

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6873991 21-07778
LOCALITY :	EM2101680-009
SITE :	Parnka Point
SAMPLE :	Surface
DATE SAMPLED :	3/02/2021
DATE ANALYSED :	8/02/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse community of algal taxa was observed with low biovolume BGA Synechococcales most numerous. Current levels may pose a health risk.

Sedgewick-Rafter Vol.(ml)	1.024	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>Amphora</i>		0	1	2	500	0.00098
<i>Centrales</i>		1	0	49	200	0.00977
<i>Naviculales</i>		1	0	49	1400	0.06836
<i>Nitzschia</i>		81	0	3955	400	1.58203
<i>Pennales</i>		1	0	49	300	0.01465
<i>Pennales (small &lt;20um)</i>		3	0	146	251	0.03677
<i>Pleurosigma</i>		0	1	2	2000	0.00391

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		205	0	10010	132	1.32129
<i>Ankyra</i>		0	1	2	40	0.00008
<i>Chlamydomonads</i>		3	0	146	250	0.03662
<i>Chlorococcoids (&lt;10um)</i>		815	0	39795	60	2.38770

### CHRYSOPHYCEAE

<i>Other Chrysophyceae</i>		1	0	49	350	0.01709
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### CRYPTOPHYCEAE

<i>Cryptomonads</i>		3	0	146	320	0.04688
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### CYANOPHYCEAE

<i>Synechococcales small (iauv &lt;20)</i>		27520	0	1343750	5.25	7.05469
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### DINOPHYCEAE

<i>Gymnodiniales</i>		2	0	98	2000	0.19531
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### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		16	0	781	80	0.06250
<i>Prasinophytes</i>		2	0	98	100	0.00977

ANALYST: *Adam Deliyiannis*  
Biologist

REVIEWED: *Kirsten Mudie (signatory)*  
Biologist

DATE: **09/02/2021**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml)	1.024	Toxigenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

TOTAL BGA	1343750	7.05469
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	1399127	12.84837

+ 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.