



333 Main Street Shelby, Montana 59474 / P.O. Box 10640 Bozeman, MT 59179

(406) 460-0903

TO: Jim Griswold, OCD

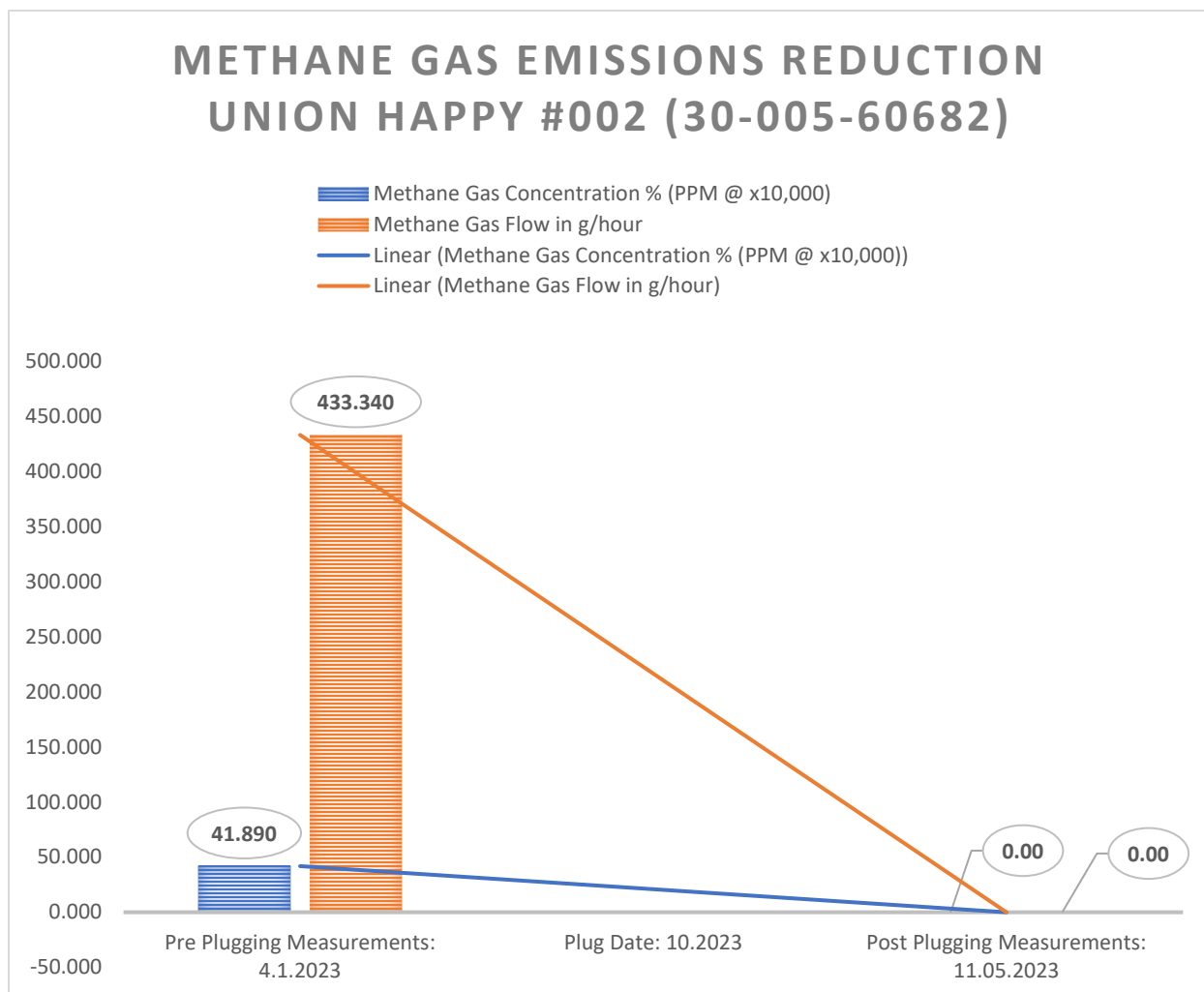
FROM: Curtis Shuck, WDNM

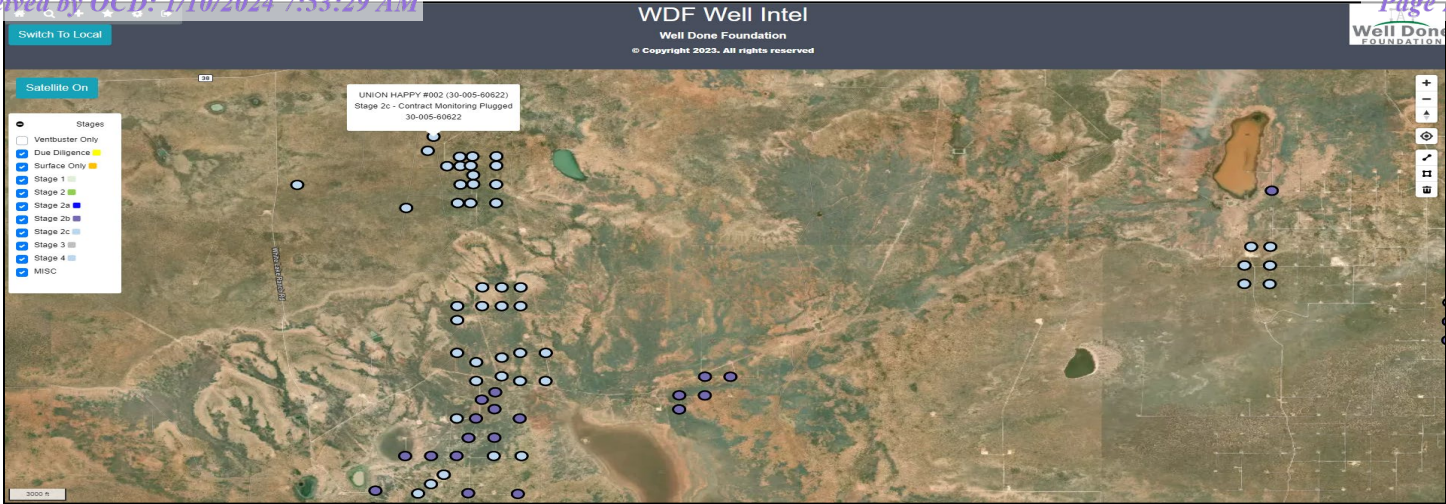
DATE: December 31, 2023


RE: Union Happy #002 (30-005-60682) Post Plugging Methane Emission Reduction Report

### MEMORANDUM

Well Done New Mexico LLC performed Post Plugging Orphan Well Methane Emission Testing, Gas Sampling & Analysis on the Union Happy #002 (30-005-6062) on November 5, 2023. The following are the conclusions:







LABORATORY SERVICES

www.pennpermits.com

475.937.3713 • 2025 W. Railroad • Houston, NM 88203

C6+ Gas Analysis Report

16409G

Sample Point Code

Union Happy #002 Post Plug

Sample Point Name

Union Happy #002

Sample Point Location

Laboratory Services

2023078638

NA

CES - Spot

Source Laboratory

Lab File No

Container Identity

Sampler

USA

USA

USA

New Mexico

District

Area Name

Field Name

Facility Name

Nov 5, 2023 14:45

Nov 5, 2023 14:45

Nov 6, 2023 10:40

Nov 20, 2023

Date Sampled

Date Effective

Date Received

Date Reported

Ambient Temp (°F)

Flow Rate (Mcf)

Admin

Press PSI @ Temp °F

Analyst

Source Conditions

Well Done Foundation

Operator

NG

Lab Source Description

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	99.9010	99.90144	
CO2 (CO2)	0.0360	0.03561	
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+)	0.0630	0.06295	0.0270
TOTAL	100.0000	100.0000	0.0270

Gross Heating Values (Real, BTU/lb<sup>3</sup>)

14.696 PSI @ 60.00 °F

14.73 PSI @ 60.00 °F

Dry

Saturated

Dry

Saturated

3.2

4.1

3.2

4.1

Calculated Total Sample Properties

GPA2145-16 \*Calculated at Contract Conditions

Relative Density Real

0.9686

Relative Density Ideal

0.9687

Molecular Weight

28.0602

C6+ Group Properties

Assumed Composition

C6 - 60.000%

C7 - 30.000%

C8 - 10.000%

Field H2S

0 PPM

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

Analyzer Information

Device Type:

Gas Chromatograph

Device Model:

GC-2014

Device Make:

Shimadzu

Last Cal Date:

Nov 20, 2023

PROTEND STATUS:

Passed By Validator on Nov 22, 2023

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

Close enough to be considered reasonable.

