



08-Jun-2017

Dan McWilliams  
Gunnison Energy Corporation  
3737 Highway 133  
Summerset, CO 81434

Re: **18-73 Pad Exp**

Work Order: **17051755**

Dear Dan,

ALS Environmental received 2 samples on 31-May-2017 08:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 28.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

Certificate No: MI: 0022

### Report of Laboratory Analysis

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185

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**Client:** Gunnison Energy Corporation  
**Project:** 18-73 Pad Exp  
**Work Order:** 17051755

**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
17051755-01	18-43 RP	Solid		5/30/2017 13:30	5/31/2017 08:45	<input type="checkbox"/>
17051755-02	18-43 RP TCLP	Tclp Extract		5/30/2017 13:30	5/31/2017 08:45	<input type="checkbox"/>

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

# ALS Group, USA

Date: 08-Jun-17

**Client:** Gunnison Energy Corporation  
**Project:** 18-73 Pad Exp  
**Sample ID:** 18-43 RP  
**Collection Date:** 5/30/2017 01:30 PM

**Work Order:** 17051755  
**Lab ID:** 17051755-01  
**Matrix:** SOLID

Analyses	CAS	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>		<b>SW8015C</b>		Prep Date: <b>6/2/2017</b>		Analyst: <b>IT</b>	
<b>DRO (C10-C28)</b>	DROC10C28	<b>16</b>		<b>5.0</b>	<b>mg/Kg</b>	1	6/2/2017 05:49 PM
<i>Surr: 4-Terphenyl-d14</i>	1718-51-0	79.6		53-140	%REC	1	6/2/2017 05:49 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>		<b>SW8015D</b>		Prep Date: <b>6/2/2017</b>		Analyst: <b>IT</b>	
<b>GRO (C6-C10)</b>	GROC6C10	<b>U</b>		<b>4.2</b>	<b>mg/Kg</b>	1	6/5/2017 06:31 PM
<i>Surr: Toluene-d8</i>	2037-26-5	108		50-150	%REC	1	6/5/2017 06:31 PM
<b>MERCURY BY CVAA</b>		<b>SW7471B</b>		Prep Date: <b>6/1/2017</b>		Analyst: <b>JJB</b>	
<b>Mercury</b>	7439-97-6	<b>0.076</b>		<b>0.014</b>	<b>mg/Kg</b>	1	6/1/2017 08:33 PM
<b>METALS ANALYSIS BY ICP</b>		<b>SW846 6010C</b>		Prep Date: <b>6/5/2017</b>		Analyst: <b>CC</b>	
<b>Arsenic</b>	7440-38-2	<b>7.4</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Barium</b>	7440-39-3	<b>1,300</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Cadmium</b>	7440-43-9	<b>0.26</b>	J	<b>0.73</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Chromium</b>	7440-47-3	<b>4.2</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Copper</b>	7440-50-8	<b>18</b>		<b>0.73</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Lead</b>	7439-92-1	<b>10</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Nickel</b>	7440-02-0	<b>3.3</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Selenium</b>	7782-49-2	<b>1.6</b>		<b>0.73</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Silver</b>	7440-22-4	<b>U</b>		<b>0.36</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>Zinc</b>	7440-66-6	<b>49</b>		<b>0.73</b>	<b>mg/Kg</b>	1	6/6/2017 12:03 AM
<b>SOLUBLE CATIONS FOR SAR</b>		<b>SW846 6010C</b>		Prep Date: <b>6/2/2017</b>		Analyst: <b>CC</b>	
<b>Calcium</b>	7440-70-2	<b>160</b>		<b>5.0</b>	<b>mg/L</b>	10	6/6/2017 03:46 AM
<b>Magnesium</b>	7439-95-4	<b>18</b>		<b>2.0</b>	<b>mg/L</b>	10	6/6/2017 03:46 AM
<b>Sodium</b>	7440-23-5	<b>250</b>		<b>2.0</b>	<b>mg/L</b>	10	6/6/2017 03:46 AM
<b>SODIUM ADSORPTION RATIO</b>		<b>USDA H60 METHO</b>		Prep Date: <b>6/2/2017</b>		Analyst: <b>CC</b>	
<b>Sodium Adsorption Ratio</b>	ARC-SAR	<b>5.0</b>		<b>0.010</b>	<b>none</b>	1	6/6/2017
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>		<b>SW846 8270D</b>		Prep Date: <b>6/2/2017</b>		Analyst: <b>RM</b>	
Acenaphthene	83-32-9	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Anthracene	120-12-7	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Benzo(a)anthracene	56-55-3	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Benzo(a)pyrene	50-32-8	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Benzo(b)fluoranthene	205-99-2	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Benzo(k)fluoranthene	207-08-9	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Chrysene	218-01-9	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Dibenzo(a,h)anthracene	53-70-3	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Fluoranthene	206-44-0	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Fluorene	86-73-7	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM
Indeno(1,2,3-cd)pyrene	193-39-5	<b>U</b>		<b>41</b>	<b>µg/Kg</b>	1	6/2/2017 05:12 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 08-Jun-17

**Client:** Gunnison Energy Corporation  
**Project:** 18-73 Pad Exp  
**Sample ID:** 18-43 RP  
**Collection Date:** 5/30/2017 01:30 PM

