

CERTIFICATE OF ANALYSIS

Work Order : ES1940518 Client : INTEGRA WATER TREATMENT SOLUTIONS Contact : SAMPLE RESULTS Address : UNIT B 195 Port Hacking Rd. MIRANDA NSW, AUSTRALIA 2228 Telephone : +61 9574 0000 Project : Alexander Downs Wholesale Meats Order number : ---- C-O-C number : ---- Sampler : Jeff Moulds (integra) Site : AD/ Kurri Meats Quote number : EN/222 NSW Batches only No. of samples received : 4 No. of samples analysed : 4	Page : 1 of 4 Laboratory : Environmental Division Sydney Contact : Wael Saleh Address : 277-289 Woodpark Road Smithfield NSW Australia 2164 Telephone : +61 2 8784 8555 Date Samples Received : 06-Dec-2019 15:10 Date Analysis Commenced : 06-Dec-2019 Issue Date : 13-Dec-2019 17:45
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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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Neil Martin	Team Leader - Chemistry	Chemistry, Newcastle West, NSW



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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.

- TDS by method EA-015 may bias high due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- It has been noted that Ammonia is greater than TKN for sample 4, however this difference is within the limits of experimental variation.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	wastewater treatment plant in	wastewater treatment plant out	Pond number 2	Pond number 3	----
Client sampling date / time				06-Dec-2019 00:00	06-Dec-2019 00:00	06-Dec-2019 00:00	06-Dec-2019 00:00	----	
Compound	CAS Number	LOR	Unit	ES1940518-001	ES1940518-002	ES1940518-003	ES1940518-004	-----	
				Result	Result	Result	Result	----	
EA005: pH									
pH Value	----	0.01	pH Unit	6.73	6.82	7.53	7.92	----	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	1580	1520	1790	2360	----	
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L	1240	1540	960	1120	----	
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	557	2900	630	179	----	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	----	----	----	21	----	
Magnesium	7439-95-4	1	mg/L	----	----	----	12	----	
Sodium	7440-23-5	1	mg/L	----	----	----	261	----	
ED093F: SAR and Hardness Calculations									
[^] Sodium Adsorption Ratio	----	0.01	-	8.66	8.28	9.94	11.2	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	----	----	----	117	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	----	----	----	0.07	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	----	----	----	0.28	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	----	----	----	0.35	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	----	----	----	113	----	
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
[^] Total Nitrogen as N	----	0.1	mg/L	----	----	----	113	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	----	----	----	4.54	----	
EP020: Oil and Grease (O&G)									
Oil & Grease	----	5	mg/L	----	----	----	<5	----	
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L	----	----	----	70	----	
EP030: Carbonaceous Biochemical Oxygen Demand (CBOD)									
CBOD	----	2	mg/L	----	----	----	58	----	



Analytical Results

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Client sampling date / time					06-Dec-2019 00:00	06-Dec-2019 00:00	06-Dec-2019 00:00	06-Dec-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1940518-001	ES1940518-002	ES1940518-003	ES1940518-004	-----
					Result	Result	Result	Result	----
EP030: Carbonaceous Biochemical Oxygen Demand (CBOD) - Continued									