



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



## Analytical Report 282168

Issue Date: 03/04/2023  
Issued By : [REDACTED]

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### Sydney Water Approved Signatory

[REDACTED]	[REDACTED]	[REDACTED]
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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>
232058	L23028266	1	30/03/2023	31/03/2023	03/04/2023	DRPW-1 (WATER SAMPLE)
232062	L23028267	1	30/03/2023	31/03/2023	03/04/2023	DRKR-1 (WATER SAMPLE)
232066	L23028268	1	30/03/2023	31/03/2023	03/04/2023	DRPW-1 (WATER SAMPLE)
232067	L23028269	1	30/03/2023	31/03/2023	03/04/2023	DRKR-1 (WATER SAMPLE)

**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>	232058	232062	232066	232067				
<b>Sampled Date</b>	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM				
<b>Sample Number</b>	L23028266	L23028267	L23028268	L23028269				

**ALGAL**

**MA70CENT1 : Total Algal ID & Enumeration, Including ASU & Biovolumes**

Blue Green ASU	ASU/mL	-	-	607	828.5			
Blue Green Biovol	mm3/L	-	-	0.992	1.49			
Potentially Toxic Algae	cells/mL	-	-	2280	4130			
Potentially Toxic ASU	ASU/mL	-	-	142.4	142.4			
Potentially Toxic Biovol	mm3/L	-	-	0.335	0.145			
Potentially Toxic Blue Green	cells/mL	-	-	2280	4130			
Potentially Toxic Blue Green ASU	ASU/mL	-	-	142.4	142.4			
Potentially Toxic Blue Green Biovol	mm3/L	-	-	0.335	0.145			
Total Algae	cells/mL	-	-	83350	194500			
Total ASU	ASU/mL	-	-	4089	6295			

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>	232058	232062	232066	232067				
<b>Sampled Date</b>	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM				
<b>Sample Number</b>	L23028266	L23028267	L23028268	L23028269				

**ALGAL**

**MA70CENTI : Total Algal ID & Enumeration, Including ASU & Biovolumes(Continued)**

Total Biovol	mm3/L	-	-	5.87	7.22			
Total Blue Green	cells/mL	-	-	66140	161400			
Total Colonies	cols/mL	-	-	0.00	0.00			

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

Algae Source*	N/A	-	-	EXTERNAL	EXTERNAL			
Date of Performance	DD/MM/YY			01/04/23 00:00	03/04/23 00:00			

**ORGANICS**

**TC0049DWI : Algal Toxins**

Anatoxin-a(extracellular)	ug/L	<0.1	<0.1	-	-			
Anatoxin-a(intracellular)	ug/L	<0.1	<0.1	-	-			
Cylindrospermopsin (extra cellular)	ug/L	0.60	0.58	-	-			

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

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>		232058	232062	232066	232067				
<b>Sampled Date</b>		30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM				
<b>Sample Number</b>		L23028266	L23028267	L23028268	L23028269				
<b>ORGANICS</b>									
TC0049DWI : Algal Toxins(Continued)									
Cylindrospermopsin (intra cellular)	ug/L	<0.05	0.08	-	-				
Microcystin LR(extracellular)	ug/L	<0.05	<0.05	-	-				
Microcystin LR(intracellular)	ug/L	<0.05	<0.05	-	-				
Microcystin RR(extracellular)	ug/L	<0.05	<0.05	-	-				
Microcystin RR(intracellular)	ug/L	<0.05	<0.05	-	-				
Microcystin YR(extracellular)	ug/L	<0.05	<0.05	-	-				
Microcystin YR(intracellular)	ug/L	<0.05	<0.05	-	-				
Nodularin (extracellular)	ug/L	<0.1	<0.1	-	-				
Nodularin (intracellular)	ug/L	<0.1	<0.1	-	-				
Date of Performance	DD/MM/YY	31/03/23	31/03/23						

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<b>Client Sample ID</b>		232058	232062	232066	232067				
<b>Sampled Date</b>		30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM				
<b>Sample Number</b>		L23028266	L23028267	L23028268	L23028269				
<b>ORGANICS</b>									
TC0061DWI : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS									
C1	ug/L	<0.5	<0.5	-	-				
C2	ug/L	<0.3	<0.3	-	-				
dcGTX2	ug/L	<0.5	<0.5	-	-				
dcGTX3	ug/L	<0.3	<0.3	-	-				
dcNeo	ug/L	<0.5	<0.5	-	-				
dcSTX	ug/L	<0.5	<0.5	-	-				
GTX1	ug/L	<0.5	<0.5	-	-				
GTX2	ug/L	<1	<1	-	-				
GTX3	ug/L	<0.5	<0.5	-	-				
GTX4	ug/L	<0.3	<0.3	-	-				
GTX5	ug/L	<0.5	<0.5	-	-				
GTX6	ug/L	<0.3	<0.3	-	-				

