

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6754220 20-50457
LOCALITY :	EM2018692-019
SITE :	Mc Grath Flat North
SAMPLE :	Surface
DATE SAMPLED :	21/10/2020
DATE ANALYSED :	28/10/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse and abundant algal community was observed. Current excessive levels of small BGA and chlorococcoids are likely to impair water quality.

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

BACILLARIOPHYCEAE

<i>Cocconeis</i>		1	0	49	450	0.02204
<i>Nitzschia</i>		1	0	49	400	0.01959
<i>Pennales (small <20um)</i>		1	0	49	251	0.01229

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		460	0	22531	132	2.97414
<i>Chlamydomonads</i>		3	0	147	250	0.03674
<i>Chlorococcoids (<10um)</i>		29440	0	1442006	60	86.52038
<i>Selenastrum</i>		20	0	980	250	0.24491

CRYPTOPHYCEAE

<i>Cryptomonads</i>		16	0	784	320	0.25078
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CYANOPHYCEAE

<i>Planktolyngbya</i>		17	0	833	3.8	0.00316
<i>Synechococcales small (iauv <20)</i>		79360	0	3887147	5.25	20.40752

DINOPHYCEAE

<i>Gymnodiniales</i>		0	11	22	2000	0.04310
<i>Gymnodiniales (small)</i>		19	0	931	500	0.46532
<i>Peridinales</i>		0	9	18	5000	0.08817

EUGLENOPHYCEAE

<i>Eutreptia</i>		1	0	49	1000	0.04898
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OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		1	0	49	80	0.00392
<i>Prasinophytes</i>		4	0	196	100	0.01959

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TOTAL BGA	3887980	20.41069
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	5355840	111.16064

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **28/10/2020**