

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7684055 22-64963
LOCALITY :	EM2216764-002
SITE :	DS Tauwichee
SAMPLE :	Surface
DATE SAMPLED :	30/08/2022
DATE ANALYSED :	7/09/2022
SAMPLED BY :	Sample analysed as received

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

Sedgewick-Rafter Vol.(ml)	1.0204	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>Aulacoseira</i>		222	0	10878	2860	31.11133
<i>Centrales - (5-10um)</i>		3	0	147	80	0.01176
<i>Naviculales</i>		1	0	49	1400	0.06860
<i>Nitzschia</i>		2	0	98	400	0.03920
<i>Pennales (small &lt;20um)</i>		35	0	1715	251	0.43047

### CHLOROPHYCEAE

<i>Actinastrum</i>		2	0	98	60	0.00588
<i>Botryococcus</i>		0	30	59	98	0.00576
<i>Chlamydomonads</i>		10	0	490	250	0.12250
<i>Chlorococcoids (&lt;10um)</i>		29	0	1421	60	0.08526
<i>Closterium</i>		1	0	49	4130	0.20237
<i>Crucigenia</i>		92	0	4508	30	0.13524
<i>Didymocystis</i>		4	0	196	41	0.00804
<i>Filamentous Green</i>		2	0	98	386	0.03783
<i>Monoraphidium (small)</i>		35	0	1715	16	0.02744
<i>Monoraphidium (large)</i>		0	2	4	400	0.00157
<i>Oocystis (small)</i>		23	0	1127	100	0.11270
<i>Planctonema</i>		69	0	3381	800	2.70482
<i>Scenedesmus</i>		14	0	686	250	0.17150
<i>Tetrastrum</i>		8	0	392	40	0.01568

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		19	0	931	320	0.29792
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### CYANOPHYCEAE

<i>Leptolyngbya</i>		21	0	1029	2.36	0.00243
<i>Limnolyngbya</i>		156	0	7644	4.9	0.03746

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

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

DATE: **08/09/2022**

METHOD NO.: MB010/MW024VCA

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<i>Limnithrix/Geitlerinema/Anagnostidinema</i>		P	6	0	294	17.5	0.00515
<i>Planktolyngbya</i>			91	0	4459	3.8	0.01694
<i>Synechococcales small (iauv &lt;20)</i>			63	0	3087	5.25	0.01621
<b>EUGLENOPHYCEAE</b>							
<i>Trachelomonas</i>			2	0	98	3000	0.29400
<b>TOTAL BGA</b>					<b>16513</b>		<b>0.07818</b>
<b>TOTAL TOXIGENIC BGA</b>					<b>0</b>		<b>0.00000</b>
<b>TOTAL POTENTIALLY TOXIC BGA</b>					<b>294</b>		<b>0.00515</b>
<b>TOTAL ALGAE</b>					<b>44653</b>		<b>35.96806</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  $\beta$ -N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.