

ALGAL REPORT

CLIENT :	ALS
LABORATORY NO./BATCH NO. :	6657135 20-37229
LOCALITY :	EM2013637_017
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	5/08/2020
DATE ANALYSED :	11/08/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with small BGA and greens present in excessive levels. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml)	1.0199	Toxigenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
Concentration	1 : 1	*	- 200x	- 100x			
Magnification			20	500			
Fields							

BACILLARIOPHYCEAE

<i>Centrales</i>		1	0	49	200	0.00980
<i>Navicula</i>		1	0	49	1400	0.06863
<i>Pennales</i>		2	0	98	300	0.02941
<i>Pleurosigma</i>		0	7	14	2000	0.02745

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		242	0	11864	132	1.56604
<i>Chlamydomonads</i>		1	0	49	250	0.01226
<i>Chlorococcoids (<10um)</i>		2420	0	118639	60	7.11834
<i>Selenastrum</i>		1	0	49	250	0.01226

CRYPTOPHYCEAE

<i>Cryptomonads</i>		13	0	637	320	0.20394
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CYANOPHYCEAE

<i>Planktolyngbya</i>		126	0	6177	3.8	0.02347
<i>Synechococcales small (iauv <20)</i>		8020	0	393176	5.25	2.06417

DINOPHYCEAE

<i>Gymnodiniales</i>		13	0	637	2000	1.27463
<i>Gymnodiniales (small)</i>		5	0	245	500	0.12256
<i>Peridinales</i>		3	0	147	5000	0.73537

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		450	0	22061	80	1.76488
<i>Prasinophytes</i>		32	0	1569	100	0.15688

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TOTAL BGA	399353	2.08765
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	555460	15.19011

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **11/08/2020**

METHOD NO.: MB010/MW024CV

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