

received 08/12/2016
facility 431609

EnCana Oil & Gas - Longmont, CO

Sample Delivery Group: L791662
Samples Received: 09/30/2015
Project Number:
Description: Spreadfields

Report To: Tarah Garza
10188 East I-25 Frontage Rd
Firestone, CO 80504

Entire Report Reviewed By:



Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MCD 1 6IN L791662-01 Solid

Collected by
Tarah G

Collected date/time
09/29/15 11:05

Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:15	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:08	RDS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	2	10/01/15 17:48	10/02/15 11:25	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	10	09/30/15 19:16	10/01/15 12:34	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818957	5	10/01/15 08:20	10/01/15 23:06	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 01:09	KLO
Wet Chemistry by Method 2580 B-2011	WG819827	1	10/06/15 10:46	10/06/15 11:41	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:50	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819102	1	10/05/15 15:26	10/05/15 15:26	KBC

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc

MCD 2 6IN L791662-02 Solid

Collected by
Tarah G

Collected date/time
09/29/15 11:15

Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:17	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:23	RDS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	1	10/01/15 17:48	10/02/15 09:15	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	5	09/30/15 19:16	10/01/15 12:12	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818957	5	10/01/15 08:20	10/01/15 23:28	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 01:30	KLO
Wet Chemistry by Method 2580 B-2011	WG819827	1	10/06/15 10:46	10/06/15 11:41	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:52	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819102	1	10/05/15 15:26	10/05/15 15:26	KBC

MCD 3 6IN L791662-03 Solid

Collected by
Tarah G

Collected date/time
09/29/15 11:25

Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:20	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:26	RDS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	1	10/01/15 17:48	10/02/15 09:37	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	10	09/30/15 19:16	10/01/15 12:23	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818957	5	10/01/15 08:20	10/01/15 23:51	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 01:51	KLO
Wet Chemistry by Method 2580 B-2011	WG819827	1	10/06/15 10:46	10/06/15 11:41	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:53	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819838	1	10/06/15 13:30	10/06/15 13:30	KBC

ACCOUNT:

EnCana Oil & Gas - Longmont, CO

PROJECT:

SDG:

L791662

DATE/TIME:

10/09/15 16:17

PAGE:

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MCD 4 6IN L791662-04 Solid

Collected by
Tarah GCollected date/time
09/29/15 11:35Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:22	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:35	RDS
Metals (ICP) by Method 6010B	WG819290	5	10/02/15 13:19	10/03/15 22:34	VSS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	10	10/01/15 17:48	10/02/15 12:29	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	20	09/30/15 19:16	10/01/15 13:30	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818957	5	10/01/15 08:20	10/02/15 00:13	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 02:13	KLO
Wet Chemistry by Method 2580 B-2011	WG819827	1	10/06/15 10:46	10/06/15 11:41	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:55	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819838	1	10/06/15 13:30	10/06/15 13:30	KBC

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Gl⁷ Al⁸ Sc

MCD 5 6IN L791662-05 Solid

Collected by
Tarah GCollected date/time
09/29/15 11:45Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:25	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:38	RDS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	1	10/01/15 17:48	10/02/15 09:59	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	10	09/30/15 19:16	10/01/15 20:24	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG819260	5	10/02/15 08:03	10/04/15 15:32	MCB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 02:35	KLO
Wet Chemistry by Method 2580 B-2011	WG819827	1	10/06/15 10:46	10/06/15 11:41	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:56	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819838	1	10/06/15 13:30	10/06/15 13:30	KBC

MCD 6 6IN L791662-06 Solid

Collected by
Tarah GCollected date/time
09/29/15 12:00Received date/time
09/30/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Calculated Results	WG818980	1	10/06/15 11:43	10/07/15 13:46	WBD
Calculated Results	WG819290	1	10/02/15 13:19	10/07/15 13:49	
Mercury by Method 7471A	WG818789	1	09/30/15 20:19	10/01/15 10:28	TRB
Metals (ICP) by Method 6010B	WG819290	1	10/02/15 13:19	10/03/15 00:41	RDS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG819109	1	10/01/15 17:48	10/02/15 10:20	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG818956	10	09/30/15 19:16	10/01/15 19:39	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG819260	5	10/02/15 08:03	10/04/15 18:37	MCB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819934	5	10/06/15 00:04	10/08/15 02:56	KLO
Wet Chemistry by Method 2580 B-2011	WG819829	1	10/06/15 14:52	10/06/15 16:45	AS
Wet Chemistry by Method 3060A/7196A	WG819355	1	10/03/15 09:24	10/06/15 19:56	CM
Wet Chemistry by Method 9045D	WG819121	1	10/05/15 13:35	10/05/15 13:35	AMC
Wet Chemistry by Method 9050AMod	WG819838	1	10/06/15 13:30	10/06/15 13:30	KBC



