

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6796576 20-56146
LOCALITY :	EM2021368_001
SITE :	Stony Well
SAMPLE :	Surface
DATE SAMPLED :	1/12/2020
DATE ANALYSED :	3/12/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. Excessive levels of small synechococcales dominated the sample. Current levels will impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0311	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

BACILLARIOPHYCEAE

<i>Amphora</i>		1	0	48	500	0.02425
<i>Nitzschia</i>		22	0	1067	400	0.42673
<i>Pennales (small <20um)</i>		3	0	145	251	0.03651
<i>Pleurosigma</i>		0	2	4	2000	0.00776

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		1800	0	87285	132	11.52168
<i>Chlorococcoids (<10um)</i>		2400	0	116381	60	6.98283

CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	48	320	0.01552
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CYANOPHYCEAE

<i>Synechococcales small (iauv <20)</i>		32960	0	1598293	5.25	8.39104
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DINOPHYCEAE

<i>Gymnodiniales</i>		1	0	48	2000	0.09698
<i>Gymnodiniales (small)</i>		2	0	97	500	0.04849
<i>Peridinales</i>		2	0	97	5000	0.48492

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		7	0	339	80	0.02716
<i>Prasinophytes</i>		2	0	97	100	0.00970

TOTAL BGA	1598293	8.39104
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	1803949	28.07356

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Sedgewick-Rafter Vol.(ml)	1.0311	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							

+ 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.