

Final Report 206180



Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Analysis contact: Tel : (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Issue Date: 3/07/2019

Issued By : Matthew Vernon
Commercial Client

Supersedes Report No.: 206050

Attention: Victor Papierniak-Wojtowicz
Customer: Cobar Shire Council
Customer ID: ZCSC

Address: PO Box 223
Cobar NSW 2835
Telephone: 6835 5800

Email: victor.papierniak@cobar.nsw.gov.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments
5. Laboratory QC results

Sydney Water Approved Signatory

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

Jouliet Ashak, Microbiology 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.

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	L19049238	1	17/06/2019	18/06/2019	27/06/2019	Polisher
Point 2	L19049239	1	17/06/2019	18/06/2019	27/06/2019	Turkeys
Point 3	L19049240	1	17/06/2019	18/06/2019	27/06/2019	Inlet STW
Point 5	L19049242	1	17/06/2019	18/06/2019	27/06/2019	Outlet of Mml 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 5				
Sampled Date		17/06/2019 08:15:00 AM	17/06/2019 08:23:00 AM	17/06/2019 08:30:00 AM	17/06/2019 08:30:00 AM				
Sample Number		L19049238	L19049239	L19049240	L19049242				
CHEMISTRY									
WC12MET : Conductivity									
Conductivity (uS/cm)	uS/cm	1107	1073	-	-				
Date of Performance	DD/MM/YY	18/06/19	18/06/19						
WC17NS : Biological oxygen demand									
BOD5	mg/L	<2	<2	87	27				
Date of Performance	DD/MM/YY	19/06/19	19/06/19	19/06/19	19/06/19				
WC26NS500 : Grease									
Oil & Grease	mg/L	<5	<5	-	-				
Date of Performance	DD/MM/YY	20/06/19	20/06/19						
WC44NS : Determination of Total, Fixed & Volatile Suspended Solids									
Total Suspended Solids	mg/L	4	4	-	-				
Date of Performance	DD/MM/YY	20/06/19	20/06/19						
MICRO									

"-" = Not required or refer to Laboratory comment

Client Sample ID		Point 1	Point 2	Point 3	Point 5				
Sampled Date		17/06/2019 08:15:00 AM	17/06/2019 08:23:00 AM	17/06/2019 08:30:00 AM	17/06/2019 08:30:00 AM				
Sample Number		L19049238	L19049239	L19049240	L19049242				
MICRO									
MI01MUG : Faecal Coliform and/or E. coli									
E.coli	CFU/100mL	-	13	-	-				
Faecal Coliform	CFU/100mL	-	13	-	-				
Date of Performance	D/M/Y H:M		18/06/19 15:08						
NUTRIENTS									
NU102 : Nitrogen & Phosphorus									
Total Nitrogen	mg/L	7.01	4.40	-	-				
Total Phosphorus	mg/L	1.41	0.860	-	-				
Date of Performance	DD/MM/YY	20/06/19	20/06/19						

COMMENTS

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L19049239	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	13	9	Accepted
MI01MUG [Membrane Filtration]Faecal Coliform						
<1 CFU/100mL	<1	Accepted	Accepted	13	9	Accepted

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	0.90 <i>0.88 - 1.12 mg/L</i>	106 % Recovery <i>80 - 120 % Recovery</i>	0.27	0.29	B <i>0 - 0 %</i>
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.051 <i>0.045 - 0.055 mg/L</i>	98 % Recovery <i>80 - 120 % Recovery</i>	0.020	0.021	B <i>0 - 50 %</i>
WC12MET Conductivity (uS/cm)						
<1 uS/cm	F	1410 <i>1393 - 1433 uS/cm</i>	E			
WC17NS BOD5						
<2 mg/L	<2	190 <i>139 - 257 mg/L</i>	E	87	91	4.49 % <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	89 85.1 - 101.5 mg/L	E			
WC44NS Total Suspended Solids						
<2 mg/L	<2	48 42.5 - 57.5 mg/L	E	170	170	0.00 % 0 - 20 %

Extra Note:

F: Blank is not applicable for this analyte

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

E: Spike is not applicable for this analyte

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