

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7086210 21-35420
LOCALITY :	EM2113768-003
SITE :	South Policeman Point
SAMPLE :	Surface
DATE SAMPLED :	13/07/2021
DATE ANALYSED :	19/07/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse community of algal taxa was observed. Excessive levels of low biovolume BGA Synechococcales are likely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0327	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	0.00097
<i>Nitzschia</i>	4	0	194	400	0.07747
<i>Pennales</i>	3	0	145	300	0.04358
<i>Pennales (small &lt;20um)</i>	2	0	97	251	0.02431

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>	97	0	4696	132	0.61993
<i>Chlorococcoids (&lt;10um)</i>	47	0	2276	60	0.13654

### CYANOPHYCEAE

<i>Planktolyngbya</i>	10	0	484	3.8	0.00184
<i>Synechococcales small (iauv &lt;20)</i>	22880	0	1107776	5.25	5.81582

### DINOPHYCEAE

<i>Dinoflagellates</i>	1	0	48	20000	0.96834
<i>Gymnodiniales (small)</i>	4	0	194	500	0.09683
<i>Peridinales</i>	1	0	48	5000	0.24208

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>	25	0	1210	80	0.09683
<i>Prasinophytes</i>	5	0	242	100	0.02421
<i>Raphidophytes</i>	7	0	339	7000	2.37242

TOTAL BGA	1108260	5.81766
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	1117751	10.52116

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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  $\beta$ -N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.