

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6796584 20-56146
LOCALITY :	EM2021368_009
SITE :	Tilley Swamp Drain
SAMPLE :	Surface
DATE SAMPLED :	30/11/2020
DATE ANALYSED :	3/12/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with current levels unlikely to influence water quality.

Sedgewick-Rafter Vol.(ml)	1.036	Toxicogenic (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							

BACILLARIOPHYCEAE

<i>Amphora</i>		0	1	2	500	0.00097
<i>Centrales</i>		6	0	290	200	0.05792
<i>Cocconeis</i>		1	0	48	450	0.02172
<i>Fragilariaceae</i>		6	0	290	500	0.14479
<i>Naviculales</i>		0	1	2	1400	0.00270
<i>Pennales</i>		3	0	145	300	0.04344
<i>Pennales (small <20um)</i>		1	0	48	251	0.01211

CHLOROPHYCEAE

<i>Ankistrodesmus</i>		5	0	241	132	0.03185
<i>Chlamydomonads</i>		2	0	97	250	0.02413
<i>Chlorococcoids (<10um)</i>		31	0	1496	60	0.08977
<i>Colonial green (cells)</i>		0	24	46	100	0.00463
<i>Lagerheimia</i>		9	0	434	500	0.21718
<i>Oocystis</i>		1	0	48	300	0.01448
<i>Scenedesmus</i>		2	0	97	250	0.02413
<i>Selenastrum</i>		17	0	820	250	0.20512

CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	48	320	0.01544
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CYANOPHYCEAE

<i>Synechococcales small (iauv <20)</i>		240	0	11583	5.25	0.06081
<i>Synechococcales large (iauv 20-86)</i>		0	2	4	54	0.00021

DINOPHYCEAE

<i>Gymnodiniales</i>		1	0	48	2000	0.09653
<i>Gymnodiniales (small)</i>		1	0	48	500	0.02413
<i>Peridinales</i>		0	1	2	5000	0.00965

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **04/12/2020**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml)	1.036	Toxigenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Concentration	1 : 1	*	- 200x	- 100x			
Magnification			20	500			
Fields							

OTHER PHYTOPLANKTON

Other small flagellates		2	0	97	80	0.00772
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TOTAL BGA	11587	0.06102
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	15934	1.10943

+ 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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