

Pre-Plugging Methane Emissions Monitoring Report

Jennifer Chaveroo #005

Prepared by TS-Nano, Inc.
For NM Energy, Minerals and Natural Resources Department, Oil Conservation Division PO# 52100-0000078682

Well information

 ID #: 30-041-10630
 Coordinates: 33.695507, -103.493828

 Name: Jennifer Chaveroo #005
 Surface Location: Roosevelt County





Measurement notes

Device used: VentMedic #DC9447

Test operator: Jay Kitowski

Gas sample taken from well: 11/16/24 11:15 VentMedic connected to well: 11/17/24 12:02

Continuous monitoring of well flowrate, pressure, temperature, and methane concentration Hourly measurement of weather data

VentMedic disconnected from well: 11/18/24 9:42

Notes: Very heavy rain for the majority of the test.

Gas sample delivered to laboratory: 11/27/24

Laboratory Name/Location: Laboratory Services / Hobbs, NM



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Measurement data

Wellhead pressure (kPa gage)*: less than detection limit (<10 kPa)

Average flow rate (L/min): 0.025

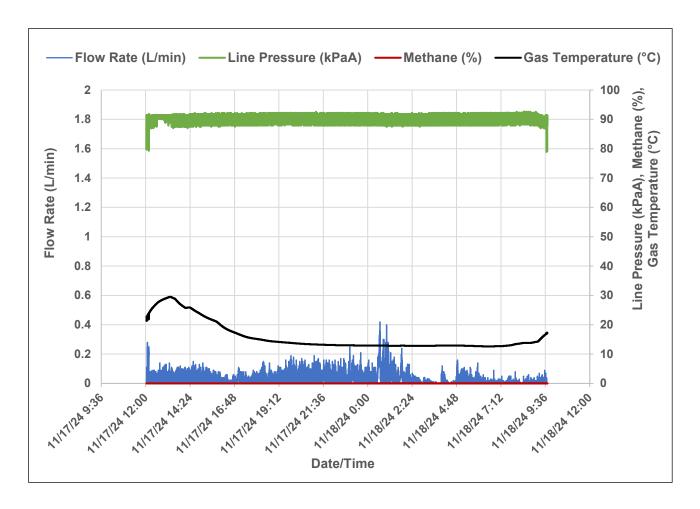
Average methane mass flow rate (g/hr)

using methane % from lab analysis: 0.00 using methane % from sensor in unit: 0.00

Methane mass flowrate calculation

Variable	Unit	Value
Pressure (P)	kPaA	Measured from the Unit
Volumetric flow (V)	L gas/min	Measured from the Unit
% methane	% (methane/gas)	Measured from Unit or sample
Temperature (T)	Kelvin	Measured from the Unit
Gas constant (R)	Atmosphere·L/(mole·Kelvin)	0.0821
Molecular weight of methane (Mw)	g/mole	16.04

Mass flow of methane
$$\left(\frac{g}{hr}\right) = \frac{\%, methane}{100\%} * V * P * \frac{Mw}{RT} * \frac{60}{101.3}$$



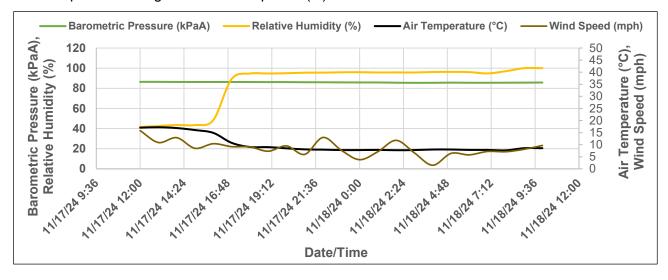


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Weather data

Precipitation during measurement period (in): 1.89



	Air	Relative	Barometric	Wind
	Temperature	Humidity	Pressure	Speed
Date and Time	(°C)	(%)	(kPaA)	(mph)
11/17/2024 12:0	0 17.1	41.6	86.42	15.8
11/17/2024 13:0	0 17.2	42.5	86.42	10.9
11/17/2024 14:0	0 16.9	43.5	86.32	12.9
11/17/2024 15:0	0 16.1	43.5	86.29	8.5
11/17/2024 16:0	0 14.9	48.4	86.29	10.4
11/17/2024 17:0	0 10.8	89.2	86.29	9.2
11/17/2024 18:0	0 9.1	94.7	86.25	9.1
11/17/2024 19:0	0 9.0	94.7	86.18	7.3
11/17/2024 20:0	0 8.5	95.0	86.18	9.5
11/17/2024 21:0	0 8.1	95.5	86.05	6.0
11/17/2024 22:0	0 7.9	95.6	86.01	13.0
11/17/2024 23:0	0 7.8	95.9	85.88	7.7
11/18/2024 0:00	7.8	96.0	85.84	3.8
11/18/2024 1:00	7.8	95.7	85.81	7.1
11/18/2024 2:00	7.7	95.8	85.57	11.8
11/18/2024 3:00	7.8	95.7	85.44	6.6
11/18/2024 4:00	0.8	96.2	85.47	1.5
11/18/2024 5:00	0.8	96.3	85.64	6.4
11/18/2024 6:00	7.8	96.1	85.51	5.8
11/18/2024 7:00	7.8	94.8	85.51	7.2
11/18/2024 8:00	7.7	97.0	85.57	7.1
11/18/2024 9:00	8.6	100.0	85.64	8.1
11/18/2024 10:0	0 8.6	100.0	85.74	9.7

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22943G	30-041-10630	Jennifer Chaveroo #005					
Sample Point Code	Sample Point Name	Sample Point Location					

