

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. : | 6956309 21-18638                          |  |  |  |  |  |
| LOCALITY:                  | EM2106129-006                             |  |  |  |  |  |
| SITE:                      | Noonameena                                |  |  |  |  |  |
| SAMPLE:                    | Surface                                   |  |  |  |  |  |
| DATE SAMPLED :             | 8/04/2021                                 |  |  |  |  |  |
| DATE ANALYSED :            | 13/04/2021                                |  |  |  |  |  |
| SAMPLED BY:                | Sample analysed as received               |  |  |  |  |  |

**COMMENTS: +** A diverse algal community was present in levels that are unlikely to impair water quality.

| Sedgewick-Rafter Vol.(ml) 1.02 Concentration 1 Magnification Fields | (T) a=   | - 200x<br>20 | - 100x<br>500 | Total Cell<br>Count<br>(cells/mL) | Individual<br>Algal Unit<br>Volume<br>(um3) | Total<br>Biovolume<br>(mm3/L) |
|---|----------|--------------|---------------|-----------------------------------|---|-------------------------------|
| BACILLARIOPHYCEAE   |          |              |               |                                   |   |                               |
| Amphora   |          | 1            | 0             | 49                                | 500   | 0.02449                       |
| Centrales   |          | 2            | 0             | 98                                | 200   | 0.01959                       |
| Entomoneis  |          | 5            | 0             | 245                               | 1000  | 0.24491                       |
| Naviculales   |          | 1            | 0             | 49                                | 1400  | 0.06857                       |
| Nitzschia   |          | 2            | 0             | 98                                | 400   | 0.03918                       |
| Pennales  |          | 1            | 0             | 49                                | 300   | 0.01469                       |
| Pennales (small <20um)  |          | 7            | 0             | 343                               | 251   | 0.08606                       |
| Pleurosigma   |          | 0            | 3             | 6                                 | 2000  | 0.01176                       |
| CHLOROPHYCEAE   |          |              | 1             |                                   |   |                               |
| Chlorococcoids (<10um)  |          | 30           | 0             | 1469                              | 60  | 0.08817                       |
| Staurastrum   |          | 0            | 1             | 2                                 | 2000  | 0.00392                       |
| CRYPTOPHYCEAE   | <u> </u> |              |               |                                   |   |                               |
| Cryptomonads  |          | 2            | 0             | 98                                | 320   | 0.03135                       |
| CYANOPHYCEAE  |          |              |               |                                   |   |                               |
| Limnococcus (Chroococcus limneticus)                                |          | 0            | 2             | 4                                 | 450   | 0.00176                       |
| Limnothrix/Geitlerinema/Anagnostidinema                             | Р        | 0            | 23            | 45                                | 17.5  | 0.00079                       |
| Planktolyngbya  |          | 6            | 0             | 294                               | 3.8   | 0.00112                       |
| Synechococcales small (iauv <20)                                    |          | 280          | 0             | 13715                             | 5.25  | 0.07200                       |
| OTHER PHYTOPLANKTON   |          |              | 1             |                                   |   |                               |
| Other small flagellates   |          | 16           | 0             | 784                               | 80  | 0.06270                       |
| TOTAL BGA   |          | 14058        |               |                                   |   | 0.07567                       |
| TOTAL TOXIGENIC BGA   |          | 0            |               |                                   |   | 0.00000                       |
| TOTAL POTENTIALLY TOXIC BGA   |          | 45           |               |                                   |   | 0.00079                       |
| TOTAL ALGAE   |          |              |               | 17348                             |   | 0.77106                       |

ANALYST: Kirsten Mudie (signatory) R
Biologist

REVIEWED: Lauren Minett (signatory)
Biologist

METHOD NO.: MB010/MW024VCA

DATE: 15/04/2021



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**COMMENTS: +** A diverse algal community was present in levels that are unlikely to impair water quality.

| Sedgewick-Rafter Vol.(ml) Concentration Magnification | 1.0208<br>1 : 1 | Toxigenic<br>(T) or<br>Potentially<br>toxic (P) | - 200x | - 100x | Total Cell<br>Count<br>(cells/mL) | Individual<br>Algal Unit<br>Volume<br>(um3) | Total<br>Biovolume<br>(mm3/L) |
|---|-----------------|---|--------|--------|-----------------------------------|---|-------------------------------|
| Fields  |                 | *   | 20     | 500    | (11 11 )                          | (uiiio)                                     | ,,                            |

<sup>+</sup> 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.

ANALYST: Kirsten Mudie (signatory) REVIEWED: Lauren Minett (signatory) DATE: 15/04/2021
Biologist Biologist

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<sup>\*</sup> 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.