

FORM  
27  
Rev 5/99State of Colorado  
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

## SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No: 6059

## CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe):

OGCC Operator Number: 100185	Contact Name and Telephone:
Name of Operator: Encana Oil & Gas (USA) Inc.	Charlie Jensen
Address: 2717 County Road 215, Suite 100	No: 970.285.2735
City: Parachute State: CO Zip: 81635	Fax: 970.285.2705
API Number: 05-045-13406	County: Garfield
Facility Name: Encana Well Pad J13W	Facility Number: #278795
Well Name: Roles #13-7A (J13W)	Well Number: N/A
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NESE, Section 13, 7S, 93W, 6th Latitude: 39.444405 Longitude: -107.720696	

## TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Produced water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): dry land farming, rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Nihill Channery Loam, 1 to 6 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): intermittent tributary of West Mamm Creek

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

- ☒
- Soils
- 
- ☐
- Vegetation
- 
- ☐
- Groundwater
- 
- ☐
- Surface Water

Extent of Impact:

6500 square feet

How Determined:

Form 19 submitted (spill number 200070592)

Form 27 submitted (spill number 200070592)

## REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Soil analytical data submitted and detailed in spill and cleanup report dated June 20, 2005. Report was submitted by Cordilleran Compliance Services on behalf of Encana. The Form 19 was submitted and assigned the number 200070592. A Form 27 was submitted on 8/9/2011 and conditionally approved. The soil samples were collected on September 21, 2011. A summary table is attached with the laboratory analytical reports.

Describe how source is to be removed:

Encana proposes to perform follow-up subsurface soil to a depth of three feet at the 5 locations which showed the SAR ratio above the Table 910-1 threshold. Additional samples will also be collected laterally from locations 11, 12, and 13 to further define the extent of SAR impacts. A sample will also be collected to the south of location 9. The attached map shows the sample area. The sample area was based on the original report, the June 2005 aerial photograph, and the Conditions of Approval. Sample locations 7, 9, 11, 12, and 13 were the locations above Table 910-1. The remaining locations were in compliance with the Table 910-1 standard. Proposed next steps, including additional sampling activities and additional "Interseeding" are described below.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

"Interseeding" activities were conducted on October 10, 2011 prior to ground freezing conditions, to promote additional overall vegetation growth. Additional sampling for SAR at the 5 referenced locations to a depth of three feet is proposed to assist in the development of a remedial plan. Due to the pending winter season, the implementation of a remedial plan may not be implemented until Spring 2012. Once approved, additional sampling can commence and subsequent data submitted to COGCC for review.

Submit Page 2 with Page 1

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Rev 6/99

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Page 2

## REMEDIATION WORKPLAN (Cont.)

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

N/A - Groundwater is deeper than 3 feet - the SAR ratio standard in soil is for the top three feet (root zone of most vegetation).

**Describe reclamation plan.** Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

It is proposed to perform follow-up soil sampling for SAR ratio at the 5 sample locations (7, 9, 11, 12, 13) at a depth of three feet below grade. Additional samples will also be collected laterally from locations 11, 12, and 13 to further define the extent of SAR impacts. A sample will also be collected to the south of location 9. Sample locations 1 through 6, 8, and 10, are compliant with Table 910-1 for SAR. Sample locations which exceed are within the original disturbance, with three of the locations on the active pad. Because a majority of the locations are compliant, "interseeding" was implemented before the ground freezes. The attached site diagram and table summarize the locations and soil data for this assessment. A comprehensive SAR remedial approach can be designed after the follow-up SAR sampling is completed.

The additional analytical for BTEX and TPH showed all soil samples to be compliant with Table 910-1.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☒ Y ☐ N If yes, describe:

See above for follow-up sampling for SAR.

**Final disposition of E&P waste** (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Unknown at this time.

## IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 9/21/2011 Date Site Investigation Completed: TBD Date Remediation Plan Submitted: ongoing  
Remediation Start Date: TBD Anticipated Completion Date: TBD Actual Completion Date: TBD

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

Print Name: Charlie Jensen

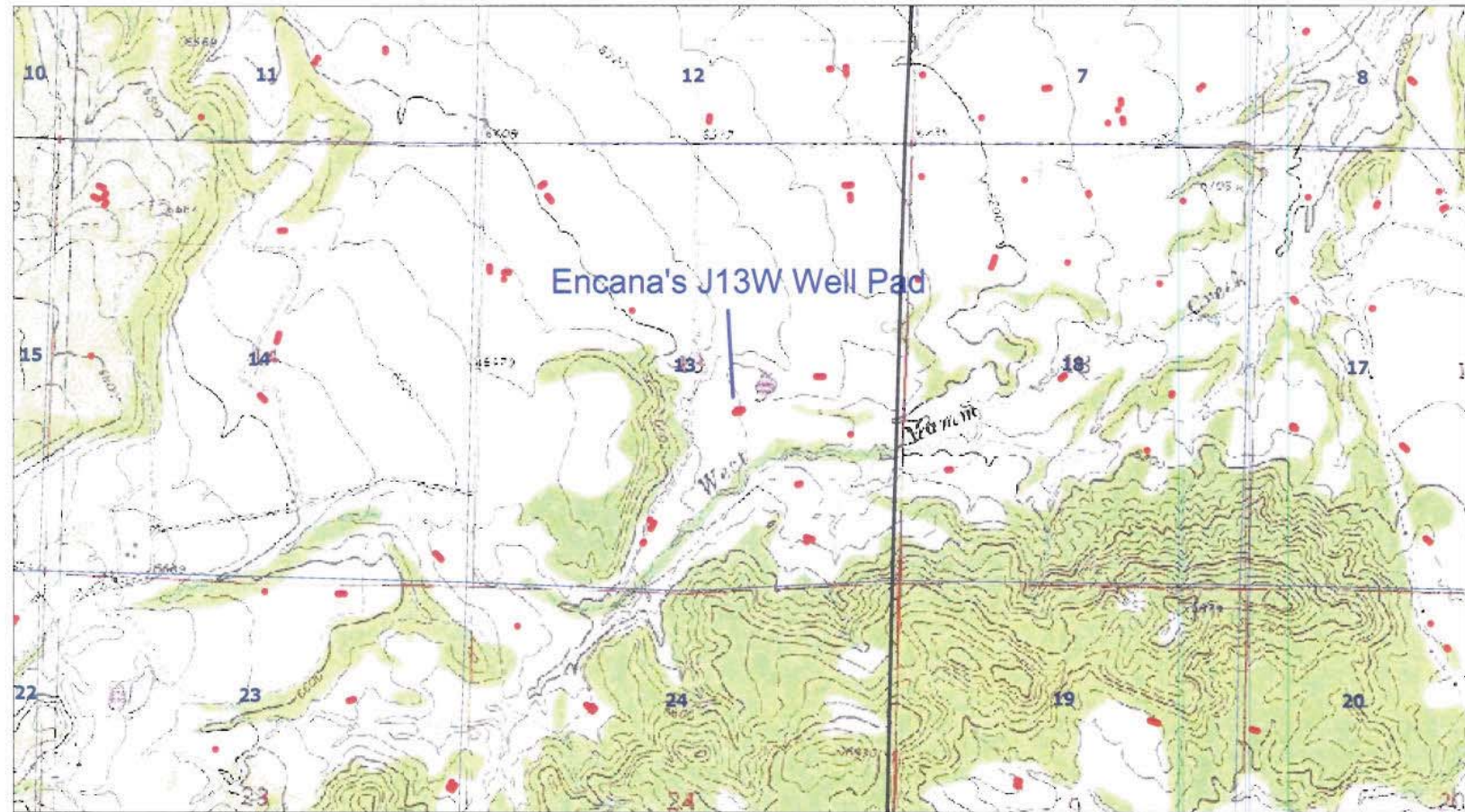
Signed: *Charlie H. Jensen*

Title: Hydrogeologist/Special Projects

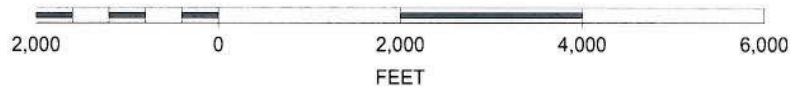
Date: November 23, 2011

OGCC Approved: *ACE for Alex Fischer* Title: *West. Environ. Super.* Date: *1/10/2013*

