Certificate of Analysis

Number: 6030-21060286-001A

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

Jarrett Webb
Longfellow Energy
8115 Preston Rd
Suite 800
Dallas, TX 75225

June 28, 2021

Station Name:	Hendricks SC 13 Cd CTB Scrubber	Sampled By:	Nathan Payne
Station Number:	3242002	Sample Of:	Gas Spot
Station Location:	Longfellow	Sample Date:	06/26/2021 12:00
Sample Point:	Meter run	Sample Conditions:	40 psig Ambient: 90 °F
Instrument:	70104124 (Inficon GC-MicroFusion)	Effective Date:	06/26/2021 12:00
Last Inst. Cal.:	06/28/2021 0:00 AM	Method:	GPA-2261M
Analyzed:	06/28/2021 13:05:37 by EJR	Cylinder No:	5030-03535

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.000	0.10000	0.135		GPM TOTAL C2+	7.704
Nitrogen	6.987	7.08941	7.875		GPM TOTAL C3+	4.580
Methane	63.765	64.69902	41.158		GPM TOTAL iC5+	1.576
Carbon Dioxide	2.241	2.27381	3.968			
Ethane	11.488	11.65652	13.898	3.124		
Propane	7.071	7.17464	12.545	1.981		
Iso-butane	0.916	0.92951	2.142	0.305		
n-Butane	2.239	2.27168	5.236	0.718		
Iso-pentane	0.601	0.61010	1.745	0.224		
n-Pentane	0.602	0.61061	1.747	0.222		
Hexanes Plus	2.547	2.58470	9.551	1.130		
	98.457	100.00000	100.000	7.704		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8746	3.2176
Calculated Molecular Weight	25.22	93.19
Compressibility Factor	0.9952	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1333	5129
Water Sat. Gas Base BTU	1310	5040
Ideal, Gross HV - Dry at 14.696 psia	1326.7	5129.2
Ideal, Gross HV - Wet	1303.5	5039.7

Comments: H2S Field Content 0.1 %

Data reviewed by: Krystle Fitzwater, Laboratory Manager

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

Hendrix State Com 13CD Tank Battery Flare Calculations	
Date	**Estimated Volume (mcf)**
6/5/2021	25
6/6/2021	25
6/7/2021	700
6/8/2021	700
6/9/2021	700
6/10/2021	700
6/11/2021	700
6/12/2021	700
6/13/2021	700
6/14/2021	700
6/15/2021	700
6/16/2021	700
6/17/2021	700
Total	7750

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 29636

QUESTIONS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 29636
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

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 or flaring caused by an emergency or malfunction	No
Did or will this venting 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 or flaring	**Yes, major venting or flaring of natural gas.**
The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting 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 or flared during this event	Yes
Did this venting 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

Unregistered Facility Site	
Please provide the facility details, if the venting or flaring occurred or is occuring at a facility that does not have an Facility ID (f#) yet.	
Facility or Site Name	Hendrix State Com 13CD Tank Battery
Facility Type	Tank Battery - (TB)

Equipment Involved	
Primary Equipment Involved	Separator
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	65
Nitrogen (N2) percentage, if greater than one percent	7
Hydrogen Sulfide (H2S) PPM, rounded up	1,000
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 or flaring was discovered or commenced	06/04/2021
Time venting or flaring was discovered or commenced	07:30 PM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	06/17/2021
Time venting or flaring was terminated	05:00 PM
Total duration of venting or flaring in hours, if venting or flaring has terminated	406
Longest duration of cumulative hours within any 24-hour period 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: Initial Flowback | Separator | Natural Gas Flared | Spilled: 7,750 Mcf | Recovered: 0 Mcf | Lost: 7,750 Mcf]
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	We consider the flared volume of 7,750 mcf to be the maximum possible flared volume. Our flare meters were not working properly during our flaring and the actual volume could be closer to 4,000 mcf. Our flaring started as initial flowback flaring, but then there was downstream compressor issues with the DCP North Jackson booster that required more flaring than we anticipated.
Is this a gas only submission (i.e. only 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 or flaring a result of downstream activity	*Not answered.*
Date notified of downstream activity requiring this venting or flaring	*Not answered.*
Time notified of downstream activity requiring this venting 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.	False
Please explain reason for why this event was beyond your operator's control	*Not answered.*
Steps taken to limit the duration and magnitude of venting or flaring	We built a pipeline to our gas tie-in location. Limiting the flaring to only our initial flowback.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	Not applicable. During the initial flowback, we need to flare until the gas cleans up.

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 29636

CONDITIONS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 29636
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
system	If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event.	7/1/2021