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Technical Service Representative





Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	4.52		1	10/07/2015 13:46	WG818980

¹ Cp² Tc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	5.37		2.00	1	10/07/2015 13:49	WG819290

³ Ss⁴ Cn

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	131		1	10/06/2015 11:41	WG819827

⁵ Sr⁶ Gl

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/06/2015 19:50	WG819355

⁷ Al⁸ Sc

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.60		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-01 WG819121: 7.60 at 23.6c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1650		1	10/05/2015 15:26	WG819102

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0371		0.0200	1	10/01/2015 10:15	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.36		2.00	1	10/03/2015 00:08	WG819290
Barium	3860	<u>O1 V</u>	0.500	1	10/03/2015 00:08	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:08	WG819290
Chromium	5.37		1.00	1	10/03/2015 00:08	WG819290
Copper	14.8		2.00	1	10/03/2015 00:08	WG819290
Lead	8.45		0.500	1	10/03/2015 00:08	WG819290
Nickel	6.57		2.00	1	10/03/2015 00:08	WG819290
Selenium	ND		2.00	1	10/03/2015 00:08	WG819290
Silver	ND		1.00	1	10/03/2015 00:08	WG819290
Zinc	39.0		5.00	1	10/03/2015 00:08	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/01/2015 23:06	WG818957
(S) a,a,a-Trifluorotoluene(FID)	94.1		59.0-128		10/01/2015 23:06	WG818957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 01:09	WG819934
Toluene	ND		0.0250	5	10/08/2015 01:09	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 01:09	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 01:09	WG819934
(S) Toluene-d8	106		88.7-115		10/08/2015 01:09	WG819934
(S) Dibromofluoromethane	114		76.3-123		10/08/2015 01:09	WG819934
(S) a,a,a-Trifluorotoluene	95.7		87.2-117		10/08/2015 01:09	WG819934
(S) 4-Bromofluorobenzene	90.1		69.7-129		10/08/2015 01:09	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	239		40.0	10	10/01/2015 12:34	WG818956
(S) o-Terphenyl	61.4		50.0-150		10/01/2015 12:34	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0120	2	10/02/2015 11:25	WG819109
Acenaphthene	ND		0.0120	2	10/02/2015 11:25	WG819109
Acenaphthylene	ND		0.0120	2	10/02/2015 11:25	WG819109
Benzo(a)anthracene	0.0137		0.0120	2	10/02/2015 11:25	WG819109
Benzo(a)pyrene	0.0131		0.0120	2	10/02/2015 11:25	WG819109
Benzo(b)fluoranthene	0.0307		0.0120	2	10/02/2015 11:25	WG819109
Benzo(g,h,i)perylene	0.0217		0.0120	2	10/02/2015 11:25	WG819109
Benzo(k)fluoranthene	ND		0.0120	2	10/02/2015 11:25	WG819109
Chrysene	0.0296		0.0120	2	10/02/2015 11:25	WG819109
Dibenz(a,h)anthracene	ND		0.0120	2	10/02/2015 11:25	WG819109
Fluoranthene	0.0241		0.0120	2	10/02/2015 11:25	WG819109
Fluorene	ND		0.0120	2	10/02/2015 11:25	WG819109
Indeno(1,2,3-cd)pyrene	0.0133		0.0120	2	10/02/2015 11:25	WG819109
Naphthalene	ND		0.0400	2	10/02/2015 11:25	WG819109
Phenanthrene	0.0498		0.0120	2	10/02/2015 11:25	WG819109
Pyrene	0.0269		0.0120	2	10/02/2015 11:25	WG819109
1-Methylnaphthalene	0.0623		0.0400	2	10/02/2015 11:25	WG819109
2-Methylnaphthalene	0.0841		0.0400	2	10/02/2015 11:25	WG819109
2-Chloronaphthalene	ND		0.0400	2	10/02/2015 11:25	WG819109
(S) Nitrobenzene-d5	65.8		22.1-146		10/02/2015 11:25	WG819109
(S) 2-Fluorobiphenyl	76.0		40.6-122		10/02/2015 11:25	WG819109
(S) p-Terphenyl-d14	71.5		32.2-131		10/02/2015 11:25	WG819109



