Analytical Report 197651

Sydney ŴĂŤ~R

Laboratory Services

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Issued By : Sydney Water Laboratory Services

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

CONTENTS

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

Sydney Water Approved Signatory

Ricardo Quintana, Clean & Waste Water Analyst

Xin Ren, Microbiology Analyst

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

Greta Haddad, Nutrients Laboratory Supervisor



SAMPLE SUMMARY

| <u>Client</u> Sample ID | <u>Sample</u> Number | <u>Sampling</u> Procedure | <u>Date</u> <u>Sampled</u> | <u>Date</u> <u>Received</u> | <u>Date</u> Authorised | Description |
|----------------------------|-------------------------|------------------------------|-------------------------------|--------------------------------|---------------------------|-------------|
| Point 1 | L19003789 | 1 | 09/01/2019 | 10/01/2019 | 17/01/2019 | Polisher |
| Point 2 | L19003790 | 1 | 09/01/2019 | 10/01/2019 | 17/01/2019 | Turkeys |

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

| | | | | 1 | 1 | | 1 | 1 | |
|------------------------------|-----------------|---------------------------|---------------------------|---|---|---|---|---|---|
| Client Sample ID | | Point 1 | Point 2 | | | | | | |
| Sampled Date | | 09/01/2019 07:30:00 AM | 09/01/2019 07:30:00 AM | | | | | | |
| Sample Number | | L19003789 | L19003790 | | | | | | |
| CHEMISTRY | | | | | | | | · | |
| WC12MET : Conductivity | | | | | | | | | |
| | 1 | | | | | 1 | [| | |
| Conductivity (mS/m) | mS/m | 125.9 | 125.3 | | | | | | |
| Date of Performance | DD/MM/YY | 10/01/19 | 10/01/19 | | | | | | |
| WC17NS : Biological oxygen o | lemand | | | | | - | | | - |
| | 1 | | | | | - | | | |
| BOD5 | mg/L | 14 | 6 | | | | | | |
| Date of Performance | DD/MM/YY | 11/01/19 | 11/01/19 | | | | | | |
| WC26NS500 : Grease | • | | | | | | | • | - |
| | | | | | | | | | |
| Oil & Grease | mg/L | <5 | <5 | | | | | | |
| Date of Performance | DD/MM/YY | 14/01/19 | 14/01/19 | | | | | | |
| WC44NS : Determination of To | otal, Fixed & V | olatile Suspended S | olids | | | | | • | |
| | | | | | | | | | |
| Total Suspended Solids | mg/L | 49 | 18 | | | | | | |
| Date of Performance | DD/MM/YY | 14/01/19 | 14/01/19 | | | | | | |
| MICRO | • | | | | | | | • | |
| | | | | | | | | | |
| | | | | | - | - | | | - |



| | | | | 1 | • | | | |
|------------------------------|----------------|---------------------------|---------------------------|---|---|---|---|---|
| Client Sample ID | | Point 1 | Point 2 | | | | | |
| Sampled Date | | 09/01/2019 07:30:00 AM | 09/01/2019 07:30:00 AM | | | | | |
| Sample Number | | L19003789 | L19003790 | | | | | |
| MICRO | | | | | | | | |
| MI01MUG : Faecal Coliform | and/or E. coli | | | | | | | |
| | I | | | [| 1 | | 1 | [|
| Faecal Coliform | CFU/100mL | - | 2 | | | | | |
| Date of Performance | D/M/Y H:M | | 10/01/19 15:21 | | | | | |
| MI28 : Total Coliforms and/o | or E.coli | | | | | | | |
| | | | | | 1 | - | | |
| E.coli | Orgs / 100mL | - | 3 | | | | | |
| Date of Performance | D/M/Y H:M | | 10/01/19 15:21 | | | | | |
| NUTRIENTS | | | | - | | | | - |
| NU102 : Nitrogen & Phosph | orus | | | | | | | |
| | | | | | 1 | | | |
| Total Nitrogen | mg/L | 5.40 | 3.45 | | | | | |
| Total Phosphorus | mg/L | 1.98 | 1.36 | | | | | |
| Date of Performance | DD/MM/YY | 14/01/19 | 14/01/19 | | | | | |

COMMENTS

| Sample ID | Comment Level | Method | Test | <u>Comment</u> |
|-----------|---------------|---------|------|--|
| L19003790 | Method | MI01MUG | - | Result confirmed. Sample analysed outside recommended holding time of 24Hrs. |
| L19003790 | Method | MI28 | - | Sample analysed outside recommended holding time of 24Hrs |
| | | | | |

"-" = Not required or refer to Laboratory comment



<u>Analysis</u> 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 | Negative Control | Duplicate1 | Duplicate2 | Precision | | | |
|-------|--|-------|---------------------|---------------------|------------|------------|---------------------|--|--|--|
| | | | Acceptance Criteria | Acceptance Criteria | | | Acceptance Criteria | | | |
| MI01M | MI01MUG [Membrane Filtration]Faecal Coliform | | | | | | | | | |
| | <1 CFU/100mL | <1 | Accepted | Accepted | 2 | <1 | Not Calculated | | | |
| MI28 | MI28 [Enzyme Substrate Techniques]E.coli | | | | | | | | | |
| | <1 Orgs / 100mL | <1 | Accepted | Accepted | 3 | 3 | Accepted | | | |

| LOQ | Blank | Control | Spike | Duplicate1 | Duplicate2 | RPD |
|--------------------------|--------|---------------------|---------------------|------------|------------|---------------------|
| | | Acceptance Criteria | Acceptance Criteria | | | Acceptance Criteria |
| NU102 Total Nitrogen | | | | | | |
| <0.05 mg/L | <0.05 | 0.94 | 113 % Recovery | 0.65 | 0.64 | 1.55 % |
| | | 0.9 - 1.1 mg/L | 80 - 120 % Recovery | | | 0 - 50 % |
| NU102 Total Phosphorus | | | | | | |
| <0.002 mg/L | <0.002 | 0.051 | 102 % Recovery | 0.093 | 0.094 | 1.07 % |
| | | 0.045 - 0.055 mg/L | 80 - 120 % Recovery | | | 0 - 20 % |
| WC12MET Conductivity (mS | /m) | | | | | |
| <0.1 mS/m | F | 142.1 | E | 88.1 | 88.4 | 0.34 % |
| | | 139.3 - 143.3 mS/m | | | | 0 - 20 % |
| WC17NS BOD5 | | | · | · | | |
| <2 mg/L | <2 | 200 | E | 420 | 420 | 0.00 % |
| | | 139 - 257 mg/L | | | | 0 - 20 % |

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| LOQ | Blank | Control | Spike | Duplicate1 Duplic | cate2 RPD |
|---------------------------|-------|---------------------|---|-------------------|---------------------|
| | | Acceptance Criteria | Acceptance Criteria Acceptance Criteria | | Acceptance Criteria |
| WC26NS500 Oil & Grease | | | | | |
| <5 mg/L | <5 | 87 | E | | |
| | | 85.1 - 101.5 mg/L | | | |
| WC44NS Total Suspended Se | olids | | | | |
| <2 mg/L | <2 | 52 | E | 5900 | 6300 6.56 % |
| | | 42.5 - 57.5 mg/L | | | 0 - 20 % |

Extra Note:

F: Blank is not applicable for this analyte Sample diluted – outside of test limits E: Spike is not applicable for this analyte DUPLICATE

Total Suspended Solids Sample diluted – outside of test limits