

REPORT

Report no:

287713

Depth :

N/A

Supercedes Report No:

Chlorophyll a:

NA

Microcystin equivalents:

NA

Date analysed:

10/07/2023

Lims No: L23052693

Date Sampled:

22/06/2023

Analyst:

Client ID: 235524

Address:

Site:

Client: Department of Planning and Environment

Method: MA70CENT

Issued By : Sydney Water

Laboratory Services

Issued On : 12/07/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	503	Potentially toxic	34.70	0.059
<i>Anagnostidinema</i>	11799		356.32	0.208
<i>Cocoid Blue Green Picoplankton</i>	1264318	Filter clogging?	2,402.20	0.570
<i>Cuspidothrix issatschenkoi</i>	19173		977.82	1.040
<i>Dolichospermum</i>	451	Potentially toxic, taste & odour	41.22	0.073
<i>Dolichospermum affine</i>	9366		381.19	0.435
<i>Dolichospermum cf planctonicum/smithii</i>	18107	Taste & Odour	2,069.63	4.587
<i>Merismopedia</i>	2950		2.95	0.024
<i>Microcystis</i>	1659	Potentially toxic, taste & odour	46.61	0.046
<i>Myxobaktron</i>	737		12.97	0.003
<i>Planktolynbya</i>	19173	Filter clogging	191.73	1.533
<i>Planktothricoides cf</i>	4232		209.90	0.204
<i>Pseudanabaena</i>	36325		290.60	0.363
<i>Raphidiopsis raciborskii</i>	42353	Potentially toxic, taste & odour	1,600.94	1.242
<i>Sphaerospermopsis aphanizomenoides</i>	7638		229.14	0.287
<i>Synechococcus cf</i>	2950		36.28	0.019
Subtotal	1441734		8,884.20	10.693
<u>Chrysophyta (Golden brown)</u>				
<i>Dichotomococcus</i>	2950		36.87	0.024
Subtotal	2950		36.87	0.024
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	5828	Filter clogging	2,371.99	3.502
<i>Cyclotella</i>	18436	Filter clogging	1,253.64	1.438
<i>Cyclotella species 4</i>	69	Filter clogging	107.71	0.971

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<i>Cyclotella/Stephanodiscus</i>	1475	Filter clogging	78.91	0.116
<i>Cylindrotheca closterium</i>	416		137.23	0.102
<i>Gyrosigma</i>	69		248.40	0.312
<i>Nitzschia</i>	139		30.02	0.014
Subtotal	26432		4,227.90	6.455
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	139	Discolouration of water	245.75	0.321
Subtotal	139		245.75	0.321
<u>Chlorophyta (Green)</u>				
<i>Ankistrodesmus</i>	4425		1,663.80	0.597
<i>Chlamydomonas</i>	737	Taste & Odour	58.96	0.062
<i>Crucigenia</i>	2950		23.60	0.056
<i>Dictyosphaerium</i>	4425		318.60	0.066
<i>Kirchneriella</i>	5162		258.10	0.098
<i>Koliella</i>	1475	Filter clogging	22.12	0.002
<i>Monoraphidium arcuatum</i>	69		18.72	0.014
<i>Monoraphidium cf</i>	8112		217.40	0.158
<i>Mougeotia</i>	2914	Filter clogging	10,400.06	23.848
<i>Oocystis</i>	3687		350.26	0.376
<i>Planctonema</i>	6743		559.66	0.761
<i>Scenedesmus species 1</i>	16961		1,322.95	0.930
<i>Tetraedron</i>	3687		1,566.97	0.368
<i>Tetrastrum</i>	2950		404.15	0.507
Subtotal	64297		17,185.35	27.843
<u>Cryptophyta (Monad)</u>				

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Client ID: 235524 Address: [REDACTED]
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TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Chroomonas</i>	5899	Common after flood	1,415.76	1.462
<i>Cryptomonas</i>	737	Common after flood, Taste & Odour	397.98	0.700
Subtotal	6636		1,813.74	2.162

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	1442000	8884.00	10.690
* Potentially Toxic Blue Green	44970	1723.00	1.420
* Potentially Toxic Algae	44970	1723.00	1.420
Total Algae	1542000	32390.00	47.500

Comment:

Sample received unpreserved/ partially preserved, results may be compromised. Debris present in the sample.

*Taxa with potential to produce toxins.

ASU : One ASU (Area Standard Unit) equals 400µm² of algal cells (as cross sectional area)

Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.

Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece* ; *Cyanodictyon*

Phycology

Sydney Water Approved Signatory:

██████████, Supervisor



Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Accreditation No.: 610 Biological testing
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Chlorophyll a:

NA

Microcystin equivalents:

NA

Date analysed:

10/07/2023

Lims No: L23052694

Date Sampled:

22/06/2023

Analyst:

[REDACTED]

Client ID: 235525

Address:

[REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA70CENT

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TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Cocoid Blue Green Picoplankton</i>	99884	Filter clogging?	189.77	0.045
<i>Cuspidothrix issatschenkoi</i>	3318		169.21	0.180
<i>Dolichospermum affine</i>	27654		1,125.51	1.285
<i>Dolichospermum cf planctonicum/smithii</i>	2220	Taste & Odour	253.74	0.562
<i>Merismopedia</i>	4425		4.42	0.037
<i>Microcystis</i>	277	Potentially toxic, taste & odour	7.78	0.007
<i>Myxobaktron</i>	1383		24.34	0.006
<i>Pseudanabaena</i>	22067		176.53	0.220
<i>Raphidiopsis raciborskii</i>	2914	Potentially toxic, taste & odour	110.14	0.085
<i>Spirulina</i>	2212		33.18	0.008
Subtotal	166354		2,094.62	2.435
<u>Chrysophyta (Golden brown)</u>				
<i>Dichotomococcus</i>	5531		69.13	0.046
Subtotal	5531		69.13	0.046
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	2720	Filter clogging	1,107.04	1.634
<i>Cyclotella</i>	3595	Filter clogging	244.46	0.280
<i>Nitzschia</i>	208		44.92	0.021
Subtotal	6523		1,396.42	1.935
<u>Chlorophyta (Green)</u>				
<i>Ankistrodesmus</i>	3042		1,143.79	0.410
<i>Dictyosphaerium</i>	19357		1,393.70	0.290
<i>Golenkinia</i>	277		19.39	0.050

