**Table 1** Physico-chemical properties, cell counts and VLP counts of Organic Lake samples.

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| --- | --- | --- | --- | --- | --- |
|  | sample depths (m) | | | | |
|  | **1.7** | **4.2** | **5.7** | **6.5** | **6.7** |
| ammonia (mg l−1) | 0.108 | ND | 1.22 | 5.29 | 2.32 |
| nitrate (mg l−1) | <0.002 | ND | 0.003 | <0.002 | 0.008 |
| nitrite (mg l−1) | <0.002 | ND | <0.002 | 0.010 | 0.010 |
| SRP (mg l−1) | 0.08 | ND | 0.10 | 0.20 | 0.18 |
| TOC (mg l−1) | 88 | 87 | 110 | 170 | 130 |
| DOC (mg l−1) | 69 | ND | 97 | 150 | 120 |
| TN (mg l−1) | 7.70 | 7.50 | 11 | 24 | 13 |
| TDN (mg l−1) | 0.112 | ND | 1.225 | 5.302 | 2.338 |
| TP (mg l−1) | 1.5 | 1.4 | 3.0 | 7.6 | 3.7 |
| TDP (mg l−1) | 0.509 | ND | 0.805 | 4.5 | 2 |
| TS (mg l−1) | 1010 | 974 | 1020 | 1410 | 950 |
| TDS (mg l−1) | 996 | ND | 1250 | 1290 | 995 |
| particulate C:N:P  (molar ratios) | 49:7:1 | ND | 15:2:1 | 17:3:1 | 15:1:1 |
| dissolved C:N:P  (molar ratios) | 350:20:1 | ND | 311:26:1 | 86:10:1 | 155:13:1 |
| practical salinity | 166 | 166 | 172 | 178 | 186 |
| temperature (°C) | −13 | −13.5 | −13 | −12.5 | −12 |
| cells ml−1 | 1.0±0.4 × 106 | 1.2±0.3 × 106 | 1.8±0.5 × 106 | 2.3±0.8 × 106 | 1.1±0.4 × 106 |
| VLP ml−1 | 5.2±2.1 × 105 | 7.1±1.3 × 105 | 8.8 ±3.4 × 105 | 14.0±3.0 × 105 | 8.6±3.3 × 105 |

ND, data not determined; SRP, soluble reactive phosphate; TOC, total organic carbon; DOC, dissolved organic carbon; TN, total nitrogen; TDN, total dissolved nitrogen; TP, total phosphorus; TDP, total dissolved phosphorus; TS, total sulfur; TDS, total dissolved sulfur; VLP, virus like particles. One standard deviation shown for cell and VLP counts.