# Topographic Location Map - J13W



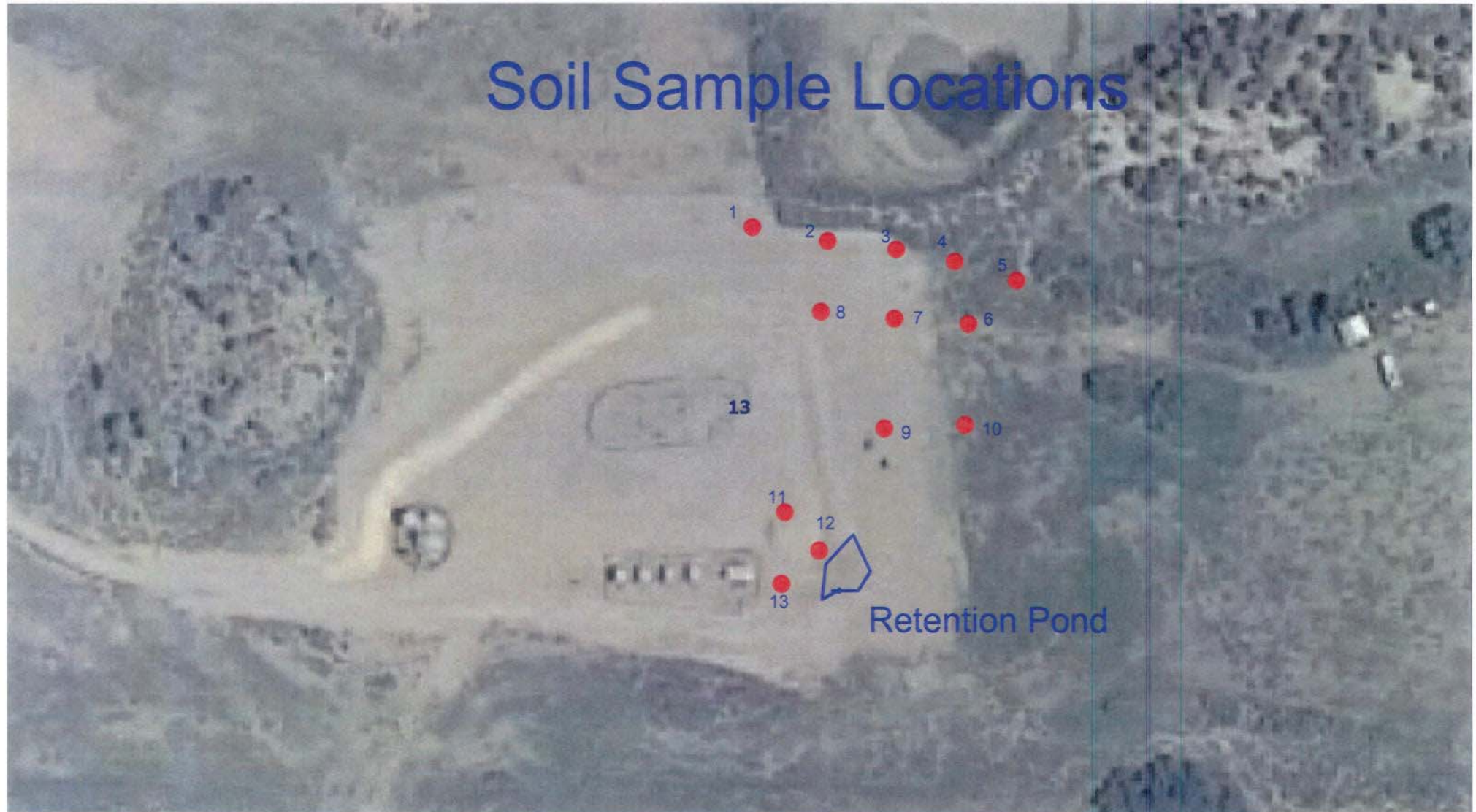
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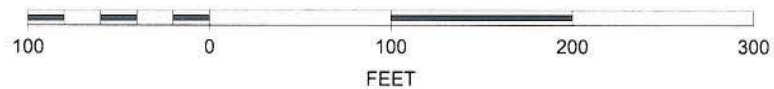


