



Pre Plugging Methane Quantification Test Report

Report Prepared By Curtis Shuck

Start Date: Tue Dec 17 2024 23:09:30 GMT+0000
 (Coordinated Universal Time)
End Date: Thu Dec 19 2024 23:05:34 GMT+0000
 (Coordinated Universal Time)
Test Time Subset: 2024-12-17T23:09:13.772Z -
 2024-12-19T23:03:17.776Z
Device: VB100-0054
Well Licensee: NMOCD
Well Name: CSAU 585
UWI: 30-005-29026
Well License Number: 30-005-29026
Surface Location: BerryFamily Trust
Bottom Hole Location: Unknown
Test Operator: CES QMS
Authorized By: NMOCD
Test Reason: IJA FORMULA 1 PRE PLUG
Scope Of Work: 12-hour
AFE Number: 78656
GPS: 33.62018,-103.85825
Notes: H2S at 4,000 ppm at CASING and tubing

Orphan Well Flow Test Results

Average Flowrate	Average Flow Temperature	Average Flow Pressure	Flow Duration	Methane Concentration	Methane Emissions	Benzene
0.3237 scf/hr	50.61 °F	0.4985 psi	2874.07 min	100 %	6.22 g/hr	1 ppm

Annual Emission Rate = $(\bar{x}Q_{measured}) \times (Conc_{measured}) \times p \times 0.454 \times 8,760$

Methane Calculation:

$(\bar{x}Q_{measured})$ 0.3237 scf/hr x $(Conc_{measured})$ 1 = 0.32370948 scf CH₄/hr

Methane Flow x (p) x .0423 x .454 x 8,760 = 54.4872 CH₄ kg/yr Emission Rate

Where:

$Q_{measured}$ - scf/hr total measured flow

$Conc_{measured}$ - methane concentration measured

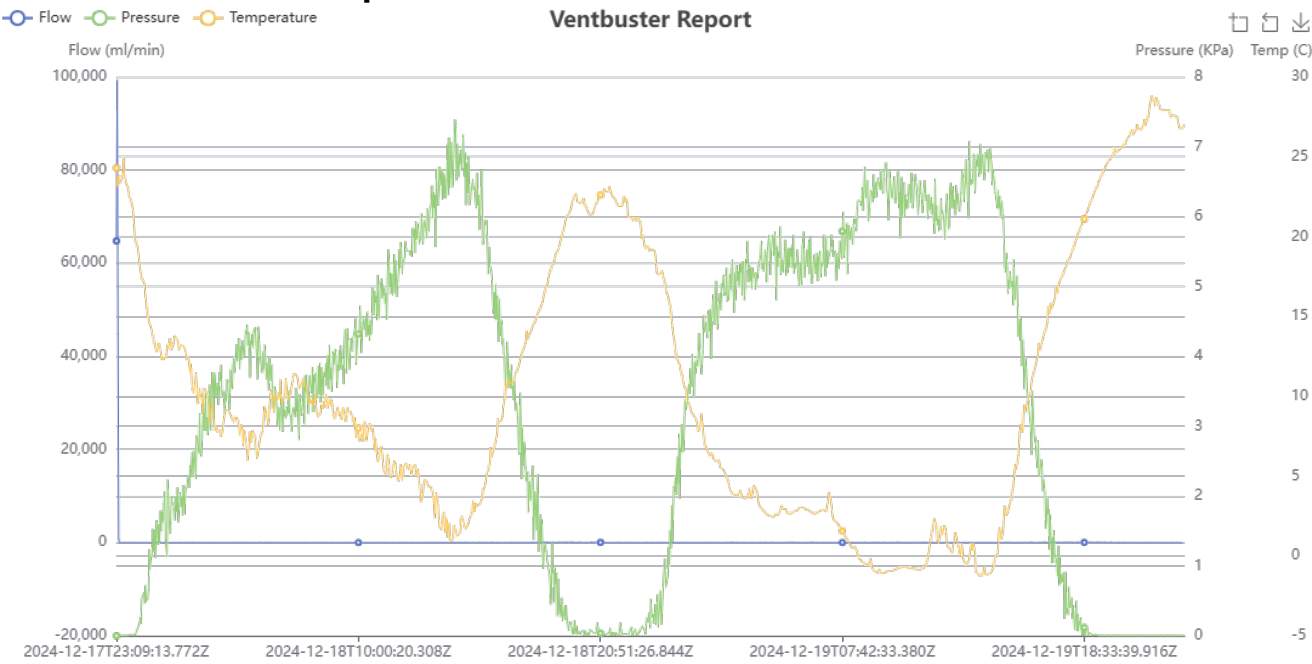
p - 0.0423 methane density at 1 atm; 60° F

0.454 - Conversion from lb to kg

8760 - Conversion from hr to yr

Flow/Pressure/Temperature Timeseries

Ventbuster Report



Site Photos



23155G	CSAU #585 Pre Plug	CSAU #585 Pre Plug	
Sample Point Code	Sample Point Name	Sample Point Location	
Laboratory Services	2024103624	BAG	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Dec 17, 2024 15:45	Dec 1, 2024	Dec 23, 2024 15:31	Dec 31, 2024
Date Sampled	Date Effective	Date Received	Date Reported
System Administrator			
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
Well Done Foundation	NG		
Operator	Lab Source Description		

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.4000	0.4	
Nitrogen (N2)	99.0910	99.49	
CO2 (CO2)	0.1600	0.161	
Methane (C1)	0.0000	0	
Ethane (C2)	0.1220	0.122	0.0330
Propane (C3)	0.1550	0.156	0.0430
I-Butane (IC4)	0.0260	0.026	0.0090
N-Butane (NC4)	0.0350	0.035	0.0110
I-Pentane (IC5)	0.0000	0	0.0000
N-Pentane (NC5)	0.0000	0	0.0000
Hexanes Plus (C6+)	0.0110	0.011	0.0050
TOTAL	100.0000	100.4010	0.1010

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		
11.2	11.8	11.2	11.8		
Calculated Total Sample Properties					
GPA2145-16 *Calculated at Contract Conditions					
Relative Density Real		Relative Density Ideal			
0.9707		0.9708			
Molecular Weight		28.1162			
C6+ Group Properties					
Assumed Composition					
C6 - 60.000%	C7 - 30.000%	C8 - 10.000%			
Field H2S					
4000 PPM					

PROTREND STATUS:

Passed By Validator on Jan 2, 2025

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

VALIDATOR:

Ashley Russell

VALIDATOR COMMENTS:

OK

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 494776

DEFINITIONS

Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 494776
	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	[248802] CANO PETRO OF NEW MEXICO, INC.
[API] Well Name and Number	[30-005-29026] CATO SAN ANDRES UNIT #585
Well Status	Reclamation Fund Approved

Monitoring Event Information	
Please answer all the questions in this group.	
Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	12/17/2024
Latitude	33.6199989
Longitude	-103.8583145

Monitoring Event Details	
Please answer all the questions in this group.	
Flow rate in cubic meters per day (m³/day)	0.01
Test duration in hours (hr)	47.9
Average flow temperature in degrees Celsius (°C)	10.3
Average gauge flow pressure in kilopascals (kPag)	3.4
Methane concentration in part per million (ppm)	0
Methane emission rate in grams per hour (g/hr)	6.22
Testing Method	Steady State

Monitoring Contractor	
Please answer all the questions in this group.	
Name of monitoring contractor	WELL DONE NEW MEXICO LLC