

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 04, 2021

Brent Hedstrom
Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie, WY 82070

RE: AA 12-8

Work Order #2101200

Enclosed are the results of analyses for samples received by Summit Scientific on 01/20/21 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie WY, 82070

Project: AA 12-8

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
02/04/21 10:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Surface Casing	2101200-01	Water	01/12/21 13:00	01/20/21 09:00

Summit Scientific

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210/200

Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: Crestone Peak Resources

Project Manager: Brent Hedstrom

Address: 10188 East I-25 Frontage road

E-Mail: brent.hedstrom@crestonepr.com

City/State/Zip: Firestone, CO 80504

Phone: 303-434-3007

Project Name: AA 12-8

Sampler Name:

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested							Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Anion	Cations	TDS	BTEX 8020	DRO	GRO	RSK-175		
1	Surface casing	1/12/2021	13:00	9		X	X		X					X	X	X	X	X	X	X	COGCC 267878
2																					LOE/AFE W11930 8503
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: 	Date/Time: 1-20-21 9AM	Received by: 	Date/Time: 1-20-21 9:00	Turn Around Time (Check)	Notes:
				Same Day <input type="checkbox"/>	72 hours <input type="checkbox"/>
				24 hours <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>
				48 hours <input type="checkbox"/>	
				Sample Integrity:	
				Temperature Upon Receipt: 3.7	
				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 2101200

Client: Crestone Peak Resources Client Project ID: AA 12-8

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	3.7
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On Ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Additional Comments (if any):</u>				
HNO3 needs to be added @ digestion				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

MP	<i>Muri Premer</i>	1/20/21
Custodian Printed Name or Initials	Signature of Custodian	Date/Time



Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie WY, 82070

Project: AA 12-8

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
02/04/21 10:07

Surface Casing
2101200-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	600000	10000	ug/l	10000	BEA0281	01/26/21	01/30/21	EPA 8260B	
Toluene	980000	10000	"	"	"	"	"	"	
Ethylbenzene	470000	10000	"	"	"	"	"	"	
Xylenes (total)	2300000	20000	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	160000000	5000000	"	"	"	"	"	"	

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		400 %	23-173		"	"	"	"	S-02
Surrogate: Toluene-d8		1390 %	20-170		"	"	"	"	S-02
Surrogate: 4-Bromofluorobenzene		1450 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	270000	50	mg/L	10	BEA0203	01/21/21	01/30/21	EPA 8015M	

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		550 %	58.9-148		"	"	"	"	S-02

Dissolved Gases by RSK-175

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Methane	7.6	1.0	mg/L	100	BEA0264	01/22/21	01/25/21	RSK-175 mod	
Ethane	18	1.0	"	"	"	"	"	"	
Propane	20	1.0	"	"	"	"	"	"	

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Surface Casing
2101200-01 (Water)

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Dissolved Gases by RSK-175

Date Sampled: **01/12/21 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: Ethene		13.7 %	70-130		BEA0264	01/22/21	01/25/21	RSK-175 mod	S-02

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Project: AA 12-8

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
02/04/21 10:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BEA0281 - EPA 5030 Water MS

Blank (BEA0281-BLK1)

Prepared & Analyzed: 01/26/21

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Gasoline Range Hydrocarbons	ND	500	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	14.6		"	13.3		109		23-173			
<i>Surrogate: Toluene-d8</i>	13.8		"	13.3		104		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.8		"	13.3		96.1		21-167			

LCS (BEA0281-BS1)

Prepared & Analyzed: 01/26/21

Benzene	44.2	1.0	ug/l	41.7		106		70-130			
Toluene	40.3	1.0	"	41.7		96.6		70-130			
Ethylbenzene	42.4	1.0	"	41.7		102		70-130			
m,p-Xylene	80.8	2.0	"	83.3		97.0		70-130			
o-Xylene	38.9	1.0	"	41.7		93.4		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.9		"	13.3		104		23-173			
<i>Surrogate: Toluene-d8</i>	13.4		"	13.3		100		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.3		"	13.3		100		21-167			

Matrix Spike (BEA0281-MS1)

