**Table 2** Isotope data of gas extracted from oil samples taken during MBARI ROV DocRicketts dives in 2011. Location of sample sites is shown in Figure 10.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Carbon isotope ratio (d13C ‰ vs. VPDB)** | | | | | |
| **Sample ID** | **CH4** | **C2** | **C3** | **iC4** | **nC4** | **CO2** |
| Black DR273 | -58.1 | -26.6 | -21.9 | -25.1 | -21.3 | -21.1 |
| Black DR279 | -53.5 | -26.0 | -23.7 | -25.9 | -22.7 | -20.9 |
| Blue DR279 | -50.6 | -25.8 | -24.0 | -25.9 | -22.7 | -28.6 |
| Red DR273 | -53.1 | -25.8 | -23.4 | -25.7 | -22.4 | -31.2 |

|  |  |  |
| --- | --- | --- |
|  | **Hydrogen isotope ratio (dD ‰ vs. VSMOW)** | |
| **Sample ID** | **CH4** | **C2** |
| Black DR273 | -210.1 | -137.6 |
| Black DR279 | -198.9 | -126.4 |
| Blue DR279 | -175.6 | -123.2 |
| Red DR273 | -179.3 | -133.3 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Volume %** | | |  |  |  |
| **Sample ID** | **CH4** | **C2** | **C3** | **iC4** | **nC4** | **CO2** | **C1/(C2+C3)** |
| Black DR273 | 69.4 | 18.8 | 4.2 | 1.4 | 2.9 | 0.5 | 3.02 |
| Black DR279 | 57.4 | 12.2 | 1.9 | 1.0 | 5.7 | 0.8 | 4.07 |
| Blue DR279 | 51.9 | 32.1 | 4.9 | 2.3 | 12.7 | 1.1 | 1.40 |
| Red DR273 | 44.3 | 15.0 | 15.3 | 11.5 | 30.4 | 0.2 | 1.46 |