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	05/25/11	1
Chromium, Trivalent	16.	2.0	mg/kg	Calc.	05/23/11	1
ORP	99.		mV	2580	05/24/11	1
pH	11.		su	9045D	05/25/11	1
Sodium Adsorption Ratio	53.			Calc.	05/24/11	1
Specific Conductance	3500		umhos/cm	9050AMod	05/25/11	1
Mercury	0.081	0.020	mg/kg	7471	05/22/11	1
Arsenic	4.1	1.0	mg/kg	6010B	05/23/11	1
Barium	5500	1.2	mg/kg	6010B	05/23/11	5
Cadmium	0.28	0.25	mg/kg	6010B	05/23/11	1
Chromium	16.	0.50	mg/kg	6010B	05/23/11	1
Copper	13.	1.0	mg/kg	6010B	05/23/11	1
Lead	10.	0.25	mg/kg	6010B	05/23/11	1
Nickel	8.9	1.0	mg/kg	6010B	05/23/11	1
Selenium	BDL	1.0	mg/kg	6010B	05/23/11	1
Silver	BDL	0.50	mg/kg	6010B	05/23/11	1
Zinc	41.	1.5	mg/kg	6010B	05/23/11	1
Benzene	0.21	0.025	mg/kg	8021/8015	05/22/11	50
Toluene	1.6	0.25	mg/kg	8021/8015	05/22/11	50
Ethylbenzene	0.38	0.025	mg/kg	8021/8015	05/22/11	50
Total Xylene	5.2	0.075	mg/kg	8021/8015	05/22/11	50
TPH (GC/FID) Low Fraction	64.	5.0	mg/kg	GRO	05/22/11	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	05/22/11	50
a,a,a-Trifluorotoluene(PID)	108.		% Rec.	8021/8015	05/22/11	50
TPH (GC/FID) High Fraction	210	4.0	mg/kg	3546/DRO	05/25/11	1
Surrogate recovery(%)						
o-Terphenyl	77.8		% Rec.	3546/DRO	05/25/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Acenaphthylene	0.010	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L517168-04 (PH) - 11@20.4c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

May 25, 2011

Date Received : May 21, 2011  
Description : A15 Pit Samples  
Sample ID : A15-PIT-16-051911 8IN  
Collected By : Scotty Mann  
Collection Date : 05/19/11 15:30

ESC Sample # : L517168-04

Site ID : A15

Project # : NPR A15 PAD

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Fluorene	0.053	0.0060	mg/kg	8270C-SIM	05/24/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Naphthalene	0.30	0.0060	mg/kg	8270C-SIM	05/24/11	1
Phenanthrene	0.040	0.0060	mg/kg	8270C-SIM	05/24/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
1-Methylnaphthalene	0.19	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Methylnaphthalene	0.73	0.0060	mg/kg	8270C-SIM	05/24/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	05/24/11	1
Surrogate Recovery						
Nitrobenzene-d5	155.		% Rec.	8270C-SIM	05/24/11	1
2-Fluorobiphenyl	64.8		% Rec.	8270C-SIM	05/24/11	1
p-Terphenyl-d14	54.3		% Rec.	8270C-SIM	05/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 05/25/11 16:56 Printed: 05/25/11 16:56  
L517168-04 (PH) - 11@20.4c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L517168-02	WG536804	SAMP	Nitrobenzene-d5	R1696169	J1
L517168-03	WG536804	SAMP	2-Methylnaphthalene	R1696169	E
L517168-04	WG536804	SAMP	2-Methylnaphthalene	R1696169	E
	WG536804	SAMP	Nitrobenzene-d5	R1696169	J1

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



Summary of Remarks For Samples Printed  
05/25/11 at 16:56:33

TSR Signing Reports: 358  
R3 - Rush: Two Day

Log all samples beginning with different sample numbers to separate reports. Ex.- M34 N PIT and M34 S PIT go on one L#, but M34 S PIT and E34 S PIT go on separate L #s. TPH=GRO and DRO ALWAYS

Sample: L517168-01 Account: ENCANACO Received: 05/21/11 09:00 Due Date: 05/25/11 00:00 RPT Date: 05/25/11 16:56

Sample: L517168-02 Account: ENCANACO Received: 05/21/11 09:00 Due Date: 05/25/11 00:00 RPT Date: 05/25/11 16:56

Sample: L517168-03 Account: ENCANACO Received: 05/21/11 09:00 Due Date: 05/25/11 00:00 RPT Date: 05/25/11 16:56

Sample: L517168-04 Account: ENCANACO Received: 05/21/11 09:00 Due Date: 05/25/11 00:00 RPT Date: 05/25/11 16:56



**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L517168

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

May 25, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG536868	05/21/11 22:53
Ethylbenzene	< .0005	mg/kg			WG536868	05/21/11 22:53
Toluene	< .005	mg/kg			WG536868	05/21/11 22:53
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG536868	05/21/11 22:53
Total Xylene	< .0015	mg/kg			WG536868	05/21/11 22:53
a,a,a-Trifluorotoluene(FID)		% Rec.	103.1	59-128	WG536868	05/21/11 22:53
a,a,a-Trifluorotoluene(PID)		% Rec.	107.3	54-144	WG536868	05/21/11 22:53
1-Methylnaphthalene	< .006	mg/kg			WG536804	05/22/11 06:32
2-Chloronaphthalene	< .006	mg/kg			WG536804	05/22/11 06:32
2-Methylnaphthalene	< .006	mg/kg			WG536804	05/22/11 06:32
Acenaphthene	< .006	mg/kg			WG536804	05/22/11 06:32
Acenaphthylene	< .006	mg/kg			WG536804	05/22/11 06:32
Anthracene	< .006	mg/kg			WG536804	05/22/11 06:32
Benzo(a)anthracene	< .006	mg/kg			WG536804	05/22/11 06:32
Benzo(a)pyrene	< .006	mg/kg			WG536804	05/22/11 06:32
Benzo(b)fluoranthene	< .006	mg/kg			WG536804	05/22/11 06:32
Benzo(g,h,i)perylene	< .006	mg/kg			WG536804	05/22/11 06:32
Benzo(k)fluoranthene	< .006	mg/kg			WG536804	05/22/11 06:32
Chrysene	< .006	mg/kg			WG536804	05/22/11 06:32
Dibenz(a,h)anthracene	< .006	mg/kg			WG536804	05/22/11 06:32
Fluoranthene	< .006	mg/kg			WG536804	05/22/11 06:32
Fluorene	< .006	mg/kg			WG536804	05/22/11 06:32
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG536804	05/22/11 06:32
Naphthalene	< .006	mg/kg			WG536804	05/22/11 06:32
Phenanthrene	< .006	mg/kg			WG536804	05/22/11 06:32
Pyrene	< .006	mg/kg			WG536804	05/22/11 06:32
2-Fluorobiphenyl		% Rec.	66.50	21-120	WG536804	05/22/11 06:32
Nitrobenzene-d5		% Rec.	64.02	33-114	WG536804	05/22/11 06:32
p-Terphenyl-d14		% Rec.	77.30	18-142	WG536804	05/22/11 06:32
Mercury	< .02	mg/kg			WG536778	05/22/11 09:44
Arsenic	< 1	mg/kg			WG536885	05/23/11 09:41
Barium	< .25	mg/kg			WG536885	05/23/11 09:41
Cadmium	< .25	mg/kg			WG536885	05/23/11 09:41
Chromium	< .5	mg/kg			WG536885	05/23/11 09:41
Copper	< 1	mg/kg			WG536885	05/23/11 09:41
Lead	< .25	mg/kg			WG536885	05/23/11 09:41
Nickel	< 1	mg/kg			WG536885	05/23/11 09:41
Selenium	< 1	mg/kg			WG536885	05/23/11 09:41
Silver	< .5	mg/kg			WG536885	05/23/11 09:41
Zinc	< 1.5	mg/kg			WG536885	05/23/11 09:41
TPH (GC/FID) High Fraction	< 4	ppm			WG536808	05/24/11 13:12
o-Terphenyl		% Rec.	75.11	50-150	WG536808	05/24/11 13:12
Chromium,Hexavalent	< 2	mg/kg			WG536812	05/25/11 12:44
pH	4.30	su			WG537204	05/25/11 13:34
Specific Conductance	0.690	umhos/cm			WG537115	05/25/11 15:15

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L517168

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

May 25, 2011

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Mercury	mg/kg	0.0850	0.0820		3.12	20	L517154-05	WG536778
Arsenic	mg/kg	2.00	1.84		7.33	20	L517200-04	WG536885
Barium	mg/kg	7.30	7.92		7.74	20	L517200-04	WG536885
Cadmium	mg/kg	0	0		0	20	L517200-04	WG536885
Chromium	mg/kg	17.0	17.9		3.99	20	L517200-04	WG536885
Copper	mg/kg	3.00	3.13		5.92	20	L517200-04	WG536885
Lead	mg/kg	5.90	6.06		3.19	20	L517200-04	WG536885
Nickel	mg/kg	3.00	3.59		17.6	20	L517200-04	WG536885
Selenium	mg/kg	0	0		0	20	L517200-04	WG536885
Silver	mg/kg	0	0		0	20	L517200-04	WG536885
Zinc	mg/kg	6.20	6.73		8.84	20	L517200-04	WG536885
ORP	mV	37.0	32.0		14.5	20	L516533-08	WG537055
ORP	mV	100.	99.0		3.96	20	L517171-03	WG537055
Chromium, Hexavalent	mg/kg	0	0		0	20	L516533-02	WG536812
Chromium, Hexavalent	mg/kg	0	0		0	20	L517171-03	WG536812
pH	su	9.90	9.90		0	1	L516533-08	WG537204
pH	su	7.90	8.00		1.26*	1	L517171-03	WG537204
Specific Conductance	umhos/cm	2200	2400		6.23	20	L516496-60	WG537115
Specific Conductance	umhos/cm	1000	1000		4.21	20	L516496-70	WG537115

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0538	108.	76-113	WG536868
Ethylbenzene	mg/kg	.05	0.0536	107.	78-115	WG536868
Toluene	mg/kg	.05	0.0530	106.	76-114	WG536868
Total Xylene	mg/kg	.15	0.165	110.	81-118	WG536868
a,a,a-Trifluorotoluene(PID)				105.7	54-144	WG536868
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.47	99.5	67-135	WG536868
a,a,a-Trifluorotoluene(FID)				113.1	59-128	WG536868
1-Methylnaphthalene	mg/kg	.033	0.0234	70.8	41-110	WG536804
2-Chloronaphthalene	mg/kg	.033	0.0234	71.0	43-109	WG536804
2-Methylnaphthalene	mg/kg	.033	0.0236	71.7	38-104	WG536804
Acenaphthene	mg/kg	.033	0.0243	73.6	48-103	WG536804
Acenaphthylene	mg/kg	.033	0.0238	72.1	43-106	WG536804
Anthracene	mg/kg	.033	0.0288	87.2	51-110	WG536804
Benzo(a)anthracene	mg/kg	.033	0.0303	91.7	38-126	WG536804
Benzo(a)pyrene	mg/kg	.033	0.0307	93.0	47-118	WG536804
Benzo(b)fluoranthene	mg/kg	.033	0.0300	91.0	47-118	WG536804
Benzo(g,h,i)perylene	mg/kg	.033	0.0343	104.	40-125	WG536804
Benzo(k)fluoranthene	mg/kg	.033	0.0345	105.	45-121	WG536804
Chrysene	mg/kg	.033	0.0329	99.6	35-135	WG536804
Dibenz(a,h)anthracene	mg/kg	.033	0.0334	101.	41-124	WG536804
Fluoranthene	mg/kg	.033	0.0313	95.0	50-114	WG536804
Fluorene	mg/kg	.033	0.0262	79.3	49-109	WG536804
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0332	101.	40-126	WG536804
Naphthalene	mg/kg	.033	0.0215	65.0	36-100	WG536804

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Quality Assurance Report  
Level II

L517168

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Tax I.D. 62-0814289

Est. 1970

May 25, 2011

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Phenanthrene	mg/kg	.033	0.0292	88.6	46-108	WG536804
Pyrene	mg/kg	.033	0.0291	88.1	30-136	WG536804
2-Fluorobiphenyl				64.65	33-114	WG536804
Nitrobenzene-d5				59.90	21-120	WG536804
p-Terphenyl-d14				85.48	18-142	WG536804
Mercury	mg/kg	8.77	8.84	101.	71.6-127.7	WG536778
Arsenic	mg/kg	192	169.	88.0	78.6-120.8	WG536885
Barium	mg/kg	420	373.	88.8	78.8-121.4	WG536885
Cadmium	mg/kg	70.1	62.2	88.7	78.5-121.5	WG536885
Chromium	mg/kg	168	152.	90.5	80.4-120.2	WG536885
Copper	mg/kg	122	112.	91.8	81.6-119.7	WG536885
Lead	mg/kg	113	101.	89.4	77.3-122.1	WG536885
Nickel	mg/kg	74.1	65.7	88.7	78.8-121.2	WG536885
Selenium	mg/kg	176	158.	89.8	75.6-125.0	WG536885
Silver	mg/kg	115	95.9	83.4	66-133.9	WG536885
Zinc	mg/kg	437	386.	88.3	78.5-121.7	WG536885
ORP	mV	229	220.	96.1	95.6-104.37	WG537055
TPH (GC/FID) High Fraction	ppm	60	43.0	71.7	50-150	WG536808
o-Terphenyl				83.54	50-150	WG536808
Chromium, Hexavalent	mg/kg	132	97.0	73.5	50-150	WG536812
pH	su	6.3	6.30	100.	97.98-102.02	WG537204
Specific Conductance	umhos/cm	556	560.	101.	85-115	WG537115

Analyte	Units	Laboratory Control Result	Sample Duplicate Ref	%Rec	Limit	RPD	Limit	Batch
Benzene	mg/kg	0.0515	0.0538	103.	76-113	4.37	20	WG536868
Ethylbenzene	mg/kg	0.0504	0.0536	101.	78-115	6.17	20	WG536868
Toluene	mg/kg	0.0499	0.0530	100.	76-114	6.05	20	WG536868
Total Xylene	mg/kg	0.154	0.165	102.	81-118	7.11	20	WG536868
a,a,a-Trifluorotoluene(PID)				105.6	54-144			WG536868
TPH (GC/FID) Low Fraction	mg/kg	5.55	5.47	101.	67-135	1.42	20	WG536868
a,a,a-Trifluorotoluene(FID)				113.2	59-128			WG536868
1-Methylnaphthalene	mg/kg	0.0244	0.0234	74.0	41-110	4.38	24	WG536804
2-Chloronaphthalene	mg/kg	0.0251	0.0234	76.0	43-109	6.94	21	WG536804
2-Methylnaphthalene	mg/kg	0.0246	0.0236	74.0	38-104	3.79	24	WG536804
Acenaphthene	mg/kg	0.0250	0.0243	76.0	48-103	2.95	20	WG536804
Acenaphthylene	mg/kg	0.0247	0.0238	75.0	43-106	3.94	20	WG536804
Anthracene	mg/kg	0.0302	0.0288	92.0	51-110	4.92	22	WG536804
Benzo(a)anthracene	mg/kg	0.0297	0.0303	90.0	38-126	1.92	20	WG536804
Benzo(a)pyrene	mg/kg	0.0301	0.0307	91.0	47-118	1.97	20	WG536804
Benzo(b)fluoranthene	mg/kg	0.0292	0.0300	88.0	47-118	2.72	29	WG536804
Benzo(g,h,i)perylene	mg/kg	0.0339	0.0343	103.	40-125	1.17	20	WG536804

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Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Benzo(k)fluoranthene	mg/kg	0.0338	0.0345	102.		45-121	2.04	31	WG536804
Chrysene	mg/kg	0.0337	0.0329	102.		35-135	2.44	20	WG536804
Dibenz(a,h)anthracene	mg/kg	0.0336	0.0334	102.		41-124	0.614	20	WG536804
Fluoranthene	mg/kg	0.0297	0.0313	90.0		50-114	5.45	20	WG536804
Fluorene	mg/kg	0.0275	0.0262	83.0		49-109	5.05	19	WG536804
Indeno(1,2,3-cd)pyrene	mg/kg	0.0332	0.0332	101.		40-126	0.0731	20	WG536804
Naphthalene	mg/kg	0.0218	0.0215	66.0		36-100	1.72	24	WG536804
Phenanthrene	mg/kg	0.0296	0.0292	90.0		46-108	1.29	21	WG536804
Pyrene	mg/kg	0.0266	0.0291	81.0		30-136	8.81	20	WG536804
2-Fluorobiphenyl				65.47		33-114			WG536804
Nitrobenzene-d5				58.82		21-120			WG536804
p-Terphenyl-d14				84.46		18-142			WG536804
ORP	mV	230.	220.	100.		95.6-104.37	4.44	20	WG537055
TPH (GC/FID) High Fraction	ppm	40.3	43.0	67.0		50-150	6.50	20	WG536808
o-Terphenyl				76.64		50-150			WG536808
Chromium, Hexavalent	mg/kg	100.	97.0	76.0		50-150	3.05	20	WG536812
pH	su	6.30	6.30	100.		97.98-102.02	0	20	WG537204
Specific Conductance	umhos/	560.	560.	101.		85-115	0	20	WG537115

Analyte	Units	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res					
Benzene	mg/kg	0.200	0	.05	79.9	32-137	L517195-01	WG536868
Ethylbenzene	mg/kg	0.179	0	.05	71.7	10-150	L517195-01	WG536868
Toluene	mg/kg	0.190	0	.05	75.9	20-142	L517195-01	WG536868
Total Xylene	mg/kg	0.566	0	.15	75.4	16-141	L517195-01	WG536868
a,a,a-Trifluorotoluene(PID)					104.8	54-144		WG536868
TPH (GC/FID) Low Fraction	mg/kg	22.2	0.160	5.5	80.0	55-109	L517195-01	WG536868
a,a,a-Trifluorotoluene(FID)					109.8	59-128		WG536868
Mercury	mg/kg	0.306	0.0820	.25	89.6	70-130	L517154-05	WG536778
Arsenic	mg/kg	46.5	1.84	50	89.3	75-125	L517200-04	WG536885
Barium	mg/kg	55.8	7.92	50	95.8	75-125	L517200-04	WG536885
Cadmium	mg/kg	47.9	0	50	95.8	75-125	L517200-04	WG536885
Chromium	mg/kg	67.5	17.9	50	99.2	75-125	L517200-04	WG536885
Copper	mg/kg	54.2	3.13	50	102.	75-125	L517200-04	WG536885
Lead	mg/kg	56.0	6.06	50	99.9	75-125	L517200-04	WG536885
Nickel	mg/kg	51.4	3.59	50	95.6	75-125	L517200-04	WG536885
Selenium	mg/kg	41.7	0	50	83.4	75-125	L517200-04	WG536885
Silver	mg/kg	47.8	0	50	95.6	75-125	L517200-04	WG536885
Zinc	mg/kg	57.6	6.73	50	102.	75-125	L517200-04	WG536885
1-Methylnaphthalene	mg/kg	0.214	0.0450	.033	511.*	19-131	L516632-04	WG536804
2-Chloronaphthalene	mg/kg	0.0521	0	.033	158.*	38-117	L516632-04	WG536804
2-Methylnaphthalene	mg/kg	0.319	0.0670	.033	763.*	18-125	L516632-04	WG536804

\* Performance of this Analyte is outside of established criteria.

