

## ALGAL REPORT

CLIENT :	ALS
LABORATORY NO./BATCH NO. :	6722405 20-45935
LOCALITY :	EM2017172-003
SITE :	Seagull Island
SAMPLE :	Surface
DATE SAMPLED :	30/09/2020
DATE ANALYSED :	7/10/2020
SAMPLED BY :	Sample analysed as received

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

Sedgewick-Rafter Vol.(ml)	1.0268	Toxicogenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1						
Magnification							
Fields							

### BACILLARIOPHYCEAE

<i>Amphora</i>		0	1	2	500	0.00097
<i>Naviculales</i>		1	0	49	1400	0.06817
<i>Nitzschia</i>		35	0	1704	400	0.68173
<i>Pleurosigma</i>		0	1	2	2000	0.00390

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		172	0	8376	132	1.10557
<i>Chlorococcoids (&lt;10um)</i>		2520	0	122711	60	7.36268

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		4	0	195	320	0.06233
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### CYANOPHYCEAE

<i>Oscillatoriales (iauv 1-100)</i>	P	0	19	37	60.8	0.00225
<i>Planktolyngbya</i>		70	0	3409	3.8	0.01295
<i>Pseudanabaena</i>		12	0	584	12.5	0.00730
<i>Synechococcales small (iauv &lt;20)</i>		30720	0	1495910	5.25	7.85353

### DINOPHYCEAE

<i>Dinoflagellates</i>		1	0	49	20000	0.97390
<i>Gymnodiniales (small)</i>		10	0	487	500	0.24347
<i>Peridinales</i>		5	0	243	5000	1.21737

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		192	0	9349	80	0.74795
<i>Prasinophytes</i>		7	0	341	100	0.03409

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Sedgewick-Rafter Vol.(ml)	1.0268	Toxigenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1	*	20	500			
Magnification							
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TOTAL BGA	1499940	7.87603
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	37	0.00225
TOTAL ALGAE	1643448	20.37818

+ 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  $\beta$ -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: **07/10/2020**

METHOD NO.: MB010/MW024CV

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