

COFFS HARBOUR LABORATORY

Environmental Analysis

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

BATCHNUMBER: 24/0423
No. of SAMPLES: 12
DATE COLLECTED: 14/02/24
DATE RECEIVED: 14/02/24
TIME RECEIVED: 16:24
DATE TESTING COMMENCED:
14/02/24

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/0423/1	South Kempsey TP
24/0423/2	Crescent Head CW
24/0423/3	Gladstone TP
24/0423/4	Frederickton TP
24/0423/5	South West Rocks CW
24/0423/6	North St Final TP
24/0423/7	Hat Head C Well
24/0423/8	South Kempsey STP Head Wall Day Pond
24/0423/9	Upstream Gladstone TP
24/0423/10	Downstream Gladstone TP
24/0423/11	Upstream Frederickton TP
24/0423/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/0423/1	24/0423/2	24/0423/3	24/0423/4	METHOD NO
pH	pH unit	6.9	7.3	7.7	7.6	APHA 4500-H+ B
Conductivity	µS/cm	-	1,170	-	-	APHA 2510 B
Turbidity	NTU	-	1.7	-	-	APHA 2130 B
Transmittance	%	-	-	53.7	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	5	6	14	33	APHA 2540 D
Biochem Oxygen Demand (BOD ₅)	mg/L	4	2	4	5	APHA 5210 B



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ANALYSIS	UNITS	24/0423/1	24/0423/2	24/0423/3	24/0423/4	METHODNO
Nitrate Nitrogen	mg/L	-	2.08	-	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	2.46	0.17	0.03	0.66	APHA 4500-NH3 H
Total Nitrogen	mg/L	5.32	3.24	1.37	2.55	APHA 4500-P J
Total Phosphorus	mg/L	4.67	0.18	8.86	8.29	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	19	10	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	1,000	15	2,200	520	ELM 3

ANALYSIS	UNITS	24/0423/5	24/0423/6	24/0423/7	24/0423/8	METHODNO
pH	pH unit	7.2	9.1	7.1	-	APHA 4500-H+ B
Conductivity	µS/cm	610	-	866	-	APHA 2510 B
Turbidity	NTU	1.3	-	0.40	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	554	-	EL7B
Alkalinity	mg CaCO ₃ /L	77	-	55	-	APHA 2320 B
Total Suspended Solids	mg/L	3	47	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	2	8	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	1.60	1.23	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	0.87	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.71	0.23	0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	1.90	5.20	1.77	-	APHA 4500-P J
Total Phosphorus	mg/L	0.94	0.31	0.05	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	87	-	-	APHA 10200 H
Potassium	mg/L	21	-	25	-	EL9A
Chloride	mg/L	97	-	125	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	90	0	3,000	ELM 3



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ANALYSIS	UNITS	24/0423/9	24/0423/10	24/0423/11	24/0423/12	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-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	40	70	740	40	ELM 3

ANALYSIS	UNITS	24/0423/1	24/0423/2	24/0423/3	24/0423/4	METHODNO
PFAS*						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
PFPeA (2706-90-3)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFHxA (307-24-4)	ug/L	0.014	0.014	<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	0.020	<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	<0.02	<0.02	<0.02	<0.02	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFTrDA (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	<0.01	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOS (1763-23-1)	ug/L	<0.02	<0.02	<0.02	<0.02	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	24/0423/1	24/0423/2	24/0423/3	24/0423/4	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	<0.01	<0.01	<0.01	<0.01	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.05	<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	24/0423/5	24/0423/6	24/0423/7	24/0423/8	METHODNO
PFAS*						
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	<0.02	<0.02	<0.02	-	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFTriDA (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	<0.01	<0.01	<0.01	-	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.01	<0.01	<0.01	-	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.05	<0.05	<0.05	-	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.05	<0.05	<0.05	-	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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ANALYSIS	UNITS	24/0423/9	24/0423/10	24/0423/11	24/0423/12	METHODNO
PFAS*						
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) RN 1420274.

Report Date: 4/03/24



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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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