# J13W Well Pad

## Soil Sample Locations

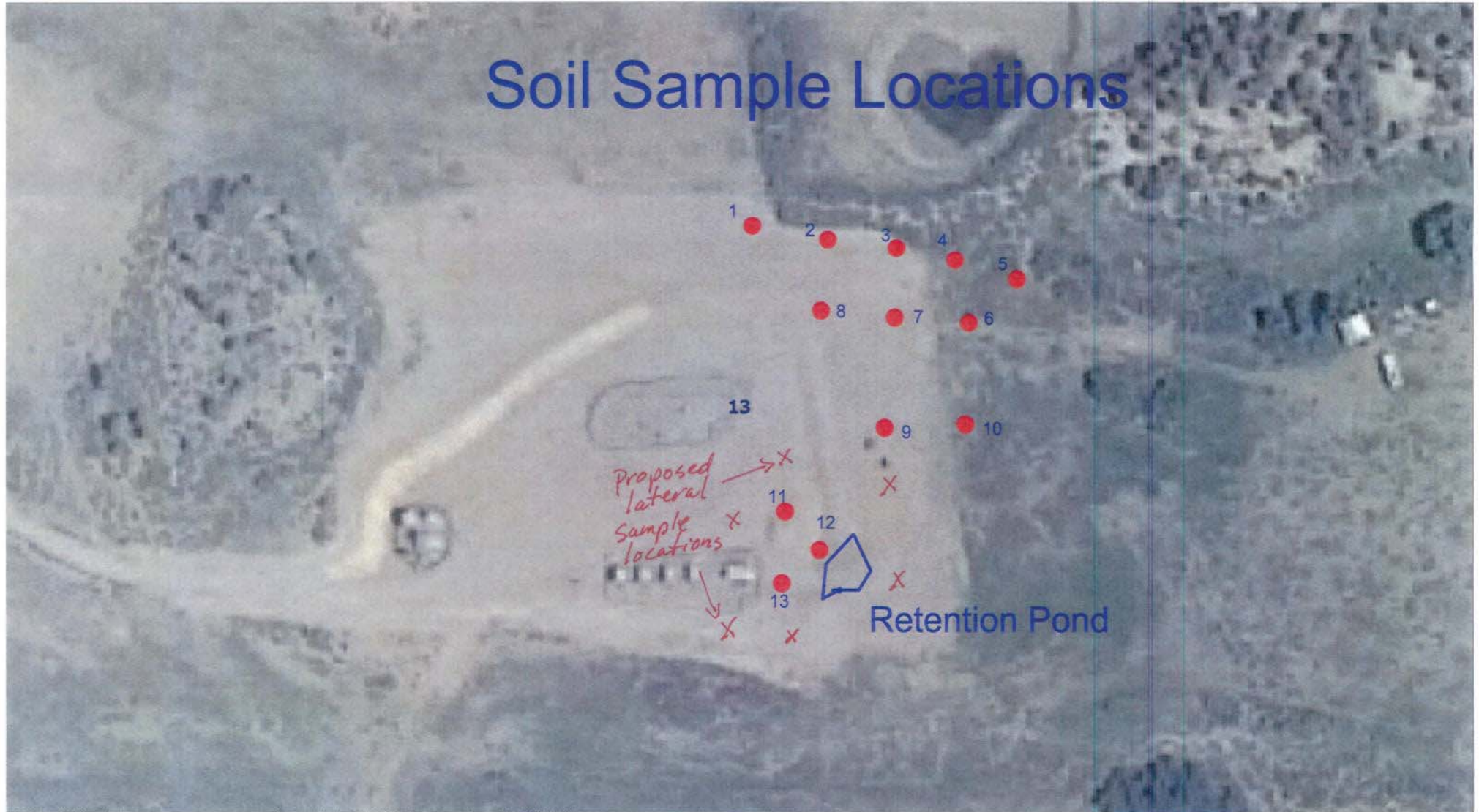


SCALE 1 : 1,206

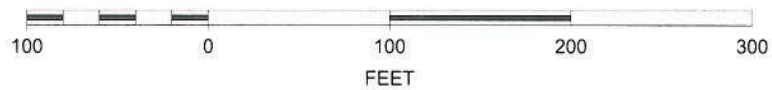


# J13W Well Pad

## Soil Sample Locations



SCALE 1 : 1,206





**Encana's J13W Well Pad Soil Analytical Data**

Standards			6-9	12	4000	500	0.17	85	100	175	500
Soil Samples	Depth	Date	pH (su)	Sodium Absorption Ratio	Specific Conductance (umhos/cm)	TVPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TEPH (mg/kg)
J-13-SS1-A-092111	3-5 IN	09/21/2011	8.9	11.0	590	BDL	BDL	BDL	BDL	BDL	7.1
J-13-SS1-B-092111	13-15 IN	09/21/2011	8.7	11.0	860	BDL	BDL	BDL	BDL	BDL	15.0
J-13-SS2-A-092111	3-5 IN	09/21/2011	8.7	9.8	500	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS2-B-092111	13-15 IN	09/21/2011	8.6	10.0	920	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS3-A-092111	3-5 IN	09/21/2011	8.8	6.6	380	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS3-B-092111	13-15 IN	09/21/2011	9.2	12.0	500	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS4-A-092111	3-5 IN	09/21/2011	8.4	1.5	300	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS4-B-092111	13-15 IN	09/21/2011	8.6	1.8	230	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS5-A-092111	3-5 IN	09/21/2011	8.6	3.3	330	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS5-B-092111	13-15 IN	09/21/2011	8.1	3.1	290	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS6-A-092111	3-5 IN	09/21/2011	8.7	0.96	370	BDL	BDL	BDL	BDL	BDL	4.6
J-13-SS6-B-092111	13-15 IN	09/21/2011	8.1	0.93	270	BDL	BDL	BDL	BDL	BDL	4.1
J-13-SS7-A-092111	3-5 IN	09/21/2011	8.9	13.0	720	BDL	BDL	BDL	BDL	BDL	5.2
J-13-SS7-B-092111	13-15 IN	09/21/2011	8.8	15.0	990	BDL	BDL	BDL	BDL	BDL	5.4
J-13-SS8-A-092111	3-5 IN	09/21/2011	8.8	11.0	910	BDL	BDL	BDL	BDL	BDL	18.0
J-13-SS8-B-092111	13-15 IN	09/21/2011	8.7	12.0	1000	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS9-A-092111	3-5 IN	09/21/2011	9.0	9.5	620	BDL	BDL	BDL	BDL	BDL	8.7
J-13-SS9-B-092111	13-15 IN	09/21/2011	8.7	25.0	1300	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS10-A-092111	3-5 IN	09/21/2011	8.1	2.3	320	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS10-B-092111	13-15 IN	09/21/2011	8.3	1.8	200	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS11-A-092111	3-5 IN	09/21/2011	8.9	14.0	1000	BDL	BDL	BDL	BDL	BDL	4.4
J-13-SS11-B-092111	13-15 IN	09/21/2011	8.8	11.0	600	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS12-A-092111	3-5 IN	09/21/2011	9.2	19.0	560	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS12-B-092111	13-15 IN	09/21/2011	8.5	15.0	1500	BDL	BDL	BDL	BDL	BDL	BDL
J-13-SS13-A-092111	3-5 IN	09/21/2011	8.8	13.0	1000	BDL	BDL	BDL	BDL	BDL	15.0
J-13-SS13-B-092111	13-15 IN	09/21/2011	8.7	15.0	1200	BDL	BDL	BDL	BDL	BDL	10.0



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Est. 1970

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

### Report Summary

Thursday September 29, 2011

Report Number: L537565

Samples Received: 09/22/11

Client Project: J13

Description: J-13-W PW Spill

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:

  
Jarred 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, PA - 68-02979

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

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS1-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 10:30

ESC Sample # : L537565-01  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.9		su	9045D	09/27/11	1
Sodium Adsorption Ratio	11.			Calc.	09/25/11	1
Specific Conductance	590		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	89.1		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/28/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/28/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/28/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/28/11	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	09/28/11	5
Dibromofluoromethane	111.		% Rec.	8260B	09/28/11	5
a,a,a-Trifluorotoluene	106.		% Rec.	8260B	09/28/11	5
4-Bromofluorobenzene	80.1		% Rec.	8260B	09/28/11	5
TPH (GC/FID) High Fraction	7.1	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	61.7		% Rec.	3546/DRO	09/26/11	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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L537565-01 (PH) - 8.87@19.7c





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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS1-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 10:35

ESC Sample # : L537565-02  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/27/11	1
Sodium Adsorption Ratio	11.			Calc.	09/25/11	1
Specific Conductance	860		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	90.1		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/28/11	5
Surrogate Recovery						
Toluene-d8	96.4		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	93.6		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	108.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	109.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	15.	4.0	mg/kg	3546/DRO	09/28/11	1
Surrogate recovery(%)						
o-Terphenyl	68.5		% Rec.	3546/DRO	09/28/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-02 (PH) - 8.69@20.8c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS2-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 10:40

ESC Sample # : L537565-03

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/27/11	1
Sodium Adsorption Ratio	9.8			Calc.	09/25/11	1
Specific Conductance	500		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/25/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	99.7		% Rec.	602/8015	09/25/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.5		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	92.8		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	108.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	68.6		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-03 (PH) - 8.68@20.1c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS2-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 10:45

ESC Sample # : L537565-04  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.6		su	9045D	09/27/11	1
Sodium Adsorption Ratio	10.			Calc.	09/25/11	1
Specific Conductance	920		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/25/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	602/8015	09/25/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.8		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	95.4		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	111.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	108.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	53.7		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-04 (PH) - 8.56@20.3c





YOUR LAB OF CHOICE

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REPORT OF ANALYSIS

September 29, 2011

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS3-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 10:50

ESC Sample # : L537565-05

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.8		su	9045D	09/27/11	1
Sodium Adsorption Ratio	6.6			Calc.	09/25/11	1
Specific Conductance	380		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	89.8		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.0		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	93.7		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	109.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	66.0		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-05 (PH) - 8.75@19.6c



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Est. 1970

# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS3-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 10:55

ESC Sample # : L537565-06  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	9.2		su	9045D	09/27/11	1
Sodium Adsorption Ratio	12.			Calc.	09/25/11	1
Specific Conductance	500		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	90.5		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	94.9		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	94.7		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	109.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	111.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	65.9		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-06 (PH) - 9.25@19.5c



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REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS4-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 11:00

ESC Sample # : L537565-07

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.4		su	9045D	09/27/11	1
Sodium Adsorption Ratio	1.5			Calc.	09/25/11	1
Specific Conductance	300		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	89.2		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	96.1		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	109.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	60.5		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-07 (PH) - 8.35@19.8c





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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS4-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:05

ESC Sample # : L537565-08

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.6		su	9045D	09/27/11	1
Sodium Adsorption Ratio	1.8			Calc.	09/25/11	1
Specific Conductance	230		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/25/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	101.		% Rec.	602/8015	09/25/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.7		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	94.9		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	107.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	59.3		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-08 (PH) - 8.57@19.9c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS5-A-092111 3-SIN  
Collected By : SRM  
Collection Date : 09/21/11 11:10

ESC Sample # : L537565-09

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.6		su	9045D	09/27/11	1
Sodium Adsorption Ratio	3.3			Calc.	09/25/11	1
Specific Conductance	330		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	90.6		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.6		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	95.1		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	111.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	109.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	53.8		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-09 (PH) - 8.62@20.1c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J13-SS5-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:15

