Envirolab Services Pty Ltd
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CERTIFICATE OF ANALYSIS 377272

Client Details

Client	NSW Health
Attention	Kwendy Cavanagh
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Council - Namoi Reservoir**
Number of Samples	3 Water
Date samples received	03/04/2025
Date completed instructions received	03/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	04/04/2025
Date of Issue	04/04/2025

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Results Approved By
Amanda Chui, LC/Air Toxics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in Water LOW LEVEL Short				
Our Reference		377272-1	377272-2	377272-3
Your Reference	UNITS	Namoi Reservoir A25NA0100021	Namoi Reservoir Duplicate	Namoi Reservoir Field Blank
Barcode		A25NA0100021	-	-
Sample Site Code		N27	-	-
Date Sampled		02/04/2025	02/04/2025	02/04/2025
Type of sample		Water	Water	Water
Date prepared	-	04/04/2025	04/04/2025	04/04/2025
Date analysed	-	04/04/2025	04/04/2025	04/04/2025
Perfluorobutanesulfonic acid	µg/L	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.005	0.005	<0.001
Perfluorooctanesulfonic acid PFOS	µg/L	0.006	0.005	<0.001
Perfluorooctanoic acid PFOA	µg/L	<0.001	<0.001	<0.001
6:2 FTS	µg/L	<0.001	<0.001	<0.001
8:2 FTS	µg/L	<0.002	<0.002	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	98	96	103
Surrogate $^{13}C_2$ *PFOA*	%	87	85	77
Extracted ISTD $^{13}C_3$ *PFBS*	%	74	77	68
Extracted ISTD $^{18}O_2$ *PFHxS*	%	104	107	105
Extracted ISTD $^{13}C_4$ *PFOS*	%	90	92	95
Extracted ISTD $^{13}C_4$ *PFOA*	%	96	96	113
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	114	115	114
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	142	141	146
Total Positive PFHxS & PFOS	µg/L	0.011	0.010	<0.001
Total Positive PFOA & PFOS	µg/L	0.006	0.005	<0.001
Total Positive PFAS	µg/L	0.011	0.010	<0.001

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Water LOW LEVEL Short					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	[NT]
Date analysed	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	113	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	112	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	115	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	113	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	90	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	71	[NT]	[NT]	[NT]	[NT]	62	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	85	[NT]	[NT]	[NT]	[NT]	84	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	81	[NT]	[NT]	[NT]	[NT]	81	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	114	[NT]	[NT]	[NT]	[NT]	111	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	139	[NT]	[NT]	[NT]	[NT]	138	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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CERTIFICATE OF ANALYSIS 377274

Client Details

Client	NSW Health
Attention	Kwendy Cavanagh
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Council - Elizabeth Bore**
Number of Samples	3 Water
Date samples received	03/04/2025
Date completed instructions received	03/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	04/04/2025
Date of Issue	04/04/2025
Reissue Details	This report replaces R00 created on 04/04/2025 due to: sample ID error barcode amended

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Results Approved By
Amanda Chui, LC/Air Toxics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in Water LOW LEVEL Short		
Our Reference		377274-1
Your Reference	UNITS	Elizabeth Bore A25NA0100006
Barcode		A25NA0100024
Sample Site Code		N30
Date Sampled		02/04/2025
Type of sample		Water
Date prepared	-	04/04/2025
Date analysed	-	04/04/2025
Perfluorobutanesulfonic acid	µg/L	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.001
Perfluorooctanesulfonic acid PFOS	µg/L	0.001
Perfluorooctanoic acid PFOA	µg/L	<0.001
6:2 FTS	µg/L	<0.001
8:2 FTS	µg/L	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	102
Surrogate $^{13}C_2$ *PFOA*	%	90
Extracted ISTD $^{13}C_3$ *PFBS*	%	68
Extracted ISTD $^{18}O_2$ *PFHxS*	%	89
Extracted ISTD $^{13}C_4$ *PFOS*	%	81
Extracted ISTD $^{13}C_4$ *PFOA*	%	96
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	120
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	152
Total Positive PFHxS & PFOS	µg/L	0.001
Total Positive PFOA & PFOS	µg/L	0.001
Total Positive PFAS	µg/L	0.001

