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. :	6781617 20-54272
LOCALITY :	EM2020558_008
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	18/11/2020
DATE ANALYSED :	23/11/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. Excessive levels of small Synechococcales dominated the sample. Current levels will impair water quality.

Sedgewick-Rafter Vol.(ml) 1.0333 **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						
Chaetoceros		13	0	629	200	0.12581
Nitzschia		2	0	97	400	0.03871
Pennales		1	0	48	300	0.01452
Pennales (small <20um)		3	0	145	251	0.03644
Pleurosigma		0	1	2	2000	0.00387
CHLOROPHYCEAE						
Ankistrodesmoideae		54	0	2613	132	0.34491
Chlamydomonads		1	0	48	250	0.01210
Chlorococcoids (<10um)		730	0	35324	60	2.11942
Planctonema		0	8	15	800	0.01239
CRYPTOPHYCEAE						
Cryptomonads		1	0	48	320	0.01548
CYANOPHYCEAE						
Planktolyngbya		27	0	1306	3.8	0.00496
Synechococcales small (iauv <20)		18880	0	913578	5.25	4.79628
DINOPHYCEAE						
Gymnodiniales		1	0	48	2000	0.09678
Gymnodiniales (small)		6	0	290	500	0.14517
Peridiniales		1	0	48	5000	0.24194
OTHER PHYTOPLANKTON						
Other small flagellates		14	0	677	80	0.05420

ANALYST: *Adam Deliyiannis*
Biologist

REVIEWED: *Kirsten Mudie (signatory)*
Biologist

DATE: **24/11/2020**

METHOD NO.: MB010/MW024VCA

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		Toxigenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Sedgewick-Rafter Vol.(ml)	1.0333						
Concentration	1 : 1						
Magnification			- 200x	- 100x			
Fields		*	20	500			

TOTAL BGA	**914884**	**4.80125**
TOTAL TOXIGENIC BGA	**0**	**0.00000**
TOTAL POTENTIALLY TOXIC BGA	**0**	**0.00000**
TOTAL ALGAE	**954916**	**8.06298**

+ 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: *Adam Deliyiannis* **Biologist**

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

DATE: **24/11/2020**

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