



Pre Plugging Methane Quantification Test Report

Report Prepared By Curtis Shuck

Start Date: Sat Oct 12 2024 20:27:04 GMT+0000
 (Coordinated Universal Time)
End Date: Sun Oct 13 2024 19:45:09 GMT+0000
 (Coordinated Universal Time)
Test Time Subset: 2024-10-12T20:26:23.824Z -
 2024-10-13T19:43:29.891Z
Device: VB100-0003
Well Licensee: NMOCD ORPHAN
Well Name: Crosby Deep 002
UWI: 30-025-24287
Well License Number: 30-025-24287
Surface Location: Willis Family
Bottom Hole Location: Unknown
Test Operator: CES QMS
Authorized By: NMOCD
Test Reason: IIJA/BIL Formula 1 Pre Plug Methane
 Quantification
Scope Of Work: 12-hours
AFE Number: 78655
GPS: 32.08952,-103.16674
Notes: Casing port 2 is open and leaking

Orphan Well Flow Test Results

Average Flowrate	Average Flow Temperature	Average Flow Pressure	Flow Duration	Methane Concentration	Methane Emissions	Benzene
0.0101 scf/hr	77.63 °F	2.9242 psi	1397.1 min	32 %	0.06 g/hr	1 ppm

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

Methane Calculation:

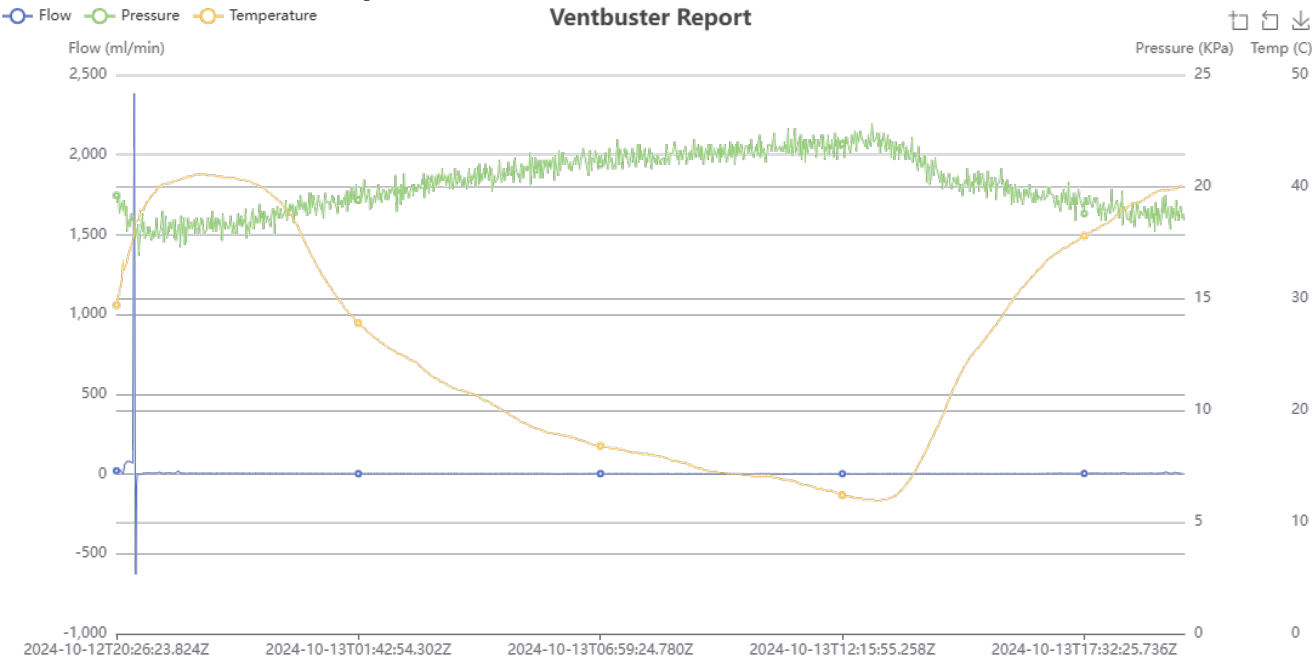
$(\bar{x}Q_{measured})$ 0.0101 scf/hr x (Conc_{measured}) 0.32 = 0.00323068 scf CH₄/hr
 Methane Flow x (p) x .0423 x .454 x 8,760 = 0.5256 CH₄ kg/yr Emission Rate

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



22531G	Crosby Deep #002`	Crosby Deep #002	
Sample Point Code	Sample Point Name	Sample Point Location	
Laboratory Services	2024099347	Tedlar Bag	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Oct 12, 2024 15:15	Oct 1, 2024	Oct 14, 2024 16:20	Oct 15, 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)	0.0000	0	
Nitrogen (N2)	58.1860	58.187	
CO2 (CO2)	0.0460	0.046	
Methane (C1)	31.8430	31.843	
Ethane (C2)	3.0090	3.009	0.8050
Propane (C3)	3.0770	3.077	0.8470
I-Butane (IC4)	0.5100	0.51	0.1670
N-Butane (NC4)	1.4410	1.441	0.4540
I-Pentane (IC5)	0.5000	0.5	0.1830
N-Pentane (NC5)	0.5330	0.533	0.1930
Hexanes Plus (C6+)	0.8550	0.855	0.3710
TOTAL	100.0000	100.0010	3.0200

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
603.2	593.8	604.6	595.2

Calculated Total Sample Properties	
GPA2145-16 *Calculated at Contract Conditions	
Relative Density Real	Relative Density Ideal
0.9114	0.9103
Molecular Weight	
26.3661	

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

Field H2S
0 PPM

PROTREND STATUS: Passed By Validator on Oct 16, 2024
DATA SOURCE: Imported

PASSED BY VALIDATOR REASON:
 Close enough to be considered reasonable.

VALIDATOR:
 Ashley Russell
VALIDATOR COMMENTS:
 ok

Source	Date	Notes
Ashley Russell	Oct 16, 2024 9:26 am	METHANE 318,430

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 522088

DEFINITIONS

Operator: Well Done New Mexico LLC (OPG Vendor) 333 Main St Shelby, MT 59474	OGRID: 333567
	Action Number: 522088
	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 522088

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QUESTIONS

Prerequisites	
[OGRID] Well Operator	[268370] DC ENERGY LLC
[API] Well Name and Number	[30-025-24287] CROSBY DEEP #002
Well Status	Reclamation Fund Approved

Monitoring Event Information	
<i>Please answer all the questions in this group.</i>	
Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	10/12/2024
Latitude	32.0895081
Longitude	-103.1667328

Monitoring Event Details	
<i>Please answer all the questions in this group.</i>	
Flow rate in cubic meters per day (m³/day)	0.00
Test duration in hours (hr)	23.3
Average flow temperature in degrees Celsius (°C)	25.3
Average gauge flow pressure in kilopascals (kPag)	20.2
Methane concentration in part per million (ppm)	318,430
Methane emission rate in grams per hour (g/hr)	0.19
Testing Method	Steady State

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