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Acenaphthene	mg/kg	0.0866	0.0140	.033	220.*	31-120	L516632-04	WG536804
Acenaphthylene	mg/kg	0.0453	0	.033	137.*	34-116	L516632-04	WG536804
Anthracene	mg/kg	0.0799	0	.033	242.*	32-131	L516632-04	WG536804
Benzo(a)anthracene	mg/kg	0.0447	0	.033	136.*	32-131	L516632-04	WG536804
Benzo(a)pyrene	mg/kg	0.0396	0	.033	120.	28-130	L516632-04	WG536804
Benzo(b)fluoranthene	mg/kg	0.0538	0	.033	163.*	37-130	L516632-04	WG536804
Benzo(g,h,i)perylene	mg/kg	0.00853	0	.033	25.8	10-134	L516632-04	WG536804
Benzo(k)fluoranthene	mg/kg	0.0463	0	.033	140.*	31-129	L516632-04	WG536804
Chrysene	mg/kg	0.0397	0	.033	120.	25-137	L516632-04	WG536804
Dibenz(a,h)anthracene	mg/kg	0.0115	0	.033	34.8	20-134	L516632-04	WG536804
Fluoranthene	mg/kg	0.0509	0	.033	154.*	27-138	L516632-04	WG536804
Fluorene	mg/kg	0.0977	0	.033	296.*	26-136	L516632-04	WG536804
Indeno(1,2,3-cd)pyrene	mg/kg	0.0109	0	.033	33.0	16-135	L516632-04	WG536804
Naphthalene	mg/kg	0.0427	0	.033	129.*	22-121	L516632-04	WG536804
Phenanthrene	mg/kg	0.219	0.0390	.033	546.*	27-133	L516632-04	WG536804
Pyrene	mg/kg	0.0749	0.00680	.033	206.*	22-133	L516632-04	WG536804
2-Fluorobiphenyl					109.7	33-114		WG536804
Nitrobenzene-d5					109.4	21-120		WG536804
p-Terphenyl-d14					121.3	18-142		WG536804
Chromium, Hexavalent	mg/kg	16.0	0	20	80.0	50-150	L516847-09	WG536812

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.242	0.200	96.6	32-137	19.0	39	L517195-01	WG536868
Ethylbenzene	mg/kg	0.205	0.179	82.2	10-150	13.6	44	L517195-01	WG536868
Toluene	mg/kg	0.219	0.190	87.8	20-142	14.6	42	L517195-01	WG536868
Total Xylene	mg/kg	0.630	0.566	84.0	16-141	10.8	46	L517195-01	WG536868
a,a,a-Trifluorotoluene(PID)				105.8	54-144				WG536868
TPH (GC/FID) Low Fraction	mg/kg	21.1	22.2	76.3	55-109	4.80	20	L517195-01	WG536868
a,a,a-Trifluorotoluene(FID)				109.7	59-128				WG536868
Mercury	mg/kg	0.295	0.306	85.2	70-130	3.66	20	L517154-05	WG536778
Arsenic	mg/kg	45.2	46.5	86.7	75-125	2.84	20	L517200-04	WG536885
Barium	mg/kg	52.5	55.8	89.2	75-125	6.09	20	L517200-04	WG536885
Cadmium	mg/kg	46.5	47.9	93.0	75-125	2.97	20	L517200-04	WG536885
Chromium	mg/kg	64.4	67.5	93.0	75-125	4.70	20	L517200-04	WG536885
Copper	mg/kg	52.0	54.2	97.7	75-125	4.14	20	L517200-04	WG536885
Lead	mg/kg	54.4	56.0	96.7	75-125	2.90	20	L517200-04	WG536885
Nickel	mg/kg	49.8	51.4	92.4	75-125	3.16	20	L517200-04	WG536885
Selenium	mg/kg	40.5	41.7	81.0	75-125	2.92	20	L517200-04	WG536885
Silver	mg/kg	46.5	47.8	93.0	75-125	2.76	20	L517200-04	WG536885
Zinc	mg/kg	55.3	57.6	97.1	75-125	4.07	20	L517200-04	WG536885
1-Methylnaphthalene	mg/kg	0.107	0.214	187.*	19-131	66.8*	30	L516632-04	WG536804
2-Chloronaphthalene	mg/kg	0.0416	0.0521	126.*	38-117	22.4	26	L516632-04	WG536804
2-Methylnaphthalene	mg/kg	0.151	0.319	256.*	18-125	71.1*	29	L516632-04	WG536804
Acenaphthene	mg/kg	0.0599	0.0866	139.*	31-120	36.4*	30	L516632-04	WG536804
Acenaphthylene	mg/kg	0.0374	0.0453	113.	34-116	19.2	29	L516632-04	WG536804
Anthracene	mg/kg	0.0733	0.0799	222.*	32-131	8.53	26	L516632-04	WG536804
Benzo(a)anthracene	mg/kg	0.0407	0.0447	123.	32-131	9.45	31	L516632-04	WG536804
Benzo(a)pyrene	mg/kg	0.0397	0.0396	120.	28-130	0.408	28	L516632-04	WG536804
Benzo(b)fluoranthene	mg/kg	0.0477	0.0538	145.*	37-130	11.9	41	L516632-04	WG536804

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Analyte	Units	MSD	Matrix Spike	Duplicate	Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Benzo(g,h,i)perylene	mg/kg	0.00806	0.00853	24.4	10-134	5.71	26	L516632-04		WG536804
Benzo(k)fluoranthene	mg/kg	0.0408	0.0463	124.	31-129	12.8	42	L516632-04		WG536804
Chrysene	mg/kg	0.0329	0.0397	99.8	25-137	18.7	22	L516632-04		WG536804
Dibenz(a,h)anthracene	mg/kg	0.0110	0.0115	33.3	20-134	4.47	25	L516632-04		WG536804
Fluoranthene	mg/kg	0.0515	0.0509	156.*	27-138	1.30	35	L516632-04		WG536804
Fluorene	mg/kg	0.0602	0.0977	182.*	26-136	47.5*	30	L516632-04		WG536804
Indeno(1,2,3-cd)pyrene	mg/kg	0.0104	0.0109	31.5	16-135	4.44	26	L516632-04		WG536804
Naphthalene	mg/kg	0.0334	0.0427	101.	22-121	24.4	30	L516632-04		WG536804
Phenanthrene	mg/kg	0.113	0.219	225.*	27-133	63.8*	36	L516632-04		WG536804
Pyrene	mg/kg	0.0573	0.0749	153.*	22-133	26.7	33	L516632-04		WG536804
2-Fluorobiphenyl				98.94	33-114					WG536804
Nitrobenzene-d5				86.73	21-120					WG536804
p-Terphenyl-d14				119.7	18-142					WG536804
Chromium,Hexavalent	mg/kg	17.0	16.0	85.0	50-150	6.06	20	L516847-09		WG536812

Batch number /Run number / Sample number cross reference

WG536868: R1696069: L517168-01 02 03 04  
WG536804: R1696169: L517168-01 02 03 04  
WG536778: R1696593: L517168-04  
WG536885: R1697430: L517168-04  
WG537055: R1698849: L517168-04  
WG536808: R1699130: L517168-01 02 03 04  
WG536931: R1699989: L517168-04  
WG536812: R1700229: L517168-04  
WG537204: R1700251: L517168-04  
WG537115: R1700410: L517168-04

\* \* Calculations are performed prior to rounding of reported values.  
\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



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Chris Hines  
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2717 County Road 215, Suite 100  
Parachute, CO 81635

## Report Summary

Monday June 13, 2011

Report Number: L519614

Samples Received: 06/08/11

Client Project: A15

Description:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

T. Alan Harvill , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-W WALL-060711 15 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:22

ESC Sample # : L519614-01

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/10/11	1
Chromium, Trivalent	26.	2.0	mg/kg	Calc.	06/09/11	1
ORP	65.		mV	2580	06/09/11	1
pH	9.1		su	9045D	06/10/11	1
Sodium Adsorption Ratio	17.			Calc.	06/12/11	1
Specific Conductance	3400		umhos/cm	9050AMod	06/09/11	1
Mercury	0.028	0.020	mg/kg	7471	06/09/11	1
Arsenic	14.	2.0	mg/kg	6010B	06/09/11	2
Barium	6200	0.50	mg/kg	6010B	06/09/11	2
Cadmium	0.83	0.50	mg/kg	6010B	06/09/11	2
Chromium	26.	0.50	mg/kg	6010B	06/09/11	1
Copper	26.	1.0	mg/kg	6010B	06/09/11	1
Lead	17.	0.50	mg/kg	6010B	06/09/11	2
Nickel	18.	1.0	mg/kg	6010B	06/09/11	1
Selenium	BDL	1.0	mg/kg	6010B	06/09/11	1
Silver	BDL	0.50	mg/kg	6010B	06/09/11	1
Zinc	62.	1.5	mg/kg	6010B	06/09/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/09/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	78.1		% Rec.	602/8015	06/09/11	5
<b>Volatile Organics</b>						
Acetone	BDL	0.25	mg/kg	8260B	06/09/11	5
Benzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromochloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromoform	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromomethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Carbon disulfide	BDL	0.0050	mg/kg	8260B	06/09/11	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chloroethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloroform	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloromethane	BDL	0.012	mg/kg	8260B	06/09/11	5
Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-01 (PH) - 9.1@20.7

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-W WALL-060711 15 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:22

ESC Sample # : L519614-01

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
n-Hexane	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Hexanone	BDL	0.050	mg/kg	8260B	06/09/11	5
Isopropylbenzene	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl Acetate	BDL	0.10	mg/kg	8260B	06/09/11	5
Methyl Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	06/09/11	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	06/09/11	5
Styrene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Toluene	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0050	mg/kg	8260B	06/09/11	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
o-Xylene	BDL	0.0050	mg/kg	8260B	06/09/11	5
m&p-Xylene	BDL	0.010	mg/kg	8260B	06/09/11	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	06/09/11	5
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	06/09/11	5
Dibromofluoromethane	105.		% Rec.	8260B	06/09/11	5
a,a,a-Trifluorotoluene	98.4		% Rec.	8260B	06/09/11	5
4-Bromofluorobenzene	92.6		% Rec.	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-01 (PH) - 9.1@20.7



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-W WALL-060711 15 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:22

ESC Sample # : L519614-01

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) High Fraction	150	4.0	mg/kg	3546/DRO	06/09/11	1
Surrogate recovery(%)						
o-Terphenyl	71.7		% Rec.	3546/DRO	06/09/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(b)fluoranthene	0.0070	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluoranthene	0.0063	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluorene	0.013	0.0060	mg/kg	8270C-SIM	06/10/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Naphthalene	0.055	0.0060	mg/kg	8270C-SIM	06/10/11	1
Phenanthrene	0.064	0.0060	mg/kg	8270C-SIM	06/10/11	1
Pyrene	0.016	0.0060	mg/kg	8270C-SIM	06/10/11	1
1-Methylnaphthalene	0.059	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Methylnaphthalene	0.20	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Surrogate Recovery						
Nitrobenzene-d5	125.		% Rec.	8270C-SIM	06/10/11	1
2-Fluorobiphenyl	93.4		% Rec.	8270C-SIM	06/10/11	1
p-Terphenyl-d14	85.5		% Rec.	8270C-SIM	06/10/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/13/11 15:43 Printed: 06/13/11 15:43  
L519614-01 (PH) - 9.1@20.7

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-E WALL-060711 25 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:35

ESC Sample # : L519614-02

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/10/11	1
Chromium, Trivalent	28.	2.0	mg/kg	Calc.	06/09/11	1
ORP	66.		mV	2580	06/09/11	1
pH	9.0		su	9045D	06/10/11	1
Sodium Adsorption Ratio	17.			Calc.	06/12/11	1
Specific Conductance	2800		umhos/cm	9050AMod	06/09/11	1
Mercury	BDL	0.020	mg/kg	7471	06/09/11	1
Arsenic	21.	2.0	mg/kg	6010B	06/09/11	2
Barium	370	0.50	mg/kg	6010B	06/09/11	2
Cadmium	BDL	0.50	mg/kg	6010B	06/09/11	2
Chromium	28.	0.50	mg/kg	6010B	06/09/11	1
Copper	28.	1.0	mg/kg	6010B	06/09/11	1
Lead	19.	0.50	mg/kg	6010B	06/09/11	2
Nickel	17.	1.0	mg/kg	6010B	06/09/11	1
Selenium	1.1	1.0	mg/kg	6010B	06/09/11	1
Silver	BDL	0.50	mg/kg	6010B	06/09/11	1
Zinc	57.	1.5	mg/kg	6010B	06/09/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/09/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	95.9		% Rec.	602/8015	06/09/11	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	06/09/11	5
Benzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromochloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromoform	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromomethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Carbon disulfide	BDL	0.0050	mg/kg	8260B	06/09/11	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chloroethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloroform	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloromethane	BDL	0.012	mg/kg	8260B	06/09/11	5
Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-02 (PH) - 9.0@20.7c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-E WALL-060711 25 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:35

ESC Sample # : L519614-02

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
n-Hexane	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Hexanone	BDL	0.050	mg/kg	8260B	06/09/11	5
Isopropylbenzene	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl Acetate	BDL	0.10	mg/kg	8260B	06/09/11	5
Methyl Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	06/09/11	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	06/09/11	5
Styrene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Toluene	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0050	mg/kg	8260B	06/09/11	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
o-Xylene	BDL	0.0050	mg/kg	8260B	06/09/11	5
m&p-Xylene	BDL	0.010	mg/kg	8260B	06/09/11	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	06/09/11	5
Surrogate Recovery						
Toluene-d8	98.6		% Rec.	8260B	06/09/11	5
Dibromofluoromethane	104.		% Rec.	8260B	06/09/11	5
a,a,a-Trifluorotoluene	100.		% Rec.	8260B	06/09/11	5
4-Bromofluorobenzene	97.8		% Rec.	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-02 (PH) - 9.0@20.7c



REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-E WALL-060711 25 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:35

ESC Sample # : L519614-02

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) High Fraction	27.	4.0	mg/kg	3546/DRO	06/09/11	1
Surrogate recovery(%)						
o-Terphenyl	58.5		% Rec.	3546/DRO	06/09/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Naphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
1-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Surrogate Recovery						
Nitrobenzene-d5	108.		% Rec.	8270C-SIM	06/10/11	1
2-Fluorobiphenyl	106.		% Rec.	8270C-SIM	06/10/11	1
p-Terphenyl-d14	95.6		% Rec.	8270C-SIM	06/10/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/13/11 15:43 Printed: 06/13/11 15:43  
L519614-02 (PH) - 9.0@20.7c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :

Sample ID : A15-PITX-N BOTTOM-060711 14 FT

Collected By : Bob Stockton  
Collection Date : 06/07/11 14:28

ESC Sample # : L519614-03

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/10/11	1
Chromium, Trivalent	28.	2.0	mg/kg	Calc.	06/09/11	1
ORP	66.		mV	2580	06/09/11	1
pH	8.5		su	9045D	06/10/11	1
Sodium Adsorption Ratio	14.			Calc.	06/12/11	1
Specific Conductance	5000		umhos/cm	9050AMod	06/09/11	1
Mercury	BDL	0.020	mg/kg	7471	06/09/11	1
Arsenic	20.	2.0	mg/kg	6010B	06/09/11	2
Barium	1200	0.50	mg/kg	6010B	06/09/11	2
Cadmium	BDL	0.50	mg/kg	6010B	06/09/11	2
Chromium	28.	0.50	mg/kg	6010B	06/09/11	1
Copper	27.	1.0	mg/kg	6010B	06/09/11	1
Lead	17.	0.50	mg/kg	6010B	06/09/11	2
Nickel	18.	1.0	mg/kg	6010B	06/09/11	1
Selenium	BDL	1.0	mg/kg	6010B	06/09/11	1
Silver	BDL	0.50	mg/kg	6010B	06/09/11	1
Zinc	58.	1.5	mg/kg	6010B	06/09/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/09/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	93.4		% Rec.	602/8015	06/09/11	5
Volatile Organics						
Acetone	BDL	0.25	mg/kg	8260B	06/09/11	5
Benzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromochloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromodichloromethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromoform	BDL	0.0050	mg/kg	8260B	06/09/11	5
Bromomethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Carbon disulfide	BDL	0.0050	mg/kg	8260B	06/09/11	5
Carbon tetrachloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chlorodibromomethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Chloroethane	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloroform	BDL	0.025	mg/kg	8260B	06/09/11	5
Chloromethane	BDL	0.012	mg/kg	8260B	06/09/11	5
Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-03 (PH) - 8.5@20.6c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :

Sample ID : A15-PITX-N BOTTOM-060711 14 FT

Collected By : Bob Stockton  
Collection Date : 06/07/11 14:28

ESC Sample # : L519614-03

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2-Dibromo-3-Chloropropane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2-Dibromoethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Dichlorodifluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,3-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,4-Dichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,2-Dichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2-Dichloropropane	BDL	0.0050	mg/kg	8260B	06/09/11	5
cis-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
trans-1,3-Dichloropropene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
n-Hexane	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Hexanone	BDL	0.050	mg/kg	8260B	06/09/11	5
Isopropylbenzene	BDL	0.050	mg/kg	8260B	06/09/11	5
2-Butanone (MEK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl Acetate	BDL	0.10	mg/kg	8260B	06/09/11	5
Methyl Cyclohexane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Methylene Chloride	BDL	0.025	mg/kg	8260B	06/09/11	5
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/kg	8260B	06/09/11	5
Methyl tert-butyl ether	BDL	0.0050	mg/kg	8260B	06/09/11	5
Styrene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2,2-Tetrachloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Tetrachloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Toluene	BDL	0.025	mg/kg	8260B	06/09/11	5
1,2,3-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,2,4-Trichlorobenzene	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,1-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
1,1,2-Trichloroethane	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichloroethene	BDL	0.0050	mg/kg	8260B	06/09/11	5
Trichlorofluoromethane	BDL	0.025	mg/kg	8260B	06/09/11	5
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0050	mg/kg	8260B	06/09/11	5
Vinyl chloride	BDL	0.0050	mg/kg	8260B	06/09/11	5
o-Xylene	BDL	0.0050	mg/kg	8260B	06/09/11	5
m&p-Xylene	BDL	0.010	mg/kg	8260B	06/09/11	5
Xylenes, Total	BDL	0.015	mg/kg	8260B	06/09/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	06/09/11	5
Dibromofluoromethane	106.		% Rec.	8260B	06/09/11	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	06/09/11	5
4-Bromofluorobenzene	101.		% Rec.	8260B	06/09/11	5

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L519614-03 (PH) - 8.5@20.6c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 13, 2011

Date Received : June 08, 2011  
Description :  
Sample ID : A15-PITX-N BOTTOM-060711 14 FT  
Collected By : Bob Stockton  
Collection Date : 06/07/11 14:28

