

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7684062 22-64963
LOCALITY :	EM2216764-009
SITE :	Morella Creek @Gauge
SAMPLE :	Surface
DATE SAMPLED :	31/08/2022
DATE ANALYSED :	7/09/2022
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A highly diverse algal community was observed, but current combined levels are insufficient to influence water quality.

Sedgewick-Rafter Vol.(ml)	1.0195	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							

### BACILLARIOPHYCEAE

<i>Amphora</i>		1	0	49	500	0.02452
<i>Chaetoceros</i>		2	0	98	200	0.01962
<i>Cocconeis</i>		0	3	6	450	0.00265
<i>Cylindrotheca</i>		0	1	2	500	0.00098
<i>Entomoneis</i>		0	6	12	1000	0.01177
<i>Fragilariaceae</i>		0	15	29	500	0.01471
<i>Naviculales</i>		0	3	6	1400	0.00824
<i>Nitzschia</i>		0	1	2	400	0.00078
<i>Pennales</i>		6	0	294	300	0.08828
<i>Pennales (small &lt;20um)</i>		2	0	98	251	0.02462

### CHLOROPHYCEAE

<i>Chlamydomonads</i>		3	0	147	250	0.03678
<i>Chlorococcoids (&lt;10um)</i>		29	0	1422	60	0.08534
<i>Chlorolobion</i>		2	0	98	70	0.00687
<i>Filamentous Green</i>		0	2	4	386	0.00151
<i>Monoraphidium (small)</i>		56	0	2746	16	0.04394
<i>Oocystis (small)</i>		7	0	343	100	0.03433

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		2	0	98	320	0.03139
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### CYANOPHYCEAE

<i>Chroococcus (small cells)</i>		4	0	196	12	0.00235
<i>Planktolyngbya</i>		119	0	5836	3.8	0.02218
<i>Pseudanabaena</i>		5	0	245	12.5	0.00307
<i>Synechococcales small (iauv &lt;20)</i>		142	0	6964	5.25	0.03656

### DINOPHYCEAE

ANALYST: **Karen Simonsen (signatory)**  
Biologist

REVIEWED: **Lauren Minett (signatory)**  
Biologist

DATE: **09/09/2022**

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0195 1 : 1	Toxigenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Dinoflagellates			1	0	49	20000	0.98087
Gymnodiniales			2	0	98	2000	0.19617
Gymnodiniales (small)			1	0	49	500	0.02452
Peridinales			10	0	490	5000	2.45218
<b>OTHER PHYTOPLANKTON</b>							
Other small flagellates			1	0	49	80	0.00392
Prasinophytes			5	0	245	100	0.02452
<b>TOTAL BGA</b>					<b>13241</b>		<b>0.06416</b>
<b>TOTAL TOXIGENIC BGA</b>					<b>0</b>		<b>0.00000</b>
<b>TOTAL POTENTIALLY TOXIC BGA</b>					<b>0</b>		<b>0.00000</b>
<b>TOTAL ALGAE</b>					<b>19675</b>		<b>4.18269</b>

+ 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.