ESC Sample # : L537565-10

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.1		su	9045D	09/27/11	1
Sodium Adsorption Ratio	3.1			Calc.	09/25/11	1
Specific Conductance	290		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/25/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	99.1		% Rec.	602/8015	09/25/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/23/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/23/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/23/11	5
Surrogate Recovery						
Toluene-d8	96.5		% Rec.	8260B	09/23/11	5
Dibromofluoromethane	94.7		% Rec.	8260B	09/23/11	5
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/23/11	5
4-Bromofluorobenzene	108.		% Rec.	8260B	09/23/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	67.0		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-10 (PH) - 8.07@20.3c





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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS6-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 11:20

ESC Sample # : L537565-11

Site ID :

Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/27/11	1
Sodium Adsorption Ratio	0.96			Calc.	09/25/11	1
Specific Conductance	370		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/25/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	602/8015	09/25/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	111.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	100.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	89.3		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	4.6	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	59.4		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-11 (PH) - 8.70@20.2c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS6-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:25

ESC Sample # : L537565-12

Site ID :

Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.1		su	9045D	09/28/11	1
Sodium Adsorption Ratio	0.93			Calc.	09/25/11	1
Specific Conductance	270		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	88.8		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	98.6		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	4.1	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	85.8		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-12 (PH) - 8.12@18.9c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS7-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 11:30

ESC Sample # : L537565-13

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.9		su	9045D	09/28/11	1
Sodium Adsorption Ratio	13.			Calc.	09/25/11	1
Specific Conductance	720		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	90.2		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	102.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	98.9		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	5.2	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	90.3		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-13 (PH) - 8.90@18.7c





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REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS7-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:35

ESC Sample # : L537565-14

Site ID :

Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.8		su	9045D	09/28/11	1
Sodium Adsorption Ratio	15.			Calc.	09/25/11	1
Specific Conductance	990		umhos/cm	9050AMod	09/25/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	90.1		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	104.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	98.1		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	5.4	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	93.9		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-14 (PH) - 8.79@19.2c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS8-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 11:40

ESC Sample # : L537565-15

Site ID :

Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.8		su	9045D	09/28/11	1
Sodium Adsorption Ratio	11.			Calc.	09/25/11	1
Specific Conductance	910		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	89.6		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	104.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	99.3		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	18.	4.0	mg/kg	3546/DRO	09/27/11	1
Surrogate recovery(%)						
o-Terphenyl	67.1		% Rec.	3546/DRO	09/27/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-15 (PH) - 8.79@19.2c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SSB-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:45

ESC Sample # : L537565-16

Site ID :

Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/28/11	1
Sodium Adsorption Ratio	12.			Calc.	09/25/11	1
Specific Conductance	1000		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	90.2		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	105.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	100.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	96.8		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	84.4		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-16 (PH) - 8.68@19.1c





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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS9-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 11:50

ESC Sample # : L537565-17

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	9.0		su	9045D	09/28/11	1
Sodium Adsorption Ratio	9.5			Calc.	09/25/11	1
Specific Conductance	620		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	90.4		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	105.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	105.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	102.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	8.7	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	92.7		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-17 (PH) - 9.01@18.7c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS9-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 11:55

ESC Sample # : L537565-18

Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/28/11	1
Sodium Adsorption Ratio	25.			Calc.	09/28/11	1
Specific Conductance	1300		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	98.9		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	101.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	101.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	97.4		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-18 (PH) - 8.73@18.9c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS10-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 12:00

ESC Sample # : L537565-19  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.1		su	9045D	09/28/11	1
Sodium Adsorption Ratio	2.3			Calc.	09/28/11	1
Specific Conductance	320		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	99.7		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	99.4		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	83.0		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-19 (PH) - 8.14@19.2c





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# REPORT OF ANALYSIS

September 29, 2011

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS10-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 12:05

ESC Sample # : L537565-20  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.3		su	9045D	09/28/11	1
Sodium Adsorption Ratio	1.8			Calc.	09/28/11	1
Specific Conductance	200		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	99.7		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	102.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	99.8		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	96.2		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
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L537565-20 (PH) - 8.27@19.3c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS11-A-092111 3-SIN  
Collected By : SRM  
Collection Date : 09/21/11 12:10

ESC Sample # : L537565-21  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.9		su	9045D	09/28/11	1
Sodium Adsorption Ratio	14.			Calc.	09/28/11	1
Specific Conductance	1000		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	99.9		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	101.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	102.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	4.4	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	108.		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L537565-21 (PH) - 8.88@18.8c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS11-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 12:15

ESC Sample # : L537565-22  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.8		su	9045D	09/28/11	1
Sodium Adsorption Ratio	11.			Calc.	09/28/11	1
Specific Conductance	600		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	99.7		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	101.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	86.2		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
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L537565-22 (PH) - 8.79@18.4c





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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS12-A-092111 3-SIN  
Collected By : SRM  
Collection Date : 09/21/11 12:20

ESC Sample # : L537565-23  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	9.2		su	9045D	09/28/11	1
Sodium Adsorption Ratio	19.			Calc.	09/28/11	1
Specific Conductance	560		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	103.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	94.8		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L537565-23 (PH) - 9.25@18.7c



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# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS12-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 12:25

ESC Sample # : L537565-24  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.5		su	9045D	09/28/11	1
Sodium Adsorption Ratio	15.			Calc.	09/28/11	1
Specific Conductance	1500		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	100.		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	104.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	102.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	81.6		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
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L537565-24 (PH) - 8.50@19.5c



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REPORT OF ANALYSIS

September 29, 2011

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS13-A-092111 3-5IN  
Collected By : SRM  
Collection Date : 09/21/11 12:30

ESC Sample # : L537565-25  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.8		su	9045D	09/28/11	1
Sodium Adsorption Ratio	13.			Calc.	09/28/11	1
Specific Conductance	1000		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/23/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	99.8		% Rec.	602/8015	09/23/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	99.7		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	15.	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%) o-Terphenyl	88.0		% Rec.	3546/DRO	09/26/11	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: 09/29/11 15:10 Printed: 09/29/11 16:37  
L537565-25 (PH) - 8.84@19.2c



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Tax I.D. 62-0814289  
Est. 1970

# REPORT OF ANALYSIS

Charles Jensen  
Encana  
2717 Co. Rd. 215  
Parachute, CO 81635

September 29, 2011

Date Received : September 22, 2011  
Description : J-13-W PW Spill  
Sample ID : J-13-SS13-B-092111 13-15IN  
Collected By : SRM  
Collection Date : 09/21/11 12:35

ESC Sample # : L537565-26  
Site ID :  
Project # : J13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.7		su	9045D	09/28/11	1
Sodium Adsorption Ratio	15.			Calc.	09/28/11	1
Specific Conductance	1200		umhos/cm	9050AMod	09/28/11	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/24/11	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	98.9		% Rec.	602/8015	09/24/11	5
Benzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Toluene	BDL	0.025	mg/kg	8260B	09/24/11	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/24/11	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/24/11	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	09/24/11	5
Dibromofluoromethane	103.		% Rec.	8260B	09/24/11	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	09/24/11	5
4-Bromofluorobenzene	102.		% Rec.	8260B	09/24/11	5
TPH (GC/FID) High Fraction	10.	4.0	mg/kg	3546/DRO	09/26/11	1
Surrogate recovery(%)						
o-Terphenyl	76.4		% Rec.	3546/DRO	09/26/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 09/29/11 15:10 Printed: 09/29/11 16:37  
L537565-26 (PH) - 8.70@19.5c



Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L537565-15	WG557715	SAMP	Specific Conductance	R1874901	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.