ESC Sample # : L519614-03

Site ID : A15

Project # : A15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) High Fraction	55.	4.0	mg/kg	3546/DRO	06/09/11	1
Surrogate recovery(%)						
o-Terphenyl	54.7		% Rec.	3546/DRO	06/09/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Naphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Phenanthrene	0.0061	0.0060	mg/kg	8270C-SIM	06/10/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
1-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Methylnaphthalene	0.013	0.0060	mg/kg	8270C-SIM	06/10/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/10/11	1
Surrogate Recovery						
Nitrobenzene-d5	112.		% Rec.	8270C-SIM	06/10/11	1
2-Fluorobiphenyl	111.		% Rec.	8270C-SIM	06/10/11	1
p-Terphenyl-d14	101.		% Rec.	8270C-SIM	06/10/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/13/11 15:43 Printed: 06/13/11 15:43  
L519614-03 (PH) - 8.5@20.6c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L519614-01	WG539044	SAMP	Nitrobenzene-d5	R1717111	J1
L519614-02	WG539418	SAMP	Cadmium	R1718732	O
L519614-03	WG539418	SAMP	Cadmium	R1718732	O

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
06/13/11 at 15:43:43

TSR Signing Reports: 358  
R3 - Rush: Two Day

Sample: L519614-01 Account: ENCANACO Received: 06/08/11 09:00 Due Date: 06/13/11 00:00 RPT Date: 06/13/11 15:43

Sample: L519614-02 Account: ENCANACO Received: 06/08/11 09:00 Due Date: 06/13/11 00:00 RPT Date: 06/13/11 15:43

Sample: L519614-03 Account: ENCANACO Received: 06/08/11 09:00 Due Date: 06/13/11 00:00 RPT Date: 06/13/11 15:43



YOUR LAB OF CHOICE

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100

Parachute, CO 81635

Quality Assurance Report  
Level II

L519614

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 13, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
1,1,1-Trichloroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,1,2,2-Tetrachloroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,1,2-Trichloroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,1-Dichloroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,1-Dichloroethene	< .001	mg/kg			WG539500	06/08/11 20:25
1,2,3-Trichlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
1,2,4-Trichlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
1,2-Dibromo-3-Chloropropane	< .005	mg/kg			WG539500	06/08/11 20:25
1,2-Dibromoethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,2-Dichlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
1,2-Dichloroethane	< .001	mg/kg			WG539500	06/08/11 20:25
1,2-Dichloropropane	< .001	mg/kg			WG539500	06/08/11 20:25
1,3-Dichlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
1,4-Dichlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
2-Butanone (MEK)	< .01	mg/kg			WG539500	06/08/11 20:25
2-Hexanone	< .01	mg/kg			WG539500	06/08/11 20:25
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg			WG539500	06/08/11 20:25
Acetone	< .05	mg/kg			WG539500	06/08/11 20:25
Benzene	< .001	mg/kg			WG539500	06/08/11 20:25
Bromochloromethane	< .001	mg/kg			WG539500	06/08/11 20:25
Bromodichloromethane	< .001	mg/kg			WG539500	06/08/11 20:25
Bromoform	< .001	mg/kg			WG539500	06/08/11 20:25
Bromomethane	< .005	mg/kg			WG539500	06/08/11 20:25
Carbon disulfide	< .001	mg/kg			WG539500	06/08/11 20:25
Carbon tetrachloride	< .001	mg/kg			WG539500	06/08/11 20:25
Chlorobenzene	< .001	mg/kg			WG539500	06/08/11 20:25
Chlorodibromomethane	< .001	mg/kg			WG539500	06/08/11 20:25
Chloroethane	< .005	mg/kg			WG539500	06/08/11 20:25
Chloroform	< .005	mg/kg			WG539500	06/08/11 20:25
Chloromethane	< .0025	mg/kg			WG539500	06/08/11 20:25
cis-1,2-Dichloroethene	< .001	mg/kg			WG539500	06/08/11 20:25
cis-1,3-Dichloropropene	< .001	mg/kg			WG539500	06/08/11 20:25
Cyclohexane	< .001	mg/kg			WG539500	06/08/11 20:25
Dichlorodifluoromethane	< .005	mg/kg			WG539500	06/08/11 20:25
Ethylbenzene	< .001	mg/kg			WG539500	06/08/11 20:25
Isopropylbenzene	< .001	mg/kg			WG539500	06/08/11 20:25
m&p-Xylene	< .002	mg/kg			WG539500	06/08/11 20:25
Methyl Acetate	< .02	mg/kg			WG539500	06/08/11 20:25
Methyl Cyclohexane	< .001	mg/kg			WG539500	06/08/11 20:25
Methyl tert-butyl ether	< .001	mg/kg			WG539500	06/08/11 20:25
Methylene Chloride	< .005	mg/kg			WG539500	06/08/11 20:25
n-Hexane	< .01	mg/kg			WG539500	06/08/11 20:25
o-Xylene	< .001	mg/kg			WG539500	06/08/11 20:25
Styrene	< .001	mg/kg			WG539500	06/08/11 20:25
Tetrachloroethene	< .001	mg/kg			WG539500	06/08/11 20:25
Toluene	< .005	mg/kg			WG539500	06/08/11 20:25
trans-1,2-Dichloroethene	< .001	mg/kg			WG539500	06/08/11 20:25
trans-1,3-Dichloropropene	< .001	mg/kg			WG539500	06/08/11 20:25
Trichloroethene	< .001	mg/kg			WG539500	06/08/11 20:25
Trichlorofluoromethane	< .005	mg/kg			WG539500	06/08/11 20:25
Vinyl chloride	< .001	mg/kg			WG539500	06/08/11 20:25
Xylenes, Total	< .003	mg/kg			WG539500	06/08/11 20:25
4-Bromofluorobenzene		% Rec.	99.47	59-140	WG539500	06/08/11 20:25
Dibromofluoromethane		% Rec.	103.0	63-139	WG539500	06/08/11 20:25
Toluene-d8		% Rec.	101.3	84-116	WG539500	06/08/11 20:25
a,a,a-Trifluorotoluene		% Rec.	100.3	80-118	WG539500	06/08/11 20:25

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'





**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L519614

12065 Lebanon Rd.  
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(615) 758-5858  
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Tax I.D. 62-0814289

Est. 1970

June 13, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
1-Methylnaphthalene	< .006	mg/kg			WG539044	06/09/11 09:19
2-Chloronaphthalene	< .006	mg/kg			WG539044	06/09/11 09:19
2-Methylnaphthalene	< .006	mg/kg			WG539044	06/09/11 09:19
Acenaphthene	< .006	mg/kg			WG539044	06/09/11 09:19
Acenaphthylene	< .006	mg/kg			WG539044	06/09/11 09:19
Anthracene	< .006	mg/kg			WG539044	06/09/11 09:19
Benzo(a)anthracene	< .006	mg/kg			WG539044	06/09/11 09:19
Benzo(a)pyrene	< .006	mg/kg			WG539044	06/09/11 09:19
Benzo(b)fluoranthene	< .006	mg/kg			WG539044	06/09/11 09:19
Benzo(g,h,i)perylene	< .006	mg/kg			WG539044	06/09/11 09:19
Benzo(k)fluoranthene	< .006	mg/kg			WG539044	06/09/11 09:19
Chrysene	< .006	mg/kg			WG539044	06/09/11 09:19
Dibenz(a,h)anthracene	< .006	mg/kg			WG539044	06/09/11 09:19
Fluoranthene	< .006	mg/kg			WG539044	06/09/11 09:19
Fluorene	< .006	mg/kg			WG539044	06/09/11 09:19
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG539044	06/09/11 09:19
Naphthalene	< .006	mg/kg			WG539044	06/09/11 09:19
Phenanthrene	< .006	mg/kg			WG539044	06/09/11 09:19
Pyrene	< .006	mg/kg			WG539044	06/09/11 09:19
2-Fluorobiphenyl		% Rec.	77.14	21-120	WG539044	06/09/11 09:19
Nitrobenzene-d5		% Rec.	86.10	33-114	WG539044	06/09/11 09:19
p-Terphenyl-d14		% Rec.	83.44	18-142	WG539044	06/09/11 09:19
Specific Conductance	1.10	umhos/cm			WG539561	06/09/11 15:12
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG539456	06/08/11 22:08
a,a,a-Trifluorotoluene(FID)		% Rec.	86.49	59-128	WG539456	06/08/11 22:08
TPH (GC/FID) High Fraction	< 4	ppm			WG539363	06/09/11 16:41
o-Terphenyl		% Rec.	85.27	50-150	WG539363	06/09/11 16:41
Arsenic	< 1	mg/kg			WG539418	06/09/11 10:18
Barium	< .25	mg/kg			WG539418	06/09/11 10:18
Cadmium	< .25	mg/kg			WG539418	06/09/11 10:18
Chromium	< .5	mg/kg			WG539418	06/09/11 10:18
Copper	< 1	mg/kg			WG539418	06/09/11 10:18
Nickel	< 1	mg/kg			WG539418	06/09/11 10:18
Selenium	< 1	mg/kg			WG539418	06/09/11 10:18
Silver	< .5	mg/kg			WG539418	06/09/11 10:18
Zinc	< 1.5	mg/kg			WG539418	06/09/11 10:18
Lead	< .25	mg/kg			WG539418	06/09/11 17:36
Chromium,Hexavalent	< 2	mg/kg			WG539315	06/10/11 10:05
Mercury	< .02	mg/kg			WG539398	06/09/11 13:31
pH	4.00	su			WG539718	06/10/11 15:39

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
ORP	mV	69.0	66.0		4.44	20	L519614-03	WG539516

\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L519614

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Tax I.D. 62-0814289

Est. 1970

June 13, 2011

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
ORP	mV	120.	110.	7.02	20	L519788-04	WG539516
Specific Conductance	umhos/cm	4700	5000	7.04	20	L519614-03	WG539561
Specific Conductance	umhos/cm	0	440.	NA	20	L519784-05	WG539561
Chromium	mg/kg	9.50	9.20	3.00	20	L519644-01	WG539418
Copper	mg/kg	8.00	7.80	3.15	20	L519644-01	WG539418
Nickel	mg/kg	5.60	6.06	7.18	20	L519644-01	WG539418
Selenium	mg/kg	0	0	0	20	L519644-01	WG539418
Silver	mg/kg	0	0	0	20	L519644-01	WG539418
Zinc	mg/kg	16.0	17.3	11.0	20	L519644-01	WG539418
Arsenic	mg/kg	3.00	3.00	0.669	20	L519644-01	WG539418
Barium	mg/kg	97.0	90.0	7.28	20	L519644-01	WG539418
Cadmium	mg/kg	0	0	0	20	L519644-01	WG539418
Lead	mg/kg	3.00	3.30	8.53	20	L519644-01	WG539418
Chromium, Hexavalent	mg/kg	49.0	42.0	15.4	20	L519265-01	WG539315
Chromium, Hexavalent	mg/kg	0	0	0	20	L519501-02	WG539315
Mercury	mg/kg	0	0	0	20	L519614-02	WG539398
pH	su	8.40	8.40	0	1	L519125-01	WG539718
pH	su	9.00	9.00	0	1	L519783-05	WG539718

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
1,1,1-Trichloroethane	mg/kg	.025	0.0265	106.	62-135	WG539500
1,1,2,2-Tetrachloroethane	mg/kg	.025	0.0278	111.	74-129	WG539500
1,1,2-Trichloroethane	mg/kg	.025	0.0260	104.	77-124	WG539500
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	.025	0.0272	109.	49-155	WG539500
1,1-Dichloroethane	mg/kg	.025	0.0255	102.	61-134	WG539500
1,1-Dichloroethene	mg/kg	.025	0.0267	107.	53-136	WG539500
1,2,3-Trichlorobenzene	mg/kg	.025	0.0292	117.	62-146	WG539500
1,2,4-Trichlorobenzene	mg/kg	.025	0.0294	118.	61-148	WG539500
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0279	112.	61-134	WG539500
1,2-Dibromoethane	mg/kg	.025	0.0267	107.	76-127	WG539500
1,2-Dichlorobenzene	mg/kg	.025	0.0266	107.	77-123	WG539500
1,2-Dichloroethane	mg/kg	.025	0.0276	110.	58-141	WG539500
1,2-Dichloropropane	mg/kg	.025	0.0263	105.	71-128	WG539500
1,3-Dichlorobenzene	mg/kg	.025	0.0259	103.	71-132	WG539500
1,4-Dichlorobenzene	mg/kg	.025	0.0256	102.	72-123	WG539500
2-Butanone (MEK)	mg/kg	.125	0.142	114.	51-131	WG539500
2-Hexanone	mg/kg	.125	0.157	126.	62-145	WG539500
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.148	118.	61-143	WG539500
Acetone	mg/kg	.125	0.137	110.	44-140	WG539500
Benzene	mg/kg	.025	0.0252	101.	65-128	WG539500
Bromochloromethane	mg/kg	.025	0.0259	104.	73-130	WG539500
Bromodichloromethane	mg/kg	.025	0.0269	108.	66-126	WG539500
Bromoform	mg/kg	.025	0.0239	95.6	64-139	WG539500
Bromomethane	mg/kg	.025	0.0299	120.	41-175	WG539500
Carbon disulfide	mg/kg	.025	0.0238	95.0	36-161	WG539500
Carbon tetrachloride	mg/kg	.025	0.0255	102.	60-140	WG539500
Chlorobenzene	mg/kg	.025	0.0247	98.9	75-125	WG539500

\* Performance of this Analyte is outside of established criteria.

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Quality Assurance Report  
Level II

L519614

12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

June 13, 2011

Analyte	Units	Laboratory Control	Sample	% Rec	Limit	Batch
		Known Val	Result			
Chlorodibromomethane	mg/kg	.025	0.0265	106.	72-137	WG539500
Chloroethane	mg/kg	.025	0.0266	106.	44-159	WG539500
Chloroform	mg/kg	.025	0.0263	105.	63-123	WG539500
Chloromethane	mg/kg	.025	0.0258	103.	42-149	WG539500
cis-1,2-Dichloroethene	mg/kg	.025	0.0255	102.	71-129	WG539500
cis-1,3-Dichloropropene	mg/kg	.025	0.0274	110.	73-132	WG539500
Dichlorodifluoromethane	mg/kg	.025	0.0307	123.	26-186	WG539500
Ethylbenzene	mg/kg	.025	0.0249	99.8	74-128	WG539500
Isopropylbenzene	mg/kg	.025	0.0260	104.	73-130	WG539500
m&p-Xylene	mg/kg	.05	0.0496	99.2	73-127	WG539500
Methyl tert-butyl ether	mg/kg	.025	0.0271	108.	44-148	WG539500
Methylene Chloride	mg/kg	.025	0.0236	94.4	57-129	WG539500
n-Hexane	mg/kg	.025	0.0242	96.9	28-169	WG539500
o-Xylene	mg/kg	.025	0.0257	103.	75-129	WG539500
Styrene	mg/kg	.025	0.0274	109.	76-133	WG539500
Tetrachloroethene	mg/kg	.025	0.0253	101.	65-135	WG539500
Toluene	mg/kg	.025	0.0233	93.3	70-120	WG539500
trans-1,2-Dichloroethene	mg/kg	.025	0.0255	102.	61-133	WG539500
trans-1,3-Dichloropropene	mg/kg	.025	0.0240	96.0	70-135	WG539500
Trichloroethene	mg/kg	.025	0.0256	103.	71-126	WG539500
Trichlorofluoromethane	mg/kg	.025	0.0263	105.	52-147	WG539500
Vinyl chloride	mg/kg	.025	0.0237	94.8	50-151	WG539500
Xylenes, Total	mg/kg	.075	0.0753	100.	74-127	WG539500
4-Bromofluorobenzene				99.65	59-140	WG539500
Dibromofluoromethane				105.8	63-139	WG539500
Toluene-d8				100.5	84-116	WG539500
a,a,a-Trifluorotoluene				99.09	80-118	WG539500
1-Methylnaphthalene	mg/kg	.033	0.0268	81.3	41-110	WG539044
2-Chloronaphthalene	mg/kg	.033	0.0255	77.4	43-109	WG539044
2-Methylnaphthalene	mg/kg	.033	0.0250	75.7	38-104	WG539044
Acenaphthene	mg/kg	.033	0.0230	69.8	48-103	WG539044
Acenaphthylene	mg/kg	.033	0.0268	81.3	43-106	WG539044
Anthracene	mg/kg	.033	0.0278	84.1	51-110	WG539044
Benzo(a)anthracene	mg/kg	.033	0.0295	89.4	38-126	WG539044
Benzo(a)pyrene	mg/kg	.033	0.0283	85.8	47-118	WG539044
Benzo(b)fluoranthene	mg/kg	.033	0.0290	88.0	47-118	WG539044
Benzo(g,h,i)perylene	mg/kg	.033	0.0302	91.6	40-125	WG539044
Benzo(k)fluoranthene	mg/kg	.033	0.0245	74.3	45-121	WG539044
Chrysene	mg/kg	.033	0.0249	75.5	35-135	WG539044
Dibenz(a,h)anthracene	mg/kg	.033	0.0269	81.5	41-124	WG539044
Fluoranthene	mg/kg	.033	0.0271	82.0	50-114	WG539044
Fluorene	mg/kg	.033	0.0290	87.9	49-109	WG539044
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0262	79.4	40-126	WG539044
Naphthalene	mg/kg	.033	0.0215	65.3	36-100	WG539044
Phenanthrene	mg/kg	.033	0.0303	91.9	46-108	WG539044
Pyrene	mg/kg	.033	0.0294	89.0	30-136	WG539044
2-Fluorobiphenyl				74.38	33-114	WG539044
Nitrobenzene-d5				76.84	21-120	WG539044
p-Terphenyl-d14				84.83	18-142	WG539044
ORP	mV	229	230.	100.	95.6-104.37	WG539516
Specific Conductance	umhos/cm	556	560.	101.	85-115	WG539561

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Tax I.D. 62-0814289

Est. 1970

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Analyte	Units	Laboratory Control	Sample	% Rec	Limit	Batch
		Known Val	Result			
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.28	114.	67-135	WG539456
a,a,a-Trifluorotoluene(FID)				102.4	59-128	WG539456
TPH (GC/FID) High Fraction	ppm	60	50.1	83.5	50-150	WG539363
o-Terphenyl				73.59	50-150	WG539363
Arsenic	mg/kg	192	163.	84.9	78.6-120.8	WG539418
Barium	mg/kg	420	389.	92.6	78.8-121.4	WG539418
Cadmium	mg/kg	70.1	60.6	86.4	78.5-121.5	WG539418
Chromium	mg/kg	168	157.	93.5	80.4-120.2	WG539418
Copper	mg/kg	122	115.	94.3	81.6-119.7	WG539418
Lead	mg/kg	113	95.6	84.6	77.3-122.1	WG539418
Nickel	mg/kg	74.1	58.9	79.5	78.8-121.2	WG539418
Selenium	mg/kg	176	154.	87.5	75.6-125.0	WG539418
Silver	mg/kg	115	103.	89.6	66-133.9	WG539418
Zinc	mg/kg	437	399.	91.3	78.5-121.7	WG539418
Chromium,Hexavalent	mg/kg	132	120.	90.9	50-150	WG539315
Mercury	mg/kg	8.77	7.50	85.5	71.6-127.7	WG539398
pH	su	6.3	6.30	100.	97.98-102.02	WG539718

