



# Certificate of Analysis

Number: 5030-21080736-001A

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

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

Sep. 03, 2021  
 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+
Nitrogen	1.370	1.547		GPM TOTAL C3+
Carbon Dioxide	2.175	3.858		GPM TOTAL iC5+
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 ft<sup>3</sup> @ 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.



Certificate of Analysis

Number: 5030-21080736-001A

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

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

Sep. 03, 2021  
 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+
Nitrogen	1.370	1.547		GPM TOTAL C3+
Methane	67.173	43.431		GPM TOTAL iC5+
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	
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft³ @ 14.696 psia &amp; 60°F</b>		
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

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



Certificate of Analysis

Number: 5030-21080736-001A

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

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

Sep. 03, 2021  
 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+
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 ft<sup>3</sup> @ 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	12/2/2021	300	24	12/2/2021	0000	12/2/2021	2359

**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 64927

**QUESTIONS**

Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986
	Action Number: 64927
	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 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 venting and/or flaring 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 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	Tank ( Any)
Additional details for Equipment Involved. Please specify	VRU down to isolate oil tanks for construction

**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	10
Carbon Dioxide (CO2) percentage, if greater than one percent	2
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	12/02/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	11:59 PM
Cumulative hours during this event	24

**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: 300 Mcf   Recovered: 0 Mcf   Lost: 300 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	Not answered.
Was notification of downstream activity received by you or your operator	Not answered.
Downstream OGRID that should have notified you or your operator	Not answered.
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	Forced shut down of Vapor Recovery Unit to isolate oil tanks for construction
Steps taken to limit the duration and magnitude of venting and/or flaring	Standard PM. Worked with vendor to coordinate service time and minimize DT
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Standard PM. No way to avoid periodic DT for maintenance/repairs

**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**

CONDITIONS  
 Action 64927

**CONDITIONS**

Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986 <hr/> Action Number: 64927 <hr/> 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.	12/3/2021