Certificate of Analysis

Number: 6030-21020006-003A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Cimarex Energy
Cimarex Energy
7023 Norris Rd.
Carlsbad, NM 88220

Feb. 03, 2021

Station Name:	Cascade 29 Fed CDP Check	Sampled By:	Victor Velazquez
Station Number:	NCP1471196	Sample Of:	Gas Spot
Station Location:	Cimarex	Sample Date:	01/29/2021 12:54
Sample Point:	Meter Run	Sample Conditions:	74 psig, @ 57 °F Ambient: 45 °F
Type of Sample:	Spot-Cylinder	Effective Date:	01/29/2021 12:54
Heat Trace Used:	N/A	Method:	GPA-2261M
Sampling Method:	Fill and Purge	Cylinder No:	1111-002509
Sampling Company:	SPL	Instrument:	70104251 (Inficon GC-MicroFusion)
C6+ Group Properties:	60/30/10% - C6/C7/C8	Last Inst. Cal.:	02/01/2021 0:00 AM
		Analyzed:	02/03/2021 12:03:14 by KNF

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+	6.411
Nitrogen	2.014	2.01099	2.443		GPM TOTAL C3+	3.254
Methane	71.112	71.01984	49.399		GPM TOTAL iC5+	0.523
Carbon Dioxide	4.441	4.43544	8.463			
Ethane	11.777	11.76142	15.333	3.157		
Propane	6.604	6.59513	12.609	1.824		
Iso-butane	0.820	0.81864	2.063	0.269		
n-Butane	2.019	2.01678	5.082	0.638		
Iso-pentane	0.446	0.44542	1.393	0.164		
n-Pentane	0.447	0.44622	1.396	0.162		
Hexanes Plus	0.451	0.45012	1.819	0.197		
	100.131	100.00000	100.000	6.411		

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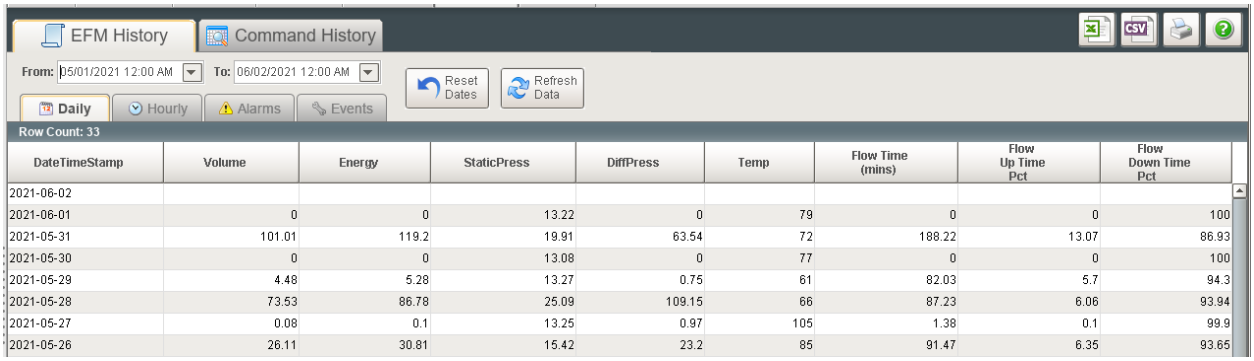
Physical Properties	**Total**	**C6+**
Relative Density Real Gas	0.7993	3.2176
Calculated Molecular Weight	23.06	93.19
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1250	5141
Water Sat. Gas Base BTU	1229	5052
Ideal, Gross HV - Dry at 14.73 psia	1245.5	
Ideal, Gross HV - Wet	1223.8	
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1248	5129
Water Sat. Gas Base BTU	1226	5040
Ideal, Gross HV - Dry at 14.73 psia	1242.6	
Ideal, Gross HV - Wet	1220.9	

Comments: H2S Field Content 0 ppm
Mcf/day 3602.8823

Hydrocarbon Laboratory Manager

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: 05/01/2021 12:00 AM To: 06/02/2021 12:00 AM Reset Dates Refresh Data

Daily | Hourly | Alarms | Events

Row Count: 33

DateTimeStamp	Volume	Energy	StaticPress	DiffPress	Temp	Flow Time (mins)	Flow Up Time Pct	Flow Down Time Pct
2021-06-02								
2021-06-01	0	0	13.22	0	79	0	0	100
2021-05-31	101.01	119.2	19.91	63.54	72	188.22	13.07	86.93
2021-05-30	0	0	13.08	0	77	0	0	100
2021-05-29	4.48	5.28	13.27	0.75	61	82.03	5.7	94.3
2021-05-28	73.53	86.78	25.09	109.15	66	87.23	6.06	93.94
2021-05-27	0.08	0.1	13.25	0.97	105	1.38	0.1	99.9
2021-05-26	26.11	30.81	15.42	23.2	85	91.47	6.35	93.65

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 30260

QUESTIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 30260
	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 addional 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.**
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 19.15.29.7 NMAC.	
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 occuring at a facility that does not have an Facility ID (f#) yet.	
Facility or Site Name	CASCADE 29 FEDERAL 1 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	71
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	4
Oxygen (02) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	*Not answered.*
Nitrogen (N2) percentage quality requirement	*Not answered.*
Hydrogen Sufide (H2S) PPM quality requirement	*Not answered.*
Carbon Dioxide (C02) percentage quality requirement	*Not answered.*
Oxygen (02) percentage quality requirement	*Not answered.*

Date(s) and Time(s)	
Date venting or flaring was discovered or commenced	06/01/2021
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	06/01/2021
Time venting or flaring was terminated	03:00 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	6
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: 179 Mcf | Recovered: 0 Mcf | Lost: 179 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	The issue was abrupt, so the majority of the flaring was incurred while our operators were enroute to address the issue.
Steps taken to limit the duration and magnitude of venting or flaring	Third party gatherer had issues at the compressor station that caused line pressure to rise and sales rates to be limited. The wells had to be choked back/shut-in to reduce flaring.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	Better communication with third party gas gatherer will be address to plan accordingly.

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CONDITIONS

Action 30260

CONDITIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 30260
	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.	6/2/2021