Analyte	Units	Laboratory Control		Sample Duplicate	Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
1,1,1-Trichloroethane	mg/kg	0.0268	0.0265	107.	62-135	1.05	20	WG539500
1,1,2,2-Tetrachloroethane	mg/kg	0.0268	0.0278	107.	74-129	3.91	20	WG539500
1,1,2-Trichloroethane	mg/kg	0.0254	0.0260	102.	77-124	2.27	20	WG539500
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0271	0.0272	108.	49-155	0.400	20	WG539500
1,1-Dichloroethane	mg/kg	0.0256	0.0255	102.	61-134	0.570	20	WG539500
1,1-Dichloroethene	mg/kg	0.0266	0.0267	106.	53-136	0.320	20	WG539500
1,2,3-Trichlorobenzene	mg/kg	0.0302	0.0292	121.	62-146	3.42	20	WG539500
1,2,4-Trichlorobenzene	mg/kg	0.0298	0.0294	119.	61-148	1.21	20	WG539500
1,2-Dibromo-3-Chloropropane	mg/kg	0.0277	0.0279	111.	61-134	1.03	21	WG539500
1,2-Dibromoethane	mg/kg	0.0276	0.0267	110.	76-127	3.27	20	WG539500
1,2-Dichlorobenzene	mg/kg	0.0266	0.0266	106.	77-123	0.240	20	WG539500
1,2-Dichloroethane	mg/kg	0.0265	0.0276	106.	58-141	4.01	20	WG539500
1,2-Dichloropropane	mg/kg	0.0273	0.0263	109.	71-128	3.98	20	WG539500
1,3-Dichlorobenzene	mg/kg	0.0255	0.0259	102.	71-132	1.27	20	WG539500
1,4-Dichlorobenzene	mg/kg	0.0263	0.0256	105.	72-123	2.74	20	WG539500
2-Butanone (MEK)	mg/kg	0.143	0.142	114.	51-131	0.100	25	WG539500
2-Hexanone	mg/kg	0.143	0.157	115.	62-145	9.15	23	WG539500
4-Methyl-2-pentanone (MIBK)	mg/kg	0.146	0.148	116.	61-143	1.58	23	WG539500
Acetone	mg/kg	0.136	0.137	109.	44-140	0.630	25	WG539500
Benzene	mg/kg	0.0251	0.0252	100.	65-128	0.350	20	WG539500
Bromochloromethane	mg/kg	0.0258	0.0259	103.	73-130	0.310	20	WG539500
Bromodichloromethane	mg/kg	0.0283	0.0269	113.	66-126	5.07	20	WG539500
Bromoform	mg/kg	0.0247	0.0239	99.0	64-139	3.23	20	WG539500
Bromomethane	mg/kg	0.0356	0.0299	142.	41-175	17.4	20	WG539500
Carbon disulfide	mg/kg	0.0241	0.0238	96.0	36-161	1.43	20	WG539500
Carbon tetrachloride	mg/kg	0.0270	0.0255	108.	60-140	5.35	20	WG539500
Chlorobenzene	mg/kg	0.0251	0.0247	100.	75-125	1.45	20	WG539500
Chlorodibromomethane	mg/kg	0.0265	0.0265	106.	72-137	0.0100	20	WG539500

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Level II

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Est. 1970

June 13, 2011

Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Chloroethane	mg/kg	0.0290	0.0266	116.		44-159	8.64	20	WG539500
Chloroform	mg/kg	0.0265	0.0263	106.		63-123	0.830	20	WG539500
Chloromethane	mg/kg	0.0270	0.0258	108.		42-149	4.47	20	WG539500
cis-1,2-Dichloroethene	mg/kg	0.0259	0.0255	104.		71-129	1.45	20	WG539500
cis-1,3-Dichloropropene	mg/kg	0.0280	0.0274	112.		73-132	1.93	20	WG539500
Dichlorodifluoromethane	mg/kg	0.0303	0.0307	121.		26-186	1.35	22	WG539500
Ethylbenzene	mg/kg	0.0253	0.0249	101.		74-128	1.44	20	WG539500
Isopropylbenzene	mg/kg	0.0259	0.0260	104.		73-130	0.440	20	WG539500
m&p-Xylene	mg/kg	0.0502	0.0496	100.		73-127	1.30	20	WG539500
Methyl tert-butyl ether	mg/kg	0.0280	0.0271	112.		44-148	3.26	20	WG539500
Methylene Chloride	mg/kg	0.0242	0.0236	97.0		57-129	2.52	20	WG539500
n-Hexane	mg/kg	0.0243	0.0242	97.0		28-169	0.340	20	WG539500
o-Xylene	mg/kg	0.0252	0.0257	101.		75-129	1.82	20	WG539500
Styrene	mg/kg	0.0276	0.0274	110.		76-133	0.710	20	WG539500
Tetrachloroethene	mg/kg	0.0247	0.0253	99.0		65-135	2.63	20	WG539500
Toluene	mg/kg	0.0243	0.0233	97.0		70-120	4.05	20	WG539500
trans-1,2-Dichloroethene	mg/kg	0.0263	0.0255	105.		61-133	3.09	20	WG539500
trans-1,3-Dichloropropene	mg/kg	0.0255	0.0240	102.		70-135	5.97	20	WG539500
Trichloroethene	mg/kg	0.0264	0.0256	106.		71-126	3.02	20	WG539500
Trichlorofluoromethane	mg/kg	0.0280	0.0263	112.		52-147	6.37	20	WG539500
Vinyl chloride	mg/kg	0.0256	0.0237	102.		50-151	7.82	20	WG539500
Xylenes, Total	mg/kg	0.0755	0.0753	101.		74-127	0.250	20	WG539500
4-Bromofluorobenzene				98.55		59-140			WG539500
Dibromofluoromethane				102.9		63-139			WG539500
Toluene-d8				101.7		84-116			WG539500
a,a,a-Trifluorotoluene				102.3		80-118			WG539500
1-Methylnaphthalene	mg/kg	0.0227	0.0268	69.0		41-110	16.5	24	WG539044
2-Chloronaphthalene	mg/kg	0.0251	0.0255	76.0		43-109	1.69	21	WG539044
2-Methylnaphthalene	mg/kg	0.0235	0.0250	71.0		38-104	6.36	24	WG539044
Acenaphthene	mg/kg	0.0220	0.0230	67.0		48-103	4.39	20	WG539044
Acenaphthylene	mg/kg	0.0251	0.0268	76.0		43-106	6.84	20	WG539044
Anthracene	mg/kg	0.0261	0.0278	79.0		51-110	6.26	22	WG539044
Benzo(a)anthracene	mg/kg	0.0275	0.0295	83.0		38-126	6.99	20	WG539044
Benzo(a)pyrene	mg/kg	0.0282	0.0283	86.0		47-118	0.293	20	WG539044
Benzo(b)fluoranthene	mg/kg	0.0283	0.0290	86.0		47-118	2.44	29	WG539044
Benzo(g,h,i)perylene	mg/kg	0.0253	0.0302	77.0		40-125	17.6	20	WG539044
Benzo(k)fluoranthene	mg/kg	0.0241	0.0245	73.0		45-121	1.58	31	WG539044
Chrysene	mg/kg	0.0258	0.0249	78.0		35-135	3.29	20	WG539044
Dibenz(a,h)anthracene	mg/kg	0.0252	0.0269	76.0		41-124	6.32	20	WG539044
Fluoranthene	mg/kg	0.0263	0.0271	80.0		50-114	2.91	20	WG539044
Fluorene	mg/kg	0.0281	0.0290	85.0		49-109	3.10	19	WG539044
Indeno(1,2,3-cd)pyrene	mg/kg	0.0254	0.0262	77.0		40-126	3.08	20	WG539044
Naphthalene	mg/kg	0.0219	0.0215	66.0		36-100	1.60	24	WG539044
Phenanthrene	mg/kg	0.0272	0.0303	82.0		46-108	10.9	21	WG539044
Pyrene	mg/kg	0.0290	0.0294	88.0		30-136	1.32	20	WG539044
2-Fluorobiphenyl				70.34		33-114			WG539044
Nitrobenzene-d5				73.90		21-120			WG539044
p-Terphenyl-d14				79.70		18-142			WG539044

ORP	mV	220.	230.	96.0		95.6-104.37	4.44	20	WG539516
Specific Conductance	umhos/	560.	560.	101.		85-115	0	20	WG539561
TPH (GC/FID) Low Fraction	mg/kg	6.49	6.28	118.		67-135	3.37	20	WG539456

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Est. 1970

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
a,a,a-Trifluorotoluene(FID)				98.19	59-128			
TPH (GC/FID) High Fraction	ppm	47.0	50.1	78.0	50-150	6.29	25	WG539363
o-Terphenyl				72.22	50-150			WG539363
Chromium, Hexavalent	mg/kg	110.	120.	83.0	50-150	8.70	20	WG539315
pH	su	6.30	6.30	100.	97.98-102.02	0	20	WG539718

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
1,1,1-Trichloroethane	mg/kg	0.0239	0	.025	95.4	23-147	L519595-01	WG539500
1,1,2,2-Tetrachloroethane	mg/kg	0.0220	0	.025	88.2	18-150	L519595-01	WG539500
1,1,2-Trichloroethane	mg/kg	0.0200	0	.025	79.9	35-140	L519595-01	WG539500
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0305	0	.025	122.	10-145	L519595-01	WG539500
1,1-Dichloroethane	mg/kg	0.0236	0	.025	94.3	24-148	L519595-01	WG539500
1,1-Dichloroethene	mg/kg	0.0285	0	.025	114.	10-149	L519595-01	WG539500
1,2,3-Trichlorobenzene	mg/kg	0.0174	0	.025	69.7	10-129	L519595-01	WG539500
1,2,4-Trichlorobenzene	mg/kg	0.0182	0	.025	72.8	10-119	L519595-01	WG539500
1,2-Dibromo-3-Chloropropane	mg/kg	0.0197	0	.025	78.8	19-145	L519595-01	WG539500
1,2-Dibromoethane	mg/kg	0.0210	0	.025	84.1	24-145	L519595-01	WG539500
1,2-Dichlorobenzene	mg/kg	0.0186	0	.025	74.2	12-130	L519595-01	WG539500
1,2-Dichloroethane	mg/kg	0.0229	0	.025	91.7	21-155	L519595-01	WG539500
1,2-Dichloropropane	mg/kg	0.0211	0	.025	84.4	28-144	L519595-01	WG539500
1,3-Dichlorobenzene	mg/kg	0.0186	0	.025	74.2	10-129	L519595-01	WG539500
1,4-Dichlorobenzene	mg/kg	0.0187	0	.025	74.6	10-121	L519595-01	WG539500
2-Butanone (MEK)	mg/kg	0.121	0.00707	.125	91.0	21-143	L519595-01	WG539500
2-Hexanone	mg/kg	0.125	0.000569	.125	99.6	22-151	L519595-01	WG539500
4-Methyl-2-pentanone (MIBK)	mg/kg	0.121	0.000444	.125	96.5	31-151	L519595-01	WG539500
Acetone	mg/kg	0.127	0.0997	.125	22.2	13-158	L519595-01	WG539500
Benzene	mg/kg	0.0225	0	.025	89.8	16-143	L519595-01	WG539500
Bromochloromethane	mg/kg	0.0225	0	.025	90.0	25-152	L519595-01	WG539500
Bromodichloromethane	mg/kg	0.0206	0	.025	82.6	27-139	L519595-01	WG539500
Bromoform	mg/kg	0.0193	0	.025	77.0	21-144	L519595-01	WG539500
Bromomethane	mg/kg	0.0299	0	.025	120.	0-180	L519595-01	WG539500
Carbon disulfide	mg/kg	0.0288	0.00412	.025	98.8	10-156	L519595-01	WG539500
Carbon tetrachloride	mg/kg	0.0234	0	.025	93.5	12-149	L519595-01	WG539500
Chlorobenzene	mg/kg	0.0193	0	.025	77.3	17-134	L519595-01	WG539500
Chlorodibromomethane	mg/kg	0.0200	0	.025	80.0	28-147	L519595-01	WG539500
Chloroethane	mg/kg	0.0261	0	.025	104.	0-172	L519595-01	WG539500
Chloroform	mg/kg	0.0236	0	.025	94.3	28-138	L519595-01	WG539500
Chloromethane	mg/kg	0.0268	0	.025	107.	10-158	L519595-01	WG539500
cis-1,2-Dichloroethene	mg/kg	0.0229	0	.025	91.5	21-147	L519595-01	WG539500
cis-1,3-Dichloropropene	mg/kg	0.0206	0	.025	82.5	17-145	L519595-01	WG539500
Dichlorodifluoromethane	mg/kg	0.0336	0	.025	134.	0-192	L519595-01	WG539500
Ethylbenzene	mg/kg	0.0195	0	.025	78.2	12-137	L519595-01	WG539500
Isopropylbenzene	mg/kg	0.0219	0	.025	87.4	14-134	L519595-01	WG539500
m&p-Xylene	mg/kg	0.0398	0	.05	79.6	10-135	L519595-01	WG539500
Methyl tert-butyl ether	mg/kg	0.0260	0	.025	104.	21-157	L519595-01	WG539500
Methylene Chloride	mg/kg	0.0231	0	.025	92.2	12-149	L519595-01	WG539500
n-Hexane	mg/kg	0.0197	0	.025	78.7	10-129	L519595-01	WG539500
o-Xylene	mg/kg	0.0200	0	.025	79.9	14-140	L519595-01	WG539500
Styrene	mg/kg	0.0153	0	.025	61.0	10-140	L519595-01	WG539500
Tetrachloroethene	mg/kg	0.0191	0	.025	76.6	10-131	L519595-01	WG539500
Toluene	mg/kg	0.0183	0	.025	73.2	12-136	L519595-01	WG539500
trans-1,2-Dichloroethene	mg/kg	0.0239	0	.025	95.5	10-143	L519595-01	WG539500
trans-1,3-Dichloropropene	mg/kg	0.0182	0.000554	.025	70.6	16-147	L519595-01	WG539500

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EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L519614

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 13, 2011

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Trichloroethene	mg/kg	0.0210	0	.025	83.9	10-155	L519595-01	WG539500
Trichlorofluoromethane	mg/kg	0.0248	0	.025	99.2	10-154	L519595-01	WG539500
Vinyl chloride	mg/kg	0.0221	0	.025	88.2	10-159	L519595-01	WG539500
Xylenes, Total	mg/kg	0.0598	0	.075	79.7	10-138	L519595-01	WG539500
4-Bromofluorobenzene					102.0	59-140		WG539500
Dibromofluoromethane					107.2	63-139		WG539500
Toluene-d8					96.51	84-116		WG539500
a,a,a-Trifluorotoluene					97.49	80-118		WG539500
TPH (GC/FID) Low Fraction	mg/kg	31.8	0	5.5	116.*	55-109	L519530-15	WG539456
a,a,a-Trifluorotoluene(FID)					83.72	59-128		WG539456
Chromium	mg/kg	56.3	9.20	50	94.2	75-125	L519644-01	WG539418
Copper	mg/kg	58.4	7.80	50	101.	75-125	L519644-01	WG539418
Nickel	mg/kg	47.8	6.06	50	83.5	75-125	L519644-01	WG539418
Selenium	mg/kg	43.7	0	50	87.4	75-125	L519644-01	WG539418
Silver	mg/kg	49.0	0	50	98.0	75-125	L519644-01	WG539418
Zinc	mg/kg	61.9	17.3	50	89.2	75-125	L519644-01	WG539418
Arsenic	mg/kg	49.1	3.00	25	92.2	75-125	L519644-01	WG539418
Barium	mg/kg	143.	90.0	25	106.	75-125	L519644-01	WG539418
Cadmium	mg/kg	44.7	0	25	89.4	75-125	L519644-01	WG539418
Lead	mg/kg	49.3	3.30	25	92.0	75-125	L519644-01	WG539418
Chromium, Hexavalent	mg/kg	100.	130.	20	0*	50-150	L519409-01	WG539315
Mercury	mg/kg	0.270	0	.25	108.	70-130	L519614-02	WG539398
1-Methylnaphthalene	mg/kg	0.0294	0	.033	89.2	19-131	L519107-05	WG539044
2-Chloronaphthalene	mg/kg	0.0298	0	.033	90.3	38-117	L519107-05	WG539044
2-Methylnaphthalene	mg/kg	0.0296	0	.033	89.6	18-125	L519107-05	WG539044
Acenaphthene	mg/kg	0.0324	0	.033	98.1	31-120	L519107-05	WG539044
Acenaphthylene	mg/kg	0.0310	0	.033	93.9	34-116	L519107-05	WG539044
Anthracene	mg/kg	0.0293	0	.033	88.7	32-131	L519107-05	WG539044
Benzo(a)anthracene	mg/kg	0.0327	0	.033	99.0	32-131	L519107-05	WG539044
Benzo(a)pyrene	mg/kg	0.0305	0	.033	92.3	28-130	L519107-05	WG539044
Benzo(b)fluoranthene	mg/kg	0.0354	0	.033	107.	37-130	L519107-05	WG539044
Benzo(g,h,i)perylene	mg/kg	0.0210	0	.033	63.7	10-134	L519107-05	WG539044
Benzo(k)fluoranthene	mg/kg	0.0338	0	.033	102.	31-129	L519107-05	WG539044
Chrysene	mg/kg	0.0264	0	.033	80.0	25-137	L519107-05	WG539044
Dibenz(a,h)anthracene	mg/kg	0.0244	0	.033	74.0	20-134	L519107-05	WG539044
Fluoranthene	mg/kg	0.0347	0	.033	105.	27-138	L519107-05	WG539044
Fluorene	mg/kg	0.0322	0	.033	97.5	26-136	L519107-05	WG539044
Indeno(1,2,3-cd)pyrene	mg/kg	0.0231	0	.033	69.9	16-135	L519107-05	WG539044
Naphthalene	mg/kg	0.0310	0	.033	94.0	22-121	L519107-05	WG539044
Phenanthrene	mg/kg	0.0342	0	.033	103.	27-133	L519107-05	WG539044
Pyrene	mg/kg	0.0271	0	.033	82.2	22-133	L519107-05	WG539044
2-Fluorobiphenyl					87.25	33-114		WG539044
Nitrobenzene-d5					90.04	21-120		WG539044
p-Terphenyl-d14					83.98	18-142		WG539044

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
1,1,1-Trichloroethane	mg/kg	0.0267	0.0239	107.	23-147	11.4	32	L519595-01	WG539500
* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'									



