



CERTIFICATE OF ANALYSIS

Work Order : **WN2304861**
Client : **OBERON COUNCIL**
Contact : ANDREW KROL
Address : 137-139 OBERON STREET
OBERON NSW,AUSTRALIA 2787
Telephone : ----
Project : ----
Order number : PO 17985
C-O-C number : ----
Sampler : Luke Renshaw
Site : ----
Quote number : EN/222
No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 3
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 : 19-Apr-2023 10:30
Date Analysis Commenced : 19-Apr-2023
Issue Date : 24-Apr-2023 16:26



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, unless the sampling was conducted by ALS. 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>
Christopher Cameron	Laboratory Technician	Chemistry, Newcastle West, NSW
Gregory Towers	Technical Officer	Chemistry, Newcastle West, NSW
Ruby Buller	Laboratory Technician	Chemistry, Newcastle West, NSW
Sarah Dowley	Microbiology Section Supervisor	Microbiology, Newcastle West, NSW



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the 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 Contract 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
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- Where the LOR of a reported result differs from standard LOR, this may be due to dilutions, turbidity and/or non-target organisms at high volumes.
- CFU = colony forming unit
- MF = membrane filtration



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Ex pond discharge EMP1	Up Stream EMP3	Down stream EMP4	Ex Pond discharge EMP1	----
Sampling date / time				17-Apr-2023 09:15	17-Apr-2023 09:00	17-Apr-2023 09:30	17-Apr-2023 10:00	----	----
Compound	CAS Number	LOR	Unit	WN2304861-001	WN2304861-002	WN2304861-003	WN2304861-004	-----	----
				Result	Result	Result	Result	-----	----
EA005: pH									
pH Value	----	0.01	pH Unit	7.70	7.19	7.06	----	-----	----
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	8	----	----	----	-----	----
EK055A: Ammonia as N									
Ammonia as N	7664-41-7	0.05	mg/L	0.05	----	----	----	-----	----
EK059A: Nitrite and Nitrate as N (NOx)									
Nitrite + Nitrate as N	----	0.05	mg/L	5.38	0.11	0.72	----	-----	----
EK061A: Total Kjeldahl Nitrogen as N									
Total Kjeldahl Nitrogen as N	----	0.2	mg/L	0.8	0.3	0.2	----	-----	----
EK062A: Total Nitrogen as N									
Total Nitrogen as N	----	0.1	mg/L	6.2	0.4	1.0	----	-----	----
EK067A: Total Phosphorus as P									
Total Phosphorus as P	----	0.05	mg/L	0.30	<0.05	0.06	----	-----	----
EP008.WN: Chlorophyll a and Pheophytin a									
Chlorophyll a	----	1.0	µg/L	41.8	----	----	----	-----	----
EP021: Total Oil and Grease									
Total Oil and Grease	----	2	mg/L	<2	----	----	----	-----	----
EP030.WN: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L	3	----	----	----	-----	----
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	----	----	----	~360	-----	----