ALS Water
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. :	6933876 21-15798
LOCALITY :	EM2104707_013
SITE :	DS Tauwitchere
SAMPLE :	Surface
DATE SAMPLED :	18/03/2021
DATE ANALYSED :	22/03/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A highly diverse algal community was observed with excessive levels of low biovolume BGA noted. Water quality will be impaired and health concerns may be warranted.

Sedgewick-Rafter Vol.(ml) 1.0018 **Concentration** 1 : 1 **Magnification** **Fields**	**Toxigenic (T) or Potentially toxic (P)** *	- 200x 20	- 100x 500	**Total Cell Count (cells/mL)**	**Individual Algal Unit Volume (um3)**	**Total Biovolume (mm3/L)**
BACILLARIOPHYCEAE						
Centrales		12	0	599	200	0.11978
Nitzschia		2	0	100	400	0.03993
Pennales		4	0	200	300	0.05989
CHLOROPHYCEAE						
Ankistrodesmus		18	0	898	132	0.11859
Botryococcus		0	60	120	98	0.01174
Chlorococcoids (<10um)		32	0	1597	60	0.09583
Colonial green (cells)		12	0	599	100	0.05989
Crucigenia		56	0	2795	30	0.08385
Dictyosphaerium		50	0	2496	20	0.04991
Didymocystis		2	0	100	41	0.00409
Dimorphococcus		12	0	599	20	0.01198
Elakatothrix		0	1	2	45	0.00009
Eremosphaera		2	0	100	700	0.06987
Golenkinia		10	0	499	400	0.19964
Hyaloraphidium		8	0	399	750	0.29946
Lagerheimia		28	0	1397	500	0.69874
Monoraphidium		0	1	2	900	0.00180
Oocystis		80	0	3993	300	1.19784
Pediastrum		8	0	399	60	0.02396
Planctonema		1510	0	75364	800	60.29148
Scenedesmus		8	0	399	250	0.09982
Selenastrum		36	0	1797	250	0.44919
Tetraedron		10	0	499	150	0.07487
Tetrastrum		96	0	4791	40	0.19166

ANALYST: *Kirsten Mudie (signatory)* **Biologist** REVIEWED: *Adam Deliyiannis* **Biologist** DATE: **23/03/2021**

METHOD NO.: MB010/MW024VCA

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CRYPTOPHYCEAE						
Cryptomonads		1	0	50	320	0.01597
CYANOPHYCEAE						
Aphanizomenonaceae family - straight	P	39	0	1946	67	0.13042
Cuspidothrix issatschenkoi		228	0	11380	57	0.64863
Limnolyngbya (Planktolyngbya circumcreta)		2960	0	147734	4.9	0.72390
Planktolyngbya		9200	0	459173	3.8	1.74486
Raphidiopsis raciborskii	T	19	0	948	42	0.03983
Romeria		4	0	200	31	0.00619
Synechococcales small (iauv <20)		20340	0	1015173	5.25	5.32966
DINOPHYCEAE						
Gymnodiniales (small)		1	0	50	500	0.02496
EUGLENOPHYCEAE						
Euglena		1	0	50	7000	0.34937
OTHER PHYTOPLANKTON						
Other small flagellates		6	0	299	80	0.02396

TOTAL BGA	**1636554**	**8.62348**
TOTAL TOXIGENIC BGA	**948**	**0.03983**
TOTAL POTENTIALLY TOXIC BGA	**1946**	**0.13042**
TOTAL ALGAE	**1736747**	**73.29163**

+ 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.***

ANALYST: ***Kirsten Mudie (signatory)*** REVIEWED: ***Adam Deliyiannis*** DATE: **23/03/2021**
Biologist **Biologist**

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