



CERTIFICATE OF ANALYSIS

Work Order : **WN1905422**
 Client : **WARRUMBUNGL E SHIRE COUNCIL**
 Contact
 Address : 59 Binnia Street
 COOLAH NSW 2843
 Telephone : +61 02 6849 2000
 Project : ---
 Order number : ---
 C-O-C number : ---
 Sampler
 Site : ---
 Quote number : WN Blanket Quote
 No. of samples received : 2
 No. of samples analysed : 2

Page : 1 of 2
 Laboratory : ALS Water - Newcastle
 Contact : Andrea Swan
 Address : 5/585 Maitland Road Newcastle West NSW Australia 2304
 Telephone : +61 2 4014 2500
 Date Samples Received : 31-Jul-2019 10:45
 Date Analysis Commenced : 31-Jul-2019
 Issue Date : 06-Aug-2019 10:11



Accreditation No. 825
 Accredited for compliance with
 ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Katie Draper	Quality Coordinator	Chemistry, Newcastle West, NSW
Neil Martin	Team Leader - Chemistry	Chemistry, Newcastle West, NSW



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

- Key :
- CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 - LOR = Limit of reporting
 - ^ = This result is computed from individual analyte detections at or above the level of reporting
 - ∅ = ALS is not NATA accredited for these tests.
 - ~ = Indicates an estimated value.

- EP021: Oil and Grease LOR has been raised due to insufficient sample volume provided for standard analysis. 1L is required for standard analysis.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Client sample ID		Final Effluent Coolah	Final Effluent Dunedoo	----	----	----
Client sampling date / time				30-Jul-2019 13:30	30-Jul-2019 11:30	---	---	---
Compound	CAS Number	LOR	Unit	WN1905422-001	WN1905422-002	-----	-----	-----
				Result	Result	---	---	---
EA005: pH								
pH Value	---	0.01	pH Unit	8.79	8.18	---	---	---
EA010: Conductivity								
Electrical Conductivity @ 25°C	---	10	µS/cm	1440	1820	---	---	---
EA025: Total Suspended Solids dried at 104 ± 2°C								
Suspended Solids (SS)	---	1	mg/L	138	8	---	---	---
EK059A: Nitrite and Nitrate as N (NO_x)								
Nitrite + Nitrate as N	---	0.05	mg/L	<0.05	0.39	---	---	---
EK061A: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N	---	0.2	mg/L	6.9	4.8	---	---	---
EK062A: Total Nitrogen as N								
Total Nitrogen as N	---	0.1	mg/L	6.9	5.2	---	---	---
EK067A: Total Phosphorus as P								
Total Phosphorus as P	---	0.05	mg/L	3.60	3.50	---	---	---
EP021: Total Oil and Grease								
Total Oil and Grease	---	2	mg/L	7	4	---	---	---
EP030.WN: Biochemical Oxygen Demand (BOD)								
Biochemical Oxygen Demand	---	2	mg/L	23	<2	---	---	---