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.91		1	10/07/2015 13:46	WG818980

¹ Cp² Tc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	4.24		2.00	1	10/07/2015 13:49	WG819290

³ Ss⁴ Cn

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	130		1	10/06/2015 11:41	WG819827

⁵ Sr⁶ Gl

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/06/2015 19:52	WG819355

⁷ Al⁸ Sc

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.83		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-02 WG819121: 7.83 at 23.4c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1680		1	10/05/2015 15:26	WG819102

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0200	1	10/01/2015 10:17	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.27		2.00	1	10/03/2015 00:23	WG819290
Barium	3350		0.500	1	10/03/2015 00:23	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:23	WG819290
Chromium	4.24		1.00	1	10/03/2015 00:23	WG819290
Copper	8.66		2.00	1	10/03/2015 00:23	WG819290
Lead	5.68		0.500	1	10/03/2015 00:23	WG819290
Nickel	4.28		2.00	1	10/03/2015 00:23	WG819290
Selenium	ND		2.00	1	10/03/2015 00:23	WG819290
Silver	ND		1.00	1	10/03/2015 00:23	WG819290
Zinc	24.4		5.00	1	10/03/2015 00:23	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/01/2015 23:28	WG818957
(S) a,a,a-Trifluorotoluene(FID)	93.7		59.0-128		10/01/2015 23:28	WG818957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 01:30	WG819934
Toluene	ND		0.0250	5	10/08/2015 01:30	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 01:30	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 01:30	WG819934
(S) Toluene-d8	107		88.7-115		10/08/2015 01:30	WG819934
(S) Dibromofluoromethane	114		76.3-123		10/08/2015 01:30	WG819934
(S) a,a,a-Trifluorotoluene	97.7		87.2-117		10/08/2015 01:30	WG819934
(S) 4-Bromofluorobenzene	97.1		69.7-129		10/08/2015 01:30	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	25.4		20.0	5	10/01/2015 12:12	WG818956
(S) o-Terphenyl	59.5		50.0-150		10/01/2015 12:12	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0107		0.00600	1	10/02/2015 09:15	WG819109
Acenaphthene	ND		0.00600	1	10/02/2015 09:15	WG819109
Acenaphthylene	ND		0.00600	1	10/02/2015 09:15	WG819109
Benzo(a)anthracene	0.0197		0.00600	1	10/02/2015 09:15	WG819109
Benzo(a)pyrene	0.0138		0.00600	1	10/02/2015 09:15	WG819109
Benzo(b)fluoranthene	0.0675		0.00600	1	10/02/2015 09:15	WG819109
Benzo(g,h,i)perylene	0.0186		0.00600	1	10/02/2015 09:15	WG819109
Benzo(k)fluoranthene	0.0142		0.00600	1	10/02/2015 09:15	WG819109
Chrysene	0.0482		0.00600	1	10/02/2015 09:15	WG819109
Dibenz(a,h)anthracene	0.00916		0.00600	1	10/02/2015 09:15	WG819109
Fluoranthene	0.0215		0.00600	1	10/02/2015 09:15	WG819109
Fluorene	ND		0.00600	1	10/02/2015 09:15	WG819109
Indeno(1,2,3-cd)pyrene	0.0155		0.00600	1	10/02/2015 09:15	WG819109
Naphthalene	ND		0.0200	1	10/02/2015 09:15	WG819109
Phenanthrene	0.0228		0.00600	1	10/02/2015 09:15	WG819109
Pyrene	0.0113		0.00600	1	10/02/2015 09:15	WG819109
1-Methylnaphthalene	ND		0.0200	1	10/02/2015 09:15	WG819109
2-Methylnaphthalene	0.0260		0.0200	1	10/02/2015 09:15	WG819109
2-Chloronaphthalene	ND		0.0200	1	10/02/2015 09:15	WG819109
(S) Nitrobenzene-d5	72.4		22.1-146		10/02/2015 09:15	WG819109
(S) 2-Fluorobiphenyl	77.0		40.6-122		10/02/2015 09:15	WG819109
(S) p-Terphenyl-d14	69.3		32.2-131		10/02/2015 09:15	WG819109



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	6.85		1	10/07/2015 13:46	WG818980

¹ Cp² Tc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	5.84		2.00	1	10/07/2015 13:49	WG819290

³ Ss⁴ Cn

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	134		1	10/06/2015 11:41	WG819827

⁵ Sr⁶ Gl

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND	J6	2.00	1	10/06/2015 19:53	WG819355

