

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6781616 20-54272
LOCALITY :	EM2020558_007
SITE :	Bonneys
SAMPLE :	Surface
DATE SAMPLED :	18/11/2020
DATE ANALYSED :	23/11/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. High levels of small Synechococcales were present. Current levels may impair water quality.

Sedgewick-Rafter Vol.(ml)	1.024	Toxicogenic (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							

BACILLARIOPHYCEAE

<i>Chaetoceros</i>		32	0	1563	200	0.31250
<i>Naviculales</i>		1	0	49	1400	0.06836
<i>Nitzschia</i>		2	0	98	400	0.03906
<i>Pennales</i>		1	0	49	300	0.01465
<i>Pennales (small <20um)</i>		13	0	635	251	0.15933

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		12	0	586	132	0.07734
<i>Chlamydomonads</i>		1	0	49	250	0.01221
<i>Chlorococcoids (<10um)</i>		77	0	3760	60	0.22559

CHRYSTOPHYCEAE

<i>Other Chrysophyceae</i>		6	0	293	350	0.10254
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CYANOPHYCEAE

<i>Planktolyngbya</i>		31	0	1514	3.8	0.00575
<i>Synechococcales small (iauv <20)</i>		2280	0	111328	5.25	0.58447

DINOPHYCEAE

<i>Gymnodiniales (small)</i>		3	0	146	500	0.07324
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OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		16	0	781	80	0.06250
<i>Prasinophytes</i>		2	0	98	100	0.00977

TOTAL BGA	112842	0.59022
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	120949	1.74730

ANALYST: *Adam Deliyiannis*
Biologist

REVIEWED: *Kirsten Mudie (signatory)*
Biologist

DATE: **24/11/2020**

METHOD NO.: MB010/MW024VCA

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