Certificate of Analysis

Number: 5030-22100031-001A

Midland Laboratory
2200 East I-20
Midland, TX 79706
Phone 432-689-7252

Joey Cowley
Ram Energy
1103 N. Eva Avenue
Monahans, TX 79756

Oct. 03, 2022

Station Name: CATTLEMAN 4 114H
Method: GPA-2261
Cylinder No: 1111-007891
Analyzed: 10/03/2022 13:52:03 by MGN

Sampled By: DERRICK BARRIENTES
Sample Of: Gas Spot
Sample Date: 09/25/2022 15:00
Sample Conditions: 226.5 psig, @ 118.1 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.0000	0.0000		GPM TOTAL C2+	4.487
Nitrogen	1.1539	1.3076		GPM TOTAL C3+	2.411
Carbon Dioxide	15.5785	27.7332		GPM TOTAL iC5+	0.672
Methane	67.8068	44.0020			
Ethane	7.7782	9.4608	2.0765		
Propane	3.7569	6.7012	1.0332		
Iso-butane	0.7583	1.7828	0.2477		
n-Butane	1.4559	3.4230	0.4582		
Iso-pentane	0.5557	1.6218	0.2029		
n-Pentane	0.4573	1.3346	0.1655		
Hexanes Plus	0.6985	2.6330	0.3042		
	100.0000	100.0000	4.4882		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8566	3.2176
Calculated Molecular Weight	24.72	93.19
Compressibility Factor	0.9961	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1066	5113
Water Sat. Gas Base BTU	1048	5024

Comments: H2S Field Content 0 ppm

Data reviewed by: Marco Barrientos

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

Midland Laboratory
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Midland, TX 79706
Phone 432-689-7252

Certificate of Analysis

Number: 5030-22100031-002A

Oct. 03, 2022

Joey Cowley
Ram Energy
1103 N. Eva Avenue
Monahans, TX 79756

Station Name: NORTH 17 SALES
Method: GPA-2261
Cylinder No: 1111-008598
Analyzed: 10/03/2022 13:52:03 by MGN

Sampled By: DERRICK BARRIENTES
Sample Of: Gas Spot
Sample Date: 09/30/2022 13:30
Sample Conditions: 177.5 psig, @ 98 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.0000	0.0000		GPM TOTAL C2+	7.558
Nitrogen	1.3036	1.4838		GPM TOTAL C3+	4.328
Carbon Dioxide	4.4637	7.9821		GPM TOTAL iC5+	1.075
Methane	68.2254	44.4730			
Ethane	12.0884	14.7695	3.2298		
Propane	7.3383	13.1483	2.0198		
Iso-butane	1.0979	2.5929	0.3589		
n-Butane	2.7738	6.5508	0.8736		
Iso-pentane	0.7236	2.1213	0.2644		
n-Pentane	0.7476	2.1917	0.2707		
Hexanes Plus	1.2377	4.6866	0.5395		
	100.0000	100.0000	7.5567		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8535	3.2176
Calculated Molecular Weight	24.61	93.19
Compressibility Factor	0.9953	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1338	5113
Water Sat. Gas Base BTU	1316	5024

Comments: H2S Field Content 0 ppm

Data reviewed by: Marco Barrientos

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

Midland Laboratory
2200 East I-20
Midland, TX 79706
Phone 432-689-7252

Certificate of Analysis

Number: 5030-22100031-003A

Joey Cowley
Ram Energy
1103 N. Eva Avenue
Monahans, TX 79756

Oct. 03, 2022

Station Name: CATTLEMAN 4 204H
Method: GPA-2261
Cylinder No: 5030-00208
Analyzed: 10/03/2022 13:52:13 by MGN