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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
1,1,2,2-Tetrachloroethane	mg/kg	0.0224	0.0220	89.4	18-150	1.39	33	L519595-01	WG539500	
1,1,2-Trichloroethane	mg/kg	0.0221	0.0200	88.5	35-140	10.3	29	L519595-01	WG539500	
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0322	0.0305	129.	10-145	5.17	35	L519595-01	WG539500	
1,1-Dichloroethane	mg/kg	0.0253	0.0236	101.	24-148	7.14	31	L519595-01	WG539500	
1,1-Dichloroethene	mg/kg	0.0300	0.0285	120.	10-149	5.10	34	L519595-01	WG539500	
1,2,3-Trichlorobenzene	mg/kg	0.0190	0.0174	76.1	10-129	8.79	43	L519595-01	WG539500	
1,2,4-Trichlorobenzene	mg/kg	0.0205	0.0182	82.0	10-119	11.9	44	L519595-01	WG539500	
1,2-Dibromo-3-Chloropropane	mg/kg	0.0233	0.0197	93.0	19-145	16.6	35	L519595-01	WG539500	
1,2-Dibromoethane	mg/kg	0.0224	0.0210	89.7	24-145	6.37	31	L519595-01	WG539500	
1,2-Dichlorobenzene	mg/kg	0.0209	0.0186	83.4	12-130	11.7	35	L519595-01	WG539500	
1,2-Dichloroethane	mg/kg	0.0246	0.0229	98.3	21-155	6.99	29	L519595-01	WG539500	
1,2-Dichloropropane	mg/kg	0.0232	0.0211	92.8	28-144	9.44	30	L519595-01	WG539500	
1,3-Dichlorobenzene	mg/kg	0.0195	0.0186	78.0	10-129	4.91	38	L519595-01	WG539500	
1,4-Dichlorobenzene	mg/kg	0.0211	0.0187	84.6	10-121	12.5	36	L519595-01	WG539500	
2-Butanone (MEK)	mg/kg	0.130	0.121	98.2	21-143	7.20	37	L519595-01	WG539500	
2-Hexanone	mg/kg	0.126	0.125	100.	22-151	0.470	38	L519595-01	WG539500	
4-Methyl-2-pentanone (MIBK)	mg/kg	0.131	0.121	104.	31-151	7.85	36	L519595-01	WG539500	
Acetone	mg/kg	0.130	0.127	24.4	13-158	2.21	34	L519595-01	WG539500	
Benzene	mg/kg	0.0240	0.0225	95.9	16-143	6.47	31	L519595-01	WG539500	
Bromochloromethane	mg/kg	0.0242	0.0225	96.9	25-152	7.37	29	L519595-01	WG539500	
Bromodichloromethane	mg/kg	0.0230	0.0206	91.9	27-139	10.7	30	L519595-01	WG539500	
Bromoform	mg/kg	0.0202	0.0193	81.0	21-144	5.05	34	L519595-01	WG539500	
Bromomethane	mg/kg	0.0349	0.0299	140.	0-180	15.4	41	L519595-01	WG539500	
Carbon disulfide	mg/kg	0.0315	0.0288	110.	10-156	9.02	38	L519595-01	WG539500	
Carbon tetrachloride	mg/kg	0.0257	0.0234	103.	12-149	9.53	34	L519595-01	WG539500	
Chlorobenzene	mg/kg	0.0209	0.0193	83.6	17-134	7.79	34	L519595-01	WG539500	
Chlorodibromomethane	mg/kg	0.0220	0.0200	88.2	28-147	9.73	32	L519595-01	WG539500	
Chloroethane	mg/kg	0.0281	0.0261	112.	0-172	7.31	38	L519595-01	WG539500	
Chloroform	mg/kg	0.0252	0.0236	101.	28-138	6.55	30	L519595-01	WG539500	
Chloromethane	mg/kg	0.0293	0.0268	117.	10-158	8.61	35	L519595-01	WG539500	
cis-1,2-Dichloroethene	mg/kg	0.0246	0.0229	98.3	21-147	7.19	31	L519595-01	WG539500	
cis-1,3-Dichloropropene	mg/kg	0.0236	0.0206	94.3	17-145	13.4	32	L519595-01	WG539500	
Dichlorodifluoromethane	mg/kg	0.0367	0.0336	147.	0-192	8.81	38	L519595-01	WG539500	
Ethylbenzene	mg/kg	0.0211	0.0195	84.3	12-137	7.58	36	L519595-01	WG539500	
Isopropylbenzene	mg/kg	0.0236	0.0219	94.2	14-134	7.47	37	L519595-01	WG539500	
m&p-Xylene	mg/kg	0.0429	0.0398	85.8	10-135	7.52	37	L519595-01	WG539500	
Methyl tert-butyl ether	mg/kg	0.0283	0.0260	113.	21-157	8.70	31	L519595-01	WG539500	
Methylene Chloride	mg/kg	0.0239	0.0231	95.5	12-149	3.46	31	L519595-01	WG539500	
n-Hexane	mg/kg	0.0222	0.0197	88.9	10-129	12.2	42	L519595-01	WG539500	
o-Xylene	mg/kg	0.0212	0.0200	84.8	14-140	5.91	35	L519595-01	WG539500	
Styrene	mg/kg	0.0159	0.0153	63.7	10-140	4.32	35	L519595-01	WG539500	
Tetrachloroethene	mg/kg	0.0212	0.0191	84.8	10-131	10.2	35	L519595-01	WG539500	
Toluene	mg/kg	0.0215	0.0183	85.8	12-136	15.9	32	L519595-01	WG539500	
trans-1,2-Dichloroethene	mg/kg	0.0254	0.0239	101.	10-143	6.10	33	L519595-01	WG539500	
trans-1,3-Dichloropropene	mg/kg	0.0208	0.0182	81.1	16-147	13.5	32	L519595-01	WG539500	
Trichloroethene	mg/kg	0.0229	0.0210	91.6	10-155	8.88	33	L519595-01	WG539500	
Trichlorofluoromethane	mg/kg	0.0277	0.0248	111.	10-154	11.1	32	L519595-01	WG539500	
Vinyl chloride	mg/kg	0.0251	0.0221	100.	10-159	13.1	36	L519595-01	WG539500	
Xylenes, Total	mg/kg	0.0641	0.0598	85.4	10-138	6.99	36	L519595-01	WG539500	
4-Bromofluorobenzene				95.41	59-140				WG539500	
Dibromofluoromethane				106.4	63-139				WG539500	
Toluene-d8				101.3	84-116				WG539500	
a,a,a-Trifluorotoluene				98.24	80-118				WG539500	
TPH (GC/FID) Low Fraction	mg/kg	30.5	31.8	111.*	55-109	4.30	20	L519530-15	WG539456	
a,a,a-Trifluorotoluene(FID)				95.36	59-128				WG539456	

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Level II

Parachute, CO 81635

L519614

June 13, 2011

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Chromium	mg/kg	61.8	56.3	105.	75-125	9.31	20	L519644-01	WG539418
Copper	mg/kg	63.2	58.4	111.	75-125	7.89	20	L519644-01	WG539418
Nickel	mg/kg	51.2	47.8	90.3	75-125	6.87	20	L519644-01	WG539418
Selenium	mg/kg	45.4	43.7	90.8	75-125	3.82	20	L519644-01	WG539418
Silver	mg/kg	51.1	49.0	102.	75-125	4.20	20	L519644-01	WG539418
Zinc	mg/kg	71.7	61.9	109.	75-125	14.7	20	L519644-01	WG539418
Arsenic	mg/kg	51.4	49.1	96.8	75-125	4.58	20	L519644-01	WG539418
Barium	mg/kg	189.	143.	198.*	75-125	27.7*	20	L519644-01	WG539418
Cadmium	mg/kg	46.4	44.7	92.8	75-125	3.73	20	L519644-01	WG539418
Lead	mg/kg	51.9	49.3	97.2	75-125	5.14	20	L519644-01	WG539418
Chromium, Hexavalent	mg/kg	64.0	100.	0*	50-150	43.9*	20	L519409-01	WG539315
Mercury	mg/kg	0.286	0.270	114.	70-130	5.76	20	L519614-02	WG539398
1-Methylnaphthalene	mg/kg	0.0262	0.0294	79.5	19-131	11.5	30	L519107-05	WG539044
2-Chloronaphthalene	mg/kg	0.0261	0.0298	79.0	38-117	13.4	26	L519107-05	WG539044
2-Methylnaphthalene	mg/kg	0.0262	0.0296	79.4	18-125	12.1	29	L519107-05	WG539044
Acenaphthene	mg/kg	0.0275	0.0324	83.4	31-120	16.2	30	L519107-05	WG539044
Acenaphthylene	mg/kg	0.0266	0.0310	80.7	34-116	15.1	29	L519107-05	WG539044
Anthracene	mg/kg	0.0253	0.0293	76.7	32-131	14.5	26	L519107-05	WG539044
Benzo(a)anthracene	mg/kg	0.0294	0.0327	89.2	32-131	10.3	31	L519107-05	WG539044
Benzo(a)pyrene	mg/kg	0.0270	0.0305	81.8	28-130	12.0	28	L519107-05	WG539044
Benzo(b)fluoranthene	mg/kg	0.0330	0.0354	100.	37-130	6.80	41	L519107-05	WG539044
Benzo(g,h,i)perylene	mg/kg	0.0143	0.0210	43.3	10-134	38.2*	26	L519107-05	WG539044
Benzo(k)fluoranthene	mg/kg	0.0308	0.0338	93.4	31-129	9.22	42	L519107-05	WG539044
Chrysene	mg/kg	0.0231	0.0264	70.1	25-137	13.2	22	L519107-05	WG539044
Dibenz(a,h)anthracene	mg/kg	0.0180	0.0244	54.5	20-134	30.4*	25	L519107-05	WG539044
Fluoranthene	mg/kg	0.0300	0.0347	91.0	27-138	14.5	35	L519107-05	WG539044
Fluorene	mg/kg	0.0270	0.0322	82.0	26-136	17.3	30	L519107-05	WG539044
Indeno(1,2,3-cd)pyrene	mg/kg	0.0170	0.0231	51.4	16-135	30.5*	26	L519107-05	WG539044
Naphthalene	mg/kg	0.0269	0.0310	81.4	22-121	14.4	30	L519107-05	WG539044
Phenanthrene	mg/kg	0.0283	0.0342	85.8	27-133	18.7	36	L519107-05	WG539044
Pyrene	mg/kg	0.0229	0.0271	69.4	22-133	16.9	33	L519107-05	WG539044
2-Fluorobiphenyl				77.20	33-114				WG539044
Nitrobenzene-d5				80.66	21-120				WG539044
p-Terphenyl-d14				71.43	18-142				WG539044

Batch number / Run number / Sample number cross reference

WG539500: R1716589: L519614-01 02 03  
WG539044: R1717111: L519614-01 02 03  
WG539516: R1717549: L519614-01 02 03  
WG539561: R1717770: L519614-01 02 03  
WG539456: R1718049: L519614-01 02 03  
WG539363: R1718451: L519614-01 02 03  
WG539418: R1718731 R1718732: L519614-02 01 02 03  
WG539315: R1718810: L519614-01 02 03  
WG539398: R1719370: L519614-01 02 03  
WG539718: R1719397: L519614-01 02 03  
WG539823: R1720989: L519614-01 02 03

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100

Parachute, CO 81635

Quality Assurance Report  
Level II

L519614

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 13, 2011

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



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Est. 1970

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

### Report Summary

Thursday June 16, 2011

Report Number: L520679

Samples Received: 06/14/11

Client Project:

Description: A15 Pit Excavation

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

T. Alan Harvill , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 16, 2011

Date Received : June 14, 2011  
Description : A15 Pit Excavation  
Sample ID : A15-PITX-ME BOTTOM-061311  
Collected By : Bob Stockton  
Collection Date : 06/13/11 11:51

ESC Sample # : L520679-01

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	22.	1.0	mg/kg	6010B	06/15/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/15/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/15/11	5
TPH (GC/FID) Low Fraction	1.2	0.50	mg/kg	GRO	06/15/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	96.8		% Rec.	8021/8015	06/15/11	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021/8015	06/15/11	5
TPH (GC/FID) High Fraction	42.	4.0	mg/kg	3546/DRO	06/15/11	1
Surrogate recovery(%)						
o-Terphenyl	71.8		% Rec.	3546/DRO	06/15/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Naphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
1-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Surrogate Recovery						
Nitrobenzene-d5	71.7		% Rec.	8270C-SIM	06/15/11	1
2-Fluorobiphenyl	60.2		% Rec.	8270C-SIM	06/15/11	1
p-Terphenyl-d14	56.8		% Rec.	8270C-SIM	06/15/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/16/11 13:10 Printed: 06/16/11 13:10

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 16, 2011

Date Received : June 14, 2011  
Description : A15 Pit Excavation  
Sample ID : A15-PITX-MID BOTTOM-061311  
Collected By : Bob Stockton  
Collection Date : 06/13/11 12:05

ESC Sample # : L520679-02

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	18.	1.0	mg/kg	6010B	06/15/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/15/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/15/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/15/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	96.9		% Rec.	8021/8015	06/15/11	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021/8015	06/15/11	5
TPH (GC/FID) High Fraction	22.	4.0	mg/kg	3546/DRO	06/15/11	1
Surrogate recovery(%)						
o-Terphenyl	50.4		% Rec.	3546/DRO	06/15/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Naphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
1-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Surrogate Recovery						
Nitrobenzene-d5	58.3		% Rec.	8270C-SIM	06/15/11	1
2-Fluorobiphenyl	52.9		% Rec.	8270C-SIM	06/15/11	1
p-Terphenyl-d14	99.6		% Rec.	8270C-SIM	06/15/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 06/16/11 13:10 Printed: 06/16/11 13:10

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 16, 2011

Date Received : June 14, 2011  
Description : A15 Pit Excavation  
Sample ID : A15-PITX-N. END SOUTH-061311  
Collected By : Bob Stockton  
Collection Date : 06/13/11 12:11

ESC Sample # : L520679-03

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	17.	1.0	mg/kg	6010B	06/15/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/15/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/15/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/15/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	96.7		% Rec.	8021/8015	06/15/11	5
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021/8015	06/15/11	5
TPH (GC/FID) High Fraction	80.	4.0	mg/kg	3546/DRO	06/15/11	1
Surrogate recovery(%)						
o-Terphenyl	64.3		% Rec.	3546/DRO	06/15/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Naphthalene	0.016	0.0060	mg/kg	8270C-SIM	06/15/11	1
Phenanthrene	0.011	0.0060	mg/kg	8270C-SIM	06/15/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
1-Methylnaphthalene	0.011	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Methylnaphthalene	0.038	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Surrogate Recovery						
Nitrobenzene-d5	67.5		% Rec.	8270C-SIM	06/15/11	1
2-Fluorobiphenyl	53.3		% Rec.	8270C-SIM	06/15/11	1
p-Terphenyl-d14	50.2		% Rec.	8270C-SIM	06/15/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 06/16/11 13:10 Printed: 06/16/11 13:10

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

June 16, 2011

Date Received : June 14, 2011  
Description : A15 Pit Excavation  
Sample ID : A15-PITX-SW SOUTH-061311  
Collected By : Bob Stockton  
Collection Date : 06/13/11 12:20

ESC Sample # : L520679-04

Site ID : A15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	20.	1.0	mg/kg	6010B	06/15/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/15/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/15/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/15/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/15/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	96.6		% Rec.	8021/8015	06/15/11	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021/8015	06/15/11	5
TPH (GC/FID) High Fraction	34.	4.0	mg/kg	3546/DRO	06/16/11	1
Surrogate recovery(%)						
o-Terphenyl	66.6		% Rec.	3546/DRO	06/16/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Naphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
1-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Methylnaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	06/15/11	1
Surrogate Recovery						
Nitrobenzene-d5	60.0		% Rec.	8270C-SIM	06/15/11	1
2-Fluorobiphenyl	48.2		% Rec.	8270C-SIM	06/15/11	1
p-Terphenyl-d14	51.0		% Rec.	8270C-SIM	06/15/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/16/11 13:10 Printed: 06/16/11 13:10

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L520679-01	WG540093	SAMP	Indeno(1,2,3-cd)pyrene	R1724476	J3



Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
06/16/11 at 13:10:35

TSR Signing Reports: 358  
R3 - Rush: Two Day

Sample: L520679-01 Account: ENCANACO Received: 06/14/11 09:00 Due Date: 06/16/11 00:00 RPT Date: 06/16/11 13:10  
Sample: L520679-02 Account: ENCANACO Received: 06/14/11 09:00 Due Date: 06/16/11 00:00 RPT Date: 06/16/11 13:10  
Sample: L520679-03 Account: ENCANACO Received: 06/14/11 09:00 Due Date: 06/16/11 00:00 RPT Date: 06/16/11 13:10  
Sample: L520679-04 Account: ENCANACO Received: 06/14/11 09:00 Due Date: 06/16/11 00:00 RPT Date: 06/16/11 13:10



**YOUR LAB OF CHOICE**

EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
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Quality Assurance Report  
Level II

L520679

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 16, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG540350	06/14/11 14:38
Ethylbenzene	< .0005	mg/kg			WG540350	06/14/11 14:38
Toluene	< .005	mg/kg			WG540350	06/14/11 14:38
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG540350	06/14/11 14:38
Total Xylene	< .0015	mg/kg			WG540350	06/14/11 14:38
a,a,a-Trifluorotoluene(FID)		% Rec.	97.40	59-128	WG540350	06/14/11 14:38
a,a,a-Trifluorotoluene(PID)		% Rec.	102.3	54-144	WG540350	06/14/11 14:38
TPH (GC/FID) High Fraction	< 4	ppm			WG540408	06/15/11 10:00
o-Terphenyl		% Rec.	75.50	50-150	WG540408	06/15/11 10:00
Arsenic	< 1	mg/kg			WG540396	06/15/11 10:21
1-Methylnaphthalene	< .006	mg/kg			WG540093	06/15/11 14:45
2-Chloronaphthalene	< .006	mg/kg			WG540093	06/15/11 14:45
2-Methylnaphthalene	< .006	mg/kg			WG540093	06/15/11 14:45
Acenaphthene	< .006	mg/kg			WG540093	06/15/11 14:45
Acenaphthylene	< .006	mg/kg			WG540093	06/15/11 14:45
Anthracene	< .006	mg/kg			WG540093	06/15/11 14:45
Benzo(a)anthracene	< .006	mg/kg			WG540093	06/15/11 14:45
Benzo(a)pyrene	< .006	mg/kg			WG540093	06/15/11 14:45
Benzo(b)fluoranthene	< .006	mg/kg			WG540093	06/15/11 14:45
Benzo(g,h,i)perylene	< .006	mg/kg			WG540093	06/15/11 14:45
Benzo(k)fluoranthene	< .006	mg/kg			WG540093	06/15/11 14:45
Chrysene	< .006	mg/kg			WG540093	06/15/11 14:45
Dibenz(a,h)anthracene	< .006	mg/kg			WG540093	06/15/11 14:45
Fluoranthene	< .006	mg/kg			WG540093	06/15/11 14:45
Fluorene	< .006	mg/kg			WG540093	06/15/11 14:45
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG540093	06/15/11 14:45
Naphthalene	< .006	mg/kg			WG540093	06/15/11 14:45
Phenanthrene	< .006	mg/kg			WG540093	06/15/11 14:45
Pyrene	< .006	mg/kg			WG540093	06/15/11 14:45
2-Fluorobiphenyl		% Rec.	72.18	21-120	WG540093	06/15/11 14:45
Nitrobenzene-d5		% Rec.	75.18	33-114	WG540093	06/15/11 14:45
p-Terphenyl-d14		% Rec.	78.27	18-142	WG540093	06/15/11 14:45
TPH (GC/FID) High Fraction	< 4	ppm			WG540521	06/15/11 15:30
o-Terphenyl		% Rec.	71.44	50-150	WG540521	06/15/11 15:30

