



Pre Plugging Methane Quantification Test Report

Report Prepared By Curtis Shuck

Start Date: Fri Nov 01 2024 21:35:49 GMT+0000
 (Coordinated Universal Time)
End Date: Thu Nov 07 2024 23:55:37 GMT+0000
 (Coordinated Universal Time)
Test Time Subset: 2024-11-01T21:33:39.875Z -
 2024-11-07T23:53:27.875Z
Device: VB100-0005
Well Licensee: NM OCD
Well Name: Lee Whitman B 007
UWI: 30-025-05112
Well License Number: 30-025-05112
Surface Location: Joe Whitman
Bottom Hole Location: Unknown
Test Operator: CES QMS
Authorized By: NM OCD
Test Reason: IJJA FORMULA 1
Scope Of Work: 12- hour
AFE Number: 78655
GPS: 33.08352,-103.16775
Notes: casing valve leak. 2,200 ppm H2S!

Orphan Well Flow Test Results

Average Flowrate	Average Flow Temperature	Average Flow Pressure	Flow Duration	Methane Concentration	Methane Emissions	Benzene
1.3485 scf/hr	61.53 °F	81.3148 psi	8779.8 min	58.5 %	15.15 g/hr	N/A ppm

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

Methane Calculation:

$(\bar{Q}_{measured})$ 1.3485 scf/hr x $(Conc_{measured})$ 0.585 = 0.7888943 scf CH₄/hr

Methane Flow x (p) x .0423 x .454 x 8,760 = 132.714 CH₄ kg/yr Emission Rate

Where:

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

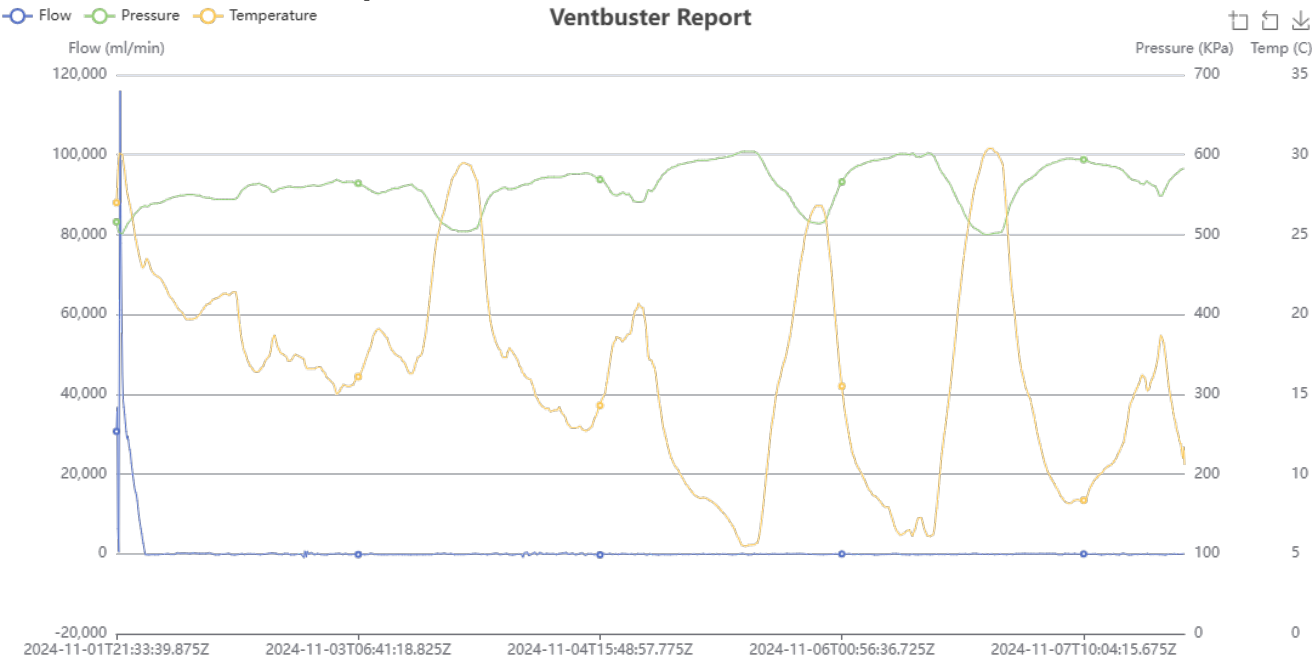
$Conc_{measured}$ - methane concentration measured