**Work Order:** 17051755  
**Lab ID:** 17051755-01  
**Matrix:** SOLID

Analyses	CAS	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Naphthalene	91-20-3	U		41	µg/Kg	1	6/2/2017 05:12 PM
Pyrene	129-00-0	U		41	µg/Kg	1	6/2/2017 05:12 PM
Surr: 2-Fluorobiphenyl	321-60-8	60.3		20-140	%REC	1	6/2/2017 05:12 PM
Surr: 4-Terphenyl-d14	1718-51-0	28.0		22-172	%REC	1	6/2/2017 05:12 PM
Surr: Nitrobenzene-d5	4165-60-0	48.7		8-140	%REC	1	6/2/2017 05:12 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>		<b>SW8260B</b>		Prep Date: 6/2/2017		Analyst: AK	
Benzene	71-43-2	U		0.050	mg/Kg	1	6/3/2017 03:11 AM
Ethylbenzene	100-41-4	U		0.050	mg/Kg	1	6/3/2017 03:11 AM
m,p-Xylene	136777-61-2	U		0.10	mg/Kg	1	6/3/2017 03:11 AM
o-Xylene	95-47-6	U		0.050	mg/Kg	1	6/3/2017 03:11 AM
Toluene	108-88-3	U		0.050	mg/Kg	1	6/3/2017 03:11 AM
Xylenes, Total	1330-20-7	U		0.15	mg/Kg	1	6/3/2017 03:11 AM
Surr: 1,2-Dichloroethane-d4	17060-07-0	98.6		70-130	%REC	1	6/3/2017 03:11 AM
Surr: 4-Bromofluorobenzene	460-00-4	104		70-130	%REC	1	6/3/2017 03:11 AM
Surr: Dibromofluoromethane	1868-53-7	83.5		70-130	%REC	1	6/3/2017 03:11 AM
Surr: Toluene-d8	2037-26-5	99.8		70-130	%REC	1	6/3/2017 03:11 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>		<b>USDA H60 METHO</b>		Prep Date: 6/2/2017		Analyst: JB	
Electrical Conductivity @ Saturation	ARC-Cond	2.6		0.12	mmhos/cm @225		6/5/2017 10:45 AM
<b>CHROMIUM, TRIVALENT</b>		<b>CALCULATION</b>				Analyst: JJG	
Chromium, Trivalent	16065-83-1	4.2		1.0	mg/Kg	1	6/8/2017 09:48 AM
<b>CHROMIUM, HEXAVALENT</b>		<b>SW7196A</b>		Prep Date: 6/5/2017		Analyst: MB	
Chromium, Hexavalent	18540-29-9	U		1.0	mg/Kg	1	6/6/2017 03:00 PM
<b>PAINT FILTER (FREE LIQUIDS)</b>		<b>SW9095B</b>				Analyst: KF	
Free Liquids	FLIQUIDS	Absent			none	1	6/2/2017 11:22 AM
<b>MOISTURE</b>		<b>SW3550C</b>				Analyst: EDL	
Moisture	MOIST	25		0.050	% of sample	1	5/31/2017 04:58 PM
<b>PH</b>		<b>SW9045D</b>		Prep Date: 6/1/2017		Analyst: JB	
pH	PH	8.29		0.100	s.u.	1	6/2/2017 10:00 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 08-Jun-17**Client:** Gunnison Energy Corporation**Project:** 18-73 Pad Exp**Work Order:** 17051755**Sample ID:** 18-43 RP TCLP**Lab ID:** 17051755-02**Collection Date:** 5/30/2017 01:30 PM**Matrix:** TCLP EXTRACT

Analyses	CAS	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TCLP MERCURY BY CVAA</b>							
Mercury	7439-97-6	U		0.0020	mg/L	1	6/5/2017 03:19 PM
<b>TCLP METALS ANALYSIS BY ICP-MS</b>							
Arsenic	7440-38-2	U		0.050	mg/L	1	6/5/2017 09:16 PM
Barium	7440-39-3	1.3		0.050	mg/L	1	6/5/2017 09:16 PM
Cadmium	7440-43-9	0.0018	J	0.0020	mg/L	1	6/5/2017 09:16 PM
Chromium	7440-47-3	0.017	J	0.050	mg/L	1	6/5/2017 09:16 PM
Lead	7439-92-1	0.013	J	0.050	mg/L	1	6/5/2017 09:16 PM
Selenium	7782-49-2	U		0.050	mg/L	1	6/5/2017 09:16 PM
Silver	7440-22-4	U		0.050	mg/L	1	6/5/2017 09:16 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

**QC BATCH REPORT**

Batch ID: **102661** Instrument ID **GC8** Method: **SW8015C**

<b>MBLK</b>		Sample ID: <b>DBLKS1-102661-102661</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 10:30 PM</b>		
Client ID:		Run ID: <b>GC8_170601A</b>				SeqNo: <b>4460174</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	3.733	0	3.33	0	112	50-150	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-102661-102661</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 11:00 PM</b>		
Client ID:		Run ID: <b>GC8_170601A</b>				SeqNo: <b>4460175</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	328.8	5.0	333	0	98.7	50-150	0			
<i>Surr: 4-Terphenyl-d14</i>	3.9	0	3.33	0	117	50-150	0			

