

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7116654 21-39298
LOCALITY :	EM2115770-010
SITE :	Villa de Yumpa
SAMPLE :	Surface
DATE SAMPLED :	9/08/2021
DATE ANALYSED :	13/08/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. High levels of the BGA Synechococcales are likely to impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0242	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>Nitzschia</i>		6	0	293	400	0.11716
<i>Pennales</i>		7	0	342	300	0.10252
<i>Pennales (small <20um)</i>		5	0	244	251	0.06127
<i>Pleurosigma</i>		0	4	8	2000	0.01562

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		268	0	13083	132	1.72701
<i>Chlorococcoids (<10um)</i>		63	0	3076	60	0.18453

CYANOPHYCEAE

<i>Synechococcales small (iauv <20)</i>		19200	0	937317	5.25	4.92091
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DINOPHYCEAE

<i>Dinoflagellates</i>		0	4	8	20000	0.15622
<i>Gymnodiniales</i>		0	1	2	2000	0.00391
<i>Gymnodiniales (small)</i>		3	0	146	500	0.07323

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		53	0	2587	80	0.20699
<i>Prasinophytes</i>		2	0	98	100	0.00976
<i>Raphidophytes</i>		0	2	4	7000	0.02734

TOTAL BGA	937317	4.92091
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	957208	7.60647

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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.