VALIDATOR:

Ashley Russell

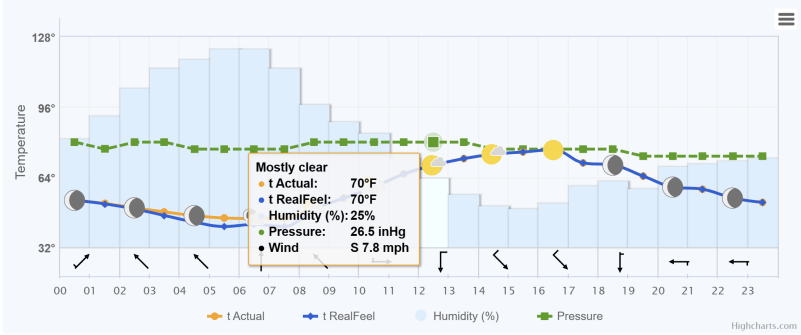
VALIDATOR COMMENTS:

OK

November 05, 2023

	Atmospheric conditions and temperature °F	RealFeel °F	Atmospheric pressure inHg	Wind speed mph	Humidity
Night	☾ +52°	+52°	26.4	▼ N 6.3	47%
Morning	☀ +45°	+41°	26.4	▲ NW 4.3	64%
Day	☀ +73°	+73°	26.5	▼ SE 7.2	19%
Evening	☾ +64°	+64°	26.3	▼ SW 5.1	21%

Hourly forecast for 05.11.2023





<b>16409G</b>	<b>Union Happy #002 Post Plug</b>	<b>Union Happy #002</b>	
Sample Point Code	Sample Point Name	Sample Point Location	
<b>Laboratory Services</b>	<b>2023078638</b>	<b>NA</b>	<b>CES - Spot</b>
Source Laboratory	Lab File No	Container Identity	Sampler
<b>USA</b>	<b>USA</b>	<b>USA</b>	<b>New Mexico</b>
District	Area Name	Field Name	Facility Name
<b>Nov 5, 2023 14:45</b>	<b>Nov 5, 2023 14:45</b>	<b>Nov 6, 2023 10:40</b>	<b>Nov 20, 2023</b>
Date Sampled	Date Effective	Date Received	Date Reported
<b>Admin</b>			
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
<b>Well Done Foundation</b>		<b>NG</b>	
Operator		Lab Source Description	

Component	Normalized Mol %	Un-Normalized Mol %	GPM
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N-Pentane (NC5)	0.0000	0	0.0000
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Device Model:	GC-2014	Last Cal Date:	Nov 20, 2023

Gross Heating Values (Real, BTU/ft³)			
14.696 PSI @ 60.00 Å°F		14.73 PSI @ 60.00 Å°F	
Dry	Saturated	Dry	Saturated
3.2	4.1	3.2	4.1

Calculated Total Sample Properties	
GPA2145-16 *Calculated at Contract Conditions	
Relative Density Real	Relative Density Ideal
0.9686	0.9687
Molecular Weight	
28.0602	

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

Field H2S
0 PPM

**PROTREND STATUS:**  
 Passed By Validator on Nov 22, 2023

**DATA SOURCE:**  
 Imported

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

**VALIDATOR:**  
 Ashley Russell

**VALIDATOR COMMENTS:**  
 OK

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

DEFINITIONS

Action 301945

DEFINITIONS

Operator: CANYON E & P COMPANY 251 O'Connor Ridge Blvd. Irving, TX 75038	OGRID: 269864
	Action Number: 301945
	Action Type: [UF-OMA] Post-Plug Methane Monitoring (UF-OMA-MMB)

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 301945

QUESTIONS

Operator: CANYON E & P COMPANY 251 O'Connor Ridge Blvd. Irving, TX 75038	OGRID: 269864
	Action Number: 301945
	Action Type: [UF-OMA] Post-Plug Methane Monitoring (UF-OMA-MMB)

QUESTIONS

Prerequisites	
[OGRID] Well Operator	[269864] CANYON E & P COMPANY
[API] Well Name and Number	[30-005-60622] UNION HAPPY #002
Well Status	Plugged (not released)

Monitoring Event Information	
Please answer all the questions in this group.	
Reason For Filing	Post-Plug Methane Monitoring
Date of monitoring	11/05/2023
Latitude	33.64656
Longitude	-104.03792

Monitoring Event Details	
Please answer all the questions in this group.	
Flow rate in cubic meters per day (m³/day)	0.00
Test duration in hours (hr)	1.0
Average flow temperature in degrees Celsius (°C)	23.1
Average gauge flow pressure in kilopascals (kPag)	0.0
Methane concentration in part per million (ppm)	0
Methane emission rate in grams per hour (g/hr)	0.00
Testing Method	Steady State

Monitoring Contractor	
Please answer all the questions in this group.	
Name of monitoring contractor	Well Done New Mexico LL