<b>MS</b>		Sample ID: <b>17051718-02A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 11:29 PM</b>		
Client ID:		Run ID: <b>GC8_170601A</b>				SeqNo: <b>4460176</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	284.9	5.0	330.3	96.67	57	50-150	0			
<i>Surr: 4-Terphenyl-d14</i>	2.215	0	3.303	0	67.1	50-150	0			

<b>MSD</b>		Sample ID: <b>17051718-02A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 11:59 PM</b>		
Client ID:		Run ID: <b>GC8_170601A</b>				SeqNo: <b>4460177</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	332.9	5.0	330.4	96.67	71.5	50-150	284.9	15.6	30	
<i>Surr: 4-Terphenyl-d14</i>	2.58	0	3.304	0	78.1	50-150	2.215	15.2	30	

The following samples were analyzed in this batch:

17051755-01A

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102718**      Instrument ID **GC8**      Method: **SW8015C**

<b>MBLK</b>		Sample ID: <b>DBLKS1-102718-102718</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2017 02:51 PM</b>		
Client ID:		Run ID: <b>GC8_170602A</b>				SeqNo: <b>4462974</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	U	5.0								
Surr: 4-Terphenyl-d14	3.017	0	3.33	0	90.6	53-140	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-102718-102718</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2017 03:20 PM</b>		
Client ID:		Run ID: <b>GC8_170602A</b>				SeqNo: <b>4462975</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	300.6	5.0	333	0	90.3	65-122	0			
Surr: 4-Terphenyl-d14	3.333	0	3.33	0	100	53-140	0			

<b>MS</b>		Sample ID: <b>1706058-04A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2017 03:50 PM</b>		
Client ID:		Run ID: <b>GC8_170602A</b>				SeqNo: <b>4462976</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	5823	5.0	331.1	4073	528	65-122	0			SO
Surr: 4-Terphenyl-d14	2.171	0	3.311	0	65.6	53-140	0			

<b>MSD</b>		Sample ID: <b>1706058-04A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2017 04:20 PM</b>		
Client ID:		Run ID: <b>GC8_170602A</b>				SeqNo: <b>4462977</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	3824	4.9	327.6	4073	-76	65-122	5823	41.4	30	SRO
Surr: 4-Terphenyl-d14	1.836	0	3.276	0	56.1	53-140	2.171	16.7	30	

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102740**      Instrument ID **GC9**      Method: **SW8015D**

<b>MBLK</b>		Sample ID: <b>MBLK-102740-102740</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/5/2017 01:51 PM</b>		
Client ID:		Run ID: <b>GC9_170605A</b>				SeqNo: <b>4463808</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	2425	2,500								J
Surr: Toluene-d8	6554	0	5000	0	131	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-102740-102740</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/5/2017 01:00 PM</b>		
Client ID:		Run ID: <b>GC9_170605A</b>				SeqNo: <b>4463807</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	543000	2,500	500000	0	109	70-130	0			
Surr: Toluene-d8	5916	0	5000	0	118	50-150	0			

<b>MS</b>		Sample ID: <b>1706058-02A MS</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/5/2017 09:55 PM</b>		
Client ID:		Run ID: <b>GC9_170605A</b>				SeqNo: <b>4465138</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	787400	3,800	750000	0	105	70-130	0			
Surr: Toluene-d8	8512	0	7500	0	113	50-150	0			

<b>MSD</b>		Sample ID: <b>1706058-02A MSD</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/5/2017 10:21 PM</b>		
Client ID:		Run ID: <b>GC9_170605A</b>				SeqNo: <b>4465139</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	809900	3,800	750000	0	108	70-130	787400	2.82	30	
Surr: Toluene-d8	9002	0	7500	0	120	50-150	8512	5.59	30	

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102677** Instrument ID **HG1** Method: **SW7471B**

<b>MBLK</b>		Sample ID: <b>MBLK-102677-102677</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 07:09 PM</b>		
Client ID:		Run ID: <b>HG1_170601A</b>				SeqNo: <b>4459895</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury U 0.020

<b>LCS</b>		Sample ID: <b>LCS-102677-102677</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 07:19 PM</b>		
Client ID:		Run ID: <b>HG1_170601A</b>				SeqNo: <b>4459899</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1783 0.020 0.1665 0 107 80-120 0

<b>MS</b>		Sample ID: <b>17051659-02AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 07:54 PM</b>		
Client ID:		Run ID: <b>HG1_170601A</b>				SeqNo: <b>4459912</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1493 0.017 0.1388 0.00006775 108 75-125 0

<b>MSD</b>		Sample ID: <b>17051659-02AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2017 07:57 PM</b>		
Client ID:		Run ID: <b>HG1_170601A</b>				SeqNo: <b>4459913</b>		Prep Date: <b>6/1/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1468 0.016 0.137 0.00006775 107 75-125 0.1493 1.71 35

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102791** Instrument ID **HG1** Method: **SW7470A**

<b>MBLK</b>		Sample ID: <b>MBLK-102791-102791</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/5/2017 03:06 PM</b>		
Client ID:		Run ID: <b>HG1_170605A</b>				SeqNo: <b>4464252</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury U 0.00020

<b>LCS</b>		Sample ID: <b>LCS-102791-102791</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/5/2017 03:09 PM</b>		
Client ID:		Run ID: <b>HG1_170605A</b>				SeqNo: <b>4464253</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.00203 0.00020 0.002 0 102 80-120 0

