

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7281147 21-59669
LOCALITY :	EM2125413-006
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	13/12/2021
DATE ANALYSED :	21/12/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + Excessive levels of small BGA will impair water quality and may pose a health risk.

Sedgewick-Rafter Vol.(ml)	1.0046	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

### BACILLARIOPHYCEAE

Naviculales	4	0	199	1400	0.27872
Nitzschia	10	0	498	400	0.19908
Pennales	1	0	50	300	0.01493
Pennales (small <20um)	70	0	3484	251	0.87448

### CHLOROPHYCEAE

Ankistrodesmoideae	1840	0	91579	132	12.08839
Chlorococcoids (<10um)	2160	0	107505	60	6.45033

### CRYPTOPHYCEAE

Cryptomonads	13	0	647	320	0.20705
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### CYANOPHYCEAE

Synechococcales small (iauv <20)	42000	0	2090384	5.25	10.97452
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### DINOPHYCEAE

Gymnodiniales	22	0	1095	2000	2.18993
Gymnodiniales (small)	34	0	1692	500	0.84611

### OTHER PHYTOPLANKTON

Other algae	0	12	24	60	0.00143
Other small flagellates	20	0	995	80	0.07963

TOTAL BGA	2090384	10.97452
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	2298152	34.20460

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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.

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

REVIEWED: **Adam Deliyiannis (signatory)**  
Biologist

DATE: **22/12/2021**

METHOD NO.: MB010/MW024VCA

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