

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7136730 21-41798
LOCALITY :	EM2116912-008
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	25/08/2021
DATE ANALYSED :	27/08/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS: +** A diverse community of algal taxa was observed. Excessive levels of low biovolume BGA Synechococcales are likely to impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0407	Toxigenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1	*	- 200x	- 100x			
Magnification			20	500			
Fields							

### BACILLARIOPHYCEAE

<i>Nitzschia</i>		7	0	336	400	0.13452
<i>Pennales</i>		1	0	48	300	0.01441
<i>Pennales (small &lt;20um)</i>		3	0	144	251	0.03618

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		156	0	7495	132	0.98933
<i>Chlamydomonads</i>		0	3	6	250	0.00144
<i>Chlorococcoids (&lt;10um)</i>		31	0	1489	60	0.08936

### CHRYSTOPHYCEAE

<i>Other Chrysophytes</i>		2	0	96	200	0.01922
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### CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	48	320	0.01537
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### CYANOPHYCEAE

<i>Synechococcales small (iauv &lt;20)</i>		12580	0	604401	5.25	3.17310
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### DINOPHYCEAE

<i>Gymnodiniales (small)</i>		2	0	96	500	0.04804
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### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		120	0	5765	80	0.46123
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TOTAL BGA	604401	3.17310
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	619924	4.98222

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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  $\beta$ -N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.