

CERTIFICATE OF ANALYSIS

Work Order : **CA2100862**
Client : **Southern Meats**
Contact : Andy Grealy
Address : Mazamet Road
Goulburn NSW 2580
Telephone : 02 4824 0000
Project : Monthly Wastewater
Order number : ----
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : ----
No. of samples received : 8
No. of samples analysed : 8

Page : 1 of 4
Laboratory : ALS Water Resources Group
Contact : Client Services
Address : 16B Lithgow Street Fyshwick ACT Australia 2609
Telephone : +61 2 6202 5404
Date Samples Received : 09-Feb-2021 10:10
Date Analysis Commenced : 09-Feb-2021
Issue Date : 22-Feb-2021 10:25



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>
Amanda Gonzalez	Laboratory Technician	Inorganics, Fyshwick, ACT
Clare Kennedy	Analyst	Inorganics, Fyshwick, ACT
Geetha Ramasundara	Chemistry Teamleader	Inorganics, Fyshwick, ACT
Titus Vimalasiri	Metals Teamleader	Inorganics, Fyshwick, ACT



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.

- For samples collected by ALS WRG, sampling was carried out in accordance with Procedure EN67
- Split TAT - preliminary report sent 18/02/21, repeated BOD to be reported 22/02/21
- Result for pH in water tested in the laboratory may be indicative only as holding time is generally not achievable.



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				STHMEATS1 Ex Daf	STHMEATS2 Circular Anaerobic Lagoon	STHMEATS3 Aerated Lagoon	STHMEATS4 Settling Pond 2	STHMEATS5 Storage Dam 1
Sampling date / time				09-Feb-2021 06:00	09-Feb-2021 06:00	09-Feb-2021 06:00	09-Feb-2021 06:00	09-Feb-2021 06:00
Compound	CAS Number	LOR	Unit	CA2100862-001	CA2100862-002	CA2100862-003	CA2100862-004	CA2100862-005
				Result	Result	Result	Result	Result
EA005CA: pH								
pH	----	0.01	pH Unit	6.55	1.71	8.04	7.93	7.90
EA010CA: Conductivity								
Electrical Conductivity @ 25°C	----	2	µS/cm	1850	8860	3310	3320	2390
ED009CA: Anions								
Chloride	16887-00-6	0.1	mg/L	105	96.5	141	154	155
EA015CA: Total Dissolved Solids								
Total Dissolved Solids	----	10	mg/L	2290	2620	1250	1300	1200
EA025CA: Suspended Solids								
Suspended Solids (SS)	----	2	mg/L	4380	1110	461	284	180
EP030CA: Biochemical Oxygen Demand								
Biochemical Oxygen Demand	----	2	mg/L	4920	212	146	130	51
EP026CA: Chemical Oxygen Demand								
Chemical Oxygen Demand	----	5	mg/L	10900	1820	940	764	444
EK059CA: Nitrite plus Nitrate as N								
Nitrite + Nitrate as N	----	0.05	mg/L N	<0.05	<0.05	0.15	0.71	0.11
EK061CA: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	264	168	319	290	134
EK062CA: Total Nitrogen as N								
Total Nitrogen as N	----	0.05	mg/L N	264	168	319	291	134
EK067CA: Total Phosphorus as P								
Total Phosphorus as P	----	0.01	mg/L P	44.2	16.4	36.4	38.4	32.2
EG005CA: Total Metals by ICP-OES								
Calcium	7440-70-2	0.05	mg/L	49.1	35.6	34.0	35.7	30.8
Magnesium	7439-95-4	0.05	mg/L	26.6	20.6	19.7	21.3	21.0
Sodium	7440-23-5	0.1	mg/L	267	140	309	320	305
EA006CA: Sodium Adsorption Ratio								
∅ Sodium Adsorption Ratio	----	0.01	-	15.3	4.67	10.4	10.5	10.2



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Sample ID		STHMEATS6 Storage Dam 2	STHMEATS7 Run Off Dam 1	STHMEATS8 Run Off Dam 2	----	----	
Sampling date / time		09-Feb-2021 06:00		09-Feb-2021 06:00		09-Feb-2021 06:00		----	----
Compound	CAS Number	LOR	Unit	CA2100862-006	CA2100862-007	CA2100862-008	-----	-----	
				Result	Result	Result	----	----	
EA005CA: pH									
pH	----	0.01	pH Unit	7.66	8.47	8.38	----	----	
EA010CA: Conductivity									
Electrical Conductivity @ 25°C	----	2	µS/cm	2180	1460	1110	----	----	
ED009CA: Anions									
Chloride	16887-00-6	0.1	mg/L	180	191	145	----	----	
EA015CA: Total Dissolved Solids									
Total Dissolved Solids	----	10	mg/L	1340	905	748	----	----	
EA025CA: Suspended Solids									
Suspended Solids (SS)	----	2	mg/L	251	29	19	----	----	
EP030CA: Biochemical Oxygen Demand									
Biochemical Oxygen Demand	----	2	mg/L	56	9	6	----	----	
EP026CA: Chemical Oxygen Demand									
Chemical Oxygen Demand	----	5	mg/L	586	170	155	----	----	
EK059CA: Nitrite plus Nitrate as N									
Nitrite + Nitrate as N	----	0.05	mg/L N	25.9	<0.05	<0.05	----	----	
EK061CA: Total Kjeldahl Nitrogen as N									
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	66.9	6.57	6.07	----	----	
EK062CA: Total Nitrogen as N									
Total Nitrogen as N	----	0.05	mg/L N	92.8	6.57	6.07	----	----	
EK067CA: Total Phosphorus as P									
Total Phosphorus as P	----	0.01	mg/L P	34.2	15.2	10.7	----	----	
EG005CA: Total Metals by ICP-OES									
Calcium	7440-70-2	0.05	mg/L	33.5	20.9	13.1	----	----	
Magnesium	7439-95-4	0.05	mg/L	22.9	22.1	17.4	----	----	
Sodium	7440-23-5	0.1	mg/L	332	245	194	----	----	
EA006CA: Sodium Adsorption Ratio									
∅ Sodium Adsorption Ratio	----	0.01	-	11.0	8.91	8.19	----	----	