⁷ Al⁸ Sc

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.02		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-03 WG819121: 8.02 at 23.3c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	2130		1	10/06/2015 13:30	WG819838

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0275		0.0200	1	10/01/2015 10:20	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.42		2.00	1	10/03/2015 00:26	WG819290
Barium	3710		0.500	1	10/03/2015 00:26	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:26	WG819290
Chromium	5.84		1.00	1	10/03/2015 00:26	WG819290
Copper	14.9		2.00	1	10/03/2015 00:26	WG819290
Lead	7.03		0.500	1	10/03/2015 00:26	WG819290
Nickel	7.21		2.00	1	10/03/2015 00:26	WG819290
Selenium	ND		2.00	1	10/03/2015 00:26	WG819290
Silver	ND		1.00	1	10/03/2015 00:26	WG819290
Zinc	49.0		5.00	1	10/03/2015 00:26	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/01/2015 23:51	WG818957
(S) a,a,a-Trifluorotoluene(FID)	95.2		59.0-128		10/01/2015 23:51	WG818957

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 01:51	WG819934
Toluene	ND		0.0250	5	10/08/2015 01:51	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 01:51	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 01:51	WG819934
(S) Toluene-d8	106		88.7-115		10/08/2015 01:51	WG819934
(S) Dibromofluoromethane	114		76.3-123		10/08/2015 01:51	WG819934
(S) a,a,a-Trifluorotoluene	96.2		87.2-117		10/08/2015 01:51	WG819934
(S) 4-Bromofluorobenzene	93.5		69.7-129		10/08/2015 01:51	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	121		40.0	10	10/01/2015 12:23	WG818956
(S) o-Terphenyl	54.5		50.0-150		10/01/2015 12:23	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00889		0.00600	1	10/02/2015 09:37	WG819109
Acenaphthene	ND		0.00600	1	10/02/2015 09:37	WG819109
Acenaphthylene	ND		0.00600	1	10/02/2015 09:37	WG819109
Benzo(a)anthracene	0.00810		0.00600	1	10/02/2015 09:37	WG819109
Benzo(a)pyrene	0.00707		0.00600	1	10/02/2015 09:37	WG819109
Benzo(b)fluoranthene	0.0122		0.00600	1	10/02/2015 09:37	WG819109
Benzo(g,h,i)perylene	0.0136		0.00600	1	10/02/2015 09:37	WG819109
Benzo(k)fluoranthene	ND		0.00600	1	10/02/2015 09:37	WG819109
Chrysene	0.0201		0.00600	1	10/02/2015 09:37	WG819109
Dibenz(a,h)anthracene	ND		0.00600	1	10/02/2015 09:37	WG819109
Fluoranthene	0.0270		0.00600	1	10/02/2015 09:37	WG819109
Fluorene	0.00819		0.00600	1	10/02/2015 09:37	WG819109
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/02/2015 09:37	WG819109
Naphthalene	ND		0.0200	1	10/02/2015 09:37	WG819109
Phenanthrene	0.0445		0.00600	1	10/02/2015 09:37	WG819109
Pyrene	0.0333		0.00600	1	10/02/2015 09:37	WG819109
1-Methylnaphthalene	0.0314		0.0200	1	10/02/2015 09:37	WG819109
2-Methylnaphthalene	0.0443		0.0200	1	10/02/2015 09:37	WG819109
2-Chloronaphthalene	ND		0.0200	1	10/02/2015 09:37	WG819109
(S) Nitrobenzene-d5	75.3		22.1-146		10/02/2015 09:37	WG819109
(S) 2-Fluorobiphenyl	84.6		40.6-122		10/02/2015 09:37	WG819109
(S) p-Terphenyl-d14	79.4		32.2-131		10/02/2015 09:37	WG819109





Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	7.74		1	10/07/2015 13:46	WG818980

¹ Cp² Tc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	5.94		2.00	1	10/07/2015 13:49	WG819290

³ Ss⁴ Cn

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	128		1	10/06/2015 11:41	WG819827

⁵ Sr⁶ Gl

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/06/2015 19:55	WG819355

⁷ Al⁸ Sc

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.73		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-04 WG819121: 7.73 at 23.7c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1940		1	10/06/2015 13:30	WG819838

