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. :** | 7056266 21-31436 |
| **LOCALITY :** | EM2111820-004 |
| **SITE :** | Snipe Point |
| **SAMPLE :** | Surface |
| **DATE SAMPLED :** | 21/06/2021 |
| **DATE ANALYSED :** | 25/06/2021 |
| **SAMPLED BY :** | Sample analysed as received |

**COMMENTS: +** A diverse community of algal taxa was observed and low biovolume BGA Synechococcales were most numerous. Current levels are likely to impair water quality.

| **Sedgewick-Rafter Vol.(ml)** 1.0199<br>**Concentration** 1 : 1<br>**Magnification**<br>**Fields** | **Toxigenic (T) or Potentially toxic (P)** * | - 200x<br>20 | - 100x<br>500 | **Total Cell Count (cells/mL)** | **Individual Algal Unit Volume (um3)** | **Total Biovolume (mm3/L)** |
|---|---|---|---|---|---|---|
| ***BACILLARIOPHYCEAE*** | | | | | | |
| *Asterionellopsis* | | 1 | 0 | 49 | 500 | 0.02451 |
| *Nitzschia* | | 155 | 0 | 7599 | 400 | 3.03951 |
| *Pennales* | | 3 | 0 | 147 | 300 | 0.04412 |
| ***CHLOROPHYCEAE*** | | | | | | |
| *Ankistrodesmoideae* | | 218 | 0 | 10687 | 132 | 1.41073 |
| *Chlorococcoids (<10um)* | | 73 | 0 | 3579 | 60 | 0.21473 |
| ***CRYPTOPHYCEAE*** | | | | | | |
| *Cryptomonads* | | 6 | 0 | 294 | 320 | 0.09413 |
| ***CYANOPHYCEAE*** | | | | | | |
| *Planktolyngbya* | | 37 | 0 | 1814 | 3.8 | 0.00689 |
| *Synechococcales small (iauv <20)* | | 15120 | 0 | 741249 | 5.25 | 3.89156 |
| ***DINOPHYCEAE*** | | | | | | |
| *Dinoflagellates* | | 1 | 0 | 49 | 20000 | 0.98049 |
| *Gymnodiniales (small)* | | 44 | 0 | 2157 | 500 | 1.07854 |
| *Peridiniales* | | 1 | 0 | 49 | 5000 | 0.24512 |
| ***OTHER PHYTOPLANKTON*** | | | | | | |
| *Other small flagellates* | | 10 | 0 | 490 | 80 | 0.03922 |

| | | |
|---|---|---|
| **TOTAL BGA** | **743063** | **3.89845** |
| **TOTAL TOXIGENIC BGA** | **0** | **0.00000** |
| **TOTAL POTENTIALLY TOXIC BGA** | **0** | **0.00000** |
| **TOTAL ALGAE** | **768163** | **11.06955** |

ANALYST: *Adam Deliyiannis* **Biologist**

REVIEWED: *Karen Simonsen (signatory)* **Biologist**

DATE: **25/06/2021**

METHOD NO.: MB010/MW024VCA

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| **Sedgewick-Rafter Vol.(ml)** | 1.0199 | **Toxigenic (T) or Potentially toxic (P)** | | | **Total Cell Count (cells/mL)** | **Individual Algal Unit Volume (um3)** | **Total Biovolume (mm3/L)** |
| **Concentration** | 1 : 1 | | | | | | |
| **Magnification** | | | - 200x | - 100x | | | |
| **Fields** | | * | 20 | 500 | | | |

***+ 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: *Adam Deliyiannis* **Biologist**

REVIEWED: *Karen Simonsen (signatory)* **Biologist**

DATE: **25/06/2021**

METHOD NO.: MB010/MW024VCA