



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



Analytical Report 284650

Issue Date: 17/05/2023
Issued By : Sydney Water Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114
Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

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

Address: PO Box 223, Cobar NSW 2835
Telephone: 6836 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

Dwijal Dave, Clean & Waste Water Analyst

Jeya Gajendran, Clean & Waste Water Analyst

Xin Ren, Microbiology Analyst

Greta Haddad, Nutrients Laboratory Supervisor

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 POLISHER	L23038730	1	08/05/2023	09/05/2023	16/05/2023	COBAR STP (WASTEWATER)
POINT 2 TURKEYS	L23038731	1	08/05/2023	09/05/2023	16/05/2023	COBAR STP (WASTEWATER)
SPLITTER BOX 1	L23038732	1	08/05/2023	09/05/2023	15/05/2023	COBAR STP (WASTEWATER)
SPLITTER BOX 2	L23038733	1	08/05/2023	09/05/2023	15/05/2023	COBAR STP (WASTEWATER)
INLET	L23038734	1	08/05/2023	09/05/2023	15/05/2023	COBAR STP (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

Client Sample ID	POINT 1 POLISHER	POINT 2 TURKEYS	SPLITTER BOX 1	SPLITTER BOX 2	INLET			
Sampled Date	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM			
Sample Number	L23038730	L23038731	L23038732	L23038733	L23038734			

CHEMISTRY

WC12MET : Conductivity

Conductivity (mS/m)	mS/m	116.7	127.0	-	-	-		
Date of Performance	DD/MM/YY	09/05/23	09/05/23					

WC17NS : Biochemical oxygen demand

BOD5	mg/L	<2	6	190	18	74		
Date of Performance	DD/MM/YY	10/05/23	10/05/23	10/05/23	10/05/23	10/05/23		

WC26NS500 : Oil & Grease

Oil & Grease	mg/L	<5	<5	-	-	-		
Date of Performance	DD/MM/YY	10/05/23	10/05/23					

WC44NS : Total, Fixed & Volatile Suspended Solids

Total Suspended Solids	mg/L	5	6	-	-	-		
Date of Performance	DD/MM/YY	10/05/23	10/05/23					

"-" = Not required or refer to Laboratory comment

Client Sample ID		POINT 1 POLISHER	POINT 2 TURKEYS	SPLITTER BOX 1	SPLITTER BOX 2	INLET			
Sampled Date		08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM	08/05/2023 12:01:00 AM			
Sample Number		L23038730	L23038731	L23038732	L23038733	L23038734			
MICRO									
MI01MUG : Faecal Coliforms and/or E. coli by Membrane Filtration									
E.coli	CFU/100mL	-	~47	-	-	-			
Faecal Coliform	CFU/100mL	-	~180	-	-	-			
Date of Performance	D/M/Y H:M		09/05/23 16:08						
NUTRIENTS									
NU102 : Total Nitrogen & Total Phosphorus									
Total Nitrogen	mg/L	5.97	4.77	-	-	-			
Total Phosphorus	mg/L	3.49	3.27	-	-	-			
Date of Performance	DD/MM/YY	11/05/23	11/05/23						

(~): 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>
L23038731	Method	MI01MUG	-	Result confirmed. Sample processed outside of holding time, result may be affected.

Analysis **Analysis Requirements**

"-" = Not required or refer to Laboratory comment

MI01MUG 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	~47	~31	Not Calculated
MI01MUG [Membrane Filtration]Faecal Coliform						
<1 CFU/100mL	<1	Accepted	Accepted	~180	~110	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	0.92 <i>0.88 - 1.12 mg/L</i>	103 % Recovery <i>80.0 - 120.0 % Recovery</i>	0.46	0.44	B <i>0.0 - 0.0 %</i>
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.050 <i>0.045 - 0.055 mg/L</i>	102 % Recovery <i>80.0 - 120.0 % Recovery</i>	0.014	0.015	B <i>0.0 - 0.0 %</i>
WC12MET Conductivity (mS/m)						
<0.1 mS/m	F	141.7 <i>139.3 - 143.3 mS/m</i>	E			
WC17NS BOD5						
<2 mg/L	<2	200 <i>139.0 - 257.0 mg/L</i>	E	74	74	0.00 % <i>0.0 - 20.0 %</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	86 85.1 - 101.5 mg/L	E			
WC44NS Total Suspended Solids						
<2 mg/L	<2	50 42.5 - 57.5 mg/L	E	600	590	1.68 % 0.0 - 20.0 %

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