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

Certificate of Analysis

Number: 5030-21080736-001A

Sep. 03, 2021

Station Name: LOVE SHACK SALES CHECK
Method: GPA 2286
Cylinder No: 5030-01380
Analyzed: 09/02/2021 17:07:18 by ARP

Sampled By: BRIAN PLOWMAN
Sample Of: Gas Spot
Sample Date: 08/28/2021 13:50
Sample Conditions: 160 psig, @ 119 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+	8.461
Nitrogen	1.370	1.547		GPM TOTAL C3+	4.943
Carbon Dioxide	2.175	3.858		GPM TOTAL iC5+	1.062
Methane	67.173	43.431			
Ethane	13.123	15.904	3.518		
Propane	8.570	15.231	2.367		
Iso-butane	1.287	3.015	0.422		
n-Butane	3.454	8.091	1.092		
Iso-pentane	0.892	2.594	0.327		
n-Pentane	0.935	2.719	0.340		
Hexanes Plus	1.011	3.596	0.395		
	100.000	100.000	8.461		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8604	3.0269
Calculated Molecular Weight	24.81	87.67
Compressibility Factor	0.9950	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1409	4736
Water Sat. Gas Base BTU	1384	4654

Comments: H2S Field Content 100 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.

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Components	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+	8.4610
Nitrogen	1.370	1.547		GPM TOTAL C3+	4.9430
Methane	67.173	43.431		GPM TOTAL iC5+	1.0620
Carbon Dioxide	2.175	3.858			
Ethane	13.123	15.904	3.518		
Propane	8.570	15.231	2.367		
Iso-Butane	1.287	3.015	0.422		
n-Butane	3.454	8.091	1.092		
Iso-Pentane	0.892	2.594	0.327		
n-Pentane	0.935	2.719	0.340		
Hexanes	0.536	1.808	0.210		
Heptanes Plus	0.475	1.788	0.185		
	100.000	100.000	8.461		

Calculated Physical Properties	Total	C7+
Relative Density Real Gas	0.8604	3.2052
Calculated Molecular Weight	24.81	92.83
Compressibility Factor	0.9950	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1409.0	4932.0
Water Sat. Gas Base BTU	1384.4	4846.0

Comments: H2S Field Content 100 ppm

Data reviewed by: Marco Barrientos

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Sample Of: Gas Spot
Sample Date: 08/28/2021 13:50
Sample Conditions: 160 psig, @ 119 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+	8.461
Nitrogen	1.370	1.547			
Carbon Dioxide	2.175	3.858			
Methane	67.173	43.431			
Ethane	13.123	15.904	3.518		
Propane	8.570	15.231	2.367		
Iso-Butane	1.287	3.015	0.422		
n-Butane	3.454	8.091	1.092		
Iso-Pentane	0.892	2.594	0.327		
n-Pentane	0.935	2.719	0.340		
i-Hexanes	0.346	1.131	0.130		
n-Hexane	0.190	0.677	0.080		
Benzene	0.025	0.079	0.007		
Cyclohexane	0.088	0.301	0.030		
i-Heptanes	0.209	0.775	0.083		
n-Heptane	0.036	0.144	0.017		
Toluene	0.018	0.065	0.006		
i-Octanes	0.088	0.358	0.037		
n-Octane	0.006	0.027	0.003		
Ethylbenzene	0.001	0.002	0.000		
Xylenes	0.002	0.007	0.001		
i-Nonanes	0.002	0.022	0.001		
n-Nonane	0.000	0.002	0.000		
Decane Plus	0.000	0.006	0.000		
	100.000	100.000	8.461		

Calculated Physical Properties	Total	C10+
Relative Density Real Gas	0.8604	0.0000
Calculated Molecular Weight	24.81	0.00
Compressibility Factor	0.9950	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1409.0	0.000
Water Sat. Gas Base BTU	1384.4	0.000

Comments: H2S Field Content 100 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.

FLARING SUMMARY

Battery	Date	Total Flare Vol (mcf)	Hrs Flared	Start		End	
Love Shack CTB 17S	08/21/2021	117	5	08/21/2021	1800	08/21/2021	2300

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 43635

QUESTIONS

Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986
	Action Number: 43635
	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	**[30-025-48401] LOVE SHACK FEDERAL COM #111H**
Incident Facility	*Not answered.*

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 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	No
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	Other (Specify)
Additional details for Equipment Involved. Please specify	Vapor Recovery Unit

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	67
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	2
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 and/or flaring was discovered or commenced	08/21/2021
Time venting and/or flaring was discovered or commenced	06:00 PM
Time venting and/or flaring was terminated	11:00 PM
Cumulative hours during this event	5

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Equipment Failure | Other (Specify) | Natural Gas Vented | Released: 117 Mcf | Recovered: 0 Mcf | Lost: 117 Mcf]

Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	Electrical issues prevented Vapor Recovery Unit from operating properly
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	No
Date notified of downstream activity requiring this venting and/or flaring	*Not answered.*
Time notified of downstream activity requiring this venting and/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	Unplanned electrical malfunctions
Steps taken to limit the duration and magnitude of venting and/or flaring	Immediately dispatch electrician to fix the electrical issues
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Submitted workorder to address electrical issues preventing Vapor Recovery Unit from running

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CONDITIONS

Action 43635

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Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986
	Action Number: 43635
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
rdelong	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.	9/6/2021