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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .001	mg/kg			WG556864	09/23/11 11:12
Ethylbenzene	< .001	mg/kg			WG556864	09/23/11 11:12
Toluene	< .005	mg/kg			WG556864	09/23/11 11:12
Total Xylenes	< .003	mg/kg			WG556864	09/23/11 11:12
4-Bromofluorobenzene		% Rec.	109.6	67-133	WG556864	09/23/11 11:12
Dibromofluoromethane		% Rec.	95.87	72-135	WG556864	09/23/11 11:12
Toluene-d8		% Rec.	96.27	90-113	WG556864	09/23/11 11:12
a,a,a-Trifluorotoluene		% Rec.	110.1	89-115	WG556864	09/23/11 11:12
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG556845	09/23/11 08:22
a,a,a-Trifluorotoluene (FID)		% Rec.	90.41	59-128	WG556845	09/23/11 08:22
Specific Conductance	2.20	umhos/cm			WG557065	09/25/11 10:14
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG556878	09/23/11 19:27
a,a,a-Trifluorotoluene (FID)		% Rec.	102.4	59-128	WG556878	09/23/11 19:27
TPH (GC/FID) High Fraction	< 4	ppm			WG556821	09/26/11 05:42
o-Terphenyl		% Rec.	71.46	50-150	WG556821	09/26/11 05:42
TPH (GC/FID) High Fraction	< 4	ppm			WG556867	09/26/11 11:10
o-Terphenyl		% Rec.	80.92	50-150	WG556867	09/26/11 11:10
Benzene	< .001	mg/kg			WG556974	09/24/11 00:46
Ethylbenzene	< .001	mg/kg			WG556974	09/24/11 00:46
Toluene	< .005	mg/kg			WG556974	09/24/11 00:46
Total Xylenes	< .003	mg/kg			WG556974	09/24/11 00:46
4-Bromofluorobenzene		% Rec.	94.46	67-133	WG556974	09/24/11 00:46
Dibromofluoromethane		% Rec.	112.7	72-135	WG556974	09/24/11 00:46
Toluene-d8		% Rec.	103.6	90-113	WG556974	09/24/11 00:46
a,a,a-Trifluorotoluene		% Rec.	98.93	89-115	WG556974	09/24/11 00:46
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG557020	09/25/11 21:53
a,a,a-Trifluorotoluene (FID)		% Rec.	99.93	59-128	WG557020	09/25/11 21:53
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG556933	09/25/11 00:21
a,a,a-Trifluorotoluene (FID)		% Rec.	102.6	59-128	WG556933	09/25/11 00:21
TPH (GC/FID) High Fraction	< 4	ppm			WG557042	09/26/11 15:54
o-Terphenyl		% Rec.	76.17	50-150	WG557042	09/26/11 15:54
Benzene	< .001	mg/kg			WG557002	09/24/11 07:25
Ethylbenzene	< .001	mg/kg			WG557002	09/24/11 07:25
Toluene	< .005	mg/kg			WG557002	09/24/11 07:25
Total Xylenes	< .003	mg/kg			WG557002	09/24/11 07:25
4-Bromofluorobenzene		% Rec.	103.2	67-133	WG557002	09/24/11 07:25
Dibromofluoromethane		% Rec.	104.5	72-135	WG557002	09/24/11 07:25
Toluene-d8		% Rec.	102.8	90-113	WG557002	09/24/11 07:25
a,a,a-Trifluorotoluene		% Rec.	106.0	89-115	WG557002	09/24/11 07:25

\* 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

September 29, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
pH	4.70	su			WG557088	09/27/11 14:00
Benzene	< .001	mg/kg			WG557580	09/28/11 07:00
Ethylbenzene	< .001	mg/kg			WG557580	09/28/11 07:00
Toluene	< .005	mg/kg			WG557580	09/28/11 07:00
Total Xylenes	< .003	mg/kg			WG557580	09/28/11 07:00
4-Bromofluorobenzene	% Rec.		89.92	67-133	WG557580	09/28/11 07:00
Dibromofluoromethane	% Rec.		107.2	72-135	WG557580	09/28/11 07:00
Toluene-d8	% Rec.		106.6	90-113	WG557580	09/28/11 07:00
a,a,a-Trifluorotoluene	% Rec.		111.0	89-115	WG557580	09/28/11 07:00
Specific Conductance	0.890	umhos/cm			WG557715	09/28/11 15:15
Benzene	< .001	mg/kg			WG557013	09/24/11 07:30
Ethylbenzene	< .001	mg/kg			WG557013	09/24/11 07:30
Toluene	< .005	mg/kg			WG557013	09/24/11 07:30
Total Xylenes	< .003	mg/kg			WG557013	09/24/11 07:30
4-Bromofluorobenzene	% Rec.		103.7	67-133	WG557013	09/24/11 07:30
Dibromofluoromethane	% Rec.		96.62	72-135	WG557013	09/24/11 07:30
Toluene-d8	% Rec.		103.3	90-113	WG557013	09/24/11 07:30
a,a,a-Trifluorotoluene	% Rec.		103.9	89-115	WG557013	09/24/11 07:30
pH	4.80	su			WG557089	09/28/11 17:20
TPH (GC/FID) High Fraction	< 4	ppm			WG557338	09/28/11 09:39
o-Terphenyl	% Rec.		59.13	50-150	WG557338	09/28/11 09:39

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Specific Conductance	umhos/cm	1500	1400	6.90	20	L537488-01	WG557065
Specific Conductance	umhos/cm	2600	2700	3.77	20	L538089-01	WG557065
pH	su	5.70	5.70	0.175	1	L537401-01	WG557088
pH	su	8.80	8.70	0.687	1	L537565-11	WG557088
Specific Conductance	umhos/cm	1200	910.	24.4*	20	L537565-15	WG557715
Specific Conductance	umhos/cm	790.	810.	2.00	20	L538487-01	WG557715
pH	su	8.20	8.10	1.23*	1	L537565-12	WG557089
pH	su	7.90	7.90	0.379	1	L537655-01	WG557089

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.025	0.0216	86.5	72-120	WG556864
Ethylbenzene	mg/kg	.025	0.0300	120.	76-126	WG556864
Toluene	mg/kg	.025	0.0256	102.	74-155	WG556864
Total Xylenes	mg/kg	.075	0.0908	121.	76-126	WG556864
4-Bromofluorobenzene				109.8	67-133	WG556864
Dibromofluoromethane				95.27	72-135	WG556864

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September 29, 2011

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Toluene-d8				98.73	90-113	
a,a,a-Trifluorotoluene				113.2	89-115	
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.40	98.2	67-135	WG556845
a,a,a-Trifluorotoluene(FID)				96.70	59-128	WG556845
Specific Conductance	umhos/cm	427	430.	101.	85-115	WG557065
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.60	120.	67-135	WG556878
a,a,a-Trifluorotoluene(FID)				111.0	59-128	WG556878
TPH (GC/FID) High Fraction	ppm	60	46.2	77.1	50-150	WG556821
o-Terphenyl				84.84	50-150	WG556821
TPH (GC/FID) High Fraction	ppm	60	50.2	83.6	50-150	WG556867
o-Terphenyl				89.92	50-150	WG556867
Benzene	mg/kg	.025	0.0287	115.	72-120	WG556974
Ethylbenzene	mg/kg	.025	0.0224	89.7	76-126	WG556974
Toluene	mg/kg	.025	0.0249	99.6	74-155	WG556974
Total Xylenes	mg/kg	.075	0.0688	91.8	76-126	WG556974
4-Bromofluorobenzene				91.10	67-133	WG556974
Dibromofluoromethane				114.7	72-135	WG556974
Toluene-d8				103.6	90-113	WG556974
a,a,a-Trifluorotoluene				97.32	89-115	WG556974
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.36	116.	67-135	WG557020
a,a,a-Trifluorotoluene(FID)				104.5	59-128	WG557020
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.76	105.	67-135	WG556933
a,a,a-Trifluorotoluene(FID)				109.2	59-128	WG556933
TPH (GC/FID) High Fraction	ppm	60	45.9	76.5	50-150	WG557042
o-Terphenyl				84.16	50-150	WG557042
Benzene	mg/kg	.025	0.0247	98.7	72-120	WG557002
Ethylbenzene	mg/kg	.025	0.0225	89.8	76-126	WG557002
Toluene	mg/kg	.025	0.0245	97.8	74-155	WG557002
Total Xylenes	mg/kg	.075	0.0672	89.6	76-126	WG557002
4-Bromofluorobenzene				98.78	67-133	WG557002
Dibromofluoromethane				106.4	72-135	WG557002
Toluene-d8				107.0	90-113	WG557002
a,a,a-Trifluorotoluene				107.6	89-115	WG557002
pH	su	9.04	8.90	98.5	98-101	WG557088
Benzene	mg/kg	.025	0.0243	97.1	72-120	WG557580
Ethylbenzene	mg/kg	.025	0.0271	108.	76-126	WG557580
Toluene	mg/kg	.025	0.0264	105.	74-155	WG557580