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



Site Photos



23016G		Lee Whitman B #7 Pre IJJA BOT		Lee Whitman B #7 Pre IJJA BOT	
Sample Point Code		Sample Point Name		Sample Point Location	
Laboratory Services		2024102454		BAG	
Source Laboratory		Lab File No		Container Identity	
USA		USA		USA	
District		Area Name		Field Name	
Nov 1, 2024		Nov 1, 2024		Dec 5, 2024 15:49	
Date Sampled		Date Effective		Date Received	
				Dec 6, 2024	
				Date Reported	
System Administrator					
Ambient Temp (°F)		Flow Rate (Mcf)		Analyst	
				Press PSI @ Temp °F	
				Source Conditions	
Well Done Montana				NG	
Operator				Lab Source Description	

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.2200	0.22	
Nitrogen (N2)	8.3450	8.363	
CO2 (CO2)	3.8070	3.815	
Methane (C1)	58.4990	58.63	
Ethane (C2)	10.3110	10.334	2.7570
Propane (C3)	9.0860	9.106	2.5030
I-Butane (IC4)	1.3850	1.388	0.4530
N-Butane (NC4)	3.8730	3.882	1.2210
I-Pentane (IC5)	0.9440	0.946	0.3450
N-Pentane (NC5)	1.1100	1.112	0.4020
Hexanes Plus (C6+)	2.4200	2.425	1.0500
TOTAL	100.0000	100.2210	8.7310

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
1,386.0	1,363.3	1,389.2	1,366.5
Calculated Total Sample Properties			
GPA2145-16 *Calculated at Contract Conditions			
Relative Density Real		Relative Density Ideal	
0.9498		0.9450	
Molecular Weight			
27.3729			
C6+ Group Properties			
Assumed Composition			
C6 - 60.000%	C7 - 30.000%	C8 - 10.000%	
Field H2S			
2200 PPM			

PROTREND STATUS:

Passed By Validator on Dec 9, 2024

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 522170

DEFINITIONS

Operator: Well Done New Mexico LLC (OPG Vendor) 333 Main St Shelby, MT 59474	OGRID: 333567
	Action Number: 522170
	Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

DEFINITIONS

The OCD Mitigation Activity (OMA) forms are a subset of the OCD's forms exclusively designed for activities related to State of New Mexico's contracted evaluation, plugging, decommissioning, remediation, salvage and reclamation activities. Specifically, these forms are typically used where the OCD has acquired a hearing order allowing the OCD to perform mitigation activities on wells and associated facilities that no longer have an authorized or viable operator to perform the necessary work. These forms are not to be utilized for any other purpose.

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QUESTIONS

Action 522170

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	Action Number: 522170
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QUESTIONS

Prerequisites	
[OGRID] Well Operator	[332127] Scorpion Oil & Gas, LLC
[API] Well Name and Number	[30-025-05112] LEE WHITMAN B #007
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	11/01/2024
Latitude	33.0835915
Longitude	-103.1677628

Monitoring Event Details*Please answer all the questions in this group.*

Flow rate in cubic meters per day (m ³ /day)	0.96
Test duration in hours (hr)	96.0
Average flow temperature in degrees Celsius (°C)	16.4
Average gauge flow pressure in kilopascals (kPag)	100.0
Methane concentration in part per million (ppm)	584,990
Methane emission rate in grams per hour (g/hr)	25.90
Testing Method	Steady State

Monitoring Contractor*Please answer all the questions in this group.*

Name of monitoring contractor	WELL DONE NEW MEXICO LLC
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