



Corporate Accreditation No 63  
Accredited for compliance with ISO/IEC 17025 - Testing



## Analytical Report 284597

Issue Date: 16/05/2023  
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### Sydney Water Approved Signatory

[REDACTED], Phycology Analyst	[REDACTED], Organics Analyst	[REDACTED], Organics Senior Analyst
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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.

**SAMPLE SUMMARY**

<u>Client Sample ID</u>	<u>Sample Number</u>	<u>Sampling Procedure</u>	<u>Date Sampled</u>	<u>Date Received</u>	<u>Date Authorised</u>	<u>Description</u>
232688	L23036190	1	27/04/2023	01/05/2023	03/05/2023	B4 (ENVIRONMENTAL WAER)
232689	L23036191	1	27/04/2023	01/05/2023	15/05/2023	B4 (ENVIRONMENTAL WAER)
232692	L23036192	1	27/04/2023	01/05/2023	03/05/2023	E6 (ENVIRONMENTAL WAER)
232693	L23036193	1	27/04/2023	01/05/2023	16/05/2023	E6 (ENVIRONMENTAL WAER)
232696	L23036194	1	27/04/2023	01/05/2023	03/05/2023	E7 (ENVIRONMENTAL WAER)
232697	L23036195	1	27/04/2023	01/05/2023	15/05/2023	E7 (ENVIRONMENTAL WAER)

**Sampling procedures**

- 1 Samples analysed as received.
- 2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
- 3 Samples collected as per FS procedures SAWI 070.
- 4 Results reported as received from WNSW.

**ANALYTICAL RESULTS**

<b>Client Sample ID</b>	232688	232689	232692	232693	232696	232697		
<b>Sampled Date</b>	27/04/2023 12:20:00 PM	27/04/2023 12:20:00 PM	27/04/2023 02:18:00 PM	27/04/2023 02:18:00 PM	27/04/2023 03:33:00 PM	27/04/2023 03:33:00 PM		
<b>Sample Number</b>	L23036190	L23036191	L23036192	L23036193	L23036194	L23036195		

**ALGAL**

**MA71CENT : Blue-Green ID & Enumeration, Including ASU & Biovolumes**

Blue Green ASU	ASU/mL	-	4267	-	23040	-	9143		
Blue Green Biovol	mm3/L	-	1.06	-	61.7	-	22.09		
Potentially Toxic Blue Green	cells/mL	-	1040	-	68020	-	4320		
Potentially Toxic Blue Green ASU	ASU/mL	-	17.5	-	2846	-	160.3		
Potentially Toxic Blue Green Biovol	mm3/L	-	0.021	-	3.73	-	0.181		
Total Blue Green	cells/mL	-	2201000	-	4026000	-	2637000		

**MA91 : Individual Species Total Count, Total BioVol, Total ASU**

Algae Source*	N/A	-	EXTERNAL	-	EXTERNAL	-	EXTERNAL		
Date of Performance	DD/MM/YY		15/05/23 00:00		16/05/23 00:00		15/05/23 00:00		

**ORGANICS**

**TC0049DW : Algal Toxins**

\* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>		232688	232689	232692	232693	232696	232697		
<b>Sampled Date</b>		27/04/2023 12:20:00 PM	27/04/2023 12:20:00 PM	27/04/2023 02:18:00 PM	27/04/2023 02:18:00 PM	27/04/2023 03:33:00 PM	27/04/2023 03:33:00 PM		
<b>Sample Number</b>		L23036190	L23036191	L23036192	L23036193	L23036194	L23036195		
<b>ORGANICS</b>									
TC0049DW : Algal Toxins(Continued)									
Anatoxin-a(extracellular)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Anatoxin-a(intracellular)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Anatoxin-a(total)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Cylindrospermopsin (extra cellular)	ug/L	<0.05	-	3.9	-	0.57	-		
Cylindrospermopsin (intra cellular)	ug/L	<0.05	-	0.60	-	<0.05	-		
Cylindrospermopsin(total)	ug/L	<0.05	-	4.5	-	0.59	-		
Microcystin LR(extracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin LR(intracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin LR(total)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin RR(extracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		

