



Certificate of Analysis

Number: 5030-18110072-014A

Midland Laboratory
 3312 Bankhead Highway
 Midland, TX 79701
 Phone 432-689-7252

Ethan McMahon
 Comm Engineering
 1319 West Pinhook Rd
 Suite 401
 Lafayette, LA 70503

Dec. 13, 2018

Station Name: SNAKE ST
 Station Location: EDDY COUNTY NM
 Sample Point: METER TUBE
 Cylinder No: 5030-00375
 Analyzed: 11/08/2018 21:33:14 by DS

Sampled By: JOSEPH WHITAKER
 Sample Of: Gas Spot
 Sample Date: 11/07/2018 11:55
 Sample Conditions: 38.5 psig, @ 58.3 °F
 Method: GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia	
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+
Nitrogen	1.085	1.593		GPM TOTAL C3+
Carbon Dioxide	0.013	0.030		GPM TOTAL iC5+
Methane	87.442	73.520		
Ethane	6.443	10.154	1.719	
Propane	2.674	6.180	0.735	
Iso-butane	0.446	1.359	0.146	
n-Butane	0.842	2.565	0.265	
Iso-pentane	0.263	0.994	0.096	
n-Pentane	0.257	0.972	0.093	
Hexanes Plus	0.535	2.633	0.222	
	100.000	100.000	3.276	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.6604	3.2275
Calculated Molecular Weight	19.08	93.48
Compressibility Factor	0.9971	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1154	5029
Water Sat. Gas Base BTU	1134	4941

Hydrocarbon Laboratory Manager

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



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Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia	
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+
Nitrogen	1.085	1.593		GPM TOTAL C3+
Methane	87.442	73.520		GPM TOTAL iC5+
Carbon Dioxide	0.013	0.030		
Ethane	6.443	10.154	1.719	
Propane	2.674	6.180	0.735	
Iso-Butane	0.446	1.359	0.146	
n-Butane	0.842	2.565	0.265	
Iso-Pentane	0.263	0.994	0.096	
n-Pentane	0.257	0.972	0.093	
Hexanes	0.211	0.989	0.090	
Heptanes Plus	0.324	1.644	0.132	
	100.000	100.000	3.276	

Calculated Physical Properties	Total	C7+
Relative Density Real Gas	0.6604	3.4253
Calculated Molecular Weight	19.08	99.21
Compressibility Factor	0.9971	
26 # Gasoline	2.2271	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1153.9	5271.4
Water Sat. Gas Base BTU	1133.7	5179.2

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Sample Of: Gas Spot
Sample Date: 11/07/2018 11:55
Sample Conditions: 38.5 psig, @ 58.3 °F
Method: GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia	
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+ 3.276
Nitrogen	1.085	1.593		
Carbon Dioxide	0.013	0.030		
Methane	87.442	73.520		
Ethane	6.443	10.154	1.719	
Propane	2.674	6.180	0.735	
Iso-Butane	0.446	1.359	0.146	
n-Butane	0.842	2.565	0.265	
Iso-Pentane	0.263	0.994	0.096	
n-Pentane	0.257	0.972	0.093	
i-Hexanes	0.126	0.585	0.053	
n-Hexane	0.085	0.404	0.037	
Benzene	0.008	0.030	0.002	
Cyclohexane	0.046	0.210	0.016	
i-Heptanes	0.094	0.468	0.039	
n-Heptane	0.031	0.165	0.015	
Toluene	0.009	0.044	0.003	
i-Octanes	0.079	0.436	0.035	
n-Octane	0.011	0.064	0.005	
Ethylbenzene	0.001	0.005	0.000	
Xylenes	0.005	0.027	0.002	
i-Nonanes	0.016	0.075	0.006	
n-Nonane	0.004	0.022	0.002	
Decane Plus	0.020	0.098	0.007	
	100.000	100.000	3.276	

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	19.08	134.41
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1153.9	6996.5
Water Sat. Gas Base BTU	1133.7	6874.1
Relative Density Real Gas	0.6604	4.6312
Compressibility Factor	0.9971	

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New Mexico OCD C-129

Calculations or Specific Justification for Volumes

- **Calculations**
No calculations of volume of vent/flare necessary. Volumes are metered.
- **Specific Justification for Volumes**
Metered volumes that were previously sold via pipeline. Must flare gas due to sales pipeline being shut-in.

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 46451

QUESTIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 46451
	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	Not answered.
Incident Facility	[fAPP2124631913] Leo 3 Fed

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 and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a notification of a major venting and/or flaring	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 or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/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
Was the venting and/or flaring 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	87
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
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 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 and/or flaring was discovered or commenced	08/22/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	12:00 AM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: Midstream Emergency Maintenance Separator Natural Gas Flared Released: 90 Mcf Recovered: 0 Mcf Lost: 90 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 or is this venting and/or flaring a result of downstream activity	Yes
Date notified of downstream activity requiring this venting and/or flaring	08/22/2021
Time notified of downstream activity requiring this venting and/or flaring	12:00 AM

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	Sales Pipeline shut in.
Steps taken to limit the duration and magnitude of venting and/or flaring	Communicate with sales pipeline for anticipated date of return service.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Communicate with sales pipeline for anticipated date of return service.

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CONDITIONS

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	Action Number: 46451
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
reyesm01	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.	9/3/2021