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0391		0.0200	1	10/01/2015 10:22	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.49		2.00	1	10/03/2015 00:35	WG819290
Barium	4800		2.50	5	10/03/2015 22:34	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:35	WG819290
Chromium	5.94		1.00	1	10/03/2015 00:35	WG819290
Copper	49.6		2.00	1	10/03/2015 00:35	WG819290
Lead	8.25		0.500	1	10/03/2015 00:35	WG819290
Nickel	10.6		2.00	1	10/03/2015 00:35	WG819290
Selenium	2.44		2.00	1	10/03/2015 00:35	WG819290
Silver	ND		1.00	1	10/03/2015 00:35	WG819290
Zinc	115		5.00	1	10/03/2015 00:35	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/02/2015 00:13	WG818957
(S) a,a,a-Trifluorotoluene(FID)	94.0		59.0-128		10/02/2015 00:13	WG818957

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 02:13	WG819934
Toluene	ND		0.0250	5	10/08/2015 02:13	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 02:13	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 02:13	WG819934
(S) Toluene-d8	106		88.7-115		10/08/2015 02:13	WG819934
(S) Dibromofluoromethane	117		76.3-123		10/08/2015 02:13	WG819934
(S) a,a,a-Trifluorotoluene	92.5		87.2-117		10/08/2015 02:13	WG819934
(S) 4-Bromofluorobenzene	84.4		69.7-129		10/08/2015 02:13	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	512		80.0	20	10/01/2015 13:30	WG818956
(S) o-Terphenyl	139	J7	50.0-150		10/01/2015 13:30	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0600	10	10/02/2015 12:29	WG819109
Acenaphthene	ND		0.0600	10	10/02/2015 12:29	WG819109
Acenaphthylene	ND		0.0600	10	10/02/2015 12:29	WG819109
Benzo(a)anthracene	ND		0.0600	10	10/02/2015 12:29	WG819109
Benzo(a)pyrene	ND		0.0600	10	10/02/2015 12:29	WG819109
Benzo(b)fluoranthene	ND		0.0600	10	10/02/2015 12:29	WG819109
Benzo(g,h,i)perylene	ND		0.0600	10	10/02/2015 12:29	WG819109
Benzo(k)fluoranthene	ND		0.0600	10	10/02/2015 12:29	WG819109
Chrysene	ND		0.0600	10	10/02/2015 12:29	WG819109
Dibenz(a,h)anthracene	ND		0.0600	10	10/02/2015 12:29	WG819109
Fluoranthene	ND		0.0600	10	10/02/2015 12:29	WG819109
Fluorene	ND		0.0600	10	10/02/2015 12:29	WG819109
Indeno(1,2,3-cd)pyrene	ND		0.0600	10	10/02/2015 12:29	WG819109
Naphthalene	ND		0.200	10	10/02/2015 12:29	WG819109
Phenanthrene	0.0637		0.0600	10	10/02/2015 12:29	WG819109
Pyrene	ND		0.0600	10	10/02/2015 12:29	WG819109
1-Methylnaphthalene	ND		0.200	10	10/02/2015 12:29	WG819109
2-Methylnaphthalene	ND		0.200	10	10/02/2015 12:29	WG819109
2-Chloronaphthalene	ND		0.200	10	10/02/2015 12:29	WG819109
(S) Nitrobenzene-d5	68.0		22.1-146		10/02/2015 12:29	WG819109
(S) 2-Fluorobiphenyl	80.1		40.6-122		10/02/2015 12:29	WG819109
(S) p-Terphenyl-d14	74.1		32.2-131		10/02/2015 12:29	WG819109

Sample Narrative:

8270C-SIM L791662-04 WG819109: Dilution due to matrix



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	6.09		1	10/07/2015 13:46	WG818980

¹ Cp² Tc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	6.44		2.00	1	10/07/2015 13:49	WG819290

³ Ss⁴ Cn

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	125		1	10/06/2015 11:41	WG819827

⁵ Sr⁶ Gl

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/06/2015 19:56	WG819355

⁷ Al⁸ Sc

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.67		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-05 WG819121: 7.67 at 23.9c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1670		1	10/06/2015 13:30	WG819838

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0323		0.0200	1	10/01/2015 10:25	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.18		2.00	1	10/03/2015 00:38	WG819290
Barium	4140		0.500	1	10/03/2015 00:38	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:38	WG819290
Chromium	6.44		1.00	1	10/03/2015 00:38	WG819290
Copper	24.6		2.00	1	10/03/2015 00:38	WG819290
Lead	7.93		0.500	1	10/03/2015 00:38	WG819290
Nickel	7.06		2.00	1	10/03/2015 00:38	WG819290
Selenium	ND		2.00	1	10/03/2015 00:38	WG819290
Silver	ND		1.00	1	10/03/2015 00:38	WG819290
Zinc	53.9		5.00	1	10/03/2015 00:38	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/04/2015 15:32	WG819260
(S) a,a,a-Trifluorotoluene(FID)	97.4		59.0-128		10/04/2015 15:32	WG819260