Sampled By: DERRICK BARRIENTES
Sample Of: Gas Spot
Sample Date: 09/29/2022 15:00
Sample Conditions: 231.5 psig, @ 120.2 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.0000	0.0000		GPM TOTAL C2+	4.276
Nitrogen	1.6156	1.9318		GPM TOTAL C3+	2.337
Carbon Dioxide	11.1165	20.8821		GPM TOTAL iC5+	0.734
Methane	72.6827	49.7696			
Ethane	7.2648	9.3240	1.9390		
Propane	3.1484	5.9258	0.8656		
Iso-butane	0.8942	2.2184	0.2920		
n-Butane	1.4136	3.5069	0.4448		
Iso-pentane	0.6406	1.9728	0.2338		
n-Pentane	0.4436	1.3661	0.1605		
Hexanes Plus	0.7800	3.1025	0.3397		
	100.0000	100.0000	4.2754		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8116	3.2176
Calculated Molecular Weight	23.43	93.19
Compressibility Factor	0.9963	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1101	5113
Water Sat. Gas Base BTU	1082	5024

Comments: H2S Field Content 0 ppm

Data reviewed by: Marco Barrientos

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

Midland Laboratory
2200 East I-20
Midland, TX 79706
Phone 432-689-7252

Certificate of Analysis

Number: 5030-22100031-004A

Joey Cowley
Ram Energy
1103 N. Eva Avenue
Monahans, TX 79756

Oct. 03, 2022

Station Name: LD2 SOUTH BLOCK 212H
Method: GPA-2261
Analyzed: 10/03/2022 13:52:13 by MGN

Sampled By: DERRICK BARRIENTES
Sample Of: Gas Spot
Sample Date: 09/30/2022 15:00
Sample Conditions: 292.4 psig, @ 108.5 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.0000	0.0000		GPM TOTAL C2+	4.236
Nitrogen	1.2322	1.5301		GPM TOTAL C3+	2.203
Carbon Dioxide	8.6756	16.9243		GPM TOTAL iC5+	0.676
Methane	75.5545	53.7276			
Ethane	7.6168	10.1521	2.0327		
Propane	3.2033	6.2612	0.8806		
Iso-butane	0.7740	1.9941	0.2527		
n-Butane	1.2492	3.2184	0.3930		
Iso-pentane	0.5063	1.6192	0.1848		
n-Pentane	0.3589	1.1478	0.1298		
Hexanes Plus	0.8292	3.4252	0.3610		
	100.0000	100.0000	4.2346		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7814	3.2176
Calculated Molecular Weight	22.56	93.19
Compressibility Factor	0.9964	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1122	5113
Water Sat. Gas Base BTU	1103	5024

Comments: H2S Field Content 0 ppm

Data reviewed by: Marco Barrientos

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

Calculations for the total Mcf flared
End Meter Volume – the Begin Meter Volume.

***Composition for the gas has been entered into the question portion of the C-129.
If further back up is needed please let us know and will provide requested data.

District I
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District II
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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

DEFINITIONS

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 231162
	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 231162

QUESTIONS

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 231162
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites	
Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.	
Incident Well	*Unavailable.*
Incident Facility	**[fAPP2123840782] EL CAMPEON CTB 17N**

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 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.**
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.	
Was there **at least 50 MCF** of natural gas vented and/or flared during this event	Yes
Did this vent or flare 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
Was the vent or flare within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

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	44
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	28
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.*

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QUESTIONS (continued)

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 231162
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	06/03/2023
Time vent or flare was discovered or commenced	09:45 AM
Time vent or flare was terminated	11:45 AM
Cumulative hours during this event	2

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 | Pipeline (Any) | Natural Gas Flared | Released: 78 Mcf | Recovered: 0 Mcf | Lost: 78 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	*Not answered.*
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.	True
Please explain reason for why this event was beyond this operator's control	Equipment downtime emissions controlled by flare.
Steps taken to limit the duration and magnitude of vent or flare	Standard emission control of equipment downtime. Working with vendor to coordinate service time and minimize downtime.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	No way to avoid periodic downtime for repairs to address unforeseen condition. Process equipment emissions controlled by flare.

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ACKNOWLEDGMENTS

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 231162
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit a *Venting and/or Flaring* (C-129) report on behalf of this operator and understand that this report can be **a complete** C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
☑	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.
☑	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.
☑	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.
☑	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

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 231162
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
kmcbride	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.	6/21/2023