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Lims No: L23052694 Date Sampled: 22/06/2023 Analyst: [REDACTED]

Client ID: 235525 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By : Sydney Water Disclaimer: Samples analysed as received.
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TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Koliella</i>	830	Filter clogging	12.45	0.001
<i>Monoraphidium arcuatum</i>	69		18.72	0.014
<i>Monoraphidium cf</i>	13606		364.64	0.266
<i>Mougeotia</i>	694	Filter clogging	2,476.88	5.679
<i>Oocystis</i>	5475		520.12	0.558
<i>Planctonema</i>	9375		778.12	1.059
<i>Scenedesmus species 1</i>	13827		1,078.50	0.758
<i>Staurastrum</i>	69		365.07	0.143
<i>Tetraedron</i>	277		117.72	0.027
<i>Tetrastrum</i>	2212		303.04	0.380
Subtotal	69110		8,592.14	9.635
Cryptophyta (Monad)				
<i>Chroomonas</i>	1659	Common after flood	398.16	0.411
<i>Cryptomonas</i>	830	Common after flood, Taste & Odour	448.20	0.788
Subtotal	2489		846.36	1.199

Cells/
mL ASU/
mL Biovolume
mm3/L

Total Blue Green	166400	2095.00	2.440
* Potentially Toxic Blue Green	3190	117.90	0.092
* Potentially Toxic Algae	3190	117.90	0.092
Total Algae	250000	13000.00	15.250

Comment:

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ASU : One ASU (Area Standard Unit) equals $400\mu\text{m}^2$ of algal cells (as cross sectional area)

Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.

Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeotheca* ; *Cyanodictyon*

Phycology

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██████████, Supervisor



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NA

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NA

Date analysed:

10/07/2023

Lims No: L23052695

Date Sampled:

22/06/2023

Analyst:



Client ID: 235526

Address:



Site:

Client: Department of Planning and Environment

Method: MA70CENT

Issued By : Sydney Water

Laboratory Services

Issued On : 12/07/2023

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TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm ³ /L
<u>Cyanophyta (Blue green)</u>				
<i>Cocoid Blue Green Picoplankton</i>	176208	Filter clogging?	334.79	0.079
<i>Cuspidothrix issatschenkoi</i>	555		28.30	0.030
<i>Dolichospermum affine</i>	10823		440.49	0.502
<i>Dolichospermum cf planctonicum/smithii</i>	2498	Taste & Odour	285.52	0.632
<i>Non toxic Aphanizomenonaceae</i>	6514	Taste & Odour	267.07	0.289
<i>Planktothricoides cf</i>	1249		61.95	0.060
<i>Pseudanabaena</i>	17090		136.72	0.170
<i>Raphidiopsis</i>	1383	Potentially toxic	83.39	0.093
<i>Raphidiopsis raciborskii</i>	2220	Potentially toxic, taste & odour	83.91	0.065
Subtotal	218540		1,722.14	1.920
<u>Chrysophyta (Golden brown)</u>				
<i>Dichotomococcus</i>	2212		27.65	0.018
Subtotal	2212		27.65	0.018
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	5245	Filter clogging	2,134.71	3.152
<i>Cyclotella</i>	2489	Filter clogging	169.25	0.194
<i>Cylindrotheca closterium</i>	416		137.23	0.102
<i>Nitzschia</i>	278		60.04	0.028
<i>Synedra</i>	69		40.98	0.037
Subtotal	8497		2,542.21	3.513
<u>Chlorophyta (Green)</u>				
<i>Actinastrum</i>	971		61.17	0.020
<i>Ankistrodesmus</i>	2212		831.71	0.298

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Lims No: L23052695 Date Sampled: 22/06/2023
 Client ID: 235526 Address: [REDACTED]
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TAXA

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<i>Crucigenia</i>	1106		8.84	0.021
<i>Dictyosphaerium</i>	49361		3,553.99	0.740
<i>Kirchneriella</i>	553		27.65	0.010
<i>Koliella</i>	3595	Filter clogging	53.92	0.005
<i>Monoraphidium cf</i>	27377		733.70	0.535
<i>Mougeotia</i>	1721	Filter clogging	6,142.24	14.084
<i>Oocystis</i>	7549		717.15	0.769
<i>Planctonema</i>	11926		989.85	1.347
<i>Scenedesmus species 1</i>	7301		569.47	0.400
<i>Sphaerocystis</i>	277		31.30	0.008
<i>Tetraedron</i>	277		117.72	0.027
<i>Tetrastrum</i>	2212		303.04	0.380
Subtotal	116438		14,141.75	18.644
Cryptophyta (Monad)				
<i>Chroomonas</i>	3871	Common after flood	929.04	0.960
<i>Cryptomonas</i>	553	Common after flood, Taste & Odour	298.62	0.525
Subtotal	4424		1,227.66	1.485

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	218500	1722.00	1.920
* Potentially Toxic Blue Green	2220	83.90	0.065
* Potentially Toxic Algae	2220	83.90	0.065
Total Algae	350100	19660.00	25.580

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