

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7086218 21-35420
LOCALITY :	EM2113768-011
SITE :	US Tauwicheere
SAMPLE :	Surface
DATE SAMPLED :	14/07/2021
DATE ANALYSED :	19/07/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A highly diverse algal community was observed with excessive levels of BGA noted. Water quality will be impaired.

Sedgewick-Rafter Vol.(ml)	1.027	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>Anaulus</i>		0	3	6	500	0.00292
<i>Centrales</i>		11	0	536	200	0.10711
<i>Pennales</i>		1	0	49	300	0.01461
<i>Pennales (small <20um)</i>		1	0	49	251	0.01222

CHLOROPHYCEAE

<i>Botryococcus</i>		0	300	584	98	0.05725
<i>Chlamydomonads</i>		1	0	49	250	0.01217
<i>Chlorococcoids (<10um)</i>		68	0	3311	60	0.19864
<i>Closterium</i>		0	6	12	4130	0.04826
<i>Colonial green (cells)</i>		156	0	7595	100	0.75949
<i>Crucigenia</i>		180	0	8763	30	0.26290
<i>Dictyosphaerium</i>		8	0	389	20	0.00779
<i>Didymocystis</i>		2	0	97	41	0.00399
<i>Dimorphococcus</i>		14	0	682	20	0.01363
<i>Eremosphaera</i>		0	13	25	700	0.01772
<i>Lagerheimia</i>		8	0	389	500	0.19474
<i>Monoraphidium</i>		225	0	10954	900	9.85881
<i>Nephrocystium</i>		2	0	97	200	0.01947
<i>Oocystis</i>		185	0	9007	300	2.70204
<i>Pediastrum</i>		4	0	195	60	0.01168
<i>Planctonema</i>		325	0	15823	800	12.65823
<i>Scenedesmus</i>		70	0	3408	250	0.85200
<i>Schroederia</i>		1	0	49	550	0.02678
<i>Staurostrum</i>		0	1	2	2000	0.00389
<i>Staurodesmus</i>		0	1	2	1500	0.00292

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **19/07/2021**

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.027 1 : 1	Toxicogenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
<i>Tetraedron</i>			1	0	49	150	0.00730
<i>Tetrastrum</i>			4	0	195	40	0.00779
CRYPTOPHYCEAE							
<i>Cryptomonads</i>			1	0	49	320	0.01558
CYANOPHYCEAE							
<i>Aphanizomenonaceae family - straight</i>	P		37	0	1801	67	0.12069
<i>Limnolyngbya</i>			5880	0	286271	4.9	1.40273
<i>Planktolyngbya</i>			3380	0	164557	3.8	0.62532
<i>Synechococcales small (iauv <20)</i>			26560	0	1293087	5.25	6.78870
TOTAL BGA					1745716		8.93744
TOTAL TOXIGENIC BGA					0		0.00000
TOTAL POTENTIALLY TOXIC BGA					1801		0.12069
TOTAL ALGAE					1808082		36.81739

+ 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.

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **19/07/2021**

METHOD NO.: MB010/MW024VCA

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