

## 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    |                                                                |

- <sup>1</sup> 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/m<sup>3</sup>; 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/ft<sup>3</sup>].

**District I**  
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**District II**  
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**District III**  
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**District IV**  
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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 296513

DEFINITIONS

|                                                                              |                                                                       |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Operator:<br><br>BLUE SKY NM, INC.<br>7941 Katy Freeway<br>Houston, TX 77024 | OGRID:<br><br>300825                                                  |
|                                                                              | Action Number:<br><br>296513                                          |
|                                                                              | Action Type:<br><br>[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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|                                                                          |                                                                   |
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**QUESTIONS**

|                            |                                                |
|----------------------------|------------------------------------------------|
| <b>Prerequisites</b>       |                                                |
| [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  | Pre-Plug Methane Monitoring |
| Date of monitoring | 12/19/2022                  |
| 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)        | 0.28         |
| Test duration in hours (hr)                       | 12.0         |
| Average flow temperature in degrees Celsius (°C)  | 7.0          |
| Average gauge flow pressure in kilopascals (kPag) | 1.0          |
| Methane concentration in part per million (ppm)   | 97,081       |
| Methane emission rate in grams per hour (g/hr)    | 0.82         |
| Testing Method                                    | Steady State |

**Monitoring Contractor**

Please answer all the questions in this group.

|                               |                          |
|-------------------------------|--------------------------|
| Name of monitoring contractor | Well Done New Mexico LLA |
|-------------------------------|--------------------------|