Laborator	y Services	2024102059	BAG		Jay Kitowski - Spot					
Source L	aboratory	Lab File No	Container Ide	ntity	Sampler					
USA		USA	USA		New Mexico					
District	_	Area Name	Field Name		Facility Name					
Nov 16,	2024	Nov 1, 2024		Nov 27, 2024 08:54	Dec 3, 2024					
Date Sam	npled	Date Effective		Date Received	Date Reported					
		Luis								
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst		@ Temp °F Conditions						
TS-Na	ano	_			NG					
Opera	ator				Lab Source Description					

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	99.8950	99.895	
CO2 (CO2)	0.0460	0.04564	
Methane (C1)	0.0000	0	
Ethane (C2)	0.0000	0	0.0000
Propane (C3)	0.0000	0	0.0000
I-Butane (IC4)	0.0000	0	0.0000
N-Butane (NC4)	0.0000	0	0.0000
I-Pentane (IC5)	0.0000	0	0.0000
N-Pentane (NC5)	0.0000	0	0.0000
Hexanes Plus (C6+)	0.0590	0.05932	0.0260
TOTAL	100.0000	100.0000	0.0260

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 PS	I @ 60.00 °F	14.73 PSI	@ 60.00 °F					
Dry	Saturated	Dry	Saturated					
3.0 3.9 3.0 3.9								
Calculated Total Sample Properties								

Calculated Total Sample Properties						
GPA2145-16 *Calculated at Contract Conditions						
Relative Density Real Relative Density Ideal						
0.9687	0.9688					
Molecular Weight						
28.0592						

C6+ Group Properties								
Assumed Composition								
C6 - 60.000%	C7 - 30.000%	C8 - 10.000%						

PROTREND STATUS: DATA SOURCE: Passed By Validator on Dec 4, 2024 Imported

PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

VALIDATOR:

Ashley Russell

VALIDATOR COMMENTS:

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name: TS- Nano, Inc.						BILL TO Analysis Request																		
Project Manager: John Stormont							PO #:)#:																
Address: 5901 Indian School Rd. NE								Company: TS- Nano, Inc.					1											
City: Albuquerque		State	e: NM			Zip: 8	37110			Attn:	Jay K	itow	ski		1									
Phone #: 505-907-409	95	Ema	il: jstormor	nt@ts	-nanc	.com				Addr	ess: S	ame			1									
Project #:		Proj	ect Owner:							City:														
Project Name:										State	:		Zip:		1									
Project Location:										Phon	e #: 5	05-4	64-4836											
Sampler Name:										Emai	l: jkito	wsk	i@ts-nano	.com										
						Ma	trix			Pr	eser	ve	Sam	pling										
Lab I.D.	Sample I.D.	(S)POT or (C)OMP	# Container	Groudwater	Wastewater	GAS	Oil	Solid	Other	Acid/Base	lce/Cool	Other	Date	Time	C-6+ RGA	C-10+ Ext								
200 1121	J.C. SA Unit #8	S	1 Tedlar	ΙŬ		Х	-				_		11.27.24	10:00AM	Х									
	J.C. SA Unit #11	S	1 Tedlar			Х							11.27.24	10:00AM	Х									
		S	1 Tedlar			Х							11.27.24	10:00AM	Х									
	J.C. SA Unit #3	S	1 Tedlar			Х							11.16.24	10:00AM	Х									
	J.C. SA Unit #5	S	1 Tedlar			Х							11.16.24	10:00AM	Х									
	J.C. SA Unit #2	S	1 Tedlar			Х							11.16.24	10:00AM	Χ									
	J.C. SA Unit #7	S	1 Tedlar			Х							11.27.24	10:00AM	Х									
								İ																
								Ī																
			•				•																	
Relinquished by Jay K	itowski Date: 11.2	7.24		Recei	ved b	y:							Phone Res	ult:		Yes	No	Add'l F	Phone	:				
Jay Intorusier Time: 10:00 am								Email Resu	lt:		Yes	No												
Relinquished by Date: Received by:						REMARKS:																		
Time:																								
Deliver by: (circle one)				'	:	Sampl	e Con	dition		Che	ecked	by												
Cool Intact					nitials	_																		
Sampler - UPS - Bus - other: Yes No No No					''		,																	

Released to Imaging: 1/8/2025 12:45:06 PM

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 418586

DEFINITIONS

Operator:	OGRID:
RIDGEWAY ARIZONA OIL CORP.	164557
575 N. Dairy Ashford	Action Number:
Houston, TX 77079	418586
	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

Action 418586

QUESTIONS

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ı	RIDGEWAY ARIZONA OIL CORP.	164557
ı	575 N. Dairy Ashford	Action Number:
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ı		Action Type:
ı		[UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

QUESTIONS

Prerequisites		
[OGRID] Well Operator	[164557] RIDGEWAY ARIZONA OIL CORP.	
[API] Well Name and Number	[30-041-10630] JENNIFER CHAVEROO SA UNIT #005	
Well Status	Active	

Monitoring Event Information	
Please answer all the questions in this group.	
Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	11/17/2024
Latitude	33.695507
Longitude	-103.49383

Monitoring Event Details		
Please answer all the questions in this group.		
Flow rate in cubic meters per day (m³/day)	0.04	
Test duration in hours (hr)	21.7	
Average flow temperature in degrees Celsius (°C)	15.8	
Average gauge flow pressure in kilopascals (kPag)	4.7	
Methane concentration in part per million (ppm)	0	
Methane emission rate in grams per hour (g/hr)	0.00	
Testing Method	Steady State	

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