<b>MS</b>		Sample ID: <b>17051753-01AMS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/5/2017 03:44 PM</b>		
Client ID:		Run ID: <b>HG1_170605A</b>				SeqNo: <b>4464267</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.0217 0.0020 0.02 -0.00002 109 75-125 0

<b>MSD</b>		Sample ID: <b>17051753-01AMSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/5/2017 03:47 PM</b>		
Client ID:		Run ID: <b>HG1_170605A</b>				SeqNo: <b>4464268</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.0217 0.0020 0.02 -0.00002 109 75-125 0.0217 0 20

The following samples were analyzed in this batch:

17051755-02A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102734** Instrument ID **SAR** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>17051755-01ADUP</b>				Units: <b>none</b>		Analysis Date: <b>6/6/2017</b>		
Client ID: <b>18-43 RP</b>		Run ID: <b>SAR_170606A</b>				SeqNo: <b>4468331</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.028	0.010	0	0	0			0		

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102789** Instrument ID **ICP2** Method: **SW846 6010C**

Sample ID: MBLK-102789-102789				Units: mg/Kg			Analysis Date: 6/5/2017 11:18 PM			
Client ID:		Run ID: ICP2_170605A			SeqNo: 4465606		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	0.08975	0.50								J
Chromium	U	0.25								
Copper	U	0.50								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.50								
Silver	U	0.25								
Zinc	U	0.50								

LCS				Sample ID: LCS-102789-102789				Units: mg/Kg			Analysis Date: 6/5/2017 11:24 PM		
Client ID:			Run ID: ICP2_170605A				SeqNo: 4465608			Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Arsenic	5.423	0.25	5	0	108	80-120	0						
Barium	5.246	0.25	5	0	105	80-120	0						
Cadmium	5.514	0.50	5	0	110	80-120	0						
Chromium	5.759	0.25	5	0	115	80-120	0						
Copper	5.423	0.50	5	0	108	80-120	0						
Lead	5.523	0.25	5	0	110	80-120	0						
Nickel	5.34	0.25	5	0	107	80-120	0						
Selenium	4.714	0.50	5	0	94.3	80-120	0						
Silver	5.212	0.25	5	0	104	80-120	0						
Zinc	5.709	0.50	5	0	114	80-120	0						

MS				Sample ID: 1706029-04AMS			Units: mg/Kg		Analysis Date: 6/6/2017 12:36 AM		
Client ID:			Run ID: ICP2_170605A			SeqNo: 4465633		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	13.45	0.40	8.091	2.477	136	75-125		0		S	
Barium	49.81	0.40	8.091	32.86	209	75-125		0		SO	
Cadmium	10.23	0.81	8.091	0.58	119	75-125		0			
Chromium	19.15	0.40	8.091	11.88	89.8	75-125		0			
Copper	22.02	0.81	8.091	11.48	130	75-125		0		S	
Lead	31.42	0.40	8.091	21.81	119	75-125		0			
Nickel	15.38	0.40	8.091	6.089	115	75-125		0			
Selenium	9.555	0.81	8.091	1.18	104	75-125		0			
Silver	8.651	0.40	8.091	-0.1424	109	75-125		0			
Zinc	68	0.81	8.091	41.18	332	75-125		0		SO	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102789** Instrument ID **ICP2** Method: **SW846 6010C**

MSD				Sample ID: 1706029-04AMSD			Units: mg/Kg		Analysis Date: 6/6/2017 12:42 AM		
Client ID:			Run ID: ICP2_170605A			SeqNo: 4465635		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	12.86	0.40	8.078	2.477	129	75-125	13.45	4.45	20	S	
Barium	48.24	0.40	8.078	32.86	190	75-125	49.81	3.2	20	SO	
Cadmium	10.15	0.81	8.078	0.58	118	75-125	10.23	0.796	20		
Chromium	43.64	0.40	8.078	11.88	393	75-125	19.15	78	20	SR	
Copper	20.09	0.81	8.078	11.48	107	75-125	22.02	9.19	20		
Lead	29.88	0.40	8.078	21.81	99.9	75-125	31.42	5.02	20		
Nickel	15.42	0.40	8.078	6.089	116	75-125	15.38	0.258	20		
Selenium	9.67	0.81	8.078	1.18	105	75-125	9.555	1.19	20		
Silver	8.561	0.40	8.078	-0.1424	108	75-125	8.651	1.05	20		
Zinc	58.82	0.81	8.078	41.18	218	75-125	68	14.5	20	SO	

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102790** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK Sample ID: <b>MBLK-102558-102790</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/5/2017 08:15 PM</b>			
Client ID:		Run ID: <b>ICPMS2_170605A</b>		SeqNo: <b>4464325</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050	0	0	0	0-0	0			
Barium	U	0.0050	0	0	0	0-0	0			
Cadmium	U	0.0020	0	0	0	0-0	0			
Chromium	U	0.0050	0	0	0	0-0	0			
Lead	U	0.0050	0	0	0	0-0	0			
Selenium	U	0.0050	0	0	0	0-0	0			
Silver	U	0.0050	0	0	0	0-0	0			

MBLK Sample ID: <b>MBLK-102790-102790</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/5/2017 08:25 PM</b>			
Client ID:		Run ID: <b>ICPMS2_170605A</b>		SeqNo: <b>4464327</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050								
Barium	U	0.0050								
Cadmium	U	0.0020								
Chromium	U	0.0050								
Lead	U	0.0050								
Selenium	U	0.0050								
Silver	U	0.0050								