Analyte	Units	Result	Duplicate		Limit	Ref Samp	Batch
			Duplicate	RPD			
Arsenic	mg/kg	8.40	7.60	9.88	20	L520533-03	WG540396

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0463	92.6	76-113	WG540350
Ethylbenzene	mg/kg	.05	0.0472	94.3	78-115	WG540350
Toluene	mg/kg	.05	0.0498	99.6	76-114	WG540350
Total Xylene	mg/kg	.15	0.140	93.2	81-118	WG540350
a,a,a-Trifluorotoluene(PID)				101.4	54-144	WG540350
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.07	110.	67-135	WG540350
a,a,a-Trifluorotoluene(FID)				103.0	59-128	WG540350

\* Performance of this Analyte is outside of established criteria.  
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Tax I.D. 62-0814289

Est. 1970

June 16, 2011

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
TPH (GC/FID) High Fraction	ppm	60	48.7	81.2	50-150	WG540408
o-Terphenyl				70.33	50-150	WG540408
Arsenic	mg/kg	192	190.	99.0	78.6-120.8	WG540396
1-Methylnaphthalene	mg/kg	.033	0.0231	70.1	41-110	WG540093
2-Chloronaphthalene	mg/kg	.033	0.0241	73.0	43-109	WG540093
2-Methylnaphthalene	mg/kg	.033	0.0234	70.9	38-104	WG540093
Acenaphthene	mg/kg	.033	0.0247	74.8	48-103	WG540093
Acenaphthylene	mg/kg	.033	0.0243	73.6	43-106	WG540093
Anthracene	mg/kg	.033	0.0257	77.8	51-110	WG540093
Benzo(a)anthracene	mg/kg	.033	0.0268	81.3	38-126	WG540093
Benzo(a)pyrene	mg/kg	.033	0.0270	81.9	47-118	WG540093
Benzo(b)fluoranthene	mg/kg	.033	0.0271	82.2	47-118	WG540093
Benzo(g,h,i)perylene	mg/kg	.033	0.0263	79.6	40-125	WG540093
Benzo(k)fluoranthene	mg/kg	.033	0.0266	80.6	45-121	WG540093
Chrysene	mg/kg	.033	0.0272	82.4	35-135	WG540093
Dibenz(a,h)anthracene	mg/kg	.033	0.0258	78.2	41-124	WG540093
Fluoranthene	mg/kg	.033	0.0272	82.4	50-114	WG540093
Fluorene	mg/kg	.033	0.0260	78.8	49-109	WG540093
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0268	81.2	40-126	WG540093
Naphthalene	mg/kg	.033	0.0222	67.3	36-100	WG540093
Phenanthrene	mg/kg	.033	0.0277	83.8	46-108	WG540093
Pyrene	mg/kg	.033	0.0271	82.1	30-136	WG540093
2-Fluorobiphenyl				76.96	33-114	WG540093
Nitrobenzene-d5				73.09	21-120	WG540093
p-Terphenyl-d14				78.56	18-142	WG540093
TPH (GC/FID) High Fraction	ppm	60	46.5	77.5	50-150	WG540521
o-Terphenyl				70.51	50-150	WG540521

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0.0477	0.0463	95.0	76-113	2.95	20	WG540350
Ethylbenzene	mg/kg	0.0484	0.0472	97.0	78-115	2.67	20	WG540350
Toluene	mg/kg	0.0515	0.0498	103.	76-114	3.47	20	WG540350
Total Xylene	mg/kg	0.141	0.140	94.0	81-118	1.03	20	WG540350
a,a,a-Trifluorotoluene(PID)				102.0	54-144			WG540350
TPH (GC/FID) Low Fraction	mg/kg	5.90	6.07	107.	67-135	2.80	20	WG540350
a,a,a-Trifluorotoluene(FID)				102.6	59-128			WG540350
TPH (GC/FID) High Fraction	ppm	46.2	48.7	77.0	50-150	5.44	25	WG540408
o-Terphenyl				66.93	50-150			WG540408
1-Methylnaphthalene	mg/kg	0.0241	0.0231	73.0	41-110	4.25	24	WG540093
2-Chloronaphthalene	mg/kg	0.0255	0.0241	77.0	43-109	5.56	21	WG540093
2-Methylnaphthalene	mg/kg	0.0235	0.0234	71.0	38-104	0.573	24	WG540093
Acenaphthene	mg/kg	0.0242	0.0247	73.0	48-103	2.06	20	WG540093
Acenaphthylene	mg/kg	0.0250	0.0243	76.0	43-106	3.03	20	WG540093
Anthracene	mg/kg	0.0272	0.0257	82.0	51-110	5.88	22	WG540093
Benzo(a)anthracene	mg/kg	0.0276	0.0268	84.0	38-126	2.65	20	WG540093
Benzo(a)pyrene	mg/kg	0.0266	0.0270	81.0	47-118	1.57	20	WG540093

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzo(b)fluoranthene	mg/kg	0.0265	0.0271	80.0	47-118	2.20	29	WG540093
Benzo(g,h,i)perylene	mg/kg	0.0266	0.0263	80.0	40-125	1.05	20	WG540093
Benzo(k)fluoranthene	mg/kg	0.0272	0.0266	82.0	45-121	2.22	31	WG540093
Chrysene	mg/kg	0.0280	0.0272	85.0	35-135	2.83	20	WG540093
Dibenz(a,h)anthracene	mg/kg	0.0264	0.0258	80.0	41-124	2.41	20	WG540093
Fluoranthene	mg/kg	0.0262	0.0272	79.0	50-114	3.79	20	WG540093
Fluorene	mg/kg	0.0275	0.0260	83.0	49-109	5.52	19	WG540093
Indeno(1,2,3-cd)pyrene	mg/kg	0.0269	0.0268	82.0	40-126	0.506	20	WG540093
Naphthalene	mg/kg	0.0231	0.0222	70.0	36-100	4.15	24	WG540093
Phenanthrene	mg/kg	0.0258	0.0277	78.0	46-108	6.82	21	WG540093
Pyrene	mg/kg	0.0282	0.0271	85.0	30-136	3.81	20	WG540093
2-Fluorobiphenyl				77.10	33-114			WG540093
Nitrobenzene-d5				72.02	21-120			WG540093
p-Terphenyl-d14				80.43	18-142			WG540093
TPH (GC/FID) High Fraction	ppm	46.4	46.5	77.0	50-150	0.0859	25	WG540521
o-Terphenyl				69.00	50-150			WG540521

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
Benzene	mg/kg	0.222	0	.05	88.7	32-137	L519800-05	WG540350
Ethylbenzene	mg/kg	0.213	0	.05	85.1	10-150	L519800-05	WG540350
Toluene	mg/kg	0.232	0	.05	92.9	20-142	L519800-05	WG540350
Total Xylene	mg/kg	0.623	0	.15	83.0	16-141	L519800-05	WG540350
a,a,a-Trifluorotoluene(PID)					100.6	54-144		WG540350
TPH (GC/FID) Low Fraction	mg/kg	16.1	2.20	5.5	50.6*	55-109	L520668-01	WG540350
a,a,a-Trifluorotoluene(FID)					97.65	59-128		WG540350
TPH (GC/FID) High Fraction	ppm	45.4	0	60	75.6	50-150	L520643-06	WG540408
o-Terphenyl					58.03	50-150		WG540408
Arsenic	mg/kg	54.9	7.60	50	94.6	75-125	L520533-03	WG540396
TPH (GC/FID) High Fraction	ppm	59.8	21.0	60	64.7	50-150	L520374-10	WG540521
o-Terphenyl					69.78	50-150		WG540521
1-Methylnaphthalene	mg/kg	0.0182	0	.033	55.1	19-131	L520679-01	WG540093
2-Chloronaphthalene	mg/kg	0.0197	0	.033	59.6	38-117	L520679-01	WG540093
2-Methylnaphthalene	mg/kg	0.0215	0	.033	65.1	18-125	L520679-01	WG540093
Acenaphthene	mg/kg	0.0195	0	.033	59.1	31-120	L520679-01	WG540093
Acenaphthylene	mg/kg	0.0207	0	.033	62.9	34-116	L520679-01	WG540093
Anthracene	mg/kg	0.0203	0	.033	61.4	32-131	L520679-01	WG540093
Benzo(a)anthracene	mg/kg	0.0204	0	.033	61.8	32-131	L520679-01	WG540093
Benzo(a)pyrene	mg/kg	0.0193	0	.033	58.4	28-130	L520679-01	WG540093
Benzo(b)fluoranthene	mg/kg	0.0211	0	.033	63.9	37-130	L520679-01	WG540093
Benzo(g,h,i)perylene	mg/kg	0.0176	0	.033	53.4	10-134	L520679-01	WG540093
Benzo(k)fluoranthene	mg/kg	0.0168	0	.033	51.0	31-129	L520679-01	WG540093
Chrysene	mg/kg	0.0192	0	.033	58.3	25-137	L520679-01	WG540093
Dibenz(a,h)anthracene	mg/kg	0.0176	0	.033	53.2	20-134	L520679-01	WG540093
Fluoranthene	mg/kg	0.0222	0	.033	67.3	27-138	L520679-01	WG540093
Fluorene	mg/kg	0.0217	0	.033	65.8	26-136	L520679-01	WG540093
Indeno(1,2,3-cd)pyrene	mg/kg	0.0182	0	.033	55.1	16-135	L520679-01	WG540093
Naphthalene	mg/kg	0.0186	0	.033	56.4	22-121	L520679-01	WG540093

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Phenanthrene	mg/kg	0.0223	0	.033	67.7	27-133	L520679-01	WG540093
Pyrene	mg/kg	0.0219	0	.033	66.3	22-133	L520679-01	WG540093
2-Fluorobiphenyl					61.70	33-114		WG540093
Nitrobenzene-d5					64.43	21-120		WG540093
p-Terphenyl-d14					59.69	18-142		WG540093

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
TPH (GC/FID) Low Fraction	mg/kg	16.1	16.1	50.5*	55-109	0.210	20	L520668-01	WG540350
a,a,a-Trifluorotoluene(FID)				98.14	59-128				WG540350
Benzene	mg/kg	0.235	0.222	94.1	32-137	5.94	39	L519800-05	WG540350
Ethylbenzene	mg/kg	0.247	0.213	99.0	10-150	15.1	44	L519800-05	WG540350
Toluene	mg/kg	0.252	0.232	101.	20-142	8.32	42	L519800-05	WG540350
Total Xylene	mg/kg	0.748	0.623	99.7	16-141	18.2	46	L519800-05	WG540350
a,a,a-Trifluorotoluene(PID)				102.7	54-144				WG540350

TPH (GC/FID) High Fraction	ppm	49.6	45.4	82.7	50-150	8.91	25	L520643-06	WG540408
o-Terphenyl				67.09	50-150				WG540408

Arsenic	mg/kg	53.8	54.9	92.4	75-125	2.02	20	L520533-03	WG540396
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TPH (GC/FID) High Fraction	ppm	61.6	59.8	67.6	50-150	2.90	25	L520374-10	WG540521
o-Terphenyl				66.62	50-150				WG540521

1-Methylnaphthalene	mg/kg	0.0161	0.0182	48.7	19-131	12.3	30	L520679-01	WG540093
2-Chloronaphthalene	mg/kg	0.0186	0.0197	56.3	38-117	5.78	26	L520679-01	WG540093
2-Methylnaphthalene	mg/kg	0.0179	0.0215	54.2	18-125	18.3	29	L520679-01	WG540093
Acenaphthene	mg/kg	0.0188	0.0195	56.8	31-120	3.94	30	L520679-01	WG540093
Acenaphthylene	mg/kg	0.0207	0.0207	62.8	34-116	0.111	29	L520679-01	WG540093
Anthracene	mg/kg	0.0189	0.0203	57.2	32-131	7.09	26	L520679-01	WG540093
Benzo(a)anthracene	mg/kg	0.0187	0.0204	56.7	32-131	8.66	31	L520679-01	WG540093
Benzo(a)pyrene	mg/kg	0.0182	0.0193	55.1	28-130	5.71	28	L520679-01	WG540093
Benzo(b)fluoranthene	mg/kg	0.0188	0.0211	57.1	37-130	11.3	41	L520679-01	WG540093
Benzo(g,h,i)perylene	mg/kg	0.0137	0.0176	41.4	10-134	25.3	26	L520679-01	WG540093
Benzo(k)fluoranthene	mg/kg	0.0170	0.0168	51.5	31-129	0.859	42	L520679-01	WG540093
Chrysene	mg/kg	0.0183	0.0192	55.6	25-137	4.72	22	L520679-01	WG540093
Dibenz(a,h)anthracene	mg/kg	0.0141	0.0176	42.7	20-134	21.9	25	L520679-01	WG540093
Fluoranthene	mg/kg	0.0197	0.0222	59.6	27-138	12.0	35	L520679-01	WG540093
Fluorene	mg/kg	0.0208	0.0217	63.2	26-136	4.09	30	L520679-01	WG540093
Indeno(1,2,3-cd)pyrene	mg/kg	0.0140	0.0182	42.4	16-135	26.2*	26	L520679-01	WG540093
Naphthalene	mg/kg	0.0172	0.0186	52.0	22-121	8.08	30	L520679-01	WG540093
Phenanthrene	mg/kg	0.0199	0.0223	60.4	27-133	11.4	36	L520679-01	WG540093
Pyrene	mg/kg	0.0185	0.0219	56.2	22-133	16.6	33	L520679-01	WG540093
2-Fluorobiphenyl				58.83	33-114				WG540093
Nitrobenzene-d5				58.71	21-120				WG540093
p-Terphenyl-d14				54.11	18-142				WG540093

Batch number /Run number / Sample number cross reference

WG540350: R1723689: L520679-01 02 03 04

WG540408: R1724076: L520679-01

WG540396: R1724431: L520679-01 02 03 04

WG540093: R1724476: L520679-01 02 03 04

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WG540521: R1725169: L520679-02 03 04

\* \* Calculations are performed prior to rounding of reported values.

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.





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## Report Summary

Friday August 05, 2011

Report Number: L528836

Samples Received: 08/02/11

Client Project: D23A

Description: D23A Soil Spoil

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jayred Willis , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-1-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 09:00

ESC Sample # : L528836-01

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.5		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	97.2		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	110	4.0	mg/kg	3546/DRO	08/03/11	1
Surrogate recovery(%)						
o-Terphenyl	65.2		% Rec.	3546/DRO	08/03/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-2-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 09:15

ESC Sample # : L528836-02

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.0		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	97.0		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	140	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	52.7		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-3-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 09:30

ESC Sample # : L528836-03

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	91.0		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	91.1		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	160	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	52.2		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-4-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 09:45

ESC Sample # : L528836-04

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/04/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/04/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/04/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/04/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	93.3		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/04/11	5
TPH (GC/FID) High Fraction	110	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	52.4		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-5-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 10:00

ESC Sample # : L528836-05

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.0		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	95.5		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	150	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	52.8		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-6-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 10:15

ESC Sample # : L528836-06

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.5		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	94.8		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	150	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	58.5		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-7-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 10:30

ESC Sample # : L528836-07

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	90.8		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	91.5		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	130	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	58.2		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-8-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 10:45

ESC Sample # : L528836-08

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.1		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	96.6		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	150	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	62.5		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-9-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 11:00

ESC Sample # : L528836-09

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.5		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	95.6		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	420	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	66.1		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-10-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 11:15

ESC Sample # : L528836-10

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	140	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	52.0		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-11-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 11:30

ESC Sample # : L528836-11

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	92.3		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	92.5		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	120	20.	mg/kg	3546/DRO	08/04/11	5
Surrogate recovery(%)						
o-Terphenyl	60.6		% Rec.	3546/DRO	08/04/11	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-12-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 11:45

ESC Sample # : L528836-12

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	08/03/11	1
Chromium, Trivalent	21.	0.50	mg/kg	Calc.	08/03/11	1
ORP	110		mV	2580	08/03/11	1
pH	8.4		su	9045D	08/04/11	1
Sodium Adsorption Ratio	25.			Calc.	08/04/11	1
Specific Conductance	3400		umhos/cm	9050AMod	08/03/11	1
Mercury	0.032	0.020	mg/kg	7471	08/04/11	1
Arsenic	18.	5.0	mg/kg	6010B	08/04/11	5
Barium	3600	0.25	mg/kg	6010B	08/03/11	1
Cadmium	0.78	0.25	mg/kg	6010B	08/03/11	1
Chromium	21.	0.50	mg/kg	6010B	08/03/11	1
Copper	21.	1.0	mg/kg	6010B	08/03/11	1
Lead	14.	0.25	mg/kg	6010B	08/03/11	1
Nickel	20.	5.0	mg/kg	6010B	08/04/11	5
Selenium	BDL	10.	mg/kg	6010B	08/04/11	10
Silver	BDL	0.50	mg/kg	6010B	08/03/11	1
Zinc	52.	1.5	mg/kg	6010B	08/03/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	93.6		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	93.2		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	180	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	53.8		% Rec.	3546/DRO	08/04/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L528836-12 (PH) - 8.4@21.0c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-12-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 11:45

ESC Sample # : L528836-12

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Fluorene	0.014	0.0060	mg/kg	8270C-SIM	08/04/11	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Naphthalene	0.022	0.0060	mg/kg	8270C-SIM	08/04/11	1
Phenanthrene	0.019	0.0060	mg/kg	8270C-SIM	08/04/11	1
Pyrene	0.0070	0.0060	mg/kg	8270C-SIM	08/04/11	1
1-Methylnaphthalene	0.018	0.0060	mg/kg	8270C-SIM	08/04/11	1
2-Methylnaphthalene	0.056	0.0060	mg/kg	8270C-SIM	08/04/11	1
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	08/04/11	1
Surrogate Recovery						
Nitrobenzene-d5	107.		% Rec.	8270C-SIM	08/04/11	1
2-Fluorobiphenyl	82.3		% Rec.	8270C-SIM	08/04/11	1
p-Terphenyl-d14	78.5		% Rec.	8270C-SIM	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 08/05/11 17:19 Printed: 08/05/11 17:20  
L528836-12 (PH) - 8.4@21.0c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-13-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 12:00

ESC Sample # : L528836-13

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.3		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	94.5		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	98.	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	65.8		% Rec.	3546/DRO	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-14-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 12:15

ESC Sample # : L528836-14

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.4		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	94.8		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	190	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	83.7		% Rec.	3546/DRO	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-15-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 12:30

