



CERTIFICATE OF ANALYSIS

Work Order : EN2410148
Client : OBERON COUNCIL
Contact : ANDREW KROL
Address : 137-139 OBERON STREET
OBERON NSW,AUSTRALIA 2787
Telephone : ----
Project : end August 24 river samples
Order number : PO 005145
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 : Environmental Division Newcastle
Contact : Andrea Swan
Address : 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone : +61 2 4014 2500
Date Samples Received : 03-Sep-2024 09:00
Date Analysis Commenced : 03-Sep-2024
Issue Date : 10-Sep-2024 10:53



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.

Signatories	Position	Accreditation Category
Christopher Cameron	Laboratory Technician	Newcastle - Inorganics, Mayfield West, NSW
Gregory Towers	Laboratory Technician	Newcastle - Inorganics, Mayfield West, NSW
Petrusia Ferreira	Laboratory Technician	Newcastle - Microbiology, Mayfield 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.
- EK055A: Ammonia result is higher than TKN and TN results for sample 001 but taking into account the concentrations present and the dilutions required this is within acceptable criteria.
- Holding time was not met. Therefore Microbiological result may be indicative.
- 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			02-Sep-2024 08:00	02-Sep-2024 07:45	02-Sep-2024 08:15	02-Sep-2024 08:30	----	----
Compound	CAS Number	LOR	Unit	EN2410148-001	EN2410148-002	EN2410148-003	EN2410148-004	-----
				Result	Result	Result	Result	----
EA005: pH								
pH Value	----	0.01	pH Unit	8.00	7.40	7.28	----	----
EA025: Total Suspended Solids dried at 104 ± 2°C								
Suspended Solids (SS)	----	5	mg/L	9	----	----	----	----
EK055A: Ammonia as N								
Ammonia as N	7664-41-7	0.05	mg/L	3.04	----	----	----	----
EK059A: Nitrite and Nitrate as N (NOx)								
Nitrite + Nitrate as N	----	0.05	mg/L	5.50	0.19	0.32	----	----
EK061A: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N	----	0.2	mg/L	3.0	0.3	0.3	----	----
EK062A: Total Nitrogen as N								
Total Nitrogen as N	----	0.1	mg/L	8.5	0.5	0.6	----	----
EK067A: Total Phosphorus as P								
Total Phosphorus as P	----	0.05	mg/L	0.36	<0.05	<0.05	----	----
EP008.WN: Chlorophyll a and Pheophytin a								
Chlorophyll a	----	1.0	µg/L	23.5	----	----	----	----
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	5	----	----	----	----
MW006: Faecal Coliforms & E.coli by MF								
Thermotolerant Coliforms	----	1	CFU/100mL	----	----	----	130	----