LCS Sample ID: <b>LCS-102558-102790</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/5/2017 08:20 PM</b>			
Client ID:		Run ID: <b>ICPMS2_170605A</b>		SeqNo: <b>4464326</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1	0.0050	0.1	0	100	80-120	0			
Barium	0.103	0.0050	0.1	0	103	80-120	0			
Cadmium	0.1017	0.0020	0.1	0	102	80-120	0			
Chromium	0.09902	0.0050	0.1	0	99	80-120	0			
Lead	0.1032	0.0050	0.1	0	103	80-120	0			
Selenium	0.09729	0.0050	0.1	0	97.3	80-120	0			
Silver	0.1013	0.0050	0.1	0	101	80-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102790** Instrument ID **ICPMS2** Method: **SW6020A**

LCS				Sample ID: LCS-102790-102790			Units: mg/L		Analysis Date: 6/5/2017 08:31 PM		
Client ID:			Run ID: ICPMS2_170605A			SeqNo: 4464328		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.1017	0.0050	0.1	0	102	80-120	0				
Barium	0.1072	0.0050	0.1	0	107	80-120	0				
Cadmium	0.1048	0.0020	0.1	0	105	80-120	0				
Chromium	0.1002	0.0050	0.1	0	100	80-120	0				
Lead	0.1061	0.0050	0.1	0	106	80-120	0				
Selenium	0.09741	0.0050	0.1	0	97.4	80-120	0				
Silver	0.1025	0.0050	0.1	0	102	80-120	0				

MS				Sample ID: 17051590-06CMS			Units: mg/L		Analysis Date: 6/5/2017 08:41 PM		
Client ID:			Run ID: ICPMS2_170605A			SeqNo: 4464330		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.1026	0.0050	0.1	0.0002406	102	75-125	0				
Barium	0.1489	0.0050	0.1	0.04367	105	75-125	0				
Cadmium	0.102	0.0020	0.1	0.00003675	102	75-125	0				
Chromium	0.09951	0.0050	0.1	0.00005963	99.5	75-125	0				
Lead	0.1031	0.0050	0.1	0.0005756	103	75-125	0				
Selenium	0.09871	0.0050	0.1	-9.648E-05	98.8	75-125	0				
Silver	0.09901	0.0050	0.1	0.00002253	99	75-125	0				

MSD				Sample ID: 17051590-06CMSD			Units: mg/L		Analysis Date: 6/5/2017 08:46 PM		
Client ID:			Run ID: ICPMS2_170605A			SeqNo: 4464331		Prep Date: 6/5/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.1023	0.0050	0.1	0.0002406	102	75-125	0.1026	0.293	20		
Barium	0.1472	0.0050	0.1	0.04367	104	75-125	0.1489	1.15	20		
Cadmium	0.1001	0.0020	0.1	0.00003675	100	75-125	0.102	1.88	20		
Chromium	0.09852	0.0050	0.1	0.00005963	98.5	75-125	0.09951	1	20		
Lead	0.1021	0.0050	0.1	0.0005756	102	75-125	0.1031	0.975	20		
Selenium	0.09552	0.0050	0.1	-9.648E-05	95.6	75-125	0.09871	3.28	20		
Silver	0.09845	0.0050	0.1	0.00002253	98.4	75-125	0.09901	0.567	20		

The following samples were analyzed in this batch:

17051755-02A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102716**      Instrument ID **SVMS6**      Method: **SW846 8270D**

MBLK				Sample ID: SBLKS1-102716-102716				Units: µg/Kg			Analysis Date: 6/2/2017 02:34 PM		
Client ID:			Run ID: SVMS6_170602A				SeqNo: 4463183			Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Acenaphthene	U	42											
Anthracene	U	42											
Benzo(a)anthracene	U	42											
Benzo(a)pyrene	U	42											
Benzo(b)fluoranthene	U	42											
Benzo(k)fluoranthene	U	42											
Chrysene	U	42											
Dibenzo(a,h)anthracene	U	42											
Fluoranthene	U	42											
Fluorene	U	42											
Indeno(1,2,3-cd)pyrene	U	42											
Naphthalene	U	42											
Pyrene	U	42											
Surr: 2-Fluorobiphenyl	3240	0	3333	0	97.2	20-140	0						
Surr: 4-Terphenyl-d14	3385	0	3333	0	102	22-172	0						
Surr: Nitrobenzene-d5	3333	0	3333	0	100	8-140	0						

LCS				Sample ID: <b>SLCSS1-102716-102716</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/2/2017 02:48 PM</b>	
Client ID:			Run ID: <b>SVMS6_170602A</b>			SeqNo: <b>4463184</b>		Prep Date: <b>6/2/2017</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1231	42	1333	0	92.3	40-140	0				
Anthracene	1418	42	1333	0	106	40-140	0				
Benzo(a)anthracene	1286	42	1333	0	96.5	40-140	0				
Benzo(a)pyrene	1404	42	1333	0	105	40-140	0				
Benzo(b)fluoranthene	1398	42	1333	0	105	40-140	0				
Benzo(k)fluoranthene	1314	42	1333	0	98.6	40-140	0				
Chrysene	1249	42	1333	0	93.7	40-140	0				
Dibenzo(a,h)anthracene	1223	42	1333	0	91.8	40-140	0				
Fluoranthene	1416	42	1333	0	106	40-140	0				
Fluorene	1374	42	1333	0	103	40-140	0				
Indeno(1,2,3-cd)pyrene	1351	42	1333	0	101	40-140	0				
Naphthalene	1340	42	1333	0	101	40-140	0				
Pyrene	1368	42	1333	0	103	40-140	0				
<i>Surr: 2-Fluorobiphenyl</i>	<i>3260</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>97.8</i>	<i>20-140</i>	<i>0</i>				
<i>Surr: 4-Terphenyl-d14</i>	<i>3107</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>93.2</i>	<i>22-172</i>	<i>0</i>				
<i>Surr: Nitrobenzene-d5</i>	<i>3345</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>100</i>	<i>8-140</i>	<i>0</i>				