ESC Sample # : L528836-15

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	08/03/11	1
Chromium, Trivalent	20.	0.50	mg/kg	Calc.	08/03/11	1
ORP	95.		mV	2580	08/03/11	1
pH	8.2		su	9045D	08/04/11	1
Sodium Adsorption Ratio	24.			Calc.	08/04/11	1
Specific Conductance	4800		umhos/cm	9050AMod	08/03/11	1
Mercury	0.046	0.020	mg/kg	7471	08/04/11	1
Arsenic	9.0	1.0	mg/kg	6010B	08/03/11	1
Barium	3500	0.25	mg/kg	6010B	08/03/11	1
Cadmium	1.0	0.25	mg/kg	6010B	08/03/11	1
Chromium	20.	0.50	mg/kg	6010B	08/03/11	1
Copper	22.	1.0	mg/kg	6010B	08/03/11	1
Lead	15.	0.25	mg/kg	6010B	08/03/11	1
Nickel	14.	1.0	mg/kg	6010B	08/03/11	1
Selenium	BDL	10.	mg/kg	6010B	08/04/11	10
Silver	BDL	0.50	mg/kg	6010B	08/03/11	1
Zinc	51.	1.5	mg/kg	6010B	08/03/11	1
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.7		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	99.5		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	250	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	87.7		% Rec.	3546/DRO	08/04/11	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Acenaphthene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Acenaphthylene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Benzo(a)anthracene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Benzo(a)pyrene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L528836-15 (PH) - 8.2@21.1c



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Tax I.D. 62-0814289

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-15-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 12:30

ESC Sample # : L528836-15

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Benzo(g,h,i)perylene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Benzo(k)fluoranthene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Chrysene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Dibenz(a,h)anthracene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Fluoranthene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Fluorene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Indeno(1,2,3-cd)pyrene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Naphthalene	0.066	0.060	mg/kg	8270C-SIM	08/04/11	10
Phenanthrene	0.073	0.060	mg/kg	8270C-SIM	08/04/11	10
Pyrene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
1-Methylnaphthalene	0.069	0.060	mg/kg	8270C-SIM	08/04/11	10
2-Methylnaphthalene	0.20	0.060	mg/kg	8270C-SIM	08/04/11	10
2-Chloronaphthalene	BDL	0.060	mg/kg	8270C-SIM	08/04/11	10
Surrogate Recovery						
Nitrobenzene-d5	111.		% Rec.	8270C-SIM	08/04/11	10
2-Fluorobiphenyl	73.3		% Rec.	8270C-SIM	08/04/11	10
p-Terphenyl-d14	65.2		% Rec.	8270C-SIM	08/04/11	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L528836-15 (PH) - 8.2@21.1c

REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-16-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 12:45

ESC Sample # : L528836-16

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	92.4		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	92.4		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	90.	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	71.0		% Rec.	3546/DRO	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-17-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 13:00

ESC Sample # : L528836-17

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	92.4		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	92.2		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	150	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	73.5		% Rec.	3546/DRO	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-18-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 13:15

ESC Sample # : L528836-18

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.2		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	95.6		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	84.	4.0	mg/kg	3546/DRO	08/04/11	1
Surrogate recovery(%)						
o-Terphenyl	72.2		% Rec.	3546/DRO	08/04/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil

Sample ID : D23A-SS-19-080111

Collected By : Tracy Loftus  
Collection Date : 08/01/11 13:30

ESC Sample # : L528836-19

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/04/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/04/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/04/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/04/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.0		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	98.5		% Rec.	8021/8015	08/04/11	5
TPH (GC/FID) High Fraction	210	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	84.0		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-20-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 13:45

ESC Sample # : L528836-20

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	98.8		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	270	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	101.		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-21-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 14:00

ESC Sample # : L528836-21

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/04/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/04/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.1		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	105.		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	74.	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	68.5		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-22-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 14:15

ESC Sample # : L528836-22

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	99.7		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	89.	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	71.2		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-23-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 14:30

ESC Sample # : L528836-23

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	99.9		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	170	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	83.2		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-24-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 14:45

ESC Sample # : L528836-24

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	99.6		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	210	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	66.3		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-25-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 15:00

ESC Sample # : L528836-25

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	98.3		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	120	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	81.8		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-26-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 15:15

ESC Sample # : L528836-26

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	91.	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	75.7		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-27-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 15:30

ESC Sample # : L528836-27

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	99.0		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	110	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	81.9		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-28-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 15:45

ESC Sample # : L528836-28

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	98.4		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	130	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	75.3		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-29-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 16:00

ESC Sample # : L528836-29

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/02/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/02/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/02/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/02/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8021/8015	08/02/11	5
a,a,a-Trifluorotoluene(PID)	98.9		% Rec.	8021/8015	08/02/11	5
TPH (GC/FID) High Fraction	170	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	81.1		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Chris Hines  
EnCana Oil & Gas Inc. - CO  
2717 County Road 215, Suite 100  
Parachute, CO 81635

August 05, 2011

Date Received : August 02, 2011  
Description : D23A Soil Spoil  
Sample ID : D23A-SS-30-080111  
Collected By : Tracy Loftus  
Collection Date : 08/01/11 16:15

ESC Sample # : L528836-30

Site ID :

Project # : D23A

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/03/11	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/03/11	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/03/11	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/03/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	101.		% Rec.	8021/8015	08/03/11	5
a,a,a-Trifluorotoluene(PID)	98.6		% Rec.	8021/8015	08/03/11	5
TPH (GC/FID) High Fraction	120	4.0	mg/kg	3546/DRO	08/05/11	1
Surrogate recovery(%)						
o-Terphenyl	82.3		% Rec.	3546/DRO	08/05/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L528836-12	WG548536	SAMP	Selenium	R1802912	O
L528836-15	WG548536	SAMP	Selenium	R1802912	O

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

[illegible]



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EnCana Oil & Gas Inc. - CO  
Chris Hines  
2717 County Road 215, Suite 100  
Parachute, CO 81635

Quality Assurance Report  
Level II

L528836

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August 05, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG548534	08/02/11 14:40
Ethylbenzene	< .0005	mg/kg			WG548534	08/02/11 14:40
Toluene	< .005	mg/kg			WG548534	08/02/11 14:40
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG548534	08/02/11 14:40
Total Xylene	< .0015	mg/kg			WG548534	08/02/11 14:40
a,a,a-Trifluorotoluene(FID)		% Rec.	101.5	59-128	WG548534	08/02/11 14:40
a,a,a-Trifluorotoluene(PID)		% Rec.	99.78	54-144	WG548534	08/02/11 14:40
Chromium,Hexavalent	< 2	mg/kg			WG548499	08/03/11 10:05
Benzene	< .0005	mg/kg			WG548527	08/02/11 20:48
Ethylbenzene	< .0005	mg/kg			WG548527	08/02/11 20:48
Toluene	< .005	mg/kg			WG548527	08/02/11 20:48
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG548527	08/02/11 20:48
Total Xylene	< .0015	mg/kg			WG548527	08/02/11 20:48
a,a,a-Trifluorotoluene(FID)		% Rec.	97.26	59-128	WG548527	08/02/11 20:48
a,a,a-Trifluorotoluene(PID)		% Rec.	97.15	54-144	WG548527	08/02/11 20:48
Benzene	< .0005	mg/kg			WG548668	08/03/11 12:23
Ethylbenzene	< .0005	mg/kg			WG548668	08/03/11 12:23
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG548668	08/03/11 12:23
a,a,a-Trifluorotoluene(FID)		% Rec.	98.20	59-128	WG548668	08/03/11 12:23
a,a,a-Trifluorotoluene(PID)		% Rec.	105.3	54-144	WG548668	08/03/11 12:23
Specific Conductance	2.20	umhos/cm			WG548842	08/03/11 22:13
Mercury	< .02	mg/kg			WG548688	08/04/11 00:41
TPH (GC/FID) High Fraction	< 4	ppm			WG548608	08/03/11 18:16
o-Terphenyl		% Rec.	98.85	50-150	WG548608	08/03/11 18:16
pH	4.60	su			WG548844	08/04/11 10:45
Arsenic	< 1	mg/kg			WG548536	08/04/11 09:46
Barium	< .25	mg/kg			WG548536	08/04/11 09:46
Cadmium	< .25	mg/kg			WG548536	08/04/11 09:46
Chromium	< .5	mg/kg			WG548536	08/04/11 09:46
Copper	< 1	mg/kg			WG548536	08/04/11 09:46
Lead	< .25	mg/kg			WG548536	08/04/11 09:46
Nickel	< 1	mg/kg			WG548536	08/04/11 09:46
Selenium	< 1	mg/kg			WG548536	08/04/11 09:46
Silver	< .5	mg/kg			WG548536	08/04/11 09:46
Zinc	< 1.5	mg/kg			WG548536	08/03/11 20:38
1-Methylnaphthalene	< .006	mg/kg			WG548617	08/03/11 10:24
2-Chloronaphthalene	< .006	mg/kg			WG548617	08/03/11 10:24
2-Methylnaphthalene	< .006	mg/kg			WG548617	08/03/11 10:24
Acenaphthene	< .006	mg/kg			WG548617	08/03/11 10:24
Acenaphthylene	< .006	mg/kg			WG548617	08/03/11 10:24
Anthracene	< .006	mg/kg			WG548617	08/03/11 10:24

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Est. 1970

August 05, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzo(a)anthracene	< .006	mg/kg			WG548617	08/03/11 10:24
Benzo(a)pyrene	< .006	mg/kg			WG548617	08/03/11 10:24
Benzo(b)fluoranthene	< .006	mg/kg			WG548617	08/03/11 10:24
Benzo(g,h,i)perylene	< .006	mg/kg			WG548617	08/03/11 10:24
Benzo(k)fluoranthene	< .006	mg/kg			WG548617	08/03/11 10:24
Chrysene	< .006	mg/kg			WG548617	08/03/11 10:24
Dibenz(a,h)anthracene	< .006	mg/kg			WG548617	08/03/11 10:24
Fluoranthene	< .006	mg/kg			WG548617	08/03/11 10:24
Fluorene	< .006	mg/kg			WG548617	08/03/11 10:24
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG548617	08/03/11 10:24
Naphthalene	< .006	mg/kg			WG548617	08/03/11 10:24
Phenanthrene	< .006	mg/kg			WG548617	08/03/11 10:24
Pyrene	< .006	mg/kg			WG548617	08/03/11 10:24
2-Fluorobiphenyl		% Rec.	76.69	34-129	WG548617	08/03/11 10:24
Nitrobenzene-d5		% Rec.	65.38	14-141	WG548617	08/03/11 10:24
p-Terphenyl-d14		% Rec.	98.04	25-139	WG548617	08/03/11 10:24
Benzene	< .0005	mg/kg			WG548929	08/04/11 17:40
Ethylbenzene	< .0005	mg/kg			WG548929	08/04/11 17:40
Toluene	< .005	mg/kg			WG548929	08/04/11 17:40
Total Xylene	< .0015	mg/kg			WG548929	08/04/11 17:40
a,a,a-Trifluorotoluene(FID)		% Rec.	93.79	59-128	WG548929	08/04/11 17:40
a,a,a-Trifluorotoluene(PID)		% Rec.	100.5	54-144	WG548929	08/04/11 17:40
TPH (GC/FID) High Fraction	< 4	ppm			WG548610	08/04/11 22:26
o-Terphenyl		% Rec.	87.33	50-150	WG548610	08/04/11 22:26

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Chromium,Hexavalent	mg/kg	0	0	0	20		L528709-01	WG548499
Chromium,Hexavalent	mg/kg	0	0	0	20		L528490-05	WG548499
ORP	mV	110.	110.	3.70	20		L528811-06	WG548599
Specific Conductance	umhos/cm	2500	2200	12.8	20		L528658-01	WG548842
Specific Conductance	umhos/cm	2700	3200	16.9	20		L529021-07	WG548842
Mercury	mg/kg	0.0510	0.0460	11.1	20		L528836-15	WG548688
pH	su	8.60	8.70	1.16*	1		L528706-01	WG548844
pH	su	7.90	7.90	0	1		L529021-07	WG548844
Arsenic	mg/kg	4.20	4.29	3.08	20		L528773-01	WG548536
Barium	mg/kg	96.0	100.	4.29	20		L528773-01	WG548536
Cadmium	mg/kg	0.490	0.534	8.59	20		L528773-01	WG548536
Chromium	mg/kg	15.0	14.8	1.36	20		L528773-01	WG548536
Copper	mg/kg	11.0	11.0	2.76	20		L528773-01	WG548536
Lead	mg/kg	9.80	9.38	4.28	20		L528773-01	WG548536
Nickel	mg/kg	16.0	15.2	5.13	20		L528773-01	WG548536
Selenium	mg/kg	0	0	0	20		L528773-01	WG548536
Silver	mg/kg	0.680	0.675	0.443	20		L528773-01	WG548536

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Quality Assurance Report  
Level II

L528836

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 05, 2011

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Zinc	mg/kg	41.0	41.3	0.729	20	L528773-01	WG548536

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0490	97.9	76-113	WG548534
Ethylbenzene	mg/kg	.05	0.0536	107.	78-115	WG548534
Toluene	mg/kg	.05	0.0530	106.	76-114	WG548534
Total Xylene	mg/kg	.15	0.159	106.	81-118	WG548534
a,a,a-Trifluorotoluene(FID)				102.3	59-128	WG548534
a,a,a-Trifluorotoluene(PID)				99.14	54-144	WG548534
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.38	97.8	67-135	WG548534
a,a,a-Trifluorotoluene(FID)				98.51	59-128	WG548534
a,a,a-Trifluorotoluene(PID)				100.9	54-144	WG548534
Chromium,Hexavalent	mg/kg	132	93.2	70.6	50-150	WG548499
ORP	mV	229	220.	96.1	95.6-104.37	WG548599
Benzene	mg/kg	.05	0.0494	98.7	76-113	WG548527
Ethylbenzene	mg/kg	.05	0.0546	109.	78-115	WG548527
Toluene	mg/kg	.05	0.0531	106.	76-114	WG548527
Total Xylene	mg/kg	.15	0.161	108.	81-118	WG548527
a,a,a-Trifluorotoluene(PID)				95.32	54-144	WG548527
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.76	123.	67-135	WG548527
a,a,a-Trifluorotoluene(FID)				104.8	59-128	WG548527
Benzene	mg/kg	.05	0.0509	102.	76-113	WG548668
Ethylbenzene	mg/kg	.05	0.0528	106.	78-115	WG548668
a,a,a-Trifluorotoluene(FID)				99.46	59-128	WG548668
a,a,a-Trifluorotoluene(PID)				105.7	54-144	WG548668
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.08	110.	67-135	WG548668
a,a,a-Trifluorotoluene(FID)				104.8	59-128	WG548668
a,a,a-Trifluorotoluene(PID)				113.2	54-144	WG548668
Specific Conductance	umhos/cm	427	430.	101.	85-115	WG548842
Mercury	mg/kg	8.77	9.43	108.	71.6-127.7	WG548688
TPH (GC/FID) High Fraction	ppm	60	52.1	86.9	50-150	WG548608
o-Terphenyl				86.19	50-150	WG548608
pH	su	9.04	8.90	98.5	98-101	WG548844
Arsenic	mg/kg	192	160.	83.3	78.6-120.8	WG548536
Barium	mg/kg	420	337.	80.2	78.8-121.4	WG548536
Cadmium	mg/kg	70.1	57.8	82.5	78.5-121.5	WG548536
Chromium	mg/kg	168	142.	84.5	80.4-120.2	WG548536
Copper	mg/kg	122	106.	86.9	81.6-119.7	WG548536
Lead	mg/kg	113	96.8	85.7	77.3-122.1	WG548536

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Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Nickel	mg/kg	74.1	66.7	90.0	78.8-121.2	WG548536
Selenium	mg/kg	176	151.	85.8	75.6-125.0	WG548536
Silver	mg/kg	115	96.9	84.3	66-133.9	WG548536
Zinc	mg/kg	437	354.	81.0	78.5-121.7	WG548536
1-Methylnaphthalene	mg/kg	.033	0.0314	95.3	48-113	WG548617
2-Chloronaphthalene	mg/kg	.033	0.0301	91.2	51-114	WG548617
2-Methylnaphthalene	mg/kg	.033	0.0285	86.4	44-109	WG548617
Acenaphthene	mg/kg	.033	0.0329	99.6	52-108	WG548617
Acenaphthylene	mg/kg	.033	0.0313	94.9	51-110	WG548617
Anthracene	mg/kg	.033	0.0322	97.5	58-120	WG548617
Benzo(a)anthracene	mg/kg	.033	0.0300	90.8	54-110	WG548617
Benzo(a)pyrene	mg/kg	.033	0.0284	86.1	56-118	WG548617
Benzo(b)fluoranthene	mg/kg	.033	0.0306	92.8	55-114	WG548617
Benzo(g,h,i)perylene	mg/kg	.033	0.0331	100.	48-130	WG548617
Benzo(k)fluoranthene	mg/kg	.033	0.0326	98.8	55-122	WG548617
Chrysene	mg/kg	.033	0.0348	106.	57-118	WG548617
Dibenz(a,h)anthracene	mg/kg	.033	0.0319	96.8	53-122	WG548617
Fluoranthene	mg/kg	.033	0.0314	95.0	58-118	WG548617
Fluorene	mg/kg	.033	0.0304	92.0	54-109	WG548617
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0312	94.5	51-125	WG548617
Naphthalene	mg/kg	.033	0.0298	90.4	45-105	WG548617
Phenanthrene	mg/kg	.033	0.0293	88.9	53-114	WG548617
Pyrene	mg/kg	.033	0.0326	98.8	53-121	WG548617
2-Fluorobiphenyl				91.23	34-129	WG548617
Nitrobenzene-d5				71.67	14-141	WG548617
p-Terphenyl-d14				88.80	25-139	WG548617
Benzene	mg/kg	.05	0.0457	91.5	76-113	WG548929
Ethylbenzene	mg/kg	.05	0.0472	94.3	78-115	WG548929
Toluene	mg/kg	.05	0.0474	94.9	76-114	WG548929
Total Xylene	mg/kg	.15	0.144	96.0	81-118	WG548929
a,a,a-Trifluorotoluene(PID)				99.72	54-144	WG548929
TPH (GC/FID) High Fraction	ppm	60	53.3	88.8	50-150	WG548610
o-Terphenyl				81.08	50-150	WG548610

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0.0476	0.0490	95.0	76-113	2.82	20	WG548534
Ethylbenzene	mg/kg	0.0517	0.0536	103.	78-115	3.49	20	WG548534
Toluene	mg/kg	0.0511	0.0530	102.	76-114	3.70	20	WG548534
Total Xylene	mg/kg	0.153	0.159	102.	81-118	3.98	20	WG548534
a,a,a-Trifluorotoluene(FID)				100.7	59-128			WG548534
a,a,a-Trifluorotoluene(PID)				97.38	54-144			WG548534
TPH (GC/FID) Low Fraction	mg/kg	5.65	5.38	103.	67-135	4.87	20	WG548534
a,a,a-Trifluorotoluene(FID)				99.83	59-128			WG548534
a,a,a-Trifluorotoluene(PID)				101.5	54-144			WG548534
Chromium,Hexavalent	mg/kg	92.6	93.2	70.0	50-150	0.646	20	WG548499
ORP	mV	220.	220.	96.0	95.6-104.37	0	20	WG548599

