COFFS HARBOUR LABORATORY

Environmental Analysis

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

BATCH NUMBER: 24/2798
No. of SAMPLES: 12
DATE COLLECTED: 04/12/24
DATE RECEIVED: 04/12/24
TIME RECEIVED: 16:40
DATE TESTING COMMENCED: 04/12/24

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/2798/1	South Kempsey TP
24/2798/2	Crescent Head CW
24/2798/3	Gladstone TP
24/2798/4	Frederickton TP
24/2798/5	South West Rocks CW
24/2798/6	North St Final TP
24/2798/7	Hat Head C Well
24/2798/8	South Kempsey STP Head Wall Day Pond
24/2798/9	Upstream Gladstone TP
24/2798/10	Downstream Gladstone TP
24/2798/11	Upstream Frederickton TP
24/2798/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/2798/1	24/2798/2	24/2798/3	24/2798/4	METHOD NO
pH	pH unit	6.8	7.3	7.7	7.3	APHA 4500-H+ B
Conductivity	µS/cm	-	885	-	-	APHA 2510 B
Turbidity	NTU	-	1.7	-	-	APHA 2130 B
Transmittance	%	-	-	57.6	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg $CaCO_3$/L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	3	5	4	9	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	3	2	2	5	APHA 5210 B

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ANALYSIS	UNITS	24/2798/1	24/2798/2	24/2798/3	24/2798/4	METHOD NO
Nitrate Nitrogen	mg/L	-	0.10	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	2.59	0.05	0.86	0.34	APHA 4500-NH3 H
Total Nitrogen	mg/L	3.54	1.38	2.01	1.97	APHA 4500-P J
Total Phosphorus	mg/L	3.07	0.17	8.38	5.85	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	5	37	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	10,800	<2	80	300	ELM 3

ANALYSIS	UNITS	24/2798/5	24/2798/6	24/2798/7	24/2798/8	METHOD NO
pH	pH unit	6.9	9.2	7.1	-	APHA 4500-H+ B
Conductivity	µS/cm	613	-	876	-	APHA 2510 B
Turbidity	NTU	1.5	-	1.0	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	561	-	EL7B
Alkalinity	mg $CaCO_3$/L	29	-	70	-	APHA 2320 B
Total Suspended Solids	mg/L	2	39	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	11	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	2.29	0.29	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	0.31	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	<0.02	0.20	0.06	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	4.65	5.04	0.96	-	APHA 4500-P J
Total Phosphorus	mg/L	0.31	0.27	0.10	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	133	-	-	APHA 10200 H
Potassium	mg/L	18	-	22	-	EL9A
Chloride	mg/L	96	-	132	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	170	0	750	ELM 3

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ANALYSIS	UNITS	24/2798/9	24/2798/10	24/2798/11	24/2798/12	METHOD NO
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	110	50	10,200	20	ELM 3

ANALYSIS	UNITS	24/2798/1	24/2798/2	24/2798/3	24/2798/4	METHOD NO
PFAS*						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
PFPeA (2706-90-3)	ug/L	<0.02	0.020	<0.02	<0.02	NR70
PFHxA (307-24-4)	ug/L	0.015	0.024	<0.01	0.012	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOA (335-67-1)	ug/L	<0.01	0.030	<0.01	0.052	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
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	0.011	<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	0.037	0.026	<0.02	0.032	NR70
PFNS (68259-12-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFBS (375-73-5)	ug/L	<0.01	0.015	<0.01	<0.01	NR70

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ANALYSIS	UNITS	24/2798/1	24/2798/2	24/2798/3	24/2798/4	METHOD NO
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
4:2 FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
6:2 FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2 FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
10:2 FTS (120226-60-0)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2 diPAP (678-41-1)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70

ANALYSIS	UNITS	24/2798/5	24/2798/6	24/2798/7	24/2798/8	METHOD NO
PFAS*						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	-	NR70
PFPeA (2706-90-3)	ug/L	0.023	<0.02	<0.02	-	NR70
PFHxA (307-24-4)	ug/L	0.019	<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	<0.01	<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
4:2 FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
6:2 FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	-	NR70

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ANALYSIS	UNITS	24/2798/5	24/2798/6	24/2798/7	24/2798/8	METHOD NO
8:2 FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
10:2 FTS (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

ANALYSIS	UNITS	24/2798/9	24/2798/10	24/2798/11	24/2798/12	METHOD NO
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
PFTrDA (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
4:2 FTS (757124-72-4)	ug/L	-	-	-	-	NR70
6:2 FTS (27619-97-2)	ug/L	-	-	-	-	NR70
8:2 FTS (39108-34-4)	ug/L	-	-	-	-	NR70
10:2 FTS (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, 2023, APHA. Raw data sheets stating analysis dates are available upon request.
Tests marked with '#' are not covered by NATA Accreditation.
Measurement Uncertainty is available upon request.
*Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN 1450684.

Report Date: 18/12/24

Approved:
Shane Ewart
Technical Supervisor
Microbiology and Chemistry