

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6873988 21-07778
LOCALITY :	EM2101680_006
SITE :	Noonameena
SAMPLE :	Surface
DATE SAMPLED :	3/02/2021
DATE ANALYSED :	8/02/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS: +** A moderately diverse algal community was observed with diatoms most numerous. Excessive levels of bacteria were observed that are likely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0722	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>		12	0	560	500	0.27980
<i>Centrales - (5-10um)</i>		12	0	560	80	0.04477
<i>Cocconeis</i>		1	0	47	450	0.02098
<i>Entomoneis</i>		5	0	233	1000	0.23317
<i>Gyrosigma</i>		3	0	140	1400	0.19586
<i>Naviculales</i>		26	0	1212	1400	1.69744
<i>Nitzschia</i>		24	0	1119	400	0.44768
<i>Pennales (small &lt;20um)</i>		92	0	4290	251	1.07685

### CHLOROPHYCEAE

<i>Chlorococcoids (&lt;10um)</i>		38	0	1772	60	0.10632
<i>Filamentous Green</i>		0	10	19	386	0.00720

### CHRYSOPHYCEAE

<i>Other Chrysophyceae</i>		1	0	47	350	0.01632
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### CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	47	320	0.01492
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### CYANOPHYCEAE

<i>Limnithrix/Geitlerinema/Anagnostidinema</i>	P	0	1125	2098	17.5	0.03672
<i>Planktolyngbya</i>		20	0	933	3.8	0.00354
<i>Pseudanabaena</i>		0	170	317	12.5	0.00396

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		26	0	1212	80	0.09700
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**COMMENTS: +** A moderately diverse algal community was observed with diatoms most numerous. Excessive levels of bacteria were observed that are likely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0722	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	3348	0.04423
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	2098	0.03672
TOTAL ALGAE	14606	4.28255

+ 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.

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

REVIEWED: **Adam Deliyiannis**  
Biologist

DATE: **09/02/2021**

METHOD NO.: MB010/MW024VCA

Page 2 of 2