

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





28/07/2020

ALGAL REPORT

| CLIENT: | ALS | | | | | |
|---------------------------|-----------------------------|--|--|--|--|--|
| LABORATORY NO./BATCH NO.: | 6643336 20-35580 | | | | | |
| LOCALITY: | EM2012826_010 | | | | | |
| SITE: | Murray Mouth | | | | | |
| SAMPLE: | Surface | | | | | |
| DATE SAMPLED : | 22/07/2020 | | | | | |
| DATE ANALYSED : | 27/07/2020 | | | | | |
| SAMPLED BY: | Sample analysed as received | | | | | |

COMMENTS: + A highly diverse algal community was observed with small BGA dominating the sample. Water quality may be impacted by current algal levels.

| Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields | 1.0208 1 : 1 | Toxigenic (T) or Potentially toxic (P) | - 200x 20 | - 100x 500 | Total Cell Count (cells/mL) |
|---|-----------------|---|--------------|---------------|-----------------------------------|
| BACILLARIOPHYCEAE | | | | | |
| Anaulus | | | 0 | 2 | 4 |
| Chaetoceros | | | 2 | 0 | 98 |
| Pennales | | | 1 | 0 | 49 |
| Tryblionella | | | 0 | 2 | 4 |
| CHLOROPHYCEAE | | | | | |
| Ankistrodesmus | | | 6 | 0 | 294 |
| Chlamydomonads | | | 13 | 0 | 637 |
| Chlorococcoids | | | 12 | 0 | 588 |
| Closterium | | | 0 | 2 | 4 |
| Crucigenia | | | 12 | 0 | 588 |
| Filamentous Green | | | 10 | 0 | 490 |
| Hyaloraphidium | | | 8 | 0 | 392 |
| Lagerheimia | | | 1 | 0 | 49 |
| Nephrocytium | | | 3 | 0 | 147 |
| Oocystis | | | 13 | 0 | 637 |
| Pediastrum | | | 0 | 4 | 8 |
| Selenastrum | | | 3 | 0 | 147 |
| Tetraedron | | | 1 | 0 | 49 |
| CHRYSOPHYCEAE | | | | <u> </u> | |
| Other Chrysophyceae | | | 2 | 0 | 98 |
| CRYPTOPHYCEAE | | | | | |
| Cryptomonads | | | 11 | 0 | 539 |
| CYANOPHYCEAE | | | | | |
| Aphanizomenonaceae family - straight | | Р | 0 | 40 | 78 |
| Leptolyngbya | | | 0 | 183 | 359 |

REVIEWED: Adam Deliyiannis ANALYST: Kirsten Mudie (signatory) DATE:

Biologist Biologist

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| ocagewick realist vol.(iiii) | Toxigenic (T) or Potentially toxic (P) | - 200x 20 | - 100x 500 | Total Cell Count (cells/mL) |
|---|--|--------------|---------------|-----------------------------------|
| Limnolyngbya (Planktolyngbya circumcreta) | | 123 | 0 | 6025 |
| Planktolyngbya | | 170 | 0 | 8327 |
| Pseudanabaena | | 9 | 0 | 441 |
| Synechococcales small (iauv <20) | | 2840 | 0 | 139107 |
| DINOPHYCEAE | <u> </u> | | <u> </u> | |
| Gymnodiniales | | 0 | 1 | 2 |
| Prorocentrum | | 0 | 1 | 2 |
| EUGLENOPHYCEAE | | | | |
| Euglena | | 0 | 4 | 8 |
| OTHER PHYTOPLANKTON | | | | |
| Prasinophytes | | 2 | 0 | 98 |
| TOTAL BGA | | | | 154337 |
| TOTAL TOXIGENIC BGA | | | | 0 |
| TOTAL POTENTIALLY TOXIC BGA | | | | 78 |
| TOTAL ALGAE | | | | 159269 |

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

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: 28/07/2020

Biologist Biologist

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