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Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Benzene	mg/kg	0.0501	0.0494	100.		76-113	1.53	20	WG548527
Ethylbenzene	mg/kg	0.0549	0.0546	110.		78-115	0.630	20	WG548527
Toluene	mg/kg	0.0535	0.0531	107.		76-114	0.780	20	WG548527
Total Xylene	mg/kg	0.162	0.161	108.		81-118	0.420	20	WG548527
a,a,a-Trifluorotoluene(PID)				99.10		54-144			WG548527
TPH (GC/FID) Low Fraction	mg/kg	6.71	6.76	122.		67-135	0.750	20	WG548527
a,a,a-Trifluorotoluene(FID)				102.8		59-128			WG548527
Benzene	mg/kg	0.0513	0.0509	102.		76-113	0.690	20	WG548668
Ethylbenzene	mg/kg	0.0527	0.0528	105.		78-115	0.0600	20	WG548668
a,a,a-Trifluorotoluene(FID)				99.98		59-128			WG548668
a,a,a-Trifluorotoluene(PID)				105.6		54-144			WG548668
TPH (GC/FID) Low Fraction	mg/kg	5.91	6.08	108.		67-135	2.70	20	WG548668
a,a,a-Trifluorotoluene(FID)				104.8		59-128			WG548668
a,a,a-Trifluorotoluene(PID)				113.3		54-144			WG548668
Specific Conductance	umhos/	430.	430.	101.		85-115	0	20	WG548842
TPH (GC/FID) High Fraction	ppm	53.1	52.1	88.0		50-150	1.87	25	WG548608
o-Terphenyl				87.27		50-150			WG548608
pH	su	8.90	8.90	98.0		98-101	0	20	WG548844
1-Methylnaphthalene	mg/kg	0.0271	0.0314	82.0		48-113	14.8	24	WG548617
2-Chloronaphthalene	mg/kg	0.0255	0.0301	77.0		51-114	16.4	24	WG548617
2-Methylnaphthalene	mg/kg	0.0246	0.0285	75.0		44-109	14.6	24	WG548617
Acenaphthene	mg/kg	0.0292	0.0329	88.0		52-108	11.7	22	WG548617
Acenaphthylene	mg/kg	0.0275	0.0313	83.0		51-110	12.9	21	WG548617
Anthracene	mg/kg	0.0301	0.0322	91.0		58-120	6.60	20	WG548617
Benzo(a)anthracene	mg/kg	0.0299	0.0300	91.0		54-110	0.0241	22	WG548617
Benzo(a)pyrene	mg/kg	0.0283	0.0284	86.0		56-118	0.484	21	WG548617
Benzo(b)fluoranthene	mg/kg	0.0290	0.0306	88.0		55-114	5.40	20	WG548617
Benzo(g,h,i)perylene	mg/kg	0.0325	0.0331	98.0		48-130	1.75	20	WG548617
Benzo(k)fluoranthene	mg/kg	0.0326	0.0326	99.0		55-122	0.0579	25	WG548617
Chrysene	mg/kg	0.0348	0.0348	105.		57-118	0.0782	20	WG548617
Dibenz(a,h)anthracene	mg/kg	0.0317	0.0319	96.0		53-122	0.832	20	WG548617
Fluoranthene	mg/kg	0.0298	0.0314	90.0		58-118	5.02	20	WG548617
Fluorene	mg/kg	0.0286	0.0304	87.0		54-109	5.86	20	WG548617
Indeno(1,2,3-cd)pyrene	mg/kg	0.0310	0.0312	94.0		51-125	0.426	21	WG548617
Naphthalene	mg/kg	0.0253	0.0298	77.0		45-105	16.3	24	WG548617
Phenanthrene	mg/kg	0.0303	0.0293	92.0		53-114	3.13	20	WG548617
Pyrene	mg/kg	0.0342	0.0326	104.		53-121	4.92	20	WG548617
2-Fluorobiphenyl				81.48		34-129			WG548617
Nitrobenzene-d5				67.24		14-141			WG548617
p-Terphenyl-d14				88.99		25-139			WG548617
Benzene	mg/kg	0.0474	0.0457	95.0		76-113	3.52	20	WG548929
Ethylbenzene	mg/kg	0.0495	0.0472	99.0		78-115	4.89	20	WG548929
Toluene	mg/kg	0.0490	0.0474	98.0		76-114	3.29	20	WG548929
Total Xylene	mg/kg	0.149	0.144	99.0		81-118	3.53	20	WG548929
a,a,a-Trifluorotoluene(PID)				99.35		54-144			WG548929

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Est. 1970

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Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
TPH (GC/FID) High Fraction	ppm	52.9	53.3	88.0		50-150	0.769	25	WG548610
o-Terphenyl				82.06		50-150			WG548610

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Benzene	mg/kg	0.211	0	.05	84.3	32-137	L528836-20	WG548534
Ethylbenzene	mg/kg	0.208	0	.05	83.4	10-150	L528836-20	WG548534
Toluene	mg/kg	0.220	0	.05	87.8	20-142	L528836-20	WG548534
Total Xylene	mg/kg	0.622	0	.15	83.0	16-141	L528836-20	WG548534
a,a,a-Trifluorotoluene(FID)					100.7	59-128		WG548534
a,a,a-Trifluorotoluene(PID)					97.46	54-144		WG548534
TPH (GC/FID) Low Fraction	mg/kg	23.8	0	5.5	86.7	55-109	L528836-20	WG548534
a,a,a-Trifluorotoluene(FID)					98.32	59-128		WG548534
a,a,a-Trifluorotoluene(PID)					101.0	54-144		WG548534
Chromium, Hexavalent	mg/kg	13.3	0	20	66.5	50-150	L528490-07	WG548499
Benzene	mg/kg	0.244	0	.05	97.5	32-137	L528815-04	WG548527
Ethylbenzene	mg/kg	0.266	0	.05	106.	10-150	L528815-04	WG548527
Toluene	mg/kg	0.262	0	.05	105.	20-142	L528815-04	WG548527
Total Xylene	mg/kg	0.788	0	.15	105.	16-141	L528815-04	WG548527
a,a,a-Trifluorotoluene(PID)					97.43	54-144		WG548527
TPH (GC/FID) Low Fraction	mg/kg	31.2	0	5.5	113.*	55-109	L528815-04	WG548527
a,a,a-Trifluorotoluene(FID)					103.5	59-128		WG548527
Benzene	mg/kg	0.277	0	.05	111.	32-137	L528579-03	WG548668
Ethylbenzene	mg/kg	0.296	0	.05	118.	10-150	L528579-03	WG548668
a,a,a-Trifluorotoluene(FID)					100.7	59-128		WG548668
a,a,a-Trifluorotoluene(PID)					106.5	54-144		WG548668
TPH (GC/FID) Low Fraction	mg/kg	5.76	0.0216	5.5	104.	55-109	L528925-02	WG548668
a,a,a-Trifluorotoluene(FID)					103.0	59-128		WG548668
a,a,a-Trifluorotoluene(PID)					111.4	54-144		WG548668
Mercury	mg/kg	0.310	0.0460	.25	106.	70-130	L528836-15	WG548688
TPH (GC/FID) High Fraction	ppm	57.6	0	60	96.0	50-150	L528815-02	WG548608
o-Terphenyl					86.95	50-150		WG548608
Arsenic	mg/kg	43.0	4.29	50	77.4	75-125	L528773-01	WG548536
Barium	mg/kg	138.	100.	50	76.0	75-125	L528773-01	WG548536
Cadmium	mg/kg	38.8	0.534	50	76.5	75-125	L528773-01	WG548536
Chromium	mg/kg	56.6	14.8	50	83.6	75-125	L528773-01	WG548536
Copper	mg/kg	55.8	11.0	50	89.6	75-125	L528773-01	WG548536
Lead	mg/kg	50.3	9.38	50	81.8	75-125	L528773-01	WG548536
Nickel	mg/kg	56.5	15.2	50	82.6	75-125	L528773-01	WG548536
Selenium	mg/kg	34.8	0	50	69.6*	75-125	L528773-01	WG548536
Silver	mg/kg	42.6	0.675	50	83.8	75-125	L528773-01	WG548536
Zinc	mg/kg	106.	41.3	50	129.*	75-125	L528773-01	WG548536
1-Methylnaphthalene	mg/kg	0.0360	0.00400	.033	96.9	25-155	L528668-01	WG548617

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
2-Chloronaphthalene	mg/kg	0.0285	0	.033	86.4	31-153	L528668-01	WG548617
2-Methylnaphthalene	mg/kg	0.0450	0.00880	.033	110.	22-172	L528668-01	WG548617
Acenaphthene	mg/kg	0.0307	0	.033	93.0	43-133	L528668-01	WG548617
Acenaphthylene	mg/kg	0.0294	0	.033	89.0	42-146	L528668-01	WG548617
Anthracene	mg/kg	0.0314	0	.033	95.1	38-153	L528668-01	WG548617
Benzo(a)anthracene	mg/kg	0.0316	0	.033	95.8	31-142	L528668-01	WG548617
Benzo(a)pyrene	mg/kg	0.0294	0	.033	89.2	26-152	L528668-01	WG548617
Benzo(b)fluoranthene	mg/kg	0.0276	0	.033	83.7	10-188	L528668-01	WG548617
Benzo(g,h,i)perylene	mg/kg	0.0330	0	.033	100.	10-176	L528668-01	WG548617
Benzo(k)fluoranthene	mg/kg	0.0355	0	.033	108.	22-163	L528668-01	WG548617
Chrysene	mg/kg	0.0333	0	.033	101.	26-146	L528668-01	WG548617
Dibenz(a,h)anthracene	mg/kg	0.0322	0	.033	97.6	10-160	L528668-01	WG548617
Fluoranthene	mg/kg	0.0310	0	.033	93.9	23-160	L528668-01	WG548617
Fluorene	mg/kg	0.0302	0	.033	91.5	44-143	L528668-01	WG548617
Indeno(1,2,3-cd)pyrene	mg/kg	0.0321	0	.033	97.3	10-157	L528668-01	WG548617
Naphthalene	mg/kg	0.0447	0.00820	.033	110.	22-156	L528668-01	WG548617
Phenanthrene	mg/kg	0.0320	0	.033	96.9	23-164	L528668-01	WG548617
Pyrene	mg/kg	0.0340	0	.033	103.	12-170	L528668-01	WG548617
2-Fluorobiphenyl					79.77	34-129		WG548617
Nitrobenzene-d5					79.92	14-141		WG548617
p-Terphenyl-d14					80.07	25-139		WG548617
Benzene	mg/kg	0.214	0	.05	85.7	32-137	L528909-01	WG548929
Ethylbenzene	mg/kg	0.218	0	.05	87.3	10-150	L528909-01	WG548929
Toluene	mg/kg	0.226	0	.05	90.5	20-142	L528909-01	WG548929
Total Xylene	mg/kg	0.663	0	.15	88.4	16-141	L528909-01	WG548929
a,a,a-Trifluorotoluene(PID)					98.76	54-144		WG548929
TPH (GC/FID) High Fraction	ppm	163.	120.	60	70.9	50-150	L528836-30	WG548610
o-Terphenyl					79.84	50-150		WG548610

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.225	0.211	89.8	32-137	6.41	39	L528836-20	WG548534
Ethylbenzene	mg/kg	0.211	0.208	84.6	10-150	1.48	44	L528836-20	WG548534
Toluene	mg/kg	0.227	0.220	91.0	20-142	3.48	42	L528836-20	WG548534
Total Xylene	mg/kg	0.629	0.622	83.9	16-141	1.10	46	L528836-20	WG548534
a,a,a-Trifluorotoluene(FID)				101.8	59-128				WG548534
a,a,a-Trifluorotoluene(PID)				97.98	54-144				WG548534
TPH (GC/FID) Low Fraction	mg/kg	21.8	23.8	79.2	55-109	9.05	20	L528836-20	WG548534
a,a,a-Trifluorotoluene(FID)				99.62	59-128				WG548534
a,a,a-Trifluorotoluene(PID)				101.1	54-144				WG548534
Chromium,Hexavalent	mg/kg	13.3	13.3	66.5	50-150	0	20	L528490-07	WG548499
Benzene	mg/kg	0.232	0.244	92.8	32-137	5.02	39	L528815-04	WG548527
Ethylbenzene	mg/kg	0.248	0.266	99.2	10-150	6.96	44	L528815-04	WG548527
Toluene	mg/kg	0.246	0.262	98.3	20-142	6.49	42	L528815-04	WG548527
Total Xylene	mg/kg	0.732	0.788	97.6	16-141	7.40	46	L528815-04	WG548527
a,a,a-Trifluorotoluene(PID)				98.98	54-144				WG548527
TPH (GC/FID) Low Fraction	mg/kg	28.9	31.2	105.	55-109	7.60	20	L528815-04	WG548527
a,a,a-Trifluorotoluene(FID)				103.9	59-128				WG548527

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Tax I.D. 62-0814289

Est. 1970

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
Benzene	mg/kg	0.237	0.277	94.6	32-137	16.0	39	L528579-03		WG548668
Ethylbenzene	mg/kg	0.244	0.296	97.7	10-150	19.0	44	L528579-03		WG548668
a,a,a-Trifluorotoluene(FID)				98.93	59-128					WG548668
a,a,a-Trifluorotoluene(PID)				104.1	54-144					WG548668
TPH (GC/FID) Low Fraction	mg/kg	5.57	5.76	101.	55-109	3.32	20	L528925-02		WG548668
a,a,a-Trifluorotoluene(FID)				103.1	59-128					WG548668
a,a,a-Trifluorotoluene(PID)				113.2	54-144					WG548668
Mercury	mg/kg	0.278	0.310	92.8	70-130	10.9	20	L528836-15		WG548688
TPH (GC/FID) High Fraction	ppm	58.0	57.6	96.6	50-150	0.695	25	L528815-02		WG548608
o-Terphenyl				90.24	50-150					WG548608
Arsenic	mg/kg	48.3	43.0	88.0	75-125	11.6	20	L528773-01		WG548536
Barium	mg/kg	141.	138.	82.0	75-125	2.15	20	L528773-01		WG548536
Cadmium	mg/kg	42.5	38.8	83.9	75-125	9.10	20	L528773-01		WG548536
Chromium	mg/kg	61.4	56.6	93.2	75-125	8.14	20	L528773-01		WG548536
Copper	mg/kg	58.9	55.8	95.8	75-125	5.41	20	L528773-01		WG548536
Lead	mg/kg	56.7	50.3	94.6	75-125	12.0	20	L528773-01		WG548536
Nickel	mg/kg	60.0	56.5	89.6	75-125	6.01	20	L528773-01		WG548536
Selenium	mg/kg	38.4	34.8	76.8	75-125	9.84	20	L528773-01		WG548536
Silver	mg/kg	44.5	42.6	87.6	75-125	4.36	20	L528773-01		WG548536
Zinc	mg/kg	90.5	106.	98.4	75-125	15.8	20	L528773-01		WG548536
1-Methylnaphthalene	mg/kg	0.0368	0.0360	99.4	25-155	2.25	27	L528668-01		WG548617
2-Chloronaphthalene	mg/kg	0.0294	0.0285	89.1	31-153	2.97	22	L528668-01		WG548617
2-Methylnaphthalene	mg/kg	0.0483	0.0450	120.	22-172	7.11	29	L528668-01		WG548617
Acenaphthene	mg/kg	0.0315	0.0307	95.5	43-133	2.61	26	L528668-01		WG548617
Acenaphthylene	mg/kg	0.0316	0.0294	95.8	42-146	7.29	22	L528668-01		WG548617
Anthracene	mg/kg	0.0303	0.0314	91.7	38-153	3.61	27	L528668-01		WG548617
Benzo(a)anthracene	mg/kg	0.0322	0.0316	97.5	31-142	1.69	31	L528668-01		WG548617
Benzo(a)pyrene	mg/kg	0.0296	0.0294	89.6	26-152	0.414	32	L528668-01		WG548617
Benzo(b)fluoranthene	mg/kg	0.0284	0.0276	86.1	10-188	2.85	33	L528668-01		WG548617
Benzo(g,h,i)perylene	mg/kg	0.0330	0.0330	100.	10-176	0.0685	30	L528668-01		WG548617
Benzo(k)fluoranthene	mg/kg	0.0348	0.0355	105.	22-163	2.16	29	L528668-01		WG548617
Chrysene	mg/kg	0.0341	0.0333	103.	26-146	2.33	30	L528668-01		WG548617
Dibenz(a,h)anthracene	mg/kg	0.0325	0.0322	98.6	10-160	1.06	39	L528668-01		WG548617
Fluoranthene	mg/kg	0.0297	0.0310	90.1	23-160	4.08	22	L528668-01		WG548617
Fluorene	mg/kg	0.0315	0.0302	95.4	44-143	4.17	23	L528668-01		WG548617
Indeno(1,2,3-cd)pyrene	mg/kg	0.0327	0.0321	99.1	10-157	1.86	40	L528668-01		WG548617
Naphthalene	mg/kg	0.0479	0.0447	120.	22-156	7.03	27	L528668-01		WG548617
Phenanthrene	mg/kg	0.0316	0.0320	95.8	23-164	1.19	25	L528668-01		WG548617
Pyrene	mg/kg	0.0339	0.0340	103.	12-170	0.255	24	L528668-01		WG548617
2-Fluorobiphenyl				89.87	34-129					WG548617
Nitrobenzene-d5				76.76	14-141					WG548617
p-Terphenyl-d14				86.14	25-139					WG548617
Benzene	mg/kg	0.199	0.214	79.5	32-137	7.59	39	L528909-01		WG548929
Ethylbenzene	mg/kg	0.199	0.218	79.7	10-150	9.03	44	L528909-01		WG548929
Toluene	mg/kg	0.202	0.226	80.8	20-142	11.4	42	L528909-01		WG548929
Total Xylene	mg/kg	0.602	0.663	80.3	16-141	9.63	46	L528909-01		WG548929
a,a,a-Trifluorotoluene(PID)				98.19	54-144					WG548929

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
TPH (GC/FID) High Fraction	ppm	155.	163.	58.1	50-150	4.85	25	L528836-30	WG548610
o-Terphenyl				73.78	50-150				WG548610

Batch number /Run number / Sample number cross reference

WG548534: R1801054: L528836-20 22 23 24 25 26 27 28 29 30  
WG548499: R1801273: L528836-12 15  
WG548599: R1801890: L528836-12 15  
WG548527: R1802150: L528836-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19  
WG548668: R1802371: L528836-21  
WG548842: R1802532: L528836-12 15  
WG548688: R1802612: L528836-12 15  
WG548608: R1802653: L528836-01 02 03 04 05 06 07 08 09 10 11  
WG548844: R1802872: L528836-12 15  
WG548536: R1802912: L528836-12 15  
WG548617: R1803210: L528836-12 15  
WG548929: R1803750: L528836-04 19 21  
WG548610: R1803790: L528836-12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30  
WG548713: R1803950: L528836-12 15

\* \* Calculations are performed prior to rounding of reported values.

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.