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 02:35	WG819934
Toluene	ND		0.0250	5	10/08/2015 02:35	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 02:35	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 02:35	WG819934
(S) Toluene-d8	108		88.7-115		10/08/2015 02:35	WG819934
(S) Dibromofluoromethane	113		76.3-123		10/08/2015 02:35	WG819934
(S) a,a,a-Trifluorotoluene	96.5		87.2-117		10/08/2015 02:35	WG819934
(S) 4-Bromofluorobenzene	94.3		69.7-129		10/08/2015 02:35	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	183		40.0	10	10/01/2015 20:24	WG818956
(S) o-Terphenyl	70.5		50.0-150		10/01/2015 20:24	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/02/2015 09:59	WG819109
Acenaphthene	ND		0.00600	1	10/02/2015 09:59	WG819109
Acenaphthylene	ND		0.00600	1	10/02/2015 09:59	WG819109
Benzo(a)anthracene	ND		0.00600	1	10/02/2015 09:59	WG819109
Benzo(a)pyrene	ND		0.00600	1	10/02/2015 09:59	WG819109
Benzo(b)fluoranthene	0.0106		0.00600	1	10/02/2015 09:59	WG819109
Benzo(g,h,i)perylene	0.0132		0.00600	1	10/02/2015 09:59	WG819109
Benzo(k)fluoranthene	ND		0.00600	1	10/02/2015 09:59	WG819109
Chrysene	0.0143		0.00600	1	10/02/2015 09:59	WG819109
Dibenz(a,h)anthracene	0.00725		0.00600	1	10/02/2015 09:59	WG819109
Fluoranthene	0.00903		0.00600	1	10/02/2015 09:59	WG819109
Fluorene	ND		0.00600	1	10/02/2015 09:59	WG819109
Indeno(1,2,3-cd)pyrene	0.00985		0.00600	1	10/02/2015 09:59	WG819109
Naphthalene	ND		0.0200	1	10/02/2015 09:59	WG819109
Phenanthrene	0.0267		0.00600	1	10/02/2015 09:59	WG819109
Pyrene	0.0149		0.00600	1	10/02/2015 09:59	WG819109
1-Methylnaphthalene	0.0278		0.0200	1	10/02/2015 09:59	WG819109
2-Methylnaphthalene	0.0368		0.0200	1	10/02/2015 09:59	WG819109
2-Chloronaphthalene	ND		0.0200	1	10/02/2015 09:59	WG819109
(S) Nitrobenzene-d5	72.7		22.1-146		10/02/2015 09:59	WG819109
(S) 2-Fluorobiphenyl	83.8		40.6-122		10/02/2015 09:59	WG819109
(S) p-Terphenyl-d14	78.8		32.2-131		10/02/2015 09:59	WG819109



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.86		1	10/07/2015 13:46	WG818980

1
Cp2
Tc3
Ss4
Cn5
Sr6
Gl7
Al8
Sc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	8.29		2.00	1	10/07/2015 13:49	WG819290

Wet Chemistry by Method 2580 B-2011

Analyte	Result mV	Qualifier	Dilution	Analysis date / time	Batch
ORP	130		1	10/06/2015 16:45	WG819829

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	ND		2.00	1	10/06/2015 19:56	WG819355

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.85		1	10/05/2015 13:35	WG819121

Sample Narrative:

9045D L791662-06 WG819121: 7.85 at 24.0c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1080		1	10/06/2015 13:30	WG819838

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0375		0.0200	1	10/01/2015 10:28	WG818789

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.32		2.00	1	10/03/2015 00:41	WG819290
Barium	4460		0.500	1	10/03/2015 00:41	WG819290
Cadmium	ND		0.500	1	10/03/2015 00:41	WG819290
Chromium	8.29		1.00	1	10/03/2015 00:41	WG819290
Copper	19.2		2.00	1	10/03/2015 00:41	WG819290
Lead	10.5		0.500	1	10/03/2015 00:41	WG819290
Nickel	11.9		2.00	1	10/03/2015 00:41	WG819290
Selenium	2.39		2.00	1	10/03/2015 00:41	WG819290
Silver	ND		1.00	1	10/03/2015 00:41	WG819290
Zinc	56.6		5.00	1	10/03/2015 00:41	WG819290



