

## CERTIFICATE OF ANALYSIS

<b>Work Order</b> : <b>CA2104893</b> <b>Client</b> : <b>Southern Meats</b> <b>Contact</b> : Andy Grealy <b>Address</b> : Mazamet Road Goulburn NSW 2580 <b>Telephone</b> : 02 4824 0000 <b>Project</b> : Monthly Wastewater <b>Order number</b> : ---- <b>C-O-C number</b> : ---- <b>Sampler</b> : ---- <b>Site</b> : ---- <b>Quote number</b> : ---- <b>No. of samples received</b> : 8 <b>No. of samples analysed</b> : 8	<b>Page</b> : 1 of 4 <b>Laboratory</b> : ALS Water Resources Group <b>Contact</b> : Client Services <b>Address</b> : 16B Lithgow Street Fyshwick ACT Australia 2609  <b>Telephone</b> : +61 2 6202 5404 <b>Date Samples Received</b> : 05-Aug-2021 11:50 <b>Date Analysis Commenced</b> : 06-Aug-2021 <b>Issue Date</b> : 12-Aug-2021 16:14
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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
- 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				04-Aug-2021 13:05	04-Aug-2021 13:15	04-Aug-2021 13:20	04-Aug-2021 13:25	04-Aug-2021 13:35
Compound	CAS Number	LOR	Unit	CA2104893-001	CA2104893-002	CA2104893-003	CA2104893-004	CA2104893-005
				Result	Result	Result	Result	Result
<b>EA005CA: pH</b>								
pH	----	0.01	pH Unit	6.85	7.05	7.43	7.79	7.89
<b>EA010CA: Conductivity</b>								
Electrical Conductivity @ 25°C	----	2	µS/cm	1600	2990	3030	2960	2600
<b>ED009CA: Anions</b>								
Chloride	16887-00-6	0.1	mg/L	112	125	129	140	189
<b>EA015CA: Total Dissolved Solids</b>								
Total Dissolved Solids	----	10	mg/L	2190	1210	1130	1140	1150
<b>EA025CA: Suspended Solids</b>								
Suspended Solids (SS)	----	2	mg/L	3910	2280	1300	1170	109
<b>EP030CA: Biochemical Oxygen Demand</b>								
Biochemical Oxygen Demand	----	2	mg/L	5360	785	272	224	46
<b>EP026CA: Chemical Oxygen Demand</b>								
Chemical Oxygen Demand	----	5	mg/L	8160	3530	2170	1860	385
<b>EK059CA: Nitrite plus Nitrate as N</b>								
Nitrite + Nitrate as N	----	0.05	mg/L N	<0.50	<0.05	<0.05	<0.05	<0.05
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	248	284	287	279	144
<b>EK062CA: Total Nitrogen as N</b>								
Total Nitrogen as N	----	0.05	mg/L N	248	284	287	279	144
<b>EK067CA: Total Phosphorus as P</b>								
Total Phosphorus as P	----	0.01	mg/L P	39.2	37.5	38.3	37.1	29.8
<b>EG005CA: Total Metals by ICP-OES</b>								
Calcium	7440-70-2	0.05	mg/L	22.5	51.7	41.4	40.2	32.0
Magnesium	7439-95-4	0.05	mg/L	11.6	19.8	19.8	19.9	23.7
Sodium	7440-23-5	0.1	mg/L	274	292	295	299	318
<b>EA006CA: Sodium Adsorption Ratio</b>								
∅ Sodium Adsorption Ratio	----	0.01	-	24.4	11.7	11.2	11.2	10.5



## 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		04-Aug-2021 13:45		04-Aug-2021 13:50		04-Aug-2021 13:55		----	----
Compound	CAS Number	LOR	Unit	CA2104893-006	CA2104893-007	CA2104893-008	-----	-----	
				Result	Result	Result	----	----	
<b>EA005CA: pH</b>									
pH	----	0.01	pH Unit	7.92	8.29	7.83	----	----	
<b>EA010CA: Conductivity</b>									
Electrical Conductivity @ 25°C	----	2	µS/cm	2470	1230	1120	----	----	
<b>ED009CA: Anions</b>									
Chloride	16887-00-6	0.1	mg/L	187	143	114	----	----	
<b>EA015CA: Total Dissolved Solids</b>									
Total Dissolved Solids	----	10	mg/L	1160	775	719	----	----	
<b>EA025CA: Suspended Solids</b>									
Suspended Solids (SS)	----	2	mg/L	121	9	15	----	----	
<b>EP030CA: Biochemical Oxygen Demand</b>									
Biochemical Oxygen Demand	----	2	mg/L	24	2	8	----	----	
<b>EP026CA: Chemical Oxygen Demand</b>									
Chemical Oxygen Demand	----	5	mg/L	308	148	174	----	----	
<b>EK059CA: Nitrite plus Nitrate as N</b>									
Nitrite + Nitrate as N	----	0.05	mg/L N	2.07	0.35	5.42	----	----	
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>									
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	112	4.84	12.2	----	----	
<b>EK062CA: Total Nitrogen as N</b>									
Total Nitrogen as N	----	0.05	mg/L N	114	5.19	17.6	----	----	
<b>EK067CA: Total Phosphorus as P</b>									
Total Phosphorus as P	----	0.01	mg/L P	30.8	14.2	11.4	----	----	
<b>EG005CA: Total Metals by ICP-OES</b>									
Calcium	7440-70-2	0.05	mg/L	32.1	21.4	20.4	----	----	
Magnesium	7439-95-4	0.05	mg/L	22.0	19.0	16.2	----	----	
Sodium	7440-23-5	0.1	mg/L	323	225	194	----	----	
<b>EA006CA: Sodium Adsorption Ratio</b>									
∅ Sodium Adsorption Ratio	----	0.01	-	10.9	8.54	7.77	----	----	