



CERTIFICATE OF ANALYSIS

Work Order	: ES2321878	Page	: 1 of 7
Client	: DEPARTMENT OF PLANNING AND ENVIRONMENT (NSW-DPE)	Laboratory	: Environmental Division Sydney
Contact	: OEH	Contact	: Customer Services ES
Address	: [REDACTED] Lidcombe 2141	Address	: [REDACTED]
Telephone	: ----	Telephone	: [REDACTED]
Project	: 20230220	Date Samples Received	: 30-Jun-2023 14:45
Order number	: 4500806025	Date Analysis Commenced	: 03-Jul-2023
C-O-C number	: ----	Issue Date	: 07-Jul-2023 17:53
Sampler	: ----		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 21		
No. of samples analysed	: 21		



Accreditation No. 825
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

[REDACTED]

Senior Chemist - Inorganics

Sydney Inorganics, Smithfield, NSW



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.

- EK271A-CM: Samples for Ultra-Trace Reactive Phosphorus by FIA should be frozen upon sampling. If not, low-level results (below 0.01 mg/L) may bias low.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	235875	235876	235877	235878	235879
Sampling date / time				21-Jun-2023 00:00					
Compound	CAS Number	LOR	Unit	ES2321878-001	ES2321878-002	ES2321878-003	ES2321878-004	ES2321878-005	
				Result	Result	Result	Result	Result	
EK255A: Ammonia									
Ammonia as N	7664-41-7	0.005	mg/L	0.030	0.008	0.006	0.432	0.051	
EK259A: Nitrite and Nitrate (NOx)									
Nitrite + Nitrate as N	----	0.002	mg/L	0.002	0.006	0.009	0.088	0.074	
EK271A: Reactive Phosphorus									
Reactive Phosphorus as P	14265-44-2	0.001	mg/L	0.230	0.006	0.107	0.228	0.115	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	235880	235881	235922	235923	235924
Sampling date / time				21-Jun-2023 00:00					
Compound	CAS Number	LOR	Unit	ES2321878-006	ES2321878-007	ES2321878-008	ES2321878-009	ES2321878-010	
				Result	Result	Result	Result	Result	
EK255A: Ammonia									
Ammonia as N	7664-41-7	0.005	mg/L	0.019	0.014	----	----	----	
EK259A: Nitrite and Nitrate (NOx)									
Nitrite + Nitrate as N	----	0.002	mg/L	0.092	0.084	----	----	----	
EK262A: Total Nitrogen									
Dissolved Total Nitrogen as N	----	0.01	mg/L	----	----	0.66	0.82	0.86	
EK267A: Total Phosphorus (Persulfate Digestion)									
Dissolved Total Phosphorus as P	----	0.005	mg/L	----	----	0.264	0.033	0.188	
EK271A: Reactive Phosphorus									
Reactive Phosphorus as P	14265-44-2	0.001	mg/L	0.128	0.060	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	235925	235926	235927	235928	235929
Sampling date / time				21-Jun-2023 00:00					
Compound	CAS Number	LOR	Unit	ES2321878-011	ES2321878-012	ES2321878-013	ES2321878-014	ES2321878-015	
				Result	Result	Result	Result	Result	
EK262A: Total Nitrogen									
Dissolved Total Nitrogen as N	----	0.01	mg/L	1.62	0.84	0.88	1.14	----	
Total Nitrogen as N	----	0.01	mg/L	----	----	----	----	0.70	
EK267A: Total Phosphorus (Persulfate Digestion)									
Dissolved Total Phosphorus as P	----	0.005	mg/L	0.277	0.174	0.164	0.085	----	
Total Phosphorus as P	----	0.005	mg/L	----	----	----	----	0.273	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	235930	235931	235932	235933	235934
Sampling date / time				21-Jun-2023 00:00					
Compound	CAS Number	LOR	Unit	ES2321878-016	ES2321878-017	ES2321878-018	ES2321878-019	ES2321878-020	
				Result	Result	Result	Result	Result	
EK262A: Total Nitrogen									
Total Nitrogen as N	----	0.01	mg/L	0.93	1.01	1.85	0.91	0.96	
EK267A: Total Phosphorus (Persulfate Digestion)									
Total Phosphorus as P	----	0.005	mg/L	0.061	0.245	0.330	0.184	0.182	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	235935	----	----	----	----
			Sampling date / time	21-Jun-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2321878-021	-----	-----	-----	-----
				Result	---	---	---	---
EK262A: Total Nitrogen								
Total Nitrogen as N	----	0.01	mg/L	1.40	---	---	---	---
EK267A: Total Phosphorus (Persulfate Digestion)								
Total Phosphorus as P	----	0.005	mg/L	0.166	---	---	---	---