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	5	10/04/2015 18:37	WG819260
(S) a,a,a-Trifluorotoluene(FID)	96.7		59.0-128		10/04/2015 18:37	WG819260

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Gl

7 Al

8 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	10/08/2015 02:56	WG819934
Toluene	ND		0.0250	5	10/08/2015 02:56	WG819934
Ethylbenzene	ND		0.00500	5	10/08/2015 02:56	WG819934
Total Xylenes	ND		0.0150	5	10/08/2015 02:56	WG819934
(S) Toluene-d8	106		88.7-115		10/08/2015 02:56	WG819934
(S) Dibromofluoromethane	114		76.3-123		10/08/2015 02:56	WG819934
(S) a,a,a-Trifluorotoluene	94.4		87.2-117		10/08/2015 02:56	WG819934
(S) 4-Bromofluorobenzene	85.0		69.7-129		10/08/2015 02:56	WG819934

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	147		40.0	10	10/01/2015 19:39	WG818956
(S) o-Terphenyl	71.8		50.0-150		10/01/2015 19:39	WG818956

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/02/2015 10:20	WG819109
Acenaphthene	ND		0.00600	1	10/02/2015 10:20	WG819109
Acenaphthylene	ND		0.00600	1	10/02/2015 10:20	WG819109
Benzo(a)anthracene	ND		0.00600	1	10/02/2015 10:20	WG819109
Benzo(a)pyrene	ND		0.00600	1	10/02/2015 10:20	WG819109
Benzo(b)fluoranthene	0.0117		0.00600	1	10/02/2015 10:20	WG819109
Benzo(g,h,i)perylene	0.0152		0.00600	1	10/02/2015 10:20	WG819109
Benzo(k)fluoranthene	ND		0.00600	1	10/02/2015 10:20	WG819109
Chrysene	0.0152		0.00600	1	10/02/2015 10:20	WG819109
Dibenz(a,h)anthracene	ND		0.00600	1	10/02/2015 10:20	WG819109
Fluoranthene	0.0120		0.00600	1	10/02/2015 10:20	WG819109
Fluorene	0.00685		0.00600	1	10/02/2015 10:20	WG819109
Indeno(1,2,3-cd)pyrene	0.00610		0.00600	1	10/02/2015 10:20	WG819109
Naphthalene	0.0209		0.0200	1	10/02/2015 10:20	WG819109
Phenanthrene	0.0409		0.00600	1	10/02/2015 10:20	WG819109
Pyrene	0.0183		0.00600	1	10/02/2015 10:20	WG819109
1-Methylnaphthalene	0.0435		0.0200	1	10/02/2015 10:20	WG819109
2-Methylnaphthalene	0.0521		0.0200	1	10/02/2015 10:20	WG819109
2-Chloronaphthalene	ND		0.0200	1	10/02/2015 10:20	WG819109
(S) Nitrobenzene-d5	67.7		22.1-146		10/02/2015 10:20	WG819109
(S) 2-Fluorobiphenyl	78.0		40.6-122		10/02/2015 10:20	WG819109
(S) p-Terphenyl-d14	73.1		32.2-131		10/02/2015 10:20	WG819109



