



# Certificate of Analysis

Number: 6030-24100960-002A

**Artesia Laboratory**

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

Kevin Garrett  
Caza Operating  
200 N. Loraine St Ste 1550  
Midland, TX 79701

Station Name: Igloo Federal #1	Report Date: 10/29/2024
Station Number: 118001617	Sampled By: Raul Salazar
Station Location: Caza Operating	Sample Of: Gas
Sample Point: Meter	Sample Type: Spot
Heating Method:	Sample Date: 10/28/2024
Method: GPA-2261M	Sample Conditions: 64.5 psig, @ 84.0 °F
Cylinder No: 5030-03169	Received Date: 10/29/2024
Instrument: 70142339 (Inficon GC-MicroFusion)	Login Date: 10/29/2024
Last Inst. Cal.: 10/28/2024 07:59:03	Effective Date: 10/28/2024
Analyzed: 10/29/2024 11:33:31 by CDW	Flow Rate: 1899 MSCFD
	Sampling Method:

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.0000	0.5000	0.6565		GPM TOTAL C2+ 9.041
Nitrogen	6.3806	6.3491	6.8519		GPM TOTAL C3+ 5.383
Methane	62.5845	62.2752	38.4875		GPM TOTAL iC5+ 1.743
Carbon Dioxide	0.4405	0.4383	0.7431		
Ethane	13.7091	13.6413	15.8018	3.658	
Propane	8.4738	8.4319	14.3236	2.329	
Iso-butane	1.0488	1.0436	2.3367	0.342	
n-Butane	3.0793	3.0641	6.8608	0.969	
Iso-pentane	0.7863	0.7824	2.1747	0.287	
n-Pentane	0.8786	0.8743	2.4301	0.318	
Hexanes Plus	2.6127	2.5998	9.3333	1.138	
	99.9942	100.0000	100.0000	9.041	

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C6+</b>
Relative Density Real Gas	0.9007	3.2176
Calculated Molecular Weight	25.96	93.19
Compressibility Factor	0.9947	

**GPA 2172 Calculation:**

**Calculated Gross BTU per ft<sup>3</sup> @ 14.696 psia & 60°F**

Real Gas Dry BTU	1426.9	5129.2
Water Sat. Gas Base BTU	1402.6	5039.7
Ideal, Gross HV - Dry at 14.696 psia	1419.3	5129.2
Ideal, Gross HV - Wet	1394.5	5039.7

**Comments:** Note Nitrogen  
High nitrogen due to low pressure. Not enough to rerun.  
H2S Field Content: 5000 ppm

*Mostaq Ahamed*

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated. The test results apply to the sample as received.

**Caza Flared Gas Calculation**  
**Igloo 19-24 Fed 12H-15H**  
**Facility ID# fAPP2429536536**

input
calculated

Date	4/27/2023
Reported Flared metered Volume (mcf)	93
Last 7 Day Avg metered Gas Production (mcf)	2770.14
% of gas flared vs Produced (% mcf) & (% hrs)	3.4%
Avg Gas production per hour for 24 hrs (mcf)	115.42
number of hours flare was active (hours)	0.81

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Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

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

DEFINITIONS

Action 446348

**DEFINITIONS**

Operator: CAZA OPERATING, LLC 200 N Loraine St Midland, TX 79701	OGRID: 249099
	Action Number: 446348
	Action Type: [C-129] Venting and/or Flaring (C-129)

**DEFINITIONS**

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:

- this application's operator, hereinafter "this operator";
- venting and/or flaring, hereinafter "vent or flare";
- any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";
- the statements in (and/or attached to) this, hereinafter "the statements in this";
- and the past tense will be used in lieu of mixed past/present tense questions and statements.

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QUESTIONS

Action 446348

**QUESTIONS**

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**QUESTIONS**

<b>Prerequisites</b>	
<i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	Unavailable.
Incident Facility	[fAPP2429536536] Igloo Fed Production Facility

<b>Determination of Reporting Requirements</b>	
<i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
Was this vent or flare caused by an emergency or malfunction	No
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a vent or flare event	Yes, minor venting and/or flaring of natural gas.
<i>An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.</i>	
Was there <b>at least 50 MCF</b> of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of <b>ANY</b> 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
Was the vent or flare within an incorporated municipal boundary or within 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

<b>Equipment Involved</b>	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Battery maintenance

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b>	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	62
Nitrogen (N2) percentage, if greater than one percent	6
Hydrogen Sulfide (H2S) PPM, rounded up	1
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
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.

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**QUESTIONS (continued)**

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**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	04/27/2023
Time vent or flare was discovered or commenced	09:30 AM
Time vent or flare was terminated	10:30 AM
Cumulative hours during this event	1

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Repair and Maintenance   Other (Specify)   Natural Gas Flared   Released: 93 Mcf   Recovered: 0 Mcf   Lost: 93 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 significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	False
Please explain reason for why this event was beyond this operator's control	Battery maintenance. Operator needed to replace gas meter.
Steps taken to limit the duration and magnitude of vent or flare	Production was shut-in for a brief period only to replace gas meter.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Production was shut-in for a brief period only to replace gas meter.



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ACKNOWLEDGMENTS

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**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a <b>complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
<input checked="" type="checkbox"/>	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
<input checked="" type="checkbox"/>	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
<input checked="" type="checkbox"/>	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.



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CONDITIONS

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**CONDITIONS**

Created By	Condition	Condition Date
tberry	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	3/27/2025