Source: 2101209-21

Prepared & Analyzed: 01/26/21

Benzene	47.1	1.0	ug/l	41.7	ND	113		70-130			
Toluene	42.5	1.0	"	41.7	ND	102		70-130			
Ethylbenzene	43.1	1.0	"	41.7	ND	103		70-130			
m,p-Xylene	81.7	2.0	"	83.3	ND	98.1		70-130			
o-Xylene	39.8	1.0	"	41.7	ND	95.6		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	16.6		"	13.3		124		23-173			
<i>Surrogate: Toluene-d8</i>	13.8		"	13.3		104		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.9		"	13.3		104		21-167			

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Project: AA 12-8

Project Number: [none]
 Project Manager: Brent Hedstrom

Reported:
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BEA0281 - EPA 5030 Water MS

Matrix Spike Dup (BEA0281-MSD1)	Source: 2101209-21			Prepared & Analyzed: 01/26/21						
Benzene	44.3	1.0	ug/l	41.7	ND	106	70-130	6.19	30	
Toluene	40.4	1.0	"	41.7	ND	96.8	70-130	5.21	30	
Ethylbenzene	43.1	1.0	"	41.7	ND	103	70-130	0.0464	30	
m,p-Xylene	81.9	2.0	"	83.3	ND	98.3	70-130	0.220	30	
o-Xylene	39.7	1.0	"	41.7	ND	95.4	70-130	0.226	30	
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.3		107	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	20-170			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		104	21-167			

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Project: AA 12-8

Project Number: [none]
 Project Manager: Brent Hedstrom

Reported:
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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BEA0203 - EPA 3520B

Blank (BEA0203-BLK1)

Prepared & Analyzed: 01/21/21

C10-C28 (DRO) ND 5.0 mg/L

LCS (BEA0203-BS1)

Prepared & Analyzed: 01/21/21

C10-C28 (DRO) 43.1 5.0 mg/L 33.3 129 70-130

Matrix Spike (BEA0203-MS1)

Source: 2101149-01

Prepared & Analyzed: 01/21/21

C10-C28 (DRO) 41.9 5.0 mg/L 33.3 1.04 123 70-130

Matrix Spike Dup (BEA0203-MSD1)

Source: 2101149-01

Prepared & Analyzed: 01/21/21

C10-C28 (DRO) 41.1 5.0 mg/L 33.3 1.04 120 70-130 2.01 20

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Project: AA 12-8

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
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Dissolved Gases by RSK-175 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BEA0264 - GC

Blank (BEA0264-BLK1)

Prepared: 01/22/21 Analyzed: 01/25/21

Methane	ND	0.010	mg/L							
Ethane	ND	0.010	"							
Propane	ND	0.010	"							
<i>Surrogate: Ethene</i>	<i>0.0387</i>		<i>"</i>	<i>0.0364</i>		<i>106</i>	<i>70-130</i>			

LCS (BEA0264-BS1)

Prepared: 01/22/21 Analyzed: 01/25/21

Methane	0.030	0.010	mg/L	0.0428		71.1	70-130			
Ethane	0.090	0.010	"	0.0798		112	70-130			
Propane	0.18	0.010	"	0.139		130	70-130			
<i>Surrogate: Ethene</i>	<i>0.0728</i>		<i>"</i>	<i>0.0728</i>		<i>100</i>	<i>70-130</i>			

Duplicate (BEA0264-DUP1)

Source: 2101200-01

Prepared: 01/22/21 Analyzed: 01/25/21

Methane	7.7	1.0	mg/L		7.6			1.56	30	
Ethane	18	1.0	"		18			1.29	30	
Propane	21	1.0	"		20			1.76	30	
<i>Surrogate: Ethene</i>	<i>0.00400</i>		<i>"</i>	<i>0.0364</i>		<i>11.0</i>	<i>70-130</i>			<i>S-02</i>

Matrix Spike (BEA0264-MS1)

Source: 2101200-01

Prepared: 01/22/21 Analyzed: 01/25/21

Methane	7.7	1.0	mg/L	0.0428	7.6	234	70-130			QM-02
Ethane	18	1.0	"	0.0798	18	814	70-130			QM-02
Propane	21	1.0	"	0.139	20	555	70-130			QM-02
<i>Surrogate: Ethene</i>	<i>0.00800</i>		<i>"</i>	<i>0.0728</i>		<i>11.0</i>	<i>70-130</i>			<i>QM-02</i>

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Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- QM-02 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference