

22 Dalmore Drive Scoresby 3179 Tel. 03 8756 8183 Fax. 03 9763 1862





ALGAL REPORT

CLIENT:	Australian Laboratory Services Pty Ltd SA			
LABORATORY NO./BATCH NO.:	6750293 20-50047			
LOCALITY:	EM2018692_002			
SITE:	North Jacks Point			
SAMPLE:	Surface			
DATE SAMPLED :	21/10/2020			
DATE ANALYSED :	26/10/2020			
SAMPLED BY:	Sample analysed as received			

COMMENTS: + Excessive levels of small BGA and greens dominated the sample. Water quality will be impaired.

Naviculales	Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0018 Toxigenic (T) or Potentially toxic (P)	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Naviculales	BACILLARIOPHYCEAE						
Naviculales 1 0 50 1400 0.0698 Nitzschia 10 0 499 400 0.1998 Pennales (small <20um)	Amphora		1	0	50	500	0.02496
Nitzschia 10	Centrales		2	0	100	200	0.01996
Pennales (small < 20um) 1 0 50 251 0.0128 Pleurosigma 0 1 2 2000 0.0038 CHLOROPHYCEAE Ankistrodesmoideae 720 0 35935 132 4.7434 Chlamydomonads 4 0 200 250 0.0498 Chlorococcoids (<10um) 6840 0 341386 60 20.483 CRYPTOPHYCEAE Cryptomonads 5 0 250 320 0.0798 CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0006 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20) 30720 0 1533240 5.25 8.0498 DINOPHYCEAE Dinoflagellates	Naviculales		1	0	50	1400	0.06987
Pleurosigma	Nitzschia		10	0	499	400	0.19964
CHLOROPHYCEAE CHLOROPHYCEAE Ankistrodesmoideae 720 0 35935 132 4.7434 Chlamydomonads 4 0 200 250 0.0498 Chlorococcoids (<10um)	Pennales (small <20um)		1	0	50	251	0.01253
Ankistrodesmoideae 720 0 35935 132 4.7434 Chlamydomonads 4 0 200 250 0.0498 Chlorococcoids (<10um)	Pleurosigma		0	1	2	2000	0.00399
Chlamydomonads 4 0 200 250 0.0498 Chlorococcoids (<10um) 6840 0 341386 60 20.483 CRYPTOPHYCEAE Cryptomonads 5 0 250 320 0.0798 CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0008 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20) 30720 0 1533240 5.25 8.0498 DINOPHYCEAE Dinoflagellates 1 0 50 20000 0.9982 Gymnodiniales 3 0 150 2000 0.2994 Gymnodiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	CHLOROPHYCEAE	1	1	1	1		
Chlorococcoids (<10um) 6840 0 341386 60 20.483 CRYPTOPHYCEAE Cryptomonads 5 0 250 320 0.0798 CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0006 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Ankistrodesmoideae		720	0	35935	132	4.74346
CRYPTOPHYCEAE 5 0 250 320 0.0798 CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0006 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Chlamydomonads		4	0	200	250	0.04991
Cryptomonads 5 0 250 320 0.0798 CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0006 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Chlorococcoids (<10um)		6840	0	341386	60	20.48313
CYANOPHYCEAE Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.0037 Pseudanabaena 0 33 66 12.5 0.0008 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	CRYPTOPHYCEAE						
Limnothrix/Geitlerinema/Anagnostidinema P 0 48 96 17.5 0.0016 Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0008 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Cryptomonads		5	0	250	320	0.07986
Planktolyngbya 20 0 998 3.8 0.003 Pseudanabaena 0 33 66 12.5 0.0008 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	CYANOPHYCEAE						
Pseudanabaena 0 33 66 12.5 0.0008 Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Limnothrix/Geitlerinema/Anagnostidinema	Р	0	48	96	17.5	0.00168
Spirulina 0 163 325 5.73 0.0018 Synechococcales small (iauv <20)	Planktolyngbya		20	0	998	3.8	0.00379
Synechococcales small (iauv <20) 30720 0 1533240 5.25 8.0499 DINOPHYCEAE Dinoflagellates 1 0 50 20000 0.9982 Gymnodiniales 3 0 150 2000 0.2994 Gymnodiniales (small) 27 0 1348 500 0.6732 Peridiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	Pseudanabaena		0	33	66	12.5	0.00082
DINOPHYCEAE Dinoflagellates 1 0 50 20000 0.9982 Gymnodiniales 3 0 150 2000 0.2994 Gymnodiniales (small) 27 0 1348 500 0.6737 Peridiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	Spirulina		0	163	325	5.73	0.00186
Dinoflagellates 1 0 50 20000 0.9982 Gymnodiniales 3 0 150 2000 0.2994 Gymnodiniales (small) 27 0 1348 500 0.6737 Peridiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	Synechococcales small (iauv <20)		30720	0	1533240	5.25	8.04951
Gymnodiniales 3 0 150 2000 0.2994 Gymnodiniales (small) 27 0 1348 500 0.673 Peridiniales 1 0 50 5000 0.2499 OTHER PHYTOPLANKTON	DINOPHYCEAE						
Gymnodiniales (small) 27 0 1348 500 0.6737 Peridiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	Dinoflagellates		1	0	50	20000	0.99820
Peridiniales 1 0 50 5000 0.2498 OTHER PHYTOPLANKTON	Gymnodiniales		3	0	150	2000	0.29946
OTHER PHYTOPLANKTON	Gymnodiniales (small)		27	0	1348	500	0.67379
	Peridiniales		1	0	50	5000	0.24955
Other small flagellates 1860 0 92833 80 7.4266	OTHER PHYTOPLANKTON	OTHER PHYTOPLANKTON					
	Other small flagellates		1860	0	92833	80	7.42663

ANALYST: Kirsten Mudie (signatory)
Biologist

METHOD NO.: MB010/MW024CV

REVIEWED: Adam Deliyiannis
Biologist

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DATE: **27/10/2020**



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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0018 1 : 1	Toxigenic (T) or Potentially toxic (P)	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Fields			20	300			

TOTAL BGA	1534725	8.05767
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	96	0.00168
TOTAL ALGAE	2007678	43.39262

⁺ 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.

ANALYST: Kirsten Mudie (signatory) REVIEWED: Adam Deliyiannis DATE: 27/10/2020
Biologist Biologist

METHOD NO.: MB010/MW024CV Page 2 of 2

^{*} 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.