



## Certificate of Analysis

Number: 6030-21050044-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chris Prater  
Cimarex Energy Co.  
7101 Norris Road  
Carlsbad, NM 88220

May 07, 2021

Station Name:	Black River 25 Fed Com 1H-2H CDP Check	Sampled By:	J.Thon
Station Number:	NCP0001126	Sample Of:	Gas Spot
Station Location:	Cimarex	Sample Date:	05/06/2021 01:45
Sample Point:	Meter Run	Sample Conditions:	66.08 psig, @ 205.66 °F Ambient: 74 °F
Type of Sample:	Spot-Cylinder	Effective Date:	05/06/2021 01:45
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	510
Sampling Company:	Cimarex	Instrument:	70104124 (Inficon GC-MicroFusion)
C6+ Group Properties:	60/30/10% - C6/C7/C8	Last Inst. Cal.:	05/03/2021 0:00 AM
		Analyzed:	05/07/2021 07:57:17 by EJ R

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+	7.036
Nitrogen	1.086	1.09166	1.343		GPM TOTAL C3+	3.872
Methane	74.328	74.68785	52.628		GPM TOTAL iC5+	1.058
Carbon Dioxide	0.121	0.12179	0.235			
Ethane	11.725	11.78146	15.560	3.164		
Propane	6.624	6.65627	12.892	1.841		
Iso-butane	0.850	0.85391	2.180	0.281		
n-Butane	2.176	2.18684	5.583	0.692		
Iso-pentane	0.565	0.56743	1.798	0.208		
n-Pentane	0.669	0.67234	2.131	0.245		
Hexanes Plus	1.374	1.38045	5.650	0.605		
	99.518	100.00000	100.000	7.036		



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Physical Properties	Total	C6+
Relative Density Real Gas	0.7892	3.2176
Calculated Molecular Weight	22.77	93.19
Compressibility Factor	0.9957	
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.73 psia &amp; 60°F</b>		
Real Gas Dry BTU	1359	5141
Water Sat. Gas Base BTU	1336	5052
Ideal, Gross HV - Dry at 14.73 psia	1353.0	
Ideal, Gross HV - Wet	1329.5	
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.696 psia &amp; 60°F</b>		
Real Gas Dry BTU	1356	5129
Water Sat. Gas Base BTU	1333	5040
Ideal, Gross HV - Dry at 14.73 psia	1349.9	
Ideal, Gross HV - Wet	1326.3	

**Comments:** H2S Field Content 0 ppm

Report generated by: Eric Ramirez

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

EFM History

Command History

From: 06/01/2021 12:00 AM

To: 06/30/2021 12:00 AM

Reset Dates

Refresh Data

Daily

Hourly

Alarms

Events

Row Count: 30

DateTimeStamp	Volume	Energy	StaticPress	DiffPress	Temp	Flow Time (mins)	Flow Up Time Pct	Flow Down Time Pct
2021-06-24								
2021-06-23								
2021-06-22								
2021-06-21								
2021-06-20								
2021-06-19								
2021-06-18								
2021-06-17								
2021-06-16								
2021-06-15								
2021-06-14								
2021-06-13	0	0	67.62	0	92	0	0	100
2021-06-12	0	0	75.54	0	95	0	0	100
2021-06-11	0	0	91.66	0	98	0	0	100
2021-06-10	0.42	0.57	181.64	27.48	124	0.62	0.04	99.96
2021-06-09	76.09	102.16	149.46	30.16	95	104.63	7.27	92.73
2021-06-08	135.79	182.32	149.94	33.52	99	173.71	12.06	87.94
2021-06-07	0	0	85.75	0	92	0	0	100
2021-06-06	409.87	550.29	135.93	146.28	110	274.1	19.03	80.97
2021-06-05	0	0	72.85	0	86	0	0	100

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS

Action 31832

**QUESTIONS**

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 31832
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS****Determination of Reporting Requirements**

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.

Was or is this venting or flaring caused by an emergency or malfunction	Yes
Did or will this venting or flaring last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a notification of a major venting or flaring	Yes, minor venting or flaring of natural gas.
<b>The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting or flaring that is or may be a major or minor release under 19.13.297 NMAC.</b>	
Was there or will there be at least 50 MCF of natural gas vented or flared during this event	Yes
Did this venting or flaring result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No

**Unregistered Facility Site**

Please provide the facility details, if the venting or flaring occurred or is occurring at a facility that does not have an Facility ID (##) yet.

Facility or Site Name	BLACK RIVER 25 FEDERAL CDP FLARE
Facility Type	Flare Stack - (FS)

**Equipment Involved**

Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

**Representative Compositional Analysis of Vented or Flared Natural Gas**

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<b>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</b>	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

**Date(s) and Time(s)**

Date venting or flaring was discovered or commenced	06/09/2021
Time venting or flaring was discovered or commenced	07:15 AM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	06/10/2021
Time venting or flaring was terminated	01:00 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	5
Longest duration of cumulative hours within any 24-hour period during this event	3

**Measured or Estimated Volume of Vented or Flared Natural Gas**

Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: High Line Pressure   Gas Compressor Station   Natural Gas Flared   Spilled: 212 Mcf   Recovered: 0 Mcf   Lost: 212 Mcf ]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
Is this a gas only submission (i.e. only Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

**Venting or Flaring Resulting from Downstream Activity**

Was or is this venting or flaring a result of downstream activity	Yes
Date notified of downstream activity requiring this venting or flaring	Not answered.
Time notified of downstream activity requiring this venting or flaring	Not answered.

**Steps and Actions to Prevent Waste**

For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your operator's control	Midstream compressor issues due to overheating due to summer heat, they were uncontrolled and unpredictable.
Steps taken to limit the duration and magnitude of venting or flaring	There's nothing really that production can do on our end to improve our midstream group's compressor runtime, but we are trying to do what we can with our alarming system, etc to try and shut the wells in if midstream makes us flare for too long.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	hot weather has given us more issues with our compression. We are actively working the get it fixed, but we still have the occasional upset. Most of this flaring is immediately when the compressor shuts down or right after kicking the wells off. We hope to get these compression issues resolved soon.

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CONDITIONS

Action 31832

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Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 31832
	Action Type: [C-129] Venting and/or Flaring (C-129)

**CONDITIONS**

Created By	Condition	Condition Date
system	If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event.	6/14/2021