



CERTIFICATE OF ANALYSIS

Work Order : EW2205008 Client : Ingenia Holidays Merry Beach Contact : Manager (Reports & Invoice) Address : Merry Beach Road, Kioloa 2539 Telephone : 02 4457 1065 Project : Beach Monitoring - October 2022 Order number : P2108127 C-O-C number : ---- Sampler : Client - Peter Young Site : Merry Beach Quote number : ---- No. of samples received : 3 No. of samples analysed : 3	Page : 1 of 3 Laboratory : Environmental Division NSW South Coast Contact : Glenn Davies Address : 1/19 Ralph Black Dr, North Wollongong 2500 NSW Australia Telephone : +61 2 4225 3125 Date Samples Received : 31-Oct-2022 16:18 Date Analysis Commenced : 01-Nov-2022 Issue Date : 09-Nov-2022 16:41	  <small>Accreditation No. 825 Accredited for compliance with ISO/IEC 17025 - Testing</small>
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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>
Geetha Ramasundara	Chemistry Teamleader	Inorganics, Fyshwick, ACT
Somlok Chai	Microbiologist	Sydney Microbiology, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	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.

- **Analytical work for this work order will be conducted at ALS Sydney.**
- MF = membrane filtration
- CFU = colony forming unit
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- EP030 : The residue DO is less than 1 mg/L for sample 3, this indicates that the sample has not been diluted enough. The result reported is estimated from the greatest dilution.
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	884/Eff1	884/Eff2	Influent	----	----
Sampling date / time				31-Oct-2022 00:00	31-Oct-2022 00:00	31-Oct-2022 00:00	----	----	
Compound	CAS Number	LOR	Unit	EW2205008-001	EW2205008-002	EW2205008-003	-----	-----	
				Result	Result	Result	----	----	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	6.81	6.78	7.82	----	----	
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	6	<5	137	----	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.17	----	103	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	21.4	----	0.02	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	2.8	----	114	----	----	
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L	24.2	----	114	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	2.54	----	14.8	----	----	
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L	<2	----	204	----	----	
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	<1	----	14000000	----	----	
<i>Escherichia coli</i>	----	1	CFU/100mL	----	<1	14000000	----	----	
EP020CA: Oil and Grease									
Oil and Grease	----	1	mg/L	<1	----	36	----	----	

Inter-Laboratory Testing

Analysis conducted by ALS Canberra, NATA accreditation no. 992.

(WATER) EP020CA: Oil and Grease

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry) 14913 (Biology).

(WATER) EA005P: pH by PC Titrator

(WATER) EP030: Biochemical Oxygen Demand (BOD)

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) MW006: Faecal Coliforms & E.coli by MF

(WATER) EK067G: Total Phosphorus as P by Discrete Analyser

(WATER) EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser

(WATER) EK061G: Total Kjeldahl Nitrogen By Discrete Analyser

(WATER) EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

(WATER) EA025: Total Suspended Solids dried at 104 ± 2°C