



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



## Analytical Report 260883

**Issue Date:** 19/03/2022  
**Issued By :** Sydney Water Laboratory Services

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### **Sydney Water Approved Signatory**

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Jouliet Ashak, Microbiology Analyst

Jeya Gajendran, Clean & Waste Water Analyst  
Greta Haddad, Nutrients Laboratory Supervisor

Linda Gao, Metals Analyst

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>
POINT 1	L22021176	1	07/03/2022	08/03/2022	17/03/2022	POLISHER (WASTEWATER)
POINT 2	L22021177	1	07/03/2022	08/03/2022	18/03/2022	TURKEYS (WASTEWATER)
SPITTER BOX 1	L22021178	1	07/03/2022	08/03/2022	15/03/2022	(WASTEWATER)
SPITTER BOX 2	L22021179	1	07/03/2022	08/03/2022	15/03/2022	(WASTEWATER)
INLET	L22021180	1	07/03/2022	08/03/2022	18/03/2022	(WASTEWATER)

**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>		POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>		07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM			
<b>Sample Number</b>		L22021176	L22021177	L22021178	L22021179	L22021180			
<b>CHEMISTRY</b>									
<b>WC12 : Conductivity &amp; Salinity</b>									
Salinity	ppt	-	0.4	-	-	0.3			
Date of Performance	DD/MM/YY		10/03/22			14/03/22			
<b>WC12MET : Conductivity</b>									
Conductivity (mS/m)	mS/m	70.9	75.7	-	-	-			
Date of Performance	DD/MM/YY	09/03/22	09/03/22						
<b>WC17NS : Biochemical oxygen demand</b>									
BOD5	mg/L	5	4	71	10	50			
Date of Performance	DD/MM/YY	09/03/22	09/03/22	09/03/22	09/03/22	09/03/22			
<b>WC26NS500 : Oil &amp; Grease</b>									
Oil & Grease	mg/L	<5	<5	-	-	-			
Date of Performance	DD/MM/YY	14/03/22	14/03/22						
<b>WC44NS : Total, Fixed &amp; Volatile Suspended Solids</b>									

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>	POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM			
<b>Sample Number</b>	L22021176	L22021177	L22021178	L22021179	L22021180			

**CHEMISTRY**

WC44NS : Total, Fixed & Volatile Suspended Solids(Continued)

Total Suspended Solids	mg/L	16	15	-	-	-		
Date of Performance	DD/MM/YY	12/03/22	12/03/22					

**METALS**

TM70SAR : Metals by Inductively Coupled Plasma Atomic Emission Spectrometry

SAR*	RATIO	-	4.3	-	-	2.1		
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TM70SDT : Single digestion for Metals

Total Digestion	DONE	-	Done	-	-	Done		
Date of Performance	DD/MM/YY		10/03/22			10/03/22		

TM70TW : Metals by ICPAES.

Total Calcium	mg/L	-	20.3	-	-	19.4		
Total Magnesium	mg/L	-	10.3	-	-	7.47		
Total Sodium	mg/L	-	94.8	-	-	43.3		

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

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>		POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>		07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM	07/03/2022 08:00:00 AM			
<b>Sample Number</b>		L22021176	L22021177	L22021178	L22021179	L22021180			
<b>METALS</b>									
Date of Performance	DD/MM/YY		10/03/22			10/03/22			
<b>MICRO</b>									
MI01 : Faecal Coliform and/or E. coli									
E.coli	CFU/100mL	-	~7	-	-	-			
Faecal Coliform	CFU/100mL	-	~22	-	-	-			
Date of Performance	D/M/Y H:M		08/03/22 17:37						
<b>NUTRIENTS</b>									
NU102 : Total Nitrogen & Total Phosphorus									
Total Nitrogen	mg/L	3.35	3.39	-	-	-			
Total Phosphorus	mg/L	4.25	3.41	-	-	-			
Date of Performance	DD/MM/YY	11/03/22	11/03/22						

(~): Counts of target colonies are outside the optimal precision range.

**COMMENTS**

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L22021177	Method	MI01	-	Result confirmed. Sample processed outside of holding time, result may be affected.

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**L22021180**      **Method**      **WC12**      -      Salinity analysed from frozen sample (defrosted for salinity analysis).

**Analysis**

**Analysis Requirements**

<p>MI01</p> <p>WC12</p> <p>MI01</p>	<p>Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.</p> <p>Conductivity measured @ 25 degrees Celsius</p> <p>Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.</p>
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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	Positive Control <i>Acceptance Criteria</i>	Negative Control <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	Precision <i>Acceptance Criteria</i>
<b>MI01 [Membrane Filtration]E.coli</b>						
<1 CFU/100mL	<1	Accepted	Accepted	~7	~5	Not Calculated
<b>MI01 [Membrane Filtration]Faecal Coliform</b>						
<1 CFU/100mL	<1	Accepted	Accepted	~22	~15	Not Calculated

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>NU102 Total Nitrogen</b>						
<0.05 mg/L	<0.05	1.01 <i>0.88 - 1.12 mg/L</i>	89 % Recovery <i>80 - 120 % Recovery</i>	0.83	0.81	2.44 % <i>0 - 50 %</i>
<b>NU102 Total Phosphorus</b>						
<0.002 mg/L	<0.002	0.051 <i>0.045 - 0.055 mg/L</i>	94 % Recovery <i>80 - 120 % Recovery</i>	0.003	0.002	B <i>0 - 0 %</i>
<b>TM70TW Total Calcium</b>						
<0.01 mg/L	<0.01	44.3 <i>40.0 - 60.0 mg/L</i>	89 % Recovery <i>80 - 120 % Recovery</i>	0.07	0.08	B <i>0 - 0 %</i>
<b>TM70TW Total Magnesium</b>						
<0.02 mg/L	<0.02	45.7 <i>40.0 - 60.0 mg/L</i>	92 % Recovery <i>80 - 120 % Recovery</i>	0.28	0.26	7.41 % <i>0 - 50 %</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>TM70TW Total Sodium</b>						
<0.05 mg/L	<0.05	<b>45.0</b> 40.0 - 60.0 mg/L	<b>88 % Recovery</b> 80 - 120 % Recovery	40.5	39.6	<b>2.25 %</b> 0 - 20 %
<b>WC12MET Conductivity (mS/m)</b>						
<0.1 mS/m	F	<b>140.3</b> 139.3 - 143.3 mS/m	E	75.7	75.0	<b>0.93 %</b> 0 - 20 %
<b>WC12 Salinity</b>						
<0.1 ppt	F	<b>0.7</b> 0.6 - 0.8 ppt	E	0.3	0.3	<b>B</b> 0 - 0 %
<b>WC17NS BOD5</b>						
<2 mg/L	<2	<b>170</b> 139 - 257 mg/L	E	96	110	<b>13.59 %</b> 0 - 20 %
<b>WC26NS500 Oil &amp; Grease</b>						
<5 mg/L	<5	<b>94</b> 85.1 - 101.5 mg/L	E			
<b>WC44NS Total Suspended Solids</b>						
<2 mg/L	<2	<b>56</b> 42.5 - 57.5 mg/L	E	120	120	<b>0.00 %</b> 0 - 20 %

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Extra Note:

F: Blank is not applicable for this analyte

E: Spike is not applicable for this analyte

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

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

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

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