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<b>Client Sample ID</b>	232688	232689	232692	232693	232696	232697		
<b>Sampled Date</b>	27/04/2023 12:20:00 PM	27/04/2023 12:20:00 PM	27/04/2023 02:18:00 PM	27/04/2023 02:18:00 PM	27/04/2023 03:33:00 PM	27/04/2023 03:33:00 PM		
<b>Sample Number</b>	L23036190	L23036191	L23036192	L23036193	L23036194	L23036195		

**ORGANICS**

TC0049DW : Algal Toxins(Continued)

Microcystin RR(intracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin RR(total)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin YR(extracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin YR(intracellular)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Microcystin YR(total)	ug/L	<0.05	-	<0.05	-	<0.05	-		
Nodularin (extracellular)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Nodularin (intracellular)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Nodularin (total)	ug/L	<0.1	-	<0.1	-	<0.1	-		
Date of Performance	DD/MM/YY	02/05/23		02/05/23		02/05/23			

**COMMENTS**

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L23036191	Method	MA91	-	Debris present in the sample.

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L23036193	Method	MA91	-	Debris present in the sample.
L23036195	Method	MA91	-	Debris present in the sample.

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**LABORATORY QC RESULTS**

N/A - Not Applicable

PQL - Practical Quantitation Limit

LOQ - Limit of Quantification

RPD - Relative Percent Difference

SPIKE/Positive Control - Addition of a known amount and concentration

Duplicate Precision = Accepted - Result 2 within 95% confidence limits of result 1

Duplicate Precision = Outlier - Result 2 outside 95% confidence limits of result 1

Duplicate Precision = Not calculated - Result is outside test range

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TC0049DW Anatoxin-a(extracellular)</b>						
<0.1 ug/L	<0.1	<b>91</b> 50.0 - 120.0 ug/L	<b>94 % Recovery</b> 50.0 - 130.0 % Recovery	<0.1	<0.1	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Anatoxin-a(intracellular)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Anatoxin-a(total)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Cyindrospermopsin (extracellular)</b>						
<0.05 ug/L	<0.05	<b>88</b> 50.0 - 120.0 ug/L	<b>91 % Recovery</b> 50.0 - 130.0 % Recovery	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Cyindrospermopsin (intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Cyindrospermopsin(total)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TC0049DW Microcystin LR(extracellular)</b>						
<0.05 ug/L	<0.05	<b>70</b> 50.0 - 120.0 ug/L	<b>62 % Recovery</b> 50.0 - 130.0 % Recovery	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin LR(intracellular)</b>						
<0.05 ug/L	F		E	0.08	0.08	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin LR(total)</b>						
<0.05 ug/L	F		E	0.08	0.08	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin RR(extracellular)</b>						
<0.05 ug/L	<0.05	<b>71</b> 50.0 - 120.0 ug/L	<b>70 % Recovery</b> 50.0 - 130.0 % Recovery	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin RR(intracellular)</b>						
<0.05 ug/L	F		E	0.08	0.08	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin RR(total)</b>						
<0.05 ug/L	F		E	0.08	0.08	<b>B</b> 0.0 - 0.0 %
<b>TC0049DW Microcystin YR(extracellular)</b>						
<0.05 ug/L	<0.05	<b>74</b> 50.0 - 120.0 ug/L	<b>66 % Recovery</b> 50.0 - 130.0 % Recovery	<0.05	<0.05	<b>B</b> 0.0 - 0.0 %

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TC0049DW Microcystin YR(intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DW Microcystin YR(total)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DW Nodularin (extracellular)</b>						
<0.1 ug/L	<0.1	71 50.0 - 120.0 ug/L	70 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
<b>TC0049DW Nodularin (intracellular)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
<b>TC0049DW Nodularin (total)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %

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## Extra Note:

F: Blank is not applicable for this analyte

E: Spike is not applicable for this analyte

DUPLICATE Anatoxin-a(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Anatoxin-a(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Anatoxin-a(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cylindrospermopsin (extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cylindrospermopsin (intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cylindrospermopsin(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

\* Indicates NATA accreditation does not cover the performance of this service