

ALGAL REPORT

CLIENT :	ALS
LABORATORY NO./BATCH NO. :	6681722 20-40763
LOCALITY :	EM2014780_018
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	26/08/2020
DATE ANALYSED :	28/08/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with small BGA and greens most numerous. Water quality may be impaired.

Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0235 1 : 1	Toxicogenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
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BACILLARIOPHYCEAE

<i>Chaetoceros</i>		1	0	49	200	0.00977
<i>Grammatophora</i>		0	4	8	2000	0.01563
<i>Naviculales</i>		1	0	49	1400	0.06839
<i>Pennales (small <20um)</i>		2	0	98	251	0.02452
<i>Pleurosigma</i>		0	3	6	2000	0.01172

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		140	0	6839	132	0.90278
<i>Chlamydomonads</i>		12	0	586	250	0.14656
<i>Chlorococcoids (<10um)</i>		2760	0	134831	60	8.08989

CRYPTOPHYCEAE

<i>Cryptomonads</i>		48	0	2345	320	0.75037
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CYANOPHYCEAE

<i>Planktolyngbya</i>		37	0	1808	3.8	0.00687
<i>Pseudanabaena</i>		0	4	8	12.5	0.00010
<i>Synechococcales small (iauv <20)</i>		5140	0	251099	5.25	1.31827

DINOPHYCEAE

<i>Dinoflagellates</i>		0	6	12	20000	0.23449
<i>Gymnodiniales</i>		0	7	14	2000	0.02736
<i>Gymnodiniales (small)</i>		4	0	195	500	0.09770
<i>Peridinales</i>		0	2	4	5000	0.01954

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		90	0	4397	80	0.35173
<i>Prasinophytes</i>		22	0	1075	100	0.10747

ANALYST: **Kirsten Mudie (signatory)**
Biologist

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **31/08/2020**

METHOD NO.: MB010/MW024CV

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Sedgewick-Rafter Vol.(ml)	1.0235	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							

TOTAL BGA	252915	1.32524
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	403423	12.18318

+ 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.

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