

## CERTIFICATE OF ANALYSIS

**Work Order** : CA2201357  
**Client** : Southern Meats  
**Contact** : Andy Greal  
**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** : 25-Feb-2022 14:35  
**Date Analysis Commenced** : 28-Feb-2022  
**Issue Date** : 08-Mar-2022 23:48



Accreditation No. 992  
 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.

Signatories	Position	Accreditation Category
Amanda Gonzalez	Laboratory Technician	Inorganics, Fyshwick, ACT
Clare Kennedy	Analyst	Inorganics, Fyshwick, ACT
Jing Zeng	Analyst	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				24-Feb-2022 09:35	24-Feb-2022 09:45	24-Feb-2022 09:50	24-Feb-2022 10:00	24-Feb-2022 10:15
Compound	CAS Number	LOR	Unit	CA2201357-001	CA2201357-002	CA2201357-003	CA2201357-004	CA2201357-005
				Result	Result	Result	Result	Result
<b>EA005CA: pH</b>								
pH	----	0.01	pH Unit	6.95	7.51	7.78	7.95	7.83
<b>EA010CA: Conductivity</b>								
Electrical Conductivity @ 25°C	----	2	µS/cm	1800	3000	3040	2980	2000
<b>ED009CA: Anions</b>								
Chloride	16887-00-6	0.1	mg/L	126	112	111	115	2.5
<b>EA015CA: Total Dissolved Solids</b>								
Total Dissolved Solids	----	10	mg/L	2090	1080	1090	1110	972
<b>EA025CA: Suspended Solids</b>								
Suspended Solids (SS)	----	2	mg/L	1440	634	352	373	105
<b>EP030CA: Biochemical Oxygen Demand</b>								
Biochemical Oxygen Demand	----	2	mg/L	3340	232	158	120	31
<b>EP026CA: Chemical Oxygen Demand</b>								
Chemical Oxygen Demand	----	5	mg/L	6230	1140	747	741	334
<b>EK059CA: Nitrite plus Nitrate as N</b>								
Nitrite + Nitrate as N	----	0.05	mg/L N	0.15	<0.05	<0.05	<0.05	8.01
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	231	290	319	299	86.6
<b>EK062CA: Total Nitrogen as N</b>								
Total Nitrogen as N	----	0.05	mg/L N	231	290	319	299	94.6
<b>EK067CA: Total Phosphorus as P</b>								
Total Phosphorus as P	----	0.01	mg/L P	40.4	36.4	35.0	38.6	26.2
<b>EG005CA: Total Metals by ICP-OES</b>								
Calcium	7440-70-2	0.05	mg/L	28.0	33.4	30.4	30.6	28.9
Magnesium	7439-95-4	0.05	mg/L	18.0	17.6	17.4	18.0	21.0
Sodium	7440-23-5	0.1	mg/L	286	260	265	277	250
<b>EA006CA: Sodium Adsorption Ratio</b>								
Ø Sodium Adsorption Ratio	----	0.01	-	18.4	8.79	8.80	9.21	8.27



## 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				24-Feb-2022 10:30	24-Feb-2022 10:35	24-Feb-2022 10:45	----	----
Compound	CAS Number	LOR	Unit	CA2201357-006	CA2201357-007	CA2201357-008	-----	-----
				Result	Result	Result	----	----
<b>EA005CA: pH</b>								
pH	----	0.01	pH Unit	7.76	8.07	8.04	----	----
<b>EA010CA: Conductivity</b>								
Electrical Conductivity @ 25°C	----	2	µS/cm	2000	580	612	----	----
<b>ED009CA: Anions</b>								
Chloride	16887-00-6	0.1	mg/L	114	48.3	60.6	----	----
<b>EA015CA: Total Dissolved Solids</b>								
Total Dissolved Solids	----	10	mg/L	1100	422	484	----	----
<b>EA025CA: Suspended Solids</b>								
Suspended Solids (SS)	----	2	mg/L	96	14	13	----	----
<b>EP030CA: Biochemical Oxygen Demand</b>								
Biochemical Oxygen Demand	----	2	mg/L	43	3	5	----	----
<b>EP026CA: Chemical Oxygen Demand</b>								
Chemical Oxygen Demand	----	5	mg/L	348	116	132	----	----
<b>EK059CA: Nitrite plus Nitrate as N</b>								
Nitrite + Nitrate as N	----	0.05	mg/L N	2.73	<0.05	<0.05	----	----
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	93.9	3.96	3.81	----	----
<b>EK062CA: Total Nitrogen as N</b>								
Total Nitrogen as N	----	0.05	mg/L N	96.6	3.96	3.81	----	----
<b>EK067CA: Total Phosphorus as P</b>								
Total Phosphorus as P	----	0.01	mg/L P	35.0	9.67	6.06	----	----
<b>EG005CA: Total Metals by ICP-OES</b>								
Calcium	7440-70-2	0.05	mg/L	27.2	13.7	11.8	----	----
Magnesium	7439-95-4	0.05	mg/L	19.3	8.90	8.30	----	----
Sodium	7440-23-5	0.1	mg/L	260	84.8	103	----	----
<b>EA006CA: Sodium Adsorption Ratio</b>								
Ø Sodium Adsorption Ratio	----	0.01	-	8.90	4.28	5.50	----	----