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gunnison Energy Corporation  
 Work Order: 17051755  
 Project: 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: 102716 Instrument ID SVMS6 Method: SW846 8270D

MS				Sample ID: 1706029-04A MS		Units: µg/Kg		Analysis Date: 6/2/2017 03:46 PM		
Client ID:			Run ID: SVMS6_170602A		SeqNo: 4463185		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1356	42	1328	55.75	97.9	40-140	0			
Anthracene	1587	42	1328	60.24	115	40-140	0			
Benzo(a)anthracene	1638	42	1328	129.5	114	40-140	0			
Benzo(a)pyrene	1692	42	1328	137.8	117	40-140	0			
Benzo(b)fluoranthene	1852	42	1328	227.2	122	40-140	0			
Benzo(k)fluoranthene	1378	42	1328	64.63	98.9	40-140	0			
Chrysene	1502	42	1328	145	102	40-140	0			
Dibenzo(a,h)anthracene	1437	42	1328	0	108	40-140	0			
Fluoranthene	2188	42	1328	425.3	133	40-140	0			
Fluorene	1577	42	1328	77.02	113	40-140	0			
Indeno(1,2,3-cd)pyrene	1626	42	1328	103.5	115	40-140	0			
Naphthalene	1382	42	1328	0	104	40-140	0			
Pyrene	1926	42	1328	305.7	122	40-140	0			
Surr: 2-Fluorobiphenyl	3349	0	3321	0	101	20-140	0			
Surr: 4-Terphenyl-d14	3173	0	3321	0	95.6	22-172	0			
Surr: Nitrobenzene-d5	3395	0	3321	0	102	8-140	0			

MSD				Sample ID: 1706029-04A MSD		Units: µg/Kg		Analysis Date: 6/2/2017 04:00 PM		
Client ID:		Run ID: SVMS6_170602A			SeqNo: 4463186		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1365	41	1324	55.75	98.8	40-140	1356	0.644	30	
Anthracene	1658	41	1324	60.24	121	40-140	1587	4.38	30	
Benzo(a)anthracene	1644	41	1324	129.5	114	40-140	1638	0.31	30	
Benzo(a)pyrene	1647	41	1324	137.8	114	40-140	1692	2.68	30	
Benzo(b)fluoranthene	1821	41	1324	227.2	120	40-140	1852	1.7	30	
Benzo(k)fluoranthene	1376	41	1324	64.63	99.1	40-140	1378	0.13	30	
Chrysene	1464	41	1324	145	99.6	40-140	1502	2.54	30	
Dibenzo(a,h)anthracene	1321	41	1324	0	99.8	40-140	1437	8.38	30	
Fluoranthene	2303	41	1324	425.3	142	40-140	2188	5.13	30	S
Fluorene	1574	41	1324	77.02	113	40-140	1577	0.194	30	
Indeno(1,2,3-cd)pyrene	1506	41	1324	103.5	106	40-140	1626	7.65	30	
Naphthalene	1360	41	1324	0	103	40-140	1382	1.62	30	
Pyrene	1974	41	1324	305.7	126	40-140	1926	2.43	30	
Surr: 2-Fluorobiphenyl	3261	0	3311	0	98.5	20-140	3349	2.66	0	
Surr: 4-Terphenyl-d14	3095	0	3311	0	93.5	22-172	3173	2.49	0	
Surr: Nitrobenzene-d5	3384	0	3311	0	102	8-140	3395	0.3	0	

The following samples were analyzed in this batch:

17051755-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102739**      Instrument ID **VMS9**      Method: **SW8260B**

MBLK				Sample ID: MBLK-102739-102739			Units: µg/Kg-dry		Analysis Date: 6/2/2017 12:54 PM		
Client ID:			Run ID: VMS9_170602A			SeqNo: 4461839		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	30	0	0	0	0-0	0				
Ethylbenzene	U	30	0	0	0	0-0	0				
m,p-Xylene	U	60	0	0	0	0-0	0				
o-Xylene	U	30	0	0	0	0-0	0				
Toluene	U	30	0	0	0	0-0	0				
Xylenes, Total	U	90	0	0	0	0-0	0				
Surr: 1,2-Dichloroethane-d4	1002	0	1000	0	100	70-130	0				
Surr: 4-Bromofluorobenzene	996.5	0	1000	0	99.6	70-130	0				
Surr: Dibromofluoromethane	909	0	1000	0	90.9	70-130	0				
Surr: Toluene-d8	1018	0	1000	0	102	70-130	0				