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Total Xylenes	mg/kg	.075	0.0781	104.	76-126	WG557580
4-Bromofluorobenzene				93.58	67-133	WG557580
Dibromofluoromethane				105.6	72-135	WG557580
Toluene-d8				106.2	90-113	WG557580
a,a,a-Trifluorotoluene				113.4	89-115	WG557580
Specific Conductance	umhos/cm	427	430.	101.	85-115	WG557715
Benzene	mg/kg	.025	0.0255	102.	72-120	WG557013
Ethylbenzene	mg/kg	.025	0.0255	102.	76-126	WG557013
Toluene	mg/kg	.025	0.0246	98.4	74-155	WG557013
Total Xylenes	mg/kg	.075	0.0761	101.	76-126	WG557013
4-Bromofluorobenzene				101.2	67-133	WG557013
Dibromofluoromethane				101.1	72-135	WG557013
Toluene-d8				103.2	90-113	WG557013
a,a,a-Trifluorotoluene				104.1	89-115	WG557013
pH	su	9.04	8.90	98.5	98-101	WG557089
TPH (GC/FID) High Fraction	ppm	60	44.7	74.6	50-150	WG557338
o-Terphenyl				74.42	50-150	WG557338

Analyte	Units	Laboratory Control Result	Ref	Sample Duplicate %Rec	Limit	RPD	Limit	Batch
Benzene	mg/kg	0.0209	0.0216	84.0	72-120	3.35	20	WG556864
Ethylbenzene	mg/kg	0.0288	0.0300	115.	76-126	4.00	20	WG556864
Toluene	mg/kg	0.0250	0.0256	100.	74-155	2.28	20	WG556864
Total Xylenes	mg/kg	0.0872	0.0908	116.	76-126	4.08	20	WG556864
4-Bromofluorobenzene				107.4	67-133			WG556864
Dibromofluoromethane				95.25	72-135			WG556864
Toluene-d8				98.00	90-113			WG556864
a,a,a-Trifluorotoluene				112.8	89-115			WG556864
TPH (GC/FID) Low Fraction	mg/kg	6.17	5.40	112.	67-135	13.4	20	WG556845
a,a,a-Trifluorotoluene(FID)				99.04	59-128			WG556845
Specific Conductance	umhos/	430.	430.	101.	85-115	0	20	WG557065
TPH (GC/FID) Low Fraction	mg/kg	6.03	6.60	110.	67-135	9.05	20	WG556878
a,a,a-Trifluorotoluene(FID)				108.2	59-128			WG556878
TPH (GC/FID) High Fraction	ppm	46.9	46.2	78.0	50-150	1.51	25	WG556821
o-Terphenyl				83.86	50-150			WG556821
TPH (GC/FID) High Fraction	ppm	52.3	50.2	87.0	50-150	4.15	25	WG556867
o-Terphenyl				94.77	50-150			WG556867
Benzene	mg/kg	0.0271	0.0287	108.	72-120	6.03	20	WG556974

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Ethylbenzene	mg/kg	0.0228	0.0224	91.0	76-126	1.44	20	WG556974
Toluene	mg/kg	0.0249	0.0249	99.0	74-155	0.140	20	WG556974
Total Xylenes	mg/kg	0.0697	0.0688	93.0	76-126	1.32	20	WG556974
4-Bromofluorobenzene				90.71	67-133			WG556974
Dibromofluoromethane				109.8	72-135			WG556974
Toluene-d8				103.9	90-113			WG556974
a,a,a-Trifluorotoluene				99.00	89-115			WG556974
TPH (GC/FID) Low Fraction	mg/kg	6.34	6.36	115.	67-135	0.210	20	WG557020
a,a,a-Trifluorotoluene (FID)				104.4	59-128			WG557020
TPH (GC/FID) Low Fraction	mg/kg	5.92	5.76	108.	67-135	2.76	20	WG556933
a,a,a-Trifluorotoluene (FID)				107.9	59-128			WG556933
TPH (GC/FID) High Fraction	ppm	48.2	45.9	80.0	50-150	4.89	25	WG557042
o-Terphenyl				87.96	50-150			WG557042
Benzene	mg/kg	0.0252	0.0247	101.	72-120	1.95	20	WG557002
Ethylbenzene	mg/kg	0.0217	0.0225	87.0	76-126	3.21	20	WG557002
Toluene	mg/kg	0.0238	0.0245	95.0	74-155	2.78	20	WG557002
Total Xylenes	mg/kg	0.0657	0.0672	88.0	76-126	2.24	20	WG557002
4-Bromofluorobenzene				98.27	67-133			WG557002
Dibromofluoromethane				109.7	72-135			WG557002
Toluene-d8				104.8	90-113			WG557002
a,a,a-Trifluorotoluene				103.8	89-115			WG557002
pH	su	8.90	8.90	98.0	98-101	0	20	WG557088
Benzene	mg/kg	0.0225	0.0243	90.0	72-120	7.43	20	WG557580
Ethylbenzene	mg/kg	0.0247	0.0271	99.0	76-126	9.46	20	WG557580
Toluene	mg/kg	0.0242	0.0264	97.0	74-155	8.39	20	WG557580
Total Xylenes	mg/kg	0.0738	0.0781	98.0	76-126	5.62	20	WG557580
4-Bromofluorobenzene				91.06	67-133			WG557580
Dibromofluoromethane				105.1	72-135			WG557580
Toluene-d8				103.6	90-113			WG557580
a,a,a-Trifluorotoluene				108.3	89-115			WG557580
Specific Conductance	umhos/	430.	430.	101.	85-115	0	20	WG557715
Benzene	mg/kg	0.0241	0.0255	96.0	72-120	5.57	20	WG557013
Ethylbenzene	mg/kg	0.0244	0.0255	98.0	76-126	4.14	20	WG557013
Toluene	mg/kg	0.0234	0.0246	94.0	74-155	5.10	20	WG557013
Total Xylenes	mg/kg	0.0734	0.0761	98.0	76-126	3.57	20	WG557013
4-Bromofluorobenzene				103.8	67-133			WG557013
Dibromofluoromethane				99.55	72-135			WG557013
Toluene-d8				103.1	90-113			WG557013
a,a,a-Trifluorotoluene				104.2	89-115			WG557013
pH	su	8.90	8.90	98.0	98-101	0	20	WG557089

\* 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  
Charles Jensen  
2717 Co. Rd. 215

Parachute, CO 81635

Quality Assurance Report  
Level II

L537565

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

September 29, 2011

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
TPH (GC/FID) High Fraction	ppm	43.3	44.7	72.0	50-150	3.16	25	WG557338
o-Terphenyl				76.15	50-150			WG557338

