

# COFFS HARBOUR LABORATORY

## Environmental Analysis

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KEMPSEY SHIRE COUNCIL  
BLAKE GIDDY  
P.O. BOX 3078  
WEST KEMPSEY NSW 2440

BATCHNUMBER: 24/0896  
No. of SAMPLES: 12  
DATE COLLECTED: 10/04/24  
DATE RECEIVED: 10/04/24  
TIME RECEIVED: 16:30  
DATE TESTING COMMENCED:  
10/04/24

### REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/0896/1	South Kempsey TP
24/0896/2	Crescent Head CW
24/0896/3	Gladstone TP
24/0896/4	Frederickton TP
24/0896/5	South West Rocks CW
24/0896/6	North St Final TP
24/0896/7	Hat Head C Well
24/0896/8	South Kempsey STP Head Wall Day Pond
24/0896/9	Upstream Gladstone TP
24/0896/10	Downstream Gladstone TP
24/0896/11	Upstream Frederickton TP
24/0896/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/0896/1	24/0896/2	24/0896/3	24/0896/4	METHOD NO
pH	pH unit	6.5	6.8	7.3	7.1	APHA 4500-H+ B
Conductivity	µS/cm	-	888	-	-	APHA 2510 B
Turbidity	NTU	-	3.7	-	-	APHA 2130 B
Transmittance	%	-	-	55.4	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO <sub>3</sub> /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	3	6	17	7	APHA 2540 D
Biochem Oxygen Demand (BOD <sub>5</sub> )	mg/L	3	<2	4	2	APHA 5210 B



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ANALYSIS	UNITS	24/0896/1	24/0896/2	24/0896/3	24/0896/4	METHODNO
Nitrate Nitrogen	mg/L	-	10.2	-	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.72	0.06	1.37	4.63	APHA 4500-NH3 H
Total Nitrogen	mg/L	4.82	10.9	3.72	6.51	APHA 4500-P J
Total Phosphorus	mg/L	1.25	0.07	6.18	2.95	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	42	4	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	440	0	900	570	ELM 3

ANALYSIS	UNITS	24/0896/5	24/0896/6	24/0896/7	24/0896/8	METHODNO
pH	pH unit	7.2	6.6	6.7	-	APHA 4500-H+ B
Conductivity	µS/cm	529	-	859	-	APHA 2510 B
Turbidity	NTU	2.0	-	1.7	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	550	-	EL7B
Alkalinity	mg CaCO <sub>3</sub> /L	40	-	17	-	APHA 2320 B
Total Suspended Solids	mg/L	2	27	4	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	14	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	4.68	3.39	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	2.93	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.02	0.19	0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	3.01	9.71	3.79	-	APHA 4500-P J
Total Phosphorus	mg/L	0.63	0.46	0.10	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	147	-	-	APHA 10200 H
Potassium	mg/L	13	-	18	-	EL9A
Chloride	mg/L	94	-	156	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	950	3	3,100	ELM 3



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ANALYSIS	UNITS	24/0896/9	24/0896/10	24/0896/11	24/0896/12	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 <sub>3</sub> /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-NO3I
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	270	280	90	120	ELM 3

ANALYSIS	UNITS	24/0896/1	24/0896/2	24/0896/3	24/0896/4	METHODNO
<b>PFAS*</b>						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
PFPeA (2706-90-3)	ug/L	<0.02	0.022	<0.02	<0.02	NR70
PFHxA (307-24-4)	ug/L	<0.01	0.029	<0.01	<0.01	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOA (335-67-1)	ug/L	<0.01	0.025	<0.01	<0.01	NR70
PFNA (375-95-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDA (335-76-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFUdA (2058-94-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFTTrDA (72629-94-8)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFTeDA (376-06-7)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFHxDA (67905-19-5)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFODO (16517-11-6)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
FOUEA (70887-84-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDS (335-77-3)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFPeS (2706-91-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFHxS (355-46-4)	ug/L	<0.01	<0.01	<0.01	0.012	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOS (1763-23-1)	ug/L	0.026	0.041	<0.02	0.030	NR70
PFNS (68259-12-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFBS (375-73-5)	ug/L	<0.01	0.01	<0.01	<0.01	NR70



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ANALYSIS	UNITS	24/0896/1	24/0896/2	24/0896/3	24/0896/4	METHODNO
PFOSA (754-91-6)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-MeFOSA (31506-32-8)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-EtFOSA (4151-50-2)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-MeFOSAA (2355-31-9)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.08	<0.05	<0.05	<0.05	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.08	<0.05	<0.05	<0.05	NR70
4:2FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
6:2FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
10:2FTS (120226-60-0)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2diPAP (678-41-1)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70



