

Analytical Report 201114



Laboratory Services

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Issued By : Sydney Water Laboratory Services

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Sydney Water Approved Signatory

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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.

Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

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	L19023407	1	14/03/2019	15/03/2019	25/03/2019	Polisher
Point 2	L19023408	1	14/03/2019	15/03/2019	25/03/2019	Turkeys
Point 3	L19023409	1	14/03/2019	15/03/2019	25/03/2019	Inlet STW
Point 4	L19023410	1	14/03/2019	15/03/2019	25/03/2019	Splitter box large aerator
Point 5	L19023411	1	14/03/2019	15/03/2019	25/03/2019	Outlet of sml aerator

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

Client Sample ID		Point 1	Point 2	Point 3	Point 4	Point 5			
Sampled Date		14/03/2019 08:13:00 AM	14/03/2019 08:16:00 AM	14/03/2019 08:30:00 AM	14/03/2019 08:45:00 AM	14/03/2019 08:45:00 AM			
Sample Number		L19023407	L19023408	L19023409	L19023410	L19023411			
CHEMISTRY									
WC12MET : Conductivity									
Conductivity (mS/m)	mS/m	124.3	141.8	-	-	-			
Date of Performance	DD/MM/YY	15/03/19	15/03/19						
WC17NS : Biological oxygen demand									
BOD5	mg/L	8	4	130	150	91			
Date of Performance	DD/MM/YY	16/03/19	16/03/19	16/03/19	16/03/19	16/03/19			
WC26NS500 : Grease									
Oil & Grease	mg/L	<5	<5	-	-	-			
Date of Performance	DD/MM/YY	19/03/19	19/03/19						
WC44NS : Determination of Total, Fixed & Volatile Suspended Solids									
Total Suspended Solids	mg/L	52	34	-	-	-			
Date of Performance	DD/MM/YY	17/03/19	17/03/19						
MICRO									

"-" = Not required or refer to Laboratory comment

Client Sample ID		Point 1	Point 2	Point 3	Point 4	Point 5			
Sampled Date		14/03/2019 08:13:00 AM	14/03/2019 08:16:00 AM	14/03/2019 08:30:00 AM	14/03/2019 08:45:00 AM	14/03/2019 08:45:00 AM			
Sample Number		L19023407	L19023408	L19023409	L19023410	L19023411			
MICRO									
MI01MUG : Faecal Coliform and/or E. coli									
E.coli	CFU/100mL	-	~170	-	-	-			
Faecal Coliform	CFU/100mL	-	~170	-	-	-			
Date of Performance	D/M/Y H:M		15/03/19 13:59						
NUTRIENTS									
NU102 : Nitrogen & Phosphorus									
Total Nitrogen	mg/L	5.07	4.94	-	-	-			
Total Phosphorus	mg/L	0.685	0.690	-	-	-			
Date of Performance	DD/MM/YY	18/03/19	18/03/19						

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

COMMENTS

Sample ID	Comment Level	Method	Test	Comment
L19023408	Method	MI01MUG	-	Result confirmed. Sample analysed outside recommended holding time of 24Hrs.

Analysis

MI01MUG

Analysis Requirements

Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.

"-" = Not required or refer to Laboratory comment

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

LOQ	Blank	Positive Control <i>Acceptance Criteria</i>	Negative Control <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	Precision <i>Acceptance Criteria</i>
MI01MUG [Membrane Filtration]E.coli						
<1 CFU/100mL	<1	Accepted	Accepted	~170	~170	Not Calculated
MI01MUG [Membrane Filtration]Faecal Coliform						
<1 CFU/100mL	<1	Accepted	Accepted	~170	~170	Not Calculated

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
NU102 Total Nitrogen						
<0.05 mg/L	<0.05	0.91 <i>0.88 - 1.12 mg/L</i>	92 % Recovery <i>80 - 120 % Recovery</i>	0.66	0.65	1.53 % <i>0 - 50 %</i>
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.052 <i>0.045 - 0.055 mg/L</i>	94 % Recovery <i>80 - 120 % Recovery</i>	0.027	0.027	0.00 % <i>0 - 50 %</i>
WC12MET Conductivity (mS/m)						
<0.1 mS/m	F	140.3 <i>139.3 - 143.3 mS/m</i>	E	63.7	63.9	0.31 % <i>0 - 20 %</i>
WC17NS BOD5						
<2 mg/L	<2	180 <i>139 - 257 mg/L</i>	E	130	140	7.41 % <i>0 - 20 %</i>

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
WC26NS500 Oil & Grease						
<5 mg/L	<5	96 85.1 - 101.5 mg/L	E			
WC44NS Total Suspended Solids						
<2 mg/L	<2	53 42.5 - 57.5 mg/L	E	120	110	8.70 % 0 - 20 %

Extra Note:

- F: Blank is not applicable for this analyte
- E: Spike is not applicable for this analyte