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
Benzene	mg/kg	0.0221	0	.025	88.4	44-131	L536782-56	WG556864
Ethylbenzene	mg/kg	0.0310	0	.025	124.	38-139	L536782-56	WG556864
Toluene	mg/kg	0.0259	0	.025	104.	43-127	L536782-56	WG556864
Total Xylenes	mg/kg	0.0909	0	.075	121.	38-137	L536782-56	WG556864
4-Bromofluorobenzene					106.6	67-133		WG556864
Dibromofluoromethane					94.09	72-135		WG556864
Toluene-d8					98.35	90-113		WG556864
a,a,a-Trifluorotoluene					112.0	89-115		WG556864
TPH (GC/FID) Low Fraction	mg/kg	19.2	0	5.5	69.7	55-109	L537565-01	WG556845
a,a,a-Trifluorotoluene(FID)					96.36	59-128		WG556845
TPH (GC/FID) Low Fraction	mg/kg	20.4	0	5.5	74.2	55-109	L537565-21	WG556878
a,a,a-Trifluorotoluene(FID)					102.9	59-128		WG556878
TPH (GC/FID) High Fraction	ppm	52.8	4.40	60	80.7	50-150	L537565-21	WG556867
o-Terphenyl					96.66	50-150		WG556867
Benzene	mg/kg	0.137	0	.025	110.	44-131	L537565-11	WG556974
Ethylbenzene	mg/kg	0.113	0	.025	90.6	38-139	L537565-11	WG556974
Toluene	mg/kg	0.123	0	.025	98.4	43-127	L537565-11	WG556974
Total Xylenes	mg/kg	0.342	0	.075	91.1	38-137	L537565-11	WG556974
4-Bromofluorobenzene					89.13	67-133		WG556974
Dibromofluoromethane					113.0	72-135		WG556974
Toluene-d8					102.4	90-113		WG556974
a,a,a-Trifluorotoluene					97.93	89-115		WG556974
TPH (GC/FID) Low Fraction	mg/kg	23.4	0	5.5	85.1	55-109	L557565-03	WG557020
a,a,a-Trifluorotoluene(FID)					103.4	59-128		WG557020
TPH (GC/FID) Low Fraction	mg/kg	106.	15.0	5.5	60.4	55-109	L537713-01	WG556933
a,a,a-Trifluorotoluene(FID)					104.8	59-128		WG556933
TPH (GC/FID) High Fraction	ppm	44.0	0	60	73.2	50-150	L537915-04	WG557042
o-Terphenyl					74.74	50-150		WG557042
Benzene	mg/kg	0.133	0	.025	106.	44-131	L537954-13	WG557002
Ethylbenzene	mg/kg	0.120	0	.025	96.0	38-139	L537954-13	WG557002
Toluene	mg/kg	0.126	0	.025	100.	43-127	L537954-13	WG557002
Total Xylenes	mg/kg	0.353	0	.075	94.2	38-137	L537954-13	WG557002
4-Bromofluorobenzene					99.67	67-133		WG557002
Dibromofluoromethane					106.6	72-135		WG557002
Toluene-d8					106.5	90-113		WG557002
a,a,a-Trifluorotoluene					102.9	89-115		WG557002

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

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YOUR LAB OF CHOICE

Encana  
Charles Jensen  
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Parachute, CO 81635

Quality Assurance Report  
Level II

L537565

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(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

September 29, 2011

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Benzene	mg/kg	0.137	0	.025	109.	44-131	L538346-01	WG557580
Ethylbenzene	mg/kg	0.131	0	.025	105.	38-139	L538346-01	WG557580
Toluene	mg/kg	0.136	0	.025	108.	43-127	L538346-01	WG557580
Total Xylenes	mg/kg	0.381	0	.075	102.	38-137	L538346-01	WG557580
4-Bromofluorobenzene					88.39	67-133		WG557580
Dibromofluoromethane					106.6	72-135		WG557580
Toluene-d8					103.2	90-113		WG557580
a,a,a-Trifluorotoluene					108.5	89-115		WG557580
Benzene	mg/kg	0.139	0.0117	.025	102.	44-131	L538018-02	WG557013
Ethylbenzene	mg/kg	0.120	0.00506	.025	92.2	38-139	L538018-02	WG557013
Toluene	mg/kg	0.131	0.0128	.025	94.2	43-127	L538018-02	WG557013
Total Xylenes	mg/kg	0.344	0.00513	.075	90.4	38-137	L538018-02	WG557013
4-Bromofluorobenzene					80.74	67-133		WG557013
Dibromofluoromethane					104.3	72-135		WG557013
Toluene-d8					100.2	90-113		WG557013
a,a,a-Trifluorotoluene					99.19	89-115		WG557013
TPH (GC/FID) High Fraction	ppm	300.	319.	60	0*	50-150	L538397-03	WG557338
o-Terphenyl					67.71	50-150		WG557338

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.0227	0.0221	90.7	44-131	2.58	21	L536782-56	WG556864
Ethylbenzene	mg/kg	0.0318	0.0310	127.	38-139	2.60	27	L536782-56	WG556864
Toluene	mg/kg	0.0263	0.0259	105.	43-127	1.29	21	L536782-56	WG556864
Total Xylenes	mg/kg	0.0932	0.0909	124.	38-137	2.44	26	L536782-56	WG556864
4-Bromofluorobenzene				108.3	67-133				WG556864
Dibromofluoromethane				95.14	72-135				WG556864
Toluene-d8				97.14	90-113				WG556864
a,a,a-Trifluorotoluene				111.2	89-115				WG556864
TPH (GC/FID) Low Fraction	mg/kg	21.2	19.2	77.2	55-109	10.3	20	L537565-01	WG556845
a,a,a-Trifluorotoluene(FID)				97.61	59-128				WG556845
TPH (GC/FID) Low Fraction	mg/kg	22.1	20.4	80.2	55-109	7.80	20	L537565-21	WG556878
a,a,a-Trifluorotoluene(FID)				103.6	59-128				WG556878
TPH (GC/FID) High Fraction	ppm	50.2	52.8	76.3	50-150	5.11	25	L537565-21	WG556867
o-Terphenyl				90.12	50-150				WG556867
Benzene	mg/kg	0.140	0.137	112.	44-131	1.89	21	L537565-11	WG556974
Ethylbenzene	mg/kg	0.115	0.113	92.3	38-139	1.82	27	L537565-11	WG556974
Toluene	mg/kg	0.127	0.123	101.	43-127	2.84	21	L537565-11	WG556974
Total Xylenes	mg/kg	0.350	0.342	93.4	38-137	2.56	26	L537565-11	WG556974
4-Bromofluorobenzene				89.79	67-133				WG556974
Dibromofluoromethane				111.0	72-135				WG556974
Toluene-d8				102.7	90-113				WG556974
a,a,a-Trifluorotoluene				98.13	89-115				WG556974
TPH (GC/FID) Low Fraction	mg/kg	22.8	23.4	82.9	55-109	2.68	20	L537565-03	WG557020

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

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Quality Assurance Report  
Level II

L537565

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Tax I.D. 62-0814289

Est. 1970

September 29, 2011

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
a,a,a-Trifluorotoluene (FID)				103.0	59-128				
TPH (GC/FID) Low Fraction	mg/kg	163.	106.	98.1	55-109	42.4*	20	L537713-01	WG556933
a,a,a-Trifluorotoluene (FID)				112.8	59-128				WG556933
TPH (GC/FID) High Fraction	ppm	48.4	44.0	80.6	50-150	9.57	25	L537915-04	WG557042
o-Terphenyl				82.46	50-150				WG557042
Benzene	mg/kg	0.134	0.133	107.	44-131	0.980	21	L537954-13	WG557002
Ethylbenzene	mg/kg	0.119	0.120	95.3	38-139	0.710	27	L537954-13	WG557002
Toluene	mg/kg	0.123	0.126	98.5	43-127	2.08	21	L537954-13	WG557002
Total Xylenes	mg/kg	0.346	0.353	92.3	38-137	2.05	26	L537954-13	WG557002
4-Bromofluorobenzene				98.37	67-133				WG557002
Dibromofluoromethane				109.4	72-135				WG557002
Toluene-d8				104.9	90-113				WG557002
a,a,a-Trifluorotoluene				102.9	89-115				WG557002
Benzene	mg/kg	0.118	0.137	94.1	44-131	14.9	21	L538346-01	WG557580
Ethylbenzene	mg/kg	0.123	0.131	98.5	38-139	6.06	27	L538346-01	WG557580
Toluene	mg/kg	0.118	0.136	94.7	43-127	13.7	21	L538346-01	WG557580
Total Xylenes	mg/kg	0.354	0.381	94.4	38-137	7.39	26	L538346-01	WG557580
4-Bromofluorobenzene				93.46	67-133				WG557580
Dibromofluoromethane				105.2	72-135				WG557580
Toluene-d8				102.2	90-113				WG557580
a,a,a-Trifluorotoluene				107.7	89-115				WG557580
Benzene	mg/kg	0.149		2.98*	44-131	*	21		WG557013
Ethylbenzene	mg/kg	0.127		2.54*	38-139	*	27		WG557013
Toluene	mg/kg	0.138		2.76*	43-127	*	21		WG557013
Total Xylenes	mg/kg	0.356		7.12*	38-137	*	26		WG557013
4-Bromofluorobenzene				79.34	67-133				WG557013
Dibromofluoromethane				102.7	72-135				WG557013
Toluene-d8				100.4	90-113				WG557013
a,a,a-Trifluorotoluene				98.08	89-115				WG557013
TPH (GC/FID) High Fraction	ppm	334.	300.	25.2*	50-150	10.7	25	L538397-03	WG557338
o-Terphenyl				78.64	50-150				WG557338

