



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

Brett Middleton
Encana
2717 Co. Rd. 215
Parachute, CO 81635

Report Summary

Friday February 10, 2012

Report Number: L559140

Samples Received: 02/07/12

Client Project:

Description: F12E Bio-Film

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 - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, 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

Brett Middleton
Encana
2717 Co. Rd. 215
Parachute, CO 81635

February 10, 2012

Date Received : February 07, 2012
Description : F12E Bio-Film
Sample ID : WDC-BF-020612
Collected By : Waltsak
Collection Date : 02/06/12 13:45

ESC Sample # : L559140-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.00050	mg/l	8021B	02/10/12	1
Toluene	BDL	0.0050	mg/l	8021B	02/10/12	1
Ethylbenzene	BDL	0.00050	mg/l	8021B	02/10/12	1
Total Xylene	BDL	0.0015	mg/l	8021B	02/10/12	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	95.1		% Rec.	8021B	02/10/12	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: 02/10/12 16:38 Printed: 02/10/12 16:38

Summary of Remarks For Samples Printed
02/10/12 at 16:38:56

TSR Signing Reports: 358
R5 - Desired TAT

Be sure sub lab uses CLIENT SAMPLE ID on thier reports, not ESC sample ID. Try not to report benzene BDL above a 250x dilution. ONLY log water samples under this account. Soils under ENCANACO.

Sample: L559140-01 Account: ENCRCO Received: 02/07/12 09:00 Due Date: 02/14/12 00:00 RPT Date: 02/10/12 16:38



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Quality Assurance Report
Level II

L559140

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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/l			WG577788	02/09/12 21:43
Ethylbenzene	< .0005	mg/l			WG577788	02/09/12 21:43
Toluene	< .005	mg/l			WG577788	02/09/12 21:43
Total Xylene	< .0015	mg/l			WG577788	02/09/12 21:43
a,a,a-Trifluorotoluene(PID)		% Rec.	94.99	55-122	WG577788	02/09/12 21:43

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/l	.05	0.0466	93.2	79-114	WG577788
Ethylbenzene	mg/l	.05	0.0492	98.5	80-116	WG577788
Toluene	mg/l	.05	0.0465	93.0	79-112	WG577788
Total Xylene	mg/l	.15	0.152	101.	84-118	WG577788
a,a,a-Trifluorotoluene(PID)				96.01	55-122	WG577788

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/l	0.0487	0.0466	97.0	79-114	4.44	20	WG577788
Ethylbenzene	mg/l	0.0525	0.0492	105.	80-116	6.49	20	WG577788
Toluene	mg/l	0.0493	0.0465	98.0	79-112	5.88	20	WG577788
Total Xylene	mg/l	0.162	0.152	108.	84-118	6.40	20	WG577788
a,a,a-Trifluorotoluene(PID)				99.14	55-122			WG577788

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Benzene	mg/l	0.0498	0	.05	99.6	35-147	L559132-18	WG577788
Ethylbenzene	mg/l	0.0527	0	.05	105.	39-141	L559132-18	WG577788
Toluene	mg/l	0.0496	0	.05	99.1	35-148	L559132-18	WG577788
Total Xylene	mg/l	0.161	0	.15	107.	33-151	L559132-18	WG577788
a,a,a-Trifluorotoluene(PID)					95.59	55-122		WG577788

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
Benzene	mg/l	0.0497	0.0498	99.4	35-147	0.190	20	L559132-18	WG577788
Ethylbenzene	mg/l	0.0525	0.0527	105.	39-141	0.370	20	L559132-18	WG577788
Toluene	mg/l	0.0498	0.0496	99.6	35-148	0.440	20	L559132-18	WG577788
Total Xylene	mg/l	0.161	0.161	107.	33-151	0.150	20	L559132-18	WG577788
a,a,a-Trifluorotoluene(PID)				95.90	55-122				WG577788

Batch number /Run number / Sample number cross reference

WG577788: R2031832: L559140-01

* * 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.