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Gl

⁷ Al

⁸ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

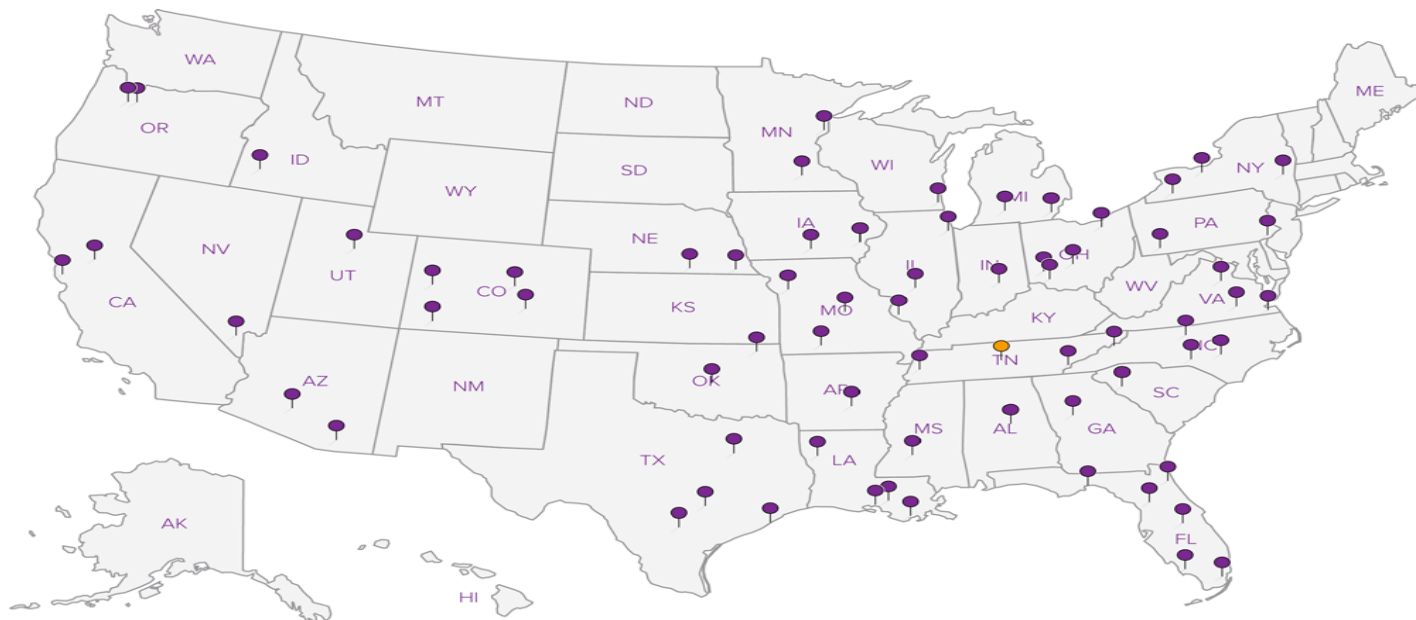
¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address *ENCANLCO* Encana Oil and Gas- Longmont, CO 3601 Stagecoach Rd Longmont, CO 80504 303-774-3900				Billing Address: Encana Oil and Gas- Longmont, CO Attn: Tarah Garza Longmont, CO 80504 Report to: T. Garza E-mail: tarah.garza@encana.com				Analysis/Container/Preservative								Chain of Custody Page <u>1</u> of <u>1</u>	
								Prepared by: B001 ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859									
Project Description: Spreadfields				ENCANLCO													
PHONE: 720.402.9543 FAX:		Lab Project #															
Collected by: Tarah G		Site/Facility ID#		P.O.#													
Collected by (signature):		Rush? (Lab MUST be Notified) <input type="checkbox"/> Same Day.....200% <input type="checkbox"/> Next Day.....100% <input type="checkbox"/> Two Day.....50%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		No of Cntrs											
Immediately Packed on Ice N <input type="checkbox"/> Y <input type="checkbox"/>																	
Sample ID	Comp/Grat	Matrix	Depth	Date	Time	Cntrs	BTEx	SV8270PAHSIM - 8270SIM	SPCON - 9050AMod	SAR - Calc.	RCRA8 Metals + Cu, Ni, and Zn - 6010/7470	CR6SS - 3060A/7196	CR3 - Calc.	GRO/DRO	Remarks/contaminant	Sample # (lab only)	
MCD 1	✓	SS	6"	9/29/15	11:05	3	x	x	x	x	x	x	x	x		179/662-01	
MCD 2	✓	SS	6"	9/29/15	11:15	3	x	x	x	x	x	x	x	x		02	
MCD 3	✓	SS	6"	9/29/15	11:25	3	x	x	x	x	x	x	x	x		03	
MCD 4	✓	SS	6"	9/29/15	11:35	3	x	x	x	x	x	x	x	x		04	
MCD 5	✓	SS	6"	9/29/15	11:45	3	x	x	x	x	x	x	x	x		05	
MCD 6	✓	SS	6"	9/29/15	12:00	3	x	x	x	x	x	x	x	x		06	

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other - Drill Cuttings

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquisher by: (Signature)		Date: 9/29/15 Time: 1:35		Received by: (Signature)		Samples returned via: FedEx _____ UPS _____ Other _____		Condition (lab use only) 	
Relinquisher by: (Signature)		Date: 9/29/15 Time: 1:35		Received by: (Signature)		Temp: 3.1 Bottles Received: 182402		COC Seals Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquisher by: (Signature)		Date: _____ Time: _____		Received for lab by: (Signature)		Date: 9/30/15 Time: 9:00		pH Checked: _____ NCF: _____	