Certificate of Analysis

Number: 6030-21070076-001A

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

Redwood
Redwood
4910 N. Midkiff Rd.
Midland, TX 79705

July 13, 2021

Station Name: Logan 35 Fed #9
Station Number: 700338-00
Station Location: Redwood
Sample Point: Meter run
Instrument: 70104124 (Inficon GC-MicroFusion)
Last Inst. Cal.: 07/08/2021 0:00 AM
Analyzed: 07/12/2021 14:38:50 by KJM

Sampled By: Javier Lazo
Sample Of: Gas Spot
Sample Date: 07/09/2021 11:06
Sample Conditions: 42 psia, @ 98 °F Ambient: 80 °F
Effective Date: 07/09/2021 11:06
Method: GPA-2261M
Cylinder No: 5030-01326

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia
Nitrogen	1.591	1.63425	1.736	
Carbon Dioxide	2.038	2.09325	3.493	
Methane	59.710	61.34031	37.318	
Ethane	17.349	17.82303	20.323	4.782
Propane	9.565	9.82572	16.430	2.716
Iso-Butane	1.027	1.05495	2.325	0.346
n-Butane	2.510	2.57886	5.684	0.816
Iso-Pentane	0.649	0.66662	1.824	0.245
n-Pentane	0.699	0.71830	1.965	0.261
Hexanes	0.609	0.62512	2.043	0.258
Heptanes	0.751	0.77141	2.931	0.357
Octanes	0.538	0.55228	2.392	0.284
Nonanes Plus	0.308	0.31590	1.536	0.178
	97.344	100.00000	100.000	10.243

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	26.37	128.26
Compressibility Factor	0.9941	
Relative Density Real Gas	0.9155	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1493.6	6996.3
Water Sat. Gas Base BTU	1468.3	6874.3
Ideal, Gross HV - Dry at 14.696 psia	1484.9	6996.3
Ideal, Gross HV - Wet	1459.0	6874.3

Comments: H2S Field Content 2 %
Mcf/day 612

Data reviewed by: Eric Ramirez, Analyst

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

LOGAN 35 CTB

Location 32.78000 -104.25165

Meter Type	Prod Date	Entry Date	Disposition	Product	UOM	Volume	Vol Rate	Energy Factor	Energy	Flow Temp	Gas Gravity	Base Temp	Base Press	Flow Press	Run Hours	Meter Begin	Meter End	Begin Date	End Date	Last Updated
FLARE	7/21/2021	7/22/2021	FLARE	GAS	MCF	646	646	1	646	60	0.6	60	14.73	0	24	14,011	14,657	7/21/2021 0:00	7/21/2021 0:00	MARCOMEJIA
FLARE	7/20/2021	7/21/2021	FLARE	GAS	MCF	720	720	1	720	60	0.6	60	14.73	0	24	13,291	14,011	7/20/2021 0:00	7/20/2021 0:00	MARCOMEJIA

1366

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 37907

QUESTIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 882111370	OGRID: 330211
	Action Number: 37907
	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	Logan 35 CTB
Facility Type	Tank Battery - (TB)

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	61
Nitrogen (N2) percentage, if greater than one percent	2
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 or flaring was discovered or commenced	07/20/2021
Time venting or flaring was discovered or commenced	05:00 PM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	07/22/2021
Time venting or flaring was terminated	11:00 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	42
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	*Not answered.*
Other Released Details	Cause: Midstream Scheduled Maintenance | Pipeline (Any) | Natural Gas Flared | Spilled: 1,366 Mcf | Recovered: 0 Mcf | Lost: 1,366 Mcf]
Additional details for Measured or Estimated Volume(s). Please specify	*Not answered.*
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	During flaring Redwood only flares newer/higher oil production wells and shut in all smaller/older production
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	Flaring was caused from DCP needing Redwood to curtail production to repair and maintenance, unfortunately the only thing we can do is continue communication with the Midstream Operator.

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CONDITIONS

Action 37907

CONDITIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 882111370	OGRID: 330211
	Action Number: 37907
	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.	7/26/2021