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<b>Client Sample ID</b>		232058	232062	232066	232067				
<b>Sampled Date</b>		30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM	30/03/2023 10:40:00 AM	30/03/2023 12:00:00 PM				
<b>Sample Number</b>		L23028266	L23028267	L23028268	L23028269				
<b>ORGANICS</b>									
TC0061DWI : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS(Continued)									
Neosaxitoxin	ug/L	<0.3	<0.3	-	-				
Saxitoxin	ug/L	<0.4	<0.4	-	-				
Date of Performance	DD/MM/YY	31/03/23	31/03/23						

**COMMENTS**

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L23028268	Method	MA91	-	Debris present in the sample.
L23028269	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>TC0049DWI Anatoxin-a(extracellular)</b>						
<0.1 ug/L	<0.1	110 <i>50.0 - 120.0 ug/L</i>	100 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.1	<0.1	B <i>0.0 - 0.0 %</i>
<b>TC0049DWI Anatoxin-a(intracellular)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	B <i>0.0 - 0.0 %</i>
<b>TC0049DWI Cylindrospermopsin (extracellular)</b>						
<0.05 ug/L	<0.05	97 <i>50.0 - 120.0 ug/L</i>	53 % Recovery <i>50.0 - 130.0 % Recovery</i>	0.60	0.63	4.88 % <i>0.0 - 50.0 %</i>
<b>TC0049DWI Cylindrospermopsin (intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B <i>0.0 - 0.0 %</i>
<b>TC0049DWI Microcystin LR(extracellular)</b>						
<0.05 ug/L	<0.05	72 <i>50.0 - 120.0 ug/L</i>	69 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.05	<0.05	B <i>0.0 - 0.0 %</i>
<b>TC0049DWI Microcystin LR(intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B <i>0.0 - 0.0 %</i>

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TC0049DWI Microcystin RR(extracellular)</b>						
<0.05 ug/L	<0.05	83 50.0 - 120.0 ug/L	74 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DWI Microcystin RR(intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DWI Microcystin YR(extracellular)</b>						
<0.05 ug/L	<0.05	86 50.0 - 120.0 ug/L	79 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DWI Microcystin YR(intracellular)</b>						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
<b>TC0049DWI Nodularin (extracellular)</b>						
<0.1 ug/L	<0.1	78 50.0 - 120.0 ug/L	74 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
<b>TC0049DWI Nodularin (intracellular)</b>						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
<b>TC0061DWI C1</b>						
<0.5 ug/L	<0.5	99 70.0 - 130.0 ug/L	99 % Recovery 50.0 - 130.0 % Recovery	<0.5	<0.5	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>TC0061DWI C2</b>						
<0.3 ug/L	<0.3	110 <i>70.0 - 130.0 ug/L</i>	100 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI dcGTX2</b>						
<0.5 ug/L	<0.5	110 <i>70.0 - 130.0 ug/L</i>	100 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI dcGTX3</b>						
<0.3 ug/L	<0.3	100 <i>70.0 - 130.0 ug/L</i>	85 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI dcNeo</b>						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	51 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI dcSTX</b>						
<0.5 ug/L	<0.5	110 <i>70.0 - 130.0 ug/L</i>	57 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI GTX1</b>						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	98 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
<b>TC0061DWI GTX2</b>						
<1 ug/L	<1	100 <i>70.0 - 130.0 ug/L</i>	97 % Recovery <i>50.0 - 130.0 % Recovery</i>	<1	<1	B <i>0.0 - 0.0 %</i>

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TC0061DWI GTX3</b>						
<0.5 ug/L	<0.5	<b>100</b> <i>70.0 - 130.0 ug/L</i>	<b>100 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	<b>B</b> <i>0.0 - 0.0 %</i>
<b>TC0061DWI GTX4</b>						
<0.3 ug/L	<0.3	<b>99</b> <i>70.0 - 130.0 ug/L</i>	<b>90 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	<b>B</b> <i>0.0 - 0.0 %</i>
<b>TC0061DWI GTX5</b>						
<0.5 ug/L	<0.5	<b>95</b> <i>70.0 - 130.0 ug/L</i>	<b>77 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	<b>B</b> <i>0.0 - 0.0 %</i>
<b>TC0061DWI GTX6</b>						
<0.3 ug/L	<0.3	<b>110</b> <i>70.0 - 130.0 ug/L</i>	<b>110 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	<b>B</b> <i>0.0 - 0.0 %</i>
<b>TC0061DWI Neosaxitoxin</b>						
<0.3 ug/L	<0.3	<b>98</b> <i>70.0 - 130.0 ug/L</i>	<b>62 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	<b>B</b> <i>0.0 - 0.0 %</i>
<b>TC0061DWI Saxitoxin</b>						
<0.4 ug/L	<0.4	<b>100</b> <i>70.0 - 130.0 ug/L</i>	<b>63 % Recovery</b> <i>50.0 - 130.0 % Recovery</i>	<0.4	<0.4	<b>B</b> <i>0.0 - 0.0 %</i>

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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 Cylindrospermopsin (intracellular) 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 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 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 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 C1 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE C2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcGTX2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcGTX3 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcNeo B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcSTX B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX1 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX3 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX4 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX5 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX6 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Neosaxitoxin B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Saxitoxin B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

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