

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6933875 21-15798
LOCALITY :	EM2104707_012
SITE :	US Tauwichee
SAMPLE :	Surface
DATE SAMPLED :	18/03/2021
DATE ANALYSED :	22/03/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A highly diverse algal community was observed with excessive levels of low biovolume BGA noted. Water quality will be impaired and health concerns may be warranted.

Sedgewick-Rafter Vol.(ml)	1.0255	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

Centrales		64	0	3120	200	0.62409
Nitzschia		2	0	98	400	0.03901
Pennales		8	0	390	300	0.11702

CHLOROPHYCEAE

Ankistrodesmus		36	0	1755	132	0.23169
Botryococcus		0	180	351	98	0.03440
Chlorococcoids (<10um)		10	0	488	60	0.02925
Colonial green (cells)		68	0	3315	100	0.33155
Crucigenia		128	0	6241	30	0.18723
Dictyosphaerium		22	0	1073	20	0.02145
Didymocystis		2	0	98	41	0.00400
Elakatothrix		1	0	49	45	0.00219
Eremosphaera		4	0	195	700	0.13652
Golenkinia		12	0	585	400	0.23403
Hyaloraphidium		16	0	780	750	0.58508
Lagerheimia		24	0	1170	500	0.58508
Oocystis		224	0	10922	300	3.27645
Pediastrum		12	0	585	60	0.03510
Planctonema		768	0	37445	800	29.95612
Scenedesmus		32	0	1560	250	0.39005
Schroederia		1	0	49	550	0.02682
Selenastrum		40	0	1950	250	0.48757
Tetraedron		2	0	98	150	0.01463
Tetrastrum		128	0	6241	40	0.24963

CYANOPHYCEAE

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **23/03/2021**

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0255 1 : 1	Toxigenic (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>Aphanizomenonaceae family - straight</i>		P	75	0	3657	67	0.24500
<i>Cuspidothrix issatschenkoi</i>			524	0	25549	57	1.45627
<i>Limnolyngbya (Planktolyngbya circumcreta)</i>			1990	0	97026	4.9	0.47543
<i>Planktolyngbya</i>			5660	0	275963	3.8	1.04866
<i>Raphidiopsis raciborskii</i>		T	67	0	3267	42	0.13720
<i>Synechococcales small (iauv <20)</i>			27440	0	1337884	5.25	7.02389
EUGLENOPHYCEAE							
<i>Euglena</i>			1	0	49	7000	0.34130
OTHER PHYTOPLANKTON							
<i>Other small flagellates</i>			4	0	195	80	0.01560
TOTAL BGA					1743346	10.38645	
TOTAL TOXIGENIC BGA					3267	0.13720	
TOTAL POTENTIALLY TOXIC BGA					3657	0.24500	
TOTAL ALGAE					1822148	48.34230	

+ 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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METHOD NO.: MB010/MW024VCA

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