MBLK				Sample ID: MBLK-102739-102739			Units: µg/Kg-dry		Analysis Date: 6/3/2017 12:06 PM		
Client ID:			Run ID: VMS9_170602B			SeqNo: 4461943		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	30	0	0	0	0-0	0				
Ethylbenzene	U	30	0	0	0	0-0	0				
m,p-Xylene	U	60	0	0	0	0-0	0				
o-Xylene	U	30	0	0	0	0-0	0				
Toluene	U	30	0	0	0	0-0	0				
Xylenes, Total	U	90	0	0	0	0-0	0				
Surr: 1,2-Dichloroethane-d4	989.5	0	1000	0	99	70-130	0				
Surr: 4-Bromofluorobenzene	1052	0	1000	0	105	70-130	0				
Surr: Dibromofluoromethane	843.5	0	1000	0	84.4	70-130	0				
Surr: Toluene-d8	1020	0	1000	0	102	70-130	0				

LCS				Sample ID: LCS-102739-102739			Units: µg/Kg-dry		Analysis Date: 6/2/2017 11:21 AM		
Client ID:			Run ID: VMS9_170602A			SeqNo: 4461836		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1050	30	1000	0	105	75-125	0				
Ethylbenzene	1050	30	1000	0	105	75-125	0				
m,p-Xylene	2146	60	2000	0	107	80-125	0				
o-Xylene	1084	30	1000	0	108	75-125	0				
Toluene	1044	30	1000	0	104	70-125	0				
Xylenes, Total	3230	90	3000	0	108	75-125	0				
Surr: 1,2-Dichloroethane-d4	1008	0	1000	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1018	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	973	0	1000	0	97.3	70-130	0				
Surr: Toluene-d8	1047	0	1000	0	105	70-130	0				

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102739**      Instrument ID **VMS9**      Method: **SW8260B**

LCS				Sample ID: LCS-102739-102739			Units: µg/Kg-dry		Analysis Date: 6/2/2017 10:56 PM		
Client ID:			Run ID: VMS9_170602B			SeqNo: 4461927		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1018	30	1000	0	102	75-125	0				
Ethylbenzene	993.5	30	1000	0	99.4	75-125	0				
m,p-Xylene	2040	60	2000	0	102	80-125	0				
o-Xylene	1039	30	1000	0	104	75-125	0				
Toluene	992.5	30	1000	0	99.2	70-125	0				
Xylenes, Total	3078	90	3000	0	103	75-125	0				
Surr: 1,2-Dichloroethane-d4	1014	0	1000	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1015	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	966	0	1000	0	96.6	70-130	0				
Surr: Toluene-d8	1040	0	1000	0	104	70-130	0				

MS				Sample ID: 1706058-02A MS				Units: µg/Kg-dry		Analysis Date: 6/2/2017 08:14 PM	
Client ID:			Run ID: VMS9_170602A			SeqNo: 4461854		Prep Date: 6/2/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1422	45	1500	0	94.8	75-125	0				
Ethylbenzene	1416	45	1500	0	94.4	75-125	0				
m,p-Xylene	2928	90	3000	0	97.6	80-125	0				
o-Xylene	1489	45	1500	0	99.2	75-125	0				
Toluene	1376	45	1500	0	91.7	70-125	0				
Xylenes, Total	4417	140	4500	0	98.2	75-125	0				
Surr: 1,2-Dichloroethane-d4	1513	0	1500	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1585	0	1500	0	106	70-130	0				
Surr: Dibromofluoromethane	1396	0	1500	0	93.1	70-130	0				
Surr: Toluene-d8	1499	0	1500	0	100	70-130	0				

MSD				Sample ID: 1706058-02A MSD				Units: µg/Kg-dry		Analysis Date: 6/2/2017 08:37 PM	
Client ID:			Run ID: VMS9_170602A		SeqNo: 4461855		Prep Date: 6/2/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1467	45	1500	0	97.8	75-125	1422	3.12	30		
Ethylbenzene	1428	45	1500	0	95.2	75-125	1416	0.844	30		
m,p-Xylene	2965	90	3000	0	98.8	80-125	2928	1.25	30		
o-Xylene	1514	45	1500	0	101	75-125	1489	1.65	30		
Toluene	1393	45	1500	0	92.8	70-125	1376	1.25	30		
Xylenes, Total	4478	140	4500	0	99.5	75-125	4417	1.38	30		
Surr: 1,2-Dichloroethane-d4	1487	0	1500	0	99.2	70-130	1513	1.7	30		
Surr: 4-Bromofluorobenzene	1594	0	1500	0	106	70-130	1585	0.613	30		
Surr: Dibromofluoromethane	1410	0	1500	0	94	70-130	1396	0.962	30		
Surr: Toluene-d8	1504	0	1500	0	100	70-130	1499	0.3	30		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

**QC BATCH REPORT**

Batch ID: **102739**      Instrument ID **VMS9**      Method: **SW8260B**

The following samples were analyzed in this batch:

17051755-01A
--------------

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102694** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-102694-102694					Units: s.u.			Analysis Date: 6/2/2017 10:00 AM				
Client ID:					Run ID: WETCHEM_170602B					SeqNo: 4460671			Prep Date: 6/1/2017			DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH					4.02	0.10	4	0	100		90-110	0					

DUP					Sample ID: 17051703-01B DUP					Units: s.u.			Analysis Date: 6/2/2017 10:00 AM		
Client ID:			Run ID: WETCHEM_170602B			SeqNo: 4460673			Prep Date: 6/1/2017			DF: 1			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH		8.38	0.10	0	0	0	0-0	8.25	1.56	20					

