

COFFS HARBOUR LABORATORY

Environmental Analysis

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KEMPSEY SHIRE COUNCIL
GREG HICKSON
P.O. BOX 3078
WEST KEMPSEY NSW 2440

BATCH NUMBER: 23/0237
No. of SAMPLES: 12
DATE COLLECTED: 01/02/23
DATE RECEIVED: 01/02/23
TIME RECEIVED: 16:10
DATE TESTING COMMENCED:
01/02/23

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
23/0237/1	South Kempsey TP
23/0237/2	Crescent Head CW
23/0237/3	Gladstone TP
23/0237/4	Frederickton TP
23/0237/5	South West Rocks CW
23/0237/6	North St Final TP
23/0237/7	Hat Head C Well
23/0237/8	South Kempsey STP Head Wall Day Pond
23/0237/9	Upstream Gladstone TP
23/0237/10	Downstream Gladstone TP
23/0237/11	Upstream Frederickton TP
23/0237/12	Downstream Frederickton TP

ANALYSIS	UNITS	23/0237/1	23/0237/2	23/0237/3	23/0237/4	METHOD NO
pH	pH unit	7.1	7.2	8.4	7.5	APHA 4500-H+ B
Conductivity	$\mu\text{S}/\text{cm}$	-	864	-	-	APHA 2510 B
Turbidity	NTU	-	1.0	-	-	APHA 2130 B
Transmittance	%	-	-	61.3	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	9	3	15	22	APHA 2540 D
Biochem Oxygen Demand (BOD ₅)	mg/L	7	<2	4	9	APHA 5210 B



Accredited for compliance with ISO/IEC 17025 - Testing
[Accreditation Numbers: 12359 (Chemical) & 14565 (Microbiological)]

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian and International standards.

ANALYSIS	UNITS	23/0237/1	23/0237/2	23/0237/3	23/0237/4	METHODNO
Nitrate Nitrogen	mg/L	-	8.61	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	4.99	0.33	<0.02	0.92	APHA 4500-NH3 H
Total Nitrogen	mg/L	8.88	11.4	1.41	3.45	APHA 4500-P J
Total Phosphorus	mg/L	6.41	0.29	5.77	6.34	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	53	84	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	5,100	<2	330	2,500	ELM 3

ANALYSIS	UNITS	23/0237/5	23/0237/6	23/0237/7	23/0237/8	METHODNO
pH	pH unit	6.9	7.3	7.5	-	APHA 4500-H+ B
Conductivity	µS/cm	596	-	1,170	-	APHA 2510 B
Turbidity	NTU	1.7	-	0.95	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	750	-	EL7B
Alkalinity	mg CaCO ₃ /L	39	-	134	-	APHA 2320 B
Total Suspended Solids	mg/L	2	25	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	2	16	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	0.15	0.91	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	1.24	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	<0.02	2.08	<0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	6.00	6.97	1.63	-	APHA 4500-P J
Total Phosphorus	mg/L	2.13	1.02	0.12	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	184	-	-	APHA 10200 H
Potassium	mg/L	18	-	23	-	EL9A
Chloride	mg/L	101	-	157	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	1,960	0	12,500	ELM 3



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ANALYSIS	UNITS	23/0237/9	23/0237/10	23/0237/11	23/0237/12	METHODNO
pH	pH unit	-	-	-	-	APHA 4500-H+ B
Conductivity	µS/cm	-	-	-	-	APHA 2510 B
Turbidity	NTU	-	-	-	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	-	-	-	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	-	-	-	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	-	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	-	-	-	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	-	-	-	-	APHA 4500-P J
Total Phosphorus	mg/L	-	-	-	-	APHA 4500-P J
Oil & Grease	mg/L	-	-	-	-	EL23A
Chlorophyll-a	µg/L	-	-	-	-	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	30	40	50	130	ELM 3

Comments

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 23rd Edition, 2017, APHA. Raw data sheets stating analysis dates are available upon request.

Tests marked with '#' are not covered by NATA Accreditation.

Note: Microbiological results are presumptive.

Measurement Uncertainty is available upon request.

Thermotolerant Coliforms are equivalent to Faecal Coliforms.

Report Date: 8/02/23



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Approved:

Shane Ewart
Technical Supervisor
Microbiology and Chemistry

The results of the tests, calibrations and/or measurements included in this document are traceable to Australia