Batch number / Run number / Sample number cross reference

WG556864: R1869497: L537565-02 03 04 05 06 07 08 09 10  
WG556845: R1869833: L537565-01 02 05 06 07 09 12 13 14 15 16 17  
WG557065: R1870915: L537565-01 02 03 04 05 06 07 08 09 10 11 12 13 14  
WG556878: R1870933: L537565-18 19 20 21 22 23 24 25 26  
WG556726: R1870934: L537565-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17  
WG556821: R1871173: L537565-01 03 04 05 06 07 08 09 10 11  
WG556867: R1871174: L537565-12 13 14 15 16 17 18 19 20 21 22 23 24 25  
WG556974: R1871274: L537565-11 12 13 14 15 16  
WG557020: R1871335: L537565-03 04 10 11  
WG556933: R1871498: L537565-08  
WG557042: R1872492: L537565-26  
WG557002: R1872598: L537565-17  
WG557088: R1873832: L537565-01 02 03 04 05 06 07 08 09 10 11  
WG557177: R1874397: L537565-18 19 20 21 22 23 24 25 26

\* 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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2717 Co. Rd. 215

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L537565

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September 29, 2011

WG557580: R1874716: L537565-01 02  
WG557715: R1874901: L537565-15 16 17 18 19 20 21 22 23 24 25 26  
WG557013: R1875232: L537565-18 19 20 21 22 23 24 25 26  
WG557089: R1875714: L537565-12 13 14 15 16 17 18 19 20 21 22 23 24 25 26  
WG557338: R1876056: L537565-02

\* \* Calculations are performed prior to rounding of reported values.  
\* Performance of this Analyte is outside of established criteria.  
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September 29, 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.



Encana  
2717 CR 215, Ste. 100  
Parachute, CO 81635  
\*ENCRCO\*  
ENCRCO-RULEENG

## Billing Information:

Charles Jensen  
2717 County Road 215, Suite 100  
Parachute, CO 81635  
970-309-1022

Report to:

Charles Jensen

Email to:

Charles.Jensen@encana.com

## Analysis/Container/Preservative

Chain of Custody  
Page 1 of 3

**ESC**  
L.A.B S.C.I.E.N.C.E.S

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859

Phone: (615) 758-5858

Fax: (615) 758-5859

CoCode ENCRCO (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: J-13-W PW Spill		City/State Collected: CO								
Phone: 970-623-0995	Client Project #: J13	ESC Key: ENCRCO-RULEENG								
FAX:	Site/Facility ID#:	P.O.#:								
Collected by: SRM										
Collected by (signature):	<input checked="" type="checkbox"/> <b>Rush?</b> (Lab MUST Be Notified) Same Day..... 200% Next Day..... 100% Two Day..... 50% Three Day..... 25%									
Immediately Packed on Ice: N <input checked="" type="checkbox"/>	Date Results Needed: Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes									
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEXGRO/DRO - 8021/8015		SAR / pH / EC	
J-13-SS1-A-092111	Grab	SS	3-5"	9/21/11	1030	2	x	x		
J-13-SS1-B-092111			13-15"		1035					
J-13-SS2-A-092111			3-5"		1040					
J-13-SS2-B-092111			13-15"		1045					
J-13-SS3-A-092111			3-5"		1050					
J-13-SS3-B-092111			13-15"		1055					
J-13-SS4-A-092111			3-5"		1100					
J-13-SS4-B-092111			13-15"		1105					
J-13-SS5-A-092111			3-5"		1110					

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

4875551067111

Relinquished by: (Signature)	Date: 9-21-11	Time: 1600	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> UPS	Condition: OK (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 34	Bottles Received: 52-4102
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/23/11	Time: 0900
				pH Checked:	NCF:

-01



Encana  
2717 CR 215, Ste. 100  
Parachute, CO 81635  
\*ENCRCO\*  
ENCRCO-RULEENG

Billing Information:

Charles Jensen  
2717 County Road 215, Suite 100  
Parachute, CO 81635  
970-309-1022

Report to:

Charles Jensen

Email to:

Charles.Jensen@encana.com

Analysis/Container/Preservative

Chain of Custody  
Page 1 of 2

 **ESC**  
L.A.B S.C.I.E.N.C.E.S

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859

Phone: (615) 758-5858

Fax: (615) 758-5859

Project Description: J-13-W PW Spill

City/State Collected: CO

Phone: 970-623-0995

Client Project #:

J13

ESC Key:

ENCRCO-RULEENG

FAX:

Collected by: SRM

Site/Facility ID#:

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

Two Day.....50%

Three Day.....25%

Date Results Needed:

Email? No Yes

FAX? No Yes

Immediately Packed on Ice: N Y ✓

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEXGRO/DRO	SAR	pH	EC	Remarks/Contaminant	Sample # (lab only)
J-13-SS5-B-092111	Grab	SS	13-15"	9/21/11	1115	2	x	x				1537565-10
J-13-SS6-A-092111			3-5"		1120							-11
J-13-SS6-B-092111			13-15"		1125							-12
J-13-SS7-A-092111			3-5"		1130							-13
J-13-SS7-B-092111			13-15"		1135							-14
J-13-SS8-A-092111			3-5"		1140							-15
J-13-SS8-B-092111			13-15"		1145							-16
J-13-SS9-A-092111			3-5"		1150							-17
J-13-SS9-B-092111			13-15"		1155							-18

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: 9-21-11	Time: 1600	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> UPS	Condition: OK (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 30	Bottles Received: 32462
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/23/11	Time: 0900
				pH Checked:	NCF:



Encana  
2717 CR 215, Ste. 100  
Parachute, CO 81635  
\*ENCRCO\*  
ENCRCO-RULEENG

Billing Information:

Charles Jensen  
2717 County Road 215, Suite 100  
Parachute, CO 81635  
970-309-1022

Report to:

Charles Jensen

Email to:

Charles.Jensen@encana.com

Analysis/Container/Preservative

Chain of Custody  
Page 3 of 3



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859

Phone: (615) 758-5858

Fax: (615) 758-5859

CoCode ENCRCO (lab use only)

Template/Prelogin

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Project Description: J-13-W PW Spill  
City/State Collected: CO  
Phone: 970-623-0995  
FAX: Client Project #: J13  
ESC Key: ENCRCO-RULEENG  
Collected by SRM Site/Facility ID#: P.O.#:

Collected by (signature):

**Rush?**

(Lab MUST Be Notified)

Same Day ..... 200%  
Next Day ..... 100%  
Two Day ..... 50%  
Three Day ..... 25%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☐ No ☐ Yes

No.  
of  
Cntrs

Immediately Packed on Ice N ☒

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
J-13-SS10-A-092111	Grab	SS	3-5"	9/21/11	1200	2
J-13-SS10-B-092111			13-15"		1205	
J-13-SS11-A-092111			3-5"		1210	
J-13-SS11-B-092111			13-15"		1215	
J-13-SS12-A-092111			3-5"		1220	
J-13-SS12-B-092111			13-15"		1225	
J-13-SS13-A-092111			3-5"		1230	
J-13-SS13-B-092111			13-15"		1235	

BTEX GRO/DRO - 8021/8015  
SAR / pH / EC

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other  
Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: 9-21-11	Time: 1600	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> UPS	Condition: OK (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 34	Bottles Received: 52-462
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/22/11	Time: 0900
				pH Checked:	NCF: