



Pre-Plugging Methane Emissions Monitoring Report

Jennifer Chaveroo SA Unit 20

Prepared by TS-Nano, Inc.

For NM Energy, Minerals and Natural Resources Department, Oil Conservation Division

PO# 52100-0000078682

Well information

ID #: 30-041-10614

Coordinates: 33.68544, -103.50357

Name: Jennifer Chaveroo SA Unit 20

Surface Location: Roosevelt County



Measurement notes

Device used: Ventbuster device VB100-0138

Test operator: JR Molina

Gas sample taken from well: 12/11/24 11:00

Ventbuster connected to well: 12/10/24 15:55

Continuous monitoring of well flowrate, pressure,
and temperature

Hourly measurement of weather data

Ventbuster disconnected from well: 12/11/24 10:43

Notes: well had a pressure of 434 kPa (63 psi) when shut-in. Well was
vented overnight before making flow measurements.

Gas sample delivered to laboratory: 12/12/24

Laboratory Name/Location: Laboratory Services / Hobbs, NM



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Measurement data

Wellhead pressure (kPa gage)*: 434 kPa

Average flow rate (Sm^3/d): 2.832

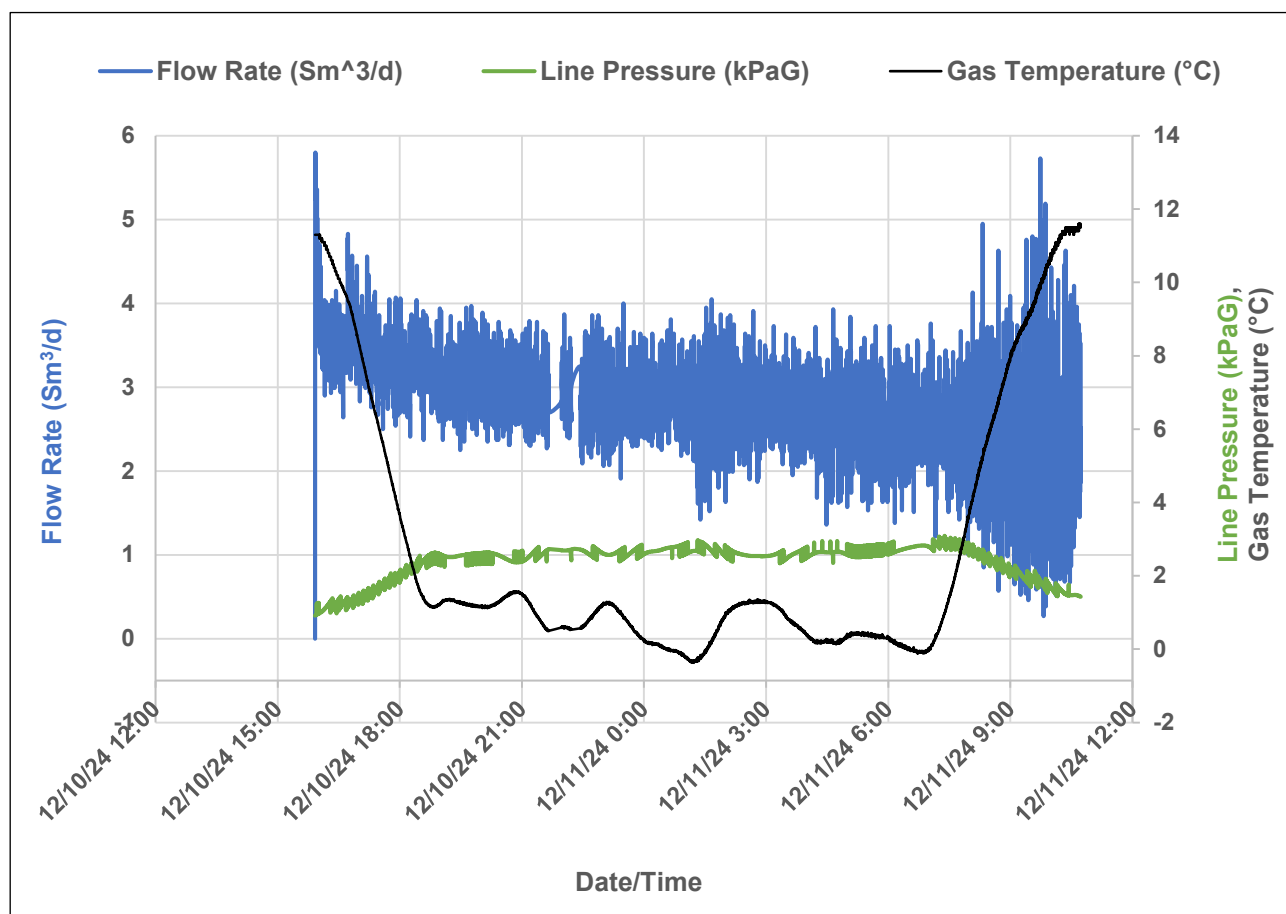
Average methane mass flow rate (g/hr)

using methane % from lab analysis: 44.17

Methane mass flowrate calculation

Variable	Unit	Value
Pressure (P)	kPaA	Std pressure, 101.3 KPaA
Volumetric flow (V)	Std m^3/day	Measured from the Unit
% methane	% (methane/gas)	Measured from lab sample
Temperature (T)	Kelvin	Std temperature, 288.13 K
Gas constant (R)	$\text{m}^3 \text{ Pa}/(\text{K mol})$	8.3144626
Molecular weight of methane (Mw)	g/mole	16.04

$$\text{Mass flow of methane} \left(\frac{\text{g}}{\text{hr}} \right) = \frac{\%, \text{methane}}{100\%} * V * P * \frac{Mw}{R T} * \frac{1000}{24}$$



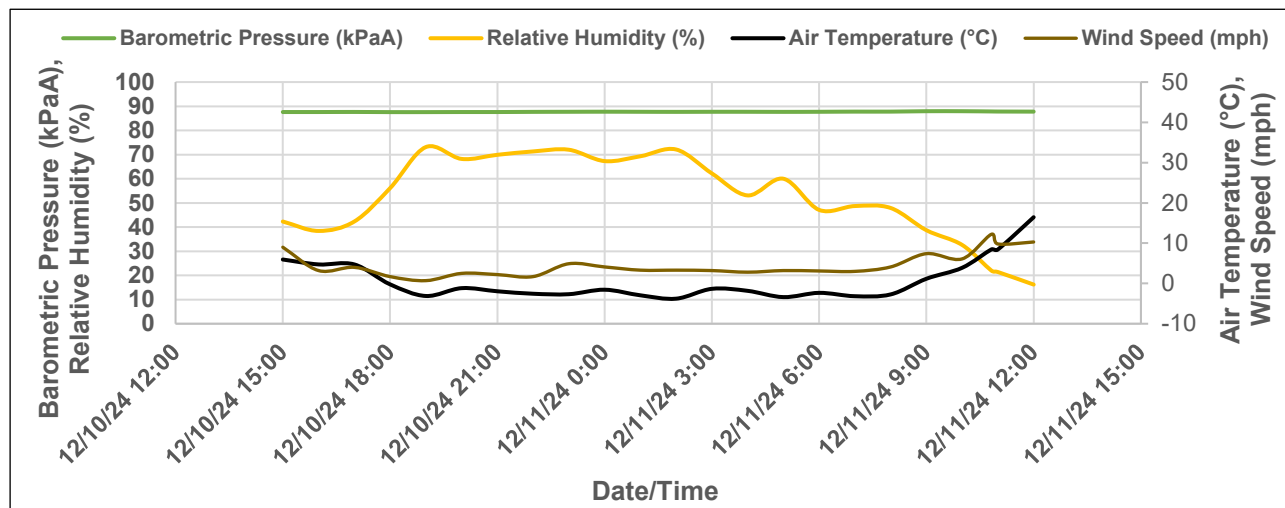
**TS-NANO**

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Weather data

Precipitation during measurement period (in): 0.000



Date and Time	Air Temperature (°C)	Relative Humidity (%)	Barometric Pressure (kPaA)	Wind Speed (mph)
12/10/2024 15:00	5.9	42.3	87.61	9.0
12/10/2024 16:00	4.7	38.4	87.61	3.2
12/10/2024 17:00	4.7	42.3	87.64	4.0
12/10/2024 18:00	-0.2	56.1	87.57	1.7
12/10/2024 19:00	-3.1	73.1	87.57	0.7
12/10/2024 20:00	-1.2	68.2	87.61	2.5
12/10/2024 21:00	-1.9	69.9	87.61	2.2
12/10/2024 22:00	-2.6	71.3	87.67	1.7
12/10/2024 23:00	-2.7	72.0	87.71	4.9
12/11/2024 0:00	-1.6	67.3	87.74	4.1
12/11/2024 1:00	-2.9	69.3	87.71	3.3
12/11/2024 2:00	-3.8	72.1	87.67	3.3
12/11/2024 3:00	-1.3	62.2	87.71	3.2
12/11/2024 4:00	-1.8	53.1	87.71	2.8
12/11/2024 5:00	-3.4	60.0	87.67	3.2
12/11/2024 6:00	-2.3	47.1	87.71	3.1
12/11/2024 7:00	-3.2	48.7	87.78	3.0
12/11/2024 8:00	-2.7	47.9	87.78	4.1
12/11/2024 9:00	1.2	38.7	87.94	7.4
12/11/2024 10:00	3.9	32.6	87.94	6.1
12/11/2024 10:49	8.4	22.0	87.84	12.2
12/11/2024 11:00	8.4	21.4	87.81	9.8
12/11/2024 12:00	16.4	16.2	87.78	10.3