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ANALYSIS	UNITS	24/0896/5	24/0896/6	24/0896/7	24/0896/8	METHODNO
<b>PFAS*</b>						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	-	NR70
PFPeA (2706-90-3)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFHxA (307-24-4)	ug/L	0.01	<0.01	<0.01	-	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOA (335-67-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFNA (375-95-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDA (335-76-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFUdA (2058-94-8)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFTrDA (72629-94-8)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFTeDA (376-06-7)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFHxDA (67905-19-5)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFODO (16517-11-6)	ug/L	<0.05	<0.05	<0.05	-	NR70
FOUEA (70887-84-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDS (335-77-3)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFPeS (2706-91-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFHxS (355-46-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOS (1763-23-1)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFNS (68259-12-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFBS (375-73-5)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOSA (754-91-6)	ug/L	<0.01	<0.01	<0.01	-	NR70
N-MeFOSA (31506-32-8)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-EtFOSA (4151-50-2)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-MeFOSAA (2355-31-9)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.08	<0.05	<0.08	-	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.08	<0.05	<0.08	-	NR70
4:2FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
6:2FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
8:2FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
10:2FTS (120226-60-0)	ug/L	<0.01	<0.01	<0.01	-	NR70
8:2 diPAP (678-41-1)	ug/L	<0.02	<0.02	<0.02	-	NR70



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<b>PFAS*</b>						
PFBA (375-22-4)	ug/L	-	-	-	-	NR70
PFPeA (2706-90-3)	ug/L	-	-	-	-	NR70
PFHxA (307-24-4)	ug/L	-	-	-	-	NR70
PFHpA (375-85-9)	ug/L	-	-	-	-	NR70
PFOA (335-67-1)	ug/L	-	-	-	-	NR70
PFNA (375-95-1)	ug/L	-	-	-	-	NR70
PFDA (335-76-2)	ug/L	-	-	-	-	NR70
PFUdA (2058-94-8)	ug/L	-	-	-	-	NR70
PFDoA (307-55-1)	ug/L	-	-	-	-	NR70
PFTTrDA (72629-94-8)	ug/L	-	-	-	-	NR70
PFTeDA (376-06-7)	ug/L	-	-	-	-	NR70
PFHxDA (67905-19-5)	ug/L	-	-	-	-	NR70
PFODO (16517-11-6)	ug/L	-	-	-	-	NR70
FOUEA (70887-84-2)	ug/L	-	-	-	-	NR70
PFDS (335-77-3)	ug/L	-	-	-	-	NR70
PFPeS (2706-91-4)	ug/L	-	-	-	-	NR70
PFHxS (355-46-4)	ug/L	-	-	-	-	NR70
PFHpS (375-92-8)	ug/L	-	-	-	-	NR70
PFOS (1763-23-1)	ug/L	-	-	-	-	NR70
PFNS (68259-12-1)	ug/L	-	-	-	-	NR70
PFBS (375-73-5)	ug/L	-	-	-	-	NR70
PFOSA (754-91-6)	ug/L	-	-	-	-	NR70
N-MeFOSA (31506-32-8)	ug/L	-	-	-	-	NR70
N-EtFOSA (4151-50-2)	ug/L	-	-	-	-	NR70
N-MeFOSAA (2355-31-9)	ug/L	-	-	-	-	NR70
N-EtFOSAA (2991-50-6)	ug/L	-	-	-	-	NR70
N-MeFOSE (24448-09-7)	ug/L	-	-	-	-	NR70
N-EtFOSE (1691-99-2)	ug/L	-	-	-	-	NR70
4:2FTS (757124-72-4)	ug/L	-	-	-	-	NR70
6:2FTS (27619-97-2)	ug/L	-	-	-	-	NR70
8:2FTS (39108-34-4)	ug/L	-	-	-	-	NR70
10:2FTS (120226-60-0)	ug/L	-	-	-	-	NR70
8:2 diPAP (678-41-1)	ug/L	-	-	-	-	NR70



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**Comments**

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 24th Edition, 2022, 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.

\*Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN1425974.

Report Date: 24/04/24



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Approved:

A handwritten signature in black ink that reads "Shane Ewart".

Shane Ewart  
Technical Supervisor  
Microbiology and Chemistry

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