COFFS HARBOUR LABORATORY

Environmental Analysis

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

BATCH NUMBER: 24/0666
No. of SAMPLES: 12
DATE COLLECTED: 13/03/24
DATE RECEIVED: 13/03/24
TIME RECEIVED: 15:40
DATE TESTING COMMENCED: 13/03/24

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/0666/1	South Kempsey TP
24/0666/2	Crescent Head CW
24/0666/3	Gladstone TP
24/0666/4	Frederickton TP
24/0666/5	South West Rocks CW
24/0666/6	North St Final TP
24/0666/7	Hat Head C Well
24/0666/8	South Kempsey STP Head Wall Day Pond
24/0666/9	Upstream Gladstone TP
24/0666/10	Downstream Gladstone TP
24/0666/11	Upstream Frederickton TP
24/0666/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/0666/1	24/0666/2	24/0666/3	24/0666/4	METHOD NO
pH	pH unit	6.9	7.5	9.0	7.6	APHA 4500-H+ B
Conductivity	µS/cm	-	1,230	-	-	APHA 2510 B
Turbidity	NTU	-	1.2	-	-	APHA 2130 B
Transmittance	%	-	-	55.0	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg $CaCO_3$/L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	2	<2	20	14	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	<2	6	4	APHA 5210 B

NATA

Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation Number: 12359

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

ANALYSIS	UNITS	24/0666/1	24/0666/2	24/0666/3	24/0666/4	METHOD NO
Nitrate Nitrogen	mg/L	-	4.81	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.62	0.05	<0.02	0.82	APHA 4500-NH3 H
Total Nitrogen	mg/L	4.01	5.94	2.23	3.01	APHA 4500-P J
Total Phosphorus	mg/L	3.17	0.16	5.89	6.33	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	71	13	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	75	75	900	120	ELM 3

ANALYSIS	UNITS	24/0666/5	24/0666/6	24/0666/7	24/0666/8	METHOD NO
pH	pH unit	7.2	8.2	6.9	-	APHA 4500-H+ B
Conductivity	µS/cm	591	-	831	-	APHA 2510 B
Turbidity	NTU	0.65	-	0.55	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	532	-	EL7B
Alkalinity	mg $CaCO_3$/L	59	-	32	-	APHA 2320 B
Total Suspended Solids	mg/L	<2	24	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	4	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	3.06	0.79	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	0.19	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	<0.02	0.18	<0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	3.72	4.89	1.41	-	APHA 4500-P J
Total Phosphorus	mg/L	1	0.15	0.05	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	27	-	-	APHA 10200 H
Potassium	mg/L	17	-	21	-	EL9A
Chloride	mg/L	99	-	142	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	30	0	1,000	ELM 3

NATA

Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation Number: 12359

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

ANALYSIS	UNITS	24/0666/9	24/0666/10	24/0666/11	24/0666/12	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	375	70	75	210	ELM 3

ANALYSIS	UNITS	24/0666/1	24/0666/2	24/0666/3	24/0666/4	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	0.016	<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	0.019	<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
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	0.012	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOS (1763-23-1)	ug/L	0.024	<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

NATA

Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation Number: 12359

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

ANALYSIS	UNITS	24/0666/1	24/0666/2	24/0666/3	24/0666/4	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	24/0666/5	24/0666/6	24/0666/7	24/0666/8	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

Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation Number: 12359

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

ANALYSIS	UNITS	24/0666/9	24/0666/10	24/0666/11	24/0666/12	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

Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation Number: 12359

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

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 1423077.
Report Date: 27/03/24

Approved:
Shane Ewart
Technical Supervisor
Microbiology and Chemistry