ALS Water
22 Dalmore Drive Scoresby 3179
Tel. 03 8756 8183 Fax. 03 9763 1862

# ALGAL REPORT

| | |
|---|---|
| **CLIENT :** | Australian Laboratory Services Pty Ltd SA |
| **LABORATORY NO./BATCH NO. :** | 6750301 20-50047 |
| **LOCALITY :** | EM2018692_010 |
| **SITE :** | Mark Point |
| **SAMPLE :** | Surface |
| **DATE SAMPLED :** | 21/10/2020 |
| **DATE ANALYSED :** | 26/10/2020 |
| **SAMPLED BY :** | Sample analysed as received |

**COMMENTS: +** A diverse algal community was observed with low biovolume BGA most numerous. Water quality is unlikely to be impaired.

| **Sedgewick-Rafter Vol.(ml)** 1.0199<br>**Concentration** 1 : 1<br>**Magnification**<br>**Fields** | **Toxigenic (T) or Potentially toxic (P)** * | - 200x 20 | - 100x 500 | **Total Cell Count (cells/mL)** | **Individual Algal Unit Volume (um3)** | **Total Biovolume (mm3/L)** |
|---|---|---|---|---|---|---|
| ***BACILLARIOPHYCEAE*** | | | | | | |
| *Centrales* | | 0 | 2 | 4 | 200 | 0.00078 |
| *Chaetoceros* | | 4 | 0 | 196 | 200 | 0.03922 |
| *Licmophora* | | 0 | 1 | 2 | 850 | 0.00167 |
| ***CHLOROPHYCEAE*** | | | | | | |
| *Ankistrodesmoideae* | | 2 | 0 | 98 | 132 | 0.01294 |
| *Chlamydomonads* | | 3 | 0 | 147 | 250 | 0.03677 |
| *Chlorococcoids (<10um)* | | 65 | 0 | 3187 | 60 | 0.19120 |
| *Planctonema* | | 0 | 10 | 20 | 800 | 0.01569 |
| *Selenastrum* | | 3 | 0 | 147 | 250 | 0.03677 |
| ***CHRYSOPHYCEAE*** | | | | | | |
| *Other Chrysophyceae* | | 1 | 0 | 49 | 350 | 0.01716 |
| ***CRYPTOPHYCEAE*** | | | | | | |
| *Cryptomonads* | | 50 | 0 | 2451 | 320 | 0.78439 |
| ***CYANOPHYCEAE*** | | | | | | |
| *Oscillatoriales (iauv 1-100)* | P | 0 | 37 | 73 | 60.8 | 0.00441 |
| *Synechococcales small (iauv <20)* | | 1365 | 0 | 66918 | 5.25 | 0.35132 |
| ***DINOPHYCEAE*** | | | | | | |
| *Dinoflagellates* | | 1 | 0 | 49 | 20000 | 0.98049 |
| *Gymnodiniales (small)* | | 3 | 0 | 147 | 500 | 0.07354 |
| *Protoperidinium* | | 0 | 3 | 6 | 31000 | 0.18237 |
| ***EUGLENOPHYCEAE*** | | | | | | |
| *Eutreptia* | | 1 | 0 | 49 | 1000 | 0.04902 |
| ***OTHER PHYTOPLANKTON*** | | | | | | |
| *Other small flagellates* | | 235 | 0 | 11521 | 80 | 0.92166 |
| *Prasinophytes* | | 6 | 0 | 294 | 100 | 0.02941 |

ANALYST: *Kirsten Mudie (signatory)* REVIEWED: *Adam Deliyiannis* DATE: **27/10/2020**
**Biologist** **Biologist**

METHOD NO.: MB010/MW024CV

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| | | Toxigenic (T) or Potentially toxic (P) | | | Total Cell Count (cells/mL) | Individual Algal Unit Volume (um3) | Total Biovolume (mm3/L) |
|---|---|---|---|---|---|---|---|
| **Sedgewick-Rafter Vol.(ml)** | 1.0199 | | | | | | |
| **Concentration** | 1 : 1 | | | | | | |
| **Magnification** | | | - 200x | - 100x | | | |
| **Fields** | | * | 20 | 500 | | | |
| **TOTAL BGA** | | | | | **66991** | | **0.35573** |
| **TOTAL TOXIGENIC BGA** | | | | | **0** | | **0.00000** |
| **TOTAL POTENTIALLY TOXIC BGA** | | | | | **73** | | **0.00441** |
| **TOTAL ALGAE** | | | | | **85358** | | **3.72881** |

***+ The comments are discretionary and are for the purpose of helping to understand WQ implications.The comments are not accredited by NATA.***

***The biovolume values reported are those derived from documented information, including scientific literature. These are average values and not those measured on individual samples.***

***A Certificate of analysis will follow, linked by the above batch number. Independent algal reports are forwarded to clients expeditiously to facilitate operational decision making.***

**** P's and T's denote those cyanobacteria/blue-green algae (BGA) associated with toxin production in Australian waters. Overseas studies have shown other cyanobacteria to produce toxins. All contain lipopolysaccharides (LPS) in their cell wall and many have been found to produce β-N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.***

ANALYST: *Kirsten Mudie (signatory)* REVIEWED: *Adam Deliyiannis* DATE: **27/10/2020**
**Biologist** **Biologist**

METHOD NO.: MB010/MW024CV