



## CERTIFICATE OF ANALYSIS

**Work Order** : CA2307343  
**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** : 10  
**No. of samples analysed** : 10

**Page** : 1 of 5  
**Laboratory** : ALS Water Resources Group  
**Contact** : Client Services  
**Address** : 2/33 Couranga Cr Hume ACT Australia 2620  
**Telephone** : +61 2 6202 5404  
**Date Samples Received** : 24-Nov-2023 12:29  
**Date Analysis Commenced** : 24-Nov-2023  
**Issue Date** : 05-Dec-2023 16:40



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Amanda Gonzalez	Laboratory Technician	Inorganics, Hume, ACT
Clare Kennedy	Analyst	Inorganics, Hume, ACT
Geetha Ramasundara	Chemistry Teamleader	Inorganics, Hume, ACT
Titus Vimalasiri	Metals Teamleader	Inorganics, Hume, 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 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.

- 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				23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00
Compound	CAS Number	LOR	Unit	CA2307343-001	CA2307343-002	CA2307343-003	CA2307343-004	CA2307343-005
				Result	Result	Result	Result	Result
<b>EA005CA: pH</b>								
pH	----	0.01	pH Unit	7.12	7.55	7.73	7.88	8.13
<b>EA010CA: Conductivity</b>								
Electrical Conductivity @ 25°C	----	2	µS/cm	3810	5200	5340	5270	4560
<b>ED009CA: Anions</b>								
Chloride	16887-00-6	0.1	mg/L	215	169	166	178	193
<b>EA015CA: Total Dissolved Solids</b>								
Total Dissolved Solids	----	10	mg/L	3020	1900	1830	1810	1740
<b>EA025CA: Suspended Solids</b>								
Suspended Solids (SS)	----	2	mg/L	5260	1390	481	301	195
<b>EP030CA: Biochemical Oxygen Demand</b>								
Biochemical Oxygen Demand	----	2	mg/L	9720	468	237	172	104
<b>EP026CA: Chemical Oxygen Demand</b>								
Chemical Oxygen Demand	----	5	mg/L	12700	2600	959	989	689
<b>EK059CA: Nitrite plus Nitrate as N</b>								
Nitrite + Nitrate as N	----	0.05	mg/L N	0.31	0.14	<0.10	<0.10	<0.10
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	641	600	623	562	505
<b>EK062CA: Total Nitrogen as N</b>								
Total Nitrogen as N	----	0.05	mg/L N	641	600	623	562	505
<b>EK067CA: Total Phosphorus as P</b>								
Total Phosphorus as P	----	0.01	mg/L P	72.0	64.9	60.8	58.2	46.7
<b>EG005CA: Total Metals by ICP-OES</b>								
Calcium	7440-70-2	0.05	mg/L	55.6	54.1	43.9	42.4	46.8
Magnesium	7439-95-4	0.05	mg/L	30.1	28.8	28.1	28.5	19.0
Sodium	7440-23-5	0.1	mg/L	435	388	389	407	415
<b>EA006CA: Sodium Adsorption Ratio</b>								
∅ Sodium Adsorption Ratio	----	0.01	-	45.9	11.9	11.4	12.1	13.6



## Analytical Results

Sub-Matrix: WATER  
 (Matrix: WATER)

Sample ID

				STHMEATS6 Storage Dam 2	STHMEATS7 Run Off Dam 1	STHMEATS8 Run Off Dam 2	STHMEATS Upstream	STHMEATS Downstream
Sampling date / time				23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00	23-Nov-2023 14:00
Compound	CAS Number	LOR	Unit	CA2307343-006	CA2307343-007	CA2307343-008	CA2307343-009	CA2307343-010
				Result	Result	Result	Result	Result
<b>EA005CA: pH</b>								
pH	----	0.01	pH Unit	8.14	8.29	7.71	7.71	7.88
<b>EA010CA: Conductivity</b>								
Electrical Conductivity @ 25°C	----	2	µS/cm	4490	1400	2100	1350	1030
<b>ED009CA: Anions</b>								
Chloride	16887-00-6	0.1	mg/L	189	91.0	152	190	152
<b>EA015CA: Total Dissolved Solids</b>								
Total Dissolved Solids	----	10	mg/L	1710	861	1360	819	622
<b>EA025CA: Suspended Solids</b>								
Suspended Solids (SS)	----	2	mg/L	238	42	363	8	24
<b>EP030CA: Biochemical Oxygen Demand</b>								
Biochemical Oxygen Demand	----	2	mg/L	92	19	438	2	4
<b>EP026CA: Chemical Oxygen Demand</b>								
Chemical Oxygen Demand	----	5	mg/L	744	199	490	24	38
<b>EK059CA: Nitrite plus Nitrate as N</b>								
Nitrite + Nitrate as N	----	0.05	mg/L N	<0.10	2.63	22.6	<0.05	0.66
<b>EK061CA: Total Kjeldahl Nitrogen as N</b>								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	397	31.8	47.4	0.82	4.14
<b>EK062CA: Total Nitrogen as N</b>								
Total Nitrogen as N	----	0.05	mg/L N	397	34.4	70.0	0.82	4.80
<b>EK067CA: Total Phosphorus as P</b>								
Total Phosphorus as P	----	0.01	mg/L P	52.0	13.0	29.0	0.04	1.08
<b>EG005CA: Total Metals by ICP-OES</b>								
Calcium	7440-70-2	0.05	mg/L	45.1	28.2	33.8	85.7	48.1
Magnesium	7439-95-4	0.05	mg/L	22.8	20.6	23.6	62.6	39.4
Sodium	7440-23-5	0.1	mg/L	400	186	327	111	96.8
<b>EA006CA: Sodium Adsorption Ratio</b>								
∅ Sodium Adsorption Ratio	----	0.01	-	13.2	6.57	10.8	2.22	2.57

