COFFS HARBOUR LABORATORY

Environmental Analysis

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

BATCH NUMBER: 24/1363
No. of SAMPLES: 12
DATE COLLECTED: 05/06/24
DATE RECEIVED: 05/06/24
TIME RECEIVED: 16:55
DATE TESTING COMMENCED: 05/06/24

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/1363/1	South Kempsey TP
24/1363/2	Crescent Head CW
24/1363/3	Gladstone TP
24/1363/4	Frederickton TP
24/1363/5	South West Rocks CW
24/1363/6	North St Final TP
24/1363/7	Hat Head C Well
24/1363/8	South Kempsey STP Head Wall Day Pond
24/1363/9	Upstream Gladstone TP
24/1363/10	Downstream Gladstone TP
24/1363/11	Upstream Frederickton TP
24/1363/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/1363/1	24/1363/2	24/1363/3	24/1363/4	METHOD NO
pH	pH unit	6.7	7.1	7.5	7.1	APHA 4500-H+ B
Conductivity	µS/cm	-	815	-	-	APHA 2510 B
Turbidity	NTU	-	0.60	-	-	APHA 2130 B
Transmittance	%	-	-	59.6	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg $CaCO_3$/L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	2	2	6	4	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	<2	3	11	APHA 5210 B

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ANALYSIS	UNITS	24/1363/1	24/1363/2	24/1363/3	24/1363/4	METHOD NO
Nitrate Nitrogen	mg/L	-	3.34	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	1.72	0.07	1.21	3.53	APHA 4500-NH3 H
Total Nitrogen	mg/L	8.09	4.93	3.58	13.0	APHA 4500-P J
Total Phosphorus	mg/L	2.48	0.03	5.04	3.03	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	<1	8	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	330	0	540	340	ELM 3

ANALYSIS	UNITS	24/1363/5	24/1363/6	24/1363/7	24/1363/8	METHOD NO
pH	pH unit	7.0	6.9	7.3	-	APHA 4500-H+ B
Conductivity	µS/cm	514	-	906	-	APHA 2510 B
Turbidity	NTU	1.5	-	0.90	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	580	-	EL7B
Alkalinity	mg $CaCO_3$/L	51	-	107	-	APHA 2320 B
Total Suspended Solids	mg/L	2	46	2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	34	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	4.44	0.45	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	3.92	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.02	2.76	0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	2.34	15.3	1.45	-	APHA 4500-P J
Total Phosphorus	mg/L	0.37	0.56	0.12	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	158	-	-	APHA 10200 H
Potassium	mg/L	13	-	20	-	EL9A
Chloride	mg/L	82	-	129	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	900	5	240	ELM 3

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ANALYSIS	UNITS	24/1363/9	24/1363/10	24/1363/11	24/1363/12	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	240	330	430	90	ELM 3

ANALYSIS	UNITS	24/1363/1	24/1363/2	24/1363/3	24/1363/4	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	<0.02	<0.02	<0.02	NR70
PFHxA (307-24-4)	ug/L	<0.01	0.01	<0.01	0.016	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOA (335-67-1)	ug/L	<0.01	0.016	<0.01	0.043	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	<0.01	<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	0.021	0.022	<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	24/1363/1	24/1363/2	24/1363/3	24/1363/4	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	24/1363/5	24/1363/6	24/1363/7	24/1363/8	METHOD NO
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	<0.01	<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
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

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ANALYSIS	UNITS	24/1363/9	24/1363/10	24/1363/11	24/1363/12	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

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) RN1432243.
Report Date: 24/06/24

Approved:
Shane Ewart
Technical Supervisor
Microbiology and Chemistry