

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7116652 21-39298
LOCALITY :	EM2115770-008
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	9/08/2021
DATE ANALYSED :	16/08/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. High levels of the BGA Synechococcales are likely to impact water quality.

Sedgewick-Rafter Vol.(ml)	1.04071	Toxicogenic (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>Amphora</i>	1	0	48	500	0.02402
<i>Centrales</i>	0	1	2	200	0.00038
<i>Naviculales</i>	0	1	2	1400	0.00269
<i>Nitzschia</i>	4	0	192	400	0.07687
<i>Pennales (small <20um)</i>	3	0	144	251	0.03618

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>	74	0	3555	132	0.46930
<i>Chlamydomonads</i>	2	0	96	250	0.02402
<i>Chlorococcoids (<10um)</i>	30	0	1441	60	0.08648

CYANOPHYCEAE

<i>Synechococcales small (iauv <20)</i>	19840	0	953195	5.25	5.00428
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DINOPHYCEAE

<i>Gymnodiniales</i>	1	0	48	2000	0.09609
<i>Gymnodiniales (small)</i>	1	0	48	500	0.02402

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>	22	0	1057	80	0.08456
<i>Prasinophytes</i>	2	0	96	100	0.00961
<i>Raphidophytes</i>	1	0	48	7000	0.33631

TOTAL BGA	953195	5.00428
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	959972	6.27480

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+ 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 Deliyannis**
Biologist

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

DATE: **16/08/2021**

METHOD NO.: MB010/MW024VCA

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