

CERTIFICATE OF ANALYSIS

Work Order : WN2006110

Client : OBERON COUNCIL

Contact : Water Oberon

Address : 137-139 OBERON STREET

OBERON NSW, AUSTRALIA 2787

Telephone : ---

Project : OBERON WASTE WATER

Order number : 11366 C-O-C number : ----

Sampler : Andrew Krol

Site : ---

Quote number : WN Blanket Quote

No. of samples received : 4
No. of samples analysed : 4

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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 : 07-Jul-2020 08:45

Date Analysis Commenced : 07-Jul-2020

Issue Date : 14-Jul-2020 16:36



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.

Signatories Position Accreditation Category

Gregory Towers
Technical Officer
Chemistry, Newcastle West, NSW
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Quality Coordinator
Chemistry, Newcastle West, NSW
Neil Martin
Team Leader - Chemistry
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Senior Technical Officer
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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 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
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Sample 004- The LOR has been raised for this sample due to dilutions because of turbidity or non-target organisms at higher volumes, or a history of.

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Analytical Results

Compound CAS Number LOR Unit WN2006110-001 WN2006110-003 WN2006110-004	Sub-Matrix: WATER (Matrix: WATER)	Client sample ID			ExPond Works Discharge EMP1	Up-Stream EMP3	Down-Stream EMP4	ExPond Works Discharge EMP1	
Result R		CI	ient sampl	ing date / time	06-Jul-2020 09:15	06-Jul-2020 09:00	06-Jul-2020 09:30	06-Jul-2020 10:00	
EA005: pH pH Value	Compound	CAS Number	LOR	Unit	WN2006110-001	WN2006110-002	WN2006110-003	WN2006110-004	
pH Value 0.01 pH Unit 6.75 7.14 7.06 EA025: Total Suspended Solids (SS) 1 mg/L 5					Result	Result	Result	Result	
EA025: Total Suspended Solids (SS)	EA005: pH								
Suspended Solids (SS)	pH Value		0.01	pH Unit	6.75	7.14	7.06		
EK055A: Ammonia as N 7664-41-7 0.05 mg/L 5.10	EA025: Total Suspended Solids dried at	104 ± 2°C							
Ammonia as N 7664-41-7 0.05 mg/L 5.10 -	Suspended Solids (SS)		1	mg/L	5				
EK059A: Nitrite and Nitrate as N (NOx) Nitrite + Nitrate as N 0.05 mg/L 5.80 0.11 1.70 EK061A: Total Kjeldahl Nitrogen as N Total Kjeldahl Nitrogen as N 0.2 mg/L 5.1 0.3 0.2 EK062A: Total Nitrogen as N Total Nitrogen as N Total Nitrogen as N Total Phosphorus as P Total Phosphorus as P Total Phosphorus as P 0.05 mg/L 0.25 <0.05 0.05	EK055A: Ammonia as N								
Nitrite + Nitrate as N	Ammonia as N	7664-41-7	0.05	mg/L	5.10				
EK061A: Total Kjeldahl Nitrogen as N Total Kjeldahl Nitrogen as N 0.2 mg/L 5.1 0.3 0.2 EK062A: Total Nitrogen as N Total Nitrogen as N 0.1 mg/L 10.9 0.4 1.9 EK067A: Total Phosphorus as P Total Phosphorus as P Total Phosphorus as P 0.05 mg/L 0.25 <0.05 0.05 EP008.WN: Chlorophyll a and Pheophytin a Chlorophyll a 1.0 μg/L 10.4	EK059A: Nitrite and Nitrate as N (NOx)								
Total Kjeldahl Nitrogen as N 0.2 mg/L 5.1 0.3 0.2	Nitrite + Nitrate as N		0.05	mg/L	5.80	0.11	1.70		
EK062A: Total Nitrogen as N 0.1 mg/L 10.9 0.4 1.9	EK061A: Total Kjeldahl Nitrogen as N								
Total Nitrogen as N 0.1 mg/L 10.9 0.4 1.9 1.9	Total Kjeldahl Nitrogen as N		0.2	mg/L	5.1	0.3	0.2		
EK067A: Total Phosphorus as P Total Phosphorus as P 0.05 mg/L EP008.WN: Chlorophyll a and Pheophytin a Chlorophyll a 1.0 μg/L 1.0 μg/L 10.4	EK062A: Total Nitrogen as N								
Total Phosphorus as P 0.05 mg/L 0.25 <0.05 0.05 EP008.WN: Chlorophyll a and Pheophytin a 1.0 μg/L 10.4	Total Nitrogen as N		0.1	mg/L	10.9	0.4	1.9		
Total Phosphorus as P 0.05 mg/L 0.25 <0.05 0.05 EP008.WN: Chlorophyll a and Pheophytin a 1.0 μg/L 10.4	EK067A: Total Phosphorus as P								
Chlorophyll a 1.0 μg/L 10.4			0.05	mg/L	0.25	<0.05	0.05		
Chlorophyll a 1.0 μg/L 10.4	EP008.WN: Chlorophyll a and Pheophytii	n a							
ED021: Total Oil and Grosse			1.0	μg/L	10.4				
EPUZT. TUtal Oil allu Grease	EP021: Total Oil and Grease								
Total Oil and Grease 2 mg/L <2			2	mg/L	<2				
EP030.WN: Biochemical Oxygen Demand (BOD)	EP030.WN: Biochemical Oxygen Demand	l (BOD)							
Biochemical Oxygen Demand 2 mg/L 12			2	mg/L	12				
MW006.WN: Thermotolerant Coliforms & E.coli (MF)									
Faecal Coliforms 1 CFU/100mL <9		· · · ·	1	CFU/100mL				<9	