



Certificate of Analysis

Number: 2500-20090095-001A

Greeley Laboratory
2881 S. 31st Ave
Unit 6-8
Greeley, CO 80631

Tony Walton
Bonanza Creek
4301 Industrial Parkway
Evans, CO 80620

Sep. 21, 2020

Station Name: NPF 31-34-22 HNB GPM
Station Number: 68004619
Station Location: NPF K-22 Pad
Sample Point: Meter Tube Run
Analyzed: 09/21/2020 09:55:14 by CRS

Sampled By: Russ Fox
Sample Of: Gas Spot
Sample Date: 09/07/2020 11:40
Sample Conditions: 120.40 psig, @ 80.73 °F
Method: GPA-2261M
Cylinder No: 2500-00715

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.73 psia		
Nitrogen	0.364	0.447		GPM TOTAL C2+	7.247
Carbon Dioxide	1.823	3.517		GPM TOTAL C3+	3.307
Methane	72.526	51.002		GPM TOTAL iC5+	0.784
Ethane	14.673	19.341	3.940		
Propane	5.239	10.127	1.449		
Iso-butane	0.780	1.987	0.256		
n-Butane	2.585	6.586	0.818		
Iso-pentane	0.581	1.838	0.213		
n-Pentane	0.741	2.344	0.270		
Hexanes Plus	0.688	2.811	0.301		
	100.000	100.000	7.247		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7907	3.2176
Calculated Molecular Weight	22.81	93.19
Compressibility Factor	0.9957	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1331	5141
Water Sat. Gas Base BTU	1308	5052

Comments: H2S Field Content 1.25 ppm

Hydrocarbon Laboratory Manager


Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Field Tags

(WO# 20090095)

WO# 20090095

1A

 **SPL** Emergency Contact Number: 800-424-9300

Cylinder #: 715

Company: Bonanza Creek System: _____

Location: NPF K-22 Pad Sample of: ☒ Gas ☐ Oil ☐ Condensate

Station: NPF 31-34-22 HMB GPR Station No.: 68004619

Sample Point: Meter Tube Run Type: ☒ Spot ☐ Composite

Source Press.: 120.40 Source Temp.: 80.73 Ambient Temp.: 84.0 F

Sampled By: Russ Fox Company: Corn

Date/Time Off: 9-07-20 11:40 (AM/PM) On: _____ (AM/PM)


Sample Pressure: 120.40 ☒ PSIG ☐ PSIA Sample Temp.: 80.73 (F°)

H₂O Cont.: _____ LBS/MMSCF H₂S Cont.: 1.25 ☒ PPM ☐ GRAINS ☐ %

% Outage: _____ Remarks: _____

Chain of Custody

(WO# 20090095)

		Report To: Bonanza Creek Energy (Company Name): Address: 4301 Industrial Pkwy		SPL Work Order No.:		Acct. Mate Code:		Depl. Code		Page 1		Pages 1	
Project/Station Name:		Project/Station Number:		Project/Station Location:		Requested TAT		10 business days		* Surcharges May Apply (See quote for details)			
City/State/Zip: Evans CO 80620		Contact: Russ Fox - Graves Analytical Phone: 970-286-5071 Fax:		Indicate Billing Type: (Place "X" where appropriate)		Net 30 day Acct.		Check #					
Invoice To: Bonanza Creek Energy (Company Name): Address: 4301 Industrial Pkwy		City/State/Zip: Evans CO 80620 Contact: Tony Walton - BCE Phone: 970-301-1178 Client PO# or Ref. No.: N/A Contract/Proposal #: (i.e. SPL C##)		Terms: Cylinders will be rented for \$10/cyl. All cylinders checked out are to be returned within 21 days, whether they contain sample or not. Cylinders not returned after 30 days will be considered lost and will be billed at current replacement cost.		Requested Analysis (Place an "X" next to Sample ID below)							
Sample ID (used to log/track sample)	Sample Date	Sample Time	Sample Type (Gas/Liq./Solid)	Duplicate	Composite	Spot	Cylinder #	Date Out	Date In	GPA 2261 GC-C6GAS	Sample Temp (F)	Sample Pressure (PSIG)	Comments
68004618	09/07/20	10:45	Gas			X	50		09/11/20	X	81.5	134.63	NPF K-22 Pad, NPF K31-Q24-22HNC GPM
68004620	09/07/20	13:40	Gas			X	1913		09/11/20	X	87.55	114.79	NPF K-22 Pad, NPF P31-T34-22HC GPM
68004617	09/07/20	9:50	Gas			X	1937		09/11/20	X	78.73	116.59	NPF K-22 Pad, NPF K31-Q24-22HNC GPM
68004619	09/07/20	11:40	Gas			X	715		09/11/20	X	80.73	120.4	NPF K-22 Pad, NPF 31-34-22HNC GPM
68004616	09/07/20	9:20	Gas			X	1932		09/11/20	X	75.44	119.21	NPF K-22 Pad, NPF 21-24-22HC GPM
68011143	09/08/20	14:45	Gas			X	843		09/11/20	X	58.38	112.37	NPF K-22 Pad, NPF F11-J14-22HNC GPM
68011141	09/08/20	11:29	Gas			X	746		09/11/20	X	52.52	117.17	NPF K-22 Pad, NPF A11-E14-22HNC GPM
68011145	09/08/20	13:24	Gas			X	756		09/11/20	X	79.85	115.38	NPF K-22 Pad, NPF F21-Q24-22HNC GPM
68011142	09/08/20	12:01	Gas			X	1995		09/11/20	X	60.86	109.19	NPF K-22 Pad, NPF 11-14-22HNC GPM
68011140	09/08/20	9:50	Gas			X	25		09/11/20	X	62.37	116.75	NPF K-22 Pad, NPF A-E-22HC GPM
67014671	09/09/20	12:48	Gas			X	57		09/11/20	X	68.31	103.18	NPF K-22 Pad, NPF P-21-22HNC GPM
68011098	09/09/20	10:05	Gas			X	879		09/11/20	X	63.36	112.93	NPF K-22 Pad, NPF F-21-22HNC GPM
68011144	09/09/20	9:05	Gas			X	432		09/11/20	X	66.77	112.29	NPF K-22 Pad, NPF K-O-22HNC GPM
68011099	09/09/20	11:12	Gas			X	456		09/11/20	X	84.01	125.07	NPF 41-28 Pad, NP U41-Y44-28HNC GPM
68004849	09/09/20	14:30	Gas			X	467		09/11/20	X	88.72	157.28	NPF K-22 Pad, NPF 21-44-22HC GL
68004626	09/10/20	13:20	Gas			X	603		09/11/20	X	138.76	956.18	NPF F-22 Pad, NPF A-E-22HC GL
68010319	09/11/20	9:10	Gas			X	473		09/11/20	X	99.45	943.67	NPF 41-28 Pad, NP U41-Y44-28HNC GL
68004878	09/11/20	15:24	Gas			X	1818		09/11/20	X	97.29	1053.1	