Table 2.

Methane mole fraction, δ13CH4, and Δ14CH4 of air samples collected in the Athabasca Oil Sands Region in August 2019. Note that local time of sampling (Mountain Time, MDT) is six hours behind UTC universal time.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sample** | **Date and time (UTC)** | **[CH4] (ppb)** | **δ13CH4 (‰)** | **Δ14CH4 (‰)** | **Wind direction** |
| 1 | 16/08/2019 18:14 | 1974.5 ± 1.3 | -48.1 ± 0.02 | 336.4 ± 2.6 | N |
| 2 | 17/08/2019 15:46 | 1967.5 ± 0.7 | -48.1 ± 0.02 | 337.0 ± 2.6 | N |
| 3 | 18/08/2019 17:28 | 1948.8 ± 0.6 | -48.0 ± 0.02 | 349.8 ± 2.6 | N |
| 4 | 19/08/2019 13:46 | 1978.4 ± 1.3 | -48.2 ± 0.02 | 346.4 ± 2.6 | N |
| 5 | 19/08/2019 16:16 | 2065.3 ± 1 | -47.4 ± 0.02 | 275.7 ± 2.5 | N |
| 6 | 20/08/2019 12:50 | 1998.2 ± 1.3 | -48.4 ± 0.02 | 341.2 ± 2.6 | SE |
| 7 | 20/08/2019 16:05 | 2097.1 ± 1.3  | -48.9 ± 0.02 | 281.9 ± 2.5 | SE |
| 8 | 20/08/2019 17:14 | 2520.0 ± 1.2 | -50.2 ± 0.02 | 68.5 ± 2.2 | SE |
| 9 | 21/08/2019 13:17 | 1990.9 ± 1.6 | -48.4 ± 0.02 | 333.7 ± 2.6 | S/SE |
| 10 | 21/08/2019 14:00 | 2015.2 ± 0.5 | -48.5 ± 0.02 | 315.8 ± 2.6 | S/SE |
| 11 | 21/08/2019 3:55 | 2002.0 ± 1  | -48.0 ± 0.02 | 325.1 ± 2.6 | S/SE |
| 12 | 22/08/2019 12:04 | 2059.7 ± 0.7  | -48.7 ± 0.02 | 299.5 ± 2.6 | S |
| 13 | 22/08/2019 23:49 | 1928.6 ± 0.5  | -47.9 ± 0.02 | 345.4 ± 2.6 | W |
| 14 | 23/08/2019 14:19 | 2370.9 ± 1.6  | -49.0 ± 0.02 | 132.3 ± 2.4 | S |