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C6+ Gas Analysis Report

23067G		Jennifer Chaveroo SA Unit #20		Jennifer Chaveroo SA Unit #20	
Sample Point Code		Sample Point Name		Sample Point Location	
Laboratory Services		2024102884		BAG	
Source Laboratory		Lab File No		Container Identity	
USA		USA		USA	
District		Area Name		Field Name	
Dec 11, 2024		Dec 1, 2024		Dec 12, 2024 10:51	
Date Sampled		Date Effective		Date Received	
				Dec 16, 2024	
				Date Reported	
System Administrator					
Ambient Temp (°F)		Flow Rate (Mcf)		Analyst	
				Press PSI @ Temp °F	
				Source Conditions	
TS-Nano			NG		
Operator			Lab Source Description		

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	36.6380	36.638	
CO2 (CO2)	0.3010	0.301	
Methane (C1)	55.1900	55.189	
Ethane (C2)	4.3580	4.358	1.1650
Propane (C3)	2.0300	2.03	0.5590
I-Butane (IC4)	0.3360	0.336	0.1100
N-Butane (NC4)	0.5740	0.574	0.1810
I-Pentane (IC5)	0.1830	0.183	0.0670
N-Pentane (NC5)	0.0960	0.096	0.0350
Hexanes Plus (C6+)	0.2940	0.294	0.1280
TOTAL	100.0000	99.9990	2.2450

Method(s): Gas C6+ - GPA 2261, Extended Gas - GPA 2286, Calculations - GPA 2172

Analyzer Information			
Device Type:	Gas Chromatograph	Device Make:	Shimadzu
Device Model:	GC-2014	Last Cal Date:	Sep 9, 2024

Gross Heating Values (Real, BTU/ft³)

14.696 PSI @ 60.00 Å°F		14.73 PSI @ 60.00 Å°F	
Dry	Saturated	Dry	Saturated
744.1	732.4	745.8	734.1

Calculated Total Sample Properties

GPA2145-16 *Calculated at Contract Conditions

Relative Density Real	Relative Density Ideal
0.7765	0.7755
Molecular Weight	
22.4596	

C6+ Group Properties

Assumed Composition

C6 - 60.000%	C7 - 30.000%	C8 - 10.000%
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PROTREND STATUS:

Passed By Validator on Dec 17, 2024

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

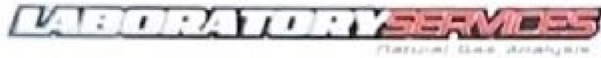
First sample taken @ this point, composition looks reasonable

VALIDATOR:

Ashley Russell

VALIDATOR COMMENTS:


OK



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Relinquished by: JR Molina 		Date: 12.12.24 Time: 10:00 am		Received by:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Relinquished by:		Date:		Received by:		Email Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Time:				REMARKS:	
Deliver by: (circle one)				Sample Condition		Checked by (Initials)	
Sampler - UPS - Bus - other:				Cool		Intact	
				Yes <input type="checkbox"/>		Yes <input type="checkbox"/>	
				No <input type="checkbox"/>		No <input type="checkbox"/>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Action 418734

DEFINITIONS

Operator: RIDGEWAY ARIZONA OIL CORP. 575 N. Dairy Ashford Houston, TX 77079	OGRID: 164557
	Action Number: 418734
	Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

DEFINITIONS

The Orphan Well Mitigation Activity (OMA) forms are a subset of the OCD's forms exclusively designed for activities related to State of New Mexico's contracted plugging and reclamation activities. Specifically, these forms are used for orphan wells or associated facilities which are in a "Reclamation Fund Approved" status. This status represents wells or facilities where the OCD has acquired a hearing order allowing the OCD to perform plugging or reclamation on wells and associated facilities that no longer have a viable operator to perform the necessary work. These forms are not to be utilized for any other purpose.

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QUESTIONS

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QUESTIONS

Prerequisites	
[OGRID] Well Operator	[164557] RIDGEWAY ARIZONA OIL CORP.
[API] Well Name and Number	[30-041-10614] JENNIFER CHAVEROO SA UNIT #020
Well Status	Active

Monitoring Event Information	
<i>Please answer all the questions in this group.</i>	
Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	12/10/2024
Latitude	33.68544
Longitude	-103.50360

Monitoring Event Details	
<i>Please answer all the questions in this group.</i>	
Flow rate in cubic meters per day (m³/day)	2.83
Test duration in hours (hr)	18.8
Average flow temperature in degrees Celsius (°C)	2.8
Average gauge flow pressure in kilopascals (kPag)	2.4
Methane concentration in part per million (ppm)	551,900
Methane emission rate in grams per hour (g/hr)	44.17
Testing Method	Steady State

Monitoring Contractor	
<i>Please answer all the questions in this group.</i>	
Name of monitoring contractor	TS-Nano, Inc.