

Twin Lakes San Adres Unit - Orphan Well CH4 Averaging - Applied to the five (5) Wells Outside Measured Sample Set (20) - CES

Prepared: 12.18.2023

Well Name	Well #	API #	County	Purchase Order	Gas Sample	Pre Plug CH4/PPM	Total Pre Plug LELs/PPM	Pre Plug CH4 Flow @ m3/day	Pre Plug CH4 Emission @ g/hour	Post Plug CH4
TLSA	57	30-005-61135	Chaves	1000002000038AA	24-Aug	558,960	673,300	0.72	9.29	0
TLSA	25	30-005-60334	Chaves	1000002000038AA	16-Aug	305,530	337,060	1.850	13.050	0
TLSA	110	30-005-61556	Chaves	1000002000038AA	25-Aug	231,170	290,907	0.210	1.120	0
TLSA	81	30-005-60093	Chaves	1000002000038AA	22-Aug	170,460	521,850	0.09	0.35	0
TLSA	34	30-005-60033	Chaves	1000002000038AA	22-Aug	147,800	188,860	0.350	1.170	0
TLSA	99	30-005-61261	Chaves	1000002000038AA	26-Aug	141,000	196,080	0.9	0.29	0
TLSA	66	30-005-60468	Chaves	1000002000038AA	24-Aug	133,190	200,390	0.010	0.030	0
TLSA	86	30-005-60794	Chaves	1000002000038AA	24-Aug	110,150	332,590	0.02	0.02	0
TLSA	95	30-005-61107	Chaves	1000002000038AA	25-Aug	42,800	138,670	0.2	0.26	0
TLSA	103	30-005-61075	Chaves	1000002000038AA	25-Aug	21,540	47,270	0.001	0.001	0
TLSA	15	30-005-62565	Chaves	1000002000038AA	25-Aug	17,050	29,980	1.21	0.46	0
TLSA	11	30-005-60563	Chaves	1000002000038AA	25-Aug	15,940	16,750	0.003	0.001	0
TLSA	10	30-005-60571	Chaves	1000002000038AA	25-Aug	15,006	47,060	0.04	0.01	0
TLSA	100	30-005-61105	Chaves	1000002000038AA	26-Aug	11,070	44,910	0.01	0.003	0
TLSA	108	30-005-61334	Chaves	1000002000038AA	26-Aug	8,990	56,270	0.002	0.01	0
TLSA	113	30-005-61604	Chaves	1000002000038AA	26-Aug	5,260	41,380	0	0	0
TLSA	61	30-005-60920	Chaves	1000002000038AA	26-Aug	2,050	13,410	0.01	0	0
TLSA	41	30-005-60768	Chaves	1000002000038AA	26-Aug	1,680	8,920	0.02	0	0
TLSA	68	30-005-61007	Chaves	1000002000038AA	26-Aug	1,050	6,090	0	0	0
TLSA	78	30-005-60815	Chaves	1000002000038AA	23-Aug	920	2,560	0	0	0
TLSA	14	30-005-60597	Chaves	1000002000038AA	19-Dec	97,081	159,715	0.2823	0.82	0
TLSA	105	30-005-62068	Chaves	1000002000038AA	19-Dec	97,081	159,715	0.2823	0.82	0
TLSA	54	30-005-00349	Chaves	1000002000038AA	19-Dec	97,081	159,715	0.2823	0.82	0
TLSA	107	30-005-61104	Chaves	1000002000038AA	19-Dec	97,081	159,715	0.2823	0.82	0
TLSA	111	30-005-61604	Chaves	1000002000038AA	19-Dec	97,081	159,715	0.2823	0.82	0
Total TLSA Wells Included	25	TLSA Well Sample Set Applied 20	% of Total TLSA Wells (20) Tested 80%	% of Total TLSA Wells (5) Averaged 20%		Sample Total CH4 PPM 1,941,616	Sample Total Explosive Gas PPM 3,194,307	Sample Total Flow m3/day 5.6460	Sample Total CH4 Emission g/hour 26.0650	Total TLSA CH4 Emission g/hour Removed with IUA Funding 30.165
						Sample Avg CH4 PPM 97,081	Sample Avg Explosive Gas PPM 159,715	Sample Average Flow m3/day 0.2823	Sample Avg CH4 Emission g/hour 1.3033	

- ¹ Methane Calculation: 717 grams CH4 per cubic meter (717 x 0.2823 m3/day = 202.41 g/day total /24 = 8.43 g/hour x 0.097081 (methane concentration) = **0.82 g/hour CH4**). **Methane, gas** weighs 0.000717 gram per cubic centimeter or 0.717 kilogram per cubic meter, i.e. density of methane, gas is equal to 0.717 kg/m³; at 0°C (32°F or 273.15K) at standard atmospheric pressure. In Imperial or US customary measurement system, the density is equal to 0.044 pound per cubic foot [lb/ft³].



16702G	TLSA #111	TLSA #111	
Sample Point Code	Sample Point Name	Sample Point Location	
Laboratory Services	2023067551	Tedlar Bag	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Apr 20, 2023 13:20	Apr 20, 2023 13:20	Apr 24, 2023 08:17	Apr 25, 2023
Date Sampled	Date Effective	Date Received	Date Reported
Torrance			
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)	99.4990	99.49894	
CO2 (CO2)	0.0400	0.03961	
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+)	0.4610	0.46145	0.2000
TOTAL	100.0000	100.0000	0.2000

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: Apr 17, 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
23.7	24.2	23.8	24.3

Calculated Total Sample Properties	
GPA2145-16 *Calculated at Contract Conditions	
Relative Density Real	Relative Density Ideal
0.9777	0.9778
Molecular Weight	
28.3203	

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

PROTREND STATUS:

Passed By Validator on Apr 26, 2023

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

VALIDATOR:

Rush

VALIDATOR COMMENTS:

OK

Source	Date	Notes
	Apr 26, 2023 12:16 pm	Methane = 0 PPM

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 296516

DEFINITIONS

Operator: BLUE SKY NM, INC. 7941 Katy Freeway Houston, TX 77024	OGRID: 300825
	Action Number: 296516
	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

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QUESTIONS

Prerequisites	
[OGRID] Well Operator	[300825] BLUE SKY NM, INC.
[API] Well Name and Number	[30-005-61604] TWIN LAKES SAN ANDRES UNIT #113
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	04/20/2023
Latitude	33.543037
Longitude	-104.0321121

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)	11.0
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 LLC
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