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102734** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>17051755-01A DUP</b>				Units: <b>mmhos/cm @25°</b>		Analysis Date: <b>6/5/2017 10:45 AM</b>		
Client ID: <b>18-43 RP</b>		Run ID: <b>WETCHEM_170605C</b>				SeqNo: <b>4462390</b>		Prep Date: <b>6/2/2017</b>		DF: <b>25</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.66	0.12	0	0	0		2.588	2.76	50	

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

# QC BATCH REPORT

Batch ID: **102877** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-102877-102877</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466039</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 1.0

<b>LCS</b>		Sample ID: <b>LCS-102877-102877</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466038</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.32 1.0 5 0 86.4 80-120 0

<b>MS</b>		Sample ID: <b>17051419-04A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466021</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.859 1.0 5.051 0.0396 95.4 75-125 0

<b>MS</b>		Sample ID: <b>17051419-04A MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466023</b>		Prep Date: <b>6/5/2017</b>		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2907 100 3007 0.0396 96.7 75-125 0

<b>MS</b>		Sample ID: <b>1706252-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466033</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.593 1.2 5.814 -0.1047 80.8 75-125 0

<b>MS</b>		Sample ID: <b>1706252-01A MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466035</b>		Prep Date: <b>6/5/2017</b>		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3333 120 3499 -0.1047 95.3 75-125 0

<b>MSD</b>		Sample ID: <b>17051419-04A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>		SeqNo: <b>4466022</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.485 1.0 5.051 0.0396 88 75-125 4.859 8 20

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **102877** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MSD</b>		Sample ID: <b>1706252-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2017 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_170606H</b>			SeqNo: <b>4466034</b>		Prep Date: <b>6/5/2017</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.733	1.2	5.814	-0.1047	83.2	75-125	4.593	2.99	20	

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Gunnison Energy Corporation  
**Work Order:** 17051755  
**Project:** 18-73 Pad Exp

## QC BATCH REPORT

Batch ID: **R213025** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R213025				Units: % of sample		Analysis Date: 5/31/2017 04:58 PM		
Client ID:		Run ID: MOIST_170531C				SeqNo: 4458414		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

LCS		Sample ID: LCS-R213025				Units: % of sample		Analysis Date: 5/31/2017 04:58 PM		
Client ID:		Run ID: MOIST_170531C				SeqNo: 4458413		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 17051636-02B DUP				Units: % of sample		Analysis Date: 5/31/2017 04:58 PM		
Client ID:		Run ID: MOIST_170531C		SeqNo: 4458387		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.61 0.050 0 0 0 0-0 21.5 9.19 5 R

DUP		Sample ID: 17051636-04B DUP				Units: % of sample		Analysis Date: 5/31/2017 04:58 PM		
Client ID:		Run ID: MOIST_170531C			SeqNo: 4458390		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.87 0.050 0 0 0 0-0 20.17 1.5 5

The following samples were analyzed in this batch:

17051755-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



Cincinnati, OH  
+1 513 733 5336

Everett, WA  
+1 425 356 2600

Fort Collins, CO  
+1 970 490 1511

Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 1 of 1

COC ID: 43841

Houston, TX  
+1 281 530 5656

Middletown, PA  
+1 717 944 5541

Spring City, PA  
+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

ALS Project Manager:

ALS Work Order #: 7051755

## Customer Information

Purchase Order	
Work Order	
Company Name	Gunnison Energy Corporation
Send Report To	Dan McWilliams
Address	3737 Highway 133
City/State/Zip	Summerset, CO 81434
Phone	(970) 829-5828
Fax	
e-Mail Address	Dan.McWilliams@Oxbow.com

## Project Information

Project Name	18-43 Pad Ep
Project Number	
Bill To Company	Gunnison Energy Corporation
Invoice Attn	Accounts Payable
Address	1601 Forum Place, Suite 1400
City/State/Zip	West Palm Beach, FL 33401
Phone	
Fax	(561) 828-8455
e-Mail Address	

## Parameter/Method Request for Analysis

A	COGCC Table 910
B	Point Filter
C	TCLP Metals
D	
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	18-43 RP	5/30/17	1330	SL	N/A	5	X	X	X								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign Dan McWilliams		Shipment Method:		Turnaround Time in Business Days (BD) <input type="checkbox"/> 10 BD <input checked="" type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> 1 BD				Results Due Date:	
Relinquished by: Dan McWilliams	Date: 5/24/17	Time: 1730	Received by: FED EX	Notes: Reclaimed Reserve Pit					
Relinquished by: FED EX	Date: 5/31/17	Time: 0845	Received by (Laboratory): Q2 QL	Cooler ID: SR2	Cooler Temp: 3.8 °C	QC Package: (Check One Box Below)			
Logged by (Laboratory): DES	Date: 5/31/17	Time: 1530	Checked by (Laboratory):	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other					
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035									

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **GUNNISON**

Date/Time Received: **31-May-17 08:45**

Work Order: **17051755**

Received by: **DS**

Checklist completed by Diane Shaw  
eSignature

31-May-17  
Date

Reviewed by: Chad Whelton  
eSignature

01-Jun-17  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8/3.8 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>5/31/2017 3:46:42 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: