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. :	7056274 21-31436
LOCALITY :	EM2111820-012
SITE :	US Tauwitchere
SAMPLE :	Surface
DATE SAMPLED :	22/06/2021
DATE ANALYSED :	24/06/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with excessive levels of BGA present. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml) 1.0407 **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						
Anaulus		3	0	144	500	0.07207
Centrales		6	0	288	200	0.05765
Naviculales		2	0	96	1400	0.13452
Nitzschia		13	0	625	400	0.24983
Pennales		2	0	96	300	0.02883
Pleurosigma		0	1	2	2000	0.00384
CHLOROPHYCEAE						
Botryococcus		0	220	423	98	0.04143
Chlamydomonads		1	0	48	250	0.01201
Chlorococcoids (<10um)		70	0	3363	60	0.20179
Colonial green (cells)		0	80	154	100	0.01537
Crucigenia		304	0	14606	30	0.43817
Didymocystis		16	0	769	41	0.03152
Eremosphaera		0	4	8	700	0.00538
Filamentous Green		49	0	2354	386	0.90872
Lagerheimia		5	0	240	500	0.12011
Monoraphidium		40	0	1922	900	1.72961
Oocystis		44	0	2114	300	0.63419
Pediastrum		14	0	673	60	0.04036
Planctonema		415	0	19939	800	15.95080
Scenedesmus		20	0	961	250	0.24022
Tetraedron		2	0	96	150	0.01441
Tetrastrum		64	0	3075	40	0.12299
CRYPTOPHYCEAE						
Cryptomonads		4	0	192	320	0.06150

ANALYST: ***Kirsten Mudie (signatory)*** REVIEWED: ***Lauren Minett (signatory)*** DATE: **24/06/2021**
Biologist **Biologist**

METHOD NO.: MB010/MW024VCA

ALS Water
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CYANOPHYCEAE						
Aphanizomenonaceae family - straight	P	120	0	5765	67	0.38628
Cuspidothrix cf. issatschenkoi		6	0	288	57	0.01643
Limnolyngbya (Planktolyngbya circumcreta)		8060	0	387239	4.9	1.89747
Limnothrix/Geitlerinema/Anagnostidinema	P	0	496	953	17.5	0.01668
Planktolyngbya		4900	0	235418	3.8	0.89459
Pseudanabaena		44	0	2114	12.5	0.02642
Romeria		6	0	288	31	0.00894
Spirulina		0	25	48	5.73	0.00028
Synechococcales small (iauv <20)		10680	0	513116	5.25	2.69386
DINOPHYCEAE						
Gymnodiniales		1	0	48	2000	0.09609
EUGLENOPHYCEAE						
Euglena		1	0	48	7000	0.33631
OTHER PHYTOPLANKTON						
Other small flagellates		2	0	96	80	0.00769

TOTAL BGA	**1145229**	**5.94095**
TOTAL TOXIGENIC BGA	**0**	**0.00000**
TOTAL POTENTIALLY TOXIC BGA	**6718**	**0.40296**
TOTAL ALGAE	**1197609**	**27.49636**

+ 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: ***Lauren Minett (signatory)*** DATE: **24/06/2021**
Biologist **Biologist**

METHOD NO.: MB010/MW024VCA