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Water LOW LEVEL Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			04/04/2025	1	04/04/2025	04/04/2025		04/04/2025	[NT]
Date analysed	-			04/04/2025	1	04/04/2025	04/04/2025		04/04/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	113	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	1	<0.001	0.002	67	112	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	1	0.001	0.005	133	107	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	105	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	115	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	113	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	1	102	102	0	102	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	1	90	87	3	90	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	71	1	68	71	4	62	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	85	1	89	99	11	84	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	81	1	81	86	6	81	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	92	1	96	99	3	96	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	114	1	120	133	10	111	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	139	1	152	163	7	138	[NT]

Result Definitions

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NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
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For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

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Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

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CERTIFICATE OF ANALYSIS 377273

Client Details

Client	NSW Health
Attention	Kwendy Cavanagh
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Council - Killarney Bore**
Number of Samples	3 Water
Date samples received	03/04/2025
Date completed instructions received	03/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

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Report Details

Date results requested by	04/04/2025
Date of Issue	04/04/2025

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Results Approved By
Amanda Chui, LC/Air Toxics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in Water LOW LEVEL Short		
Our Reference		377273-1
Your Reference	UNITS	Killarney Bore A25NA0100023
Barcode		A25NA0100023
Sample Site Code		N29
Date Sampled		02/04/2025
Type of sample		Water
Date prepared	-	04/04/2025
Date analysed	-	04/04/2025
Perfluorobutanesulfonic acid	µg/L	0.002
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.011
Perfluorooctanesulfonic acid PFOS	µg/L	0.010
Perfluorooctanoic acid PFOA	µg/L	<0.001
6:2 FTS	µg/L	<0.001
8:2 FTS	µg/L	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	98
Surrogate $^{13}C_2$ *PFOA*	%	84
Extracted ISTD $^{13}C_3$ *PFBS*	%	74
Extracted ISTD $^{18}O_2$ *PFHxS*	%	105
Extracted ISTD $^{13}C_4$ *PFOS*	%	91
Extracted ISTD $^{13}C_4$ *PFOA*	%	109
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	109
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	162
Total Positive PFHxS & PFOS	µg/L	0.021
Total Positive PFOA & PFOS	µg/L	0.010
Total Positive PFAS	µg/L	0.023

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Water LOW LEVEL Short					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	[NT]
Date analysed	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	102	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	64	[NT]	[NT]	[NT]	[NT]	66	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	82	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	81	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	90	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	124	[NT]	[NT]	[NT]	[NT]	130	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
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>	Greater than
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LCS	Laboratory Control Sample
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NEPM	National Environmental Protection Measure
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Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

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Report Comments

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www.envirolab.com.au

CERTIFICATE OF ANALYSIS 377271

Client Details

Client	NSW Health
Attention	Kwendy Cavanagh
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Council - Tibberena Bore**
Number of Samples	3 Water
Date samples received	03/04/2025
Date completed instructions received	03/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	04/04/2025
Date of Issue	04/04/2025
Reissue Details	This report replaces R01 created on 04/04/2025 due to: sample ID error

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Amanda Chui, LC/Air Toxics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in Water LOW LEVEL Short		
Our Reference		377271-1
Your Reference	UNITS	Tibberena Bore A25NA0100022
Barcode		A25NA0100022
Sample Site Code		N28
Date Sampled		02/04/2025
Type of sample		Water
Date prepared	-	04/04/2025
Date analysed	-	04/04/2025
Perfluorobutanesulfonic acid	µg/L	0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.006
Perfluorooctanesulfonic acid PFOS	µg/L	0.009
Perfluorooctanoic acid PFOA	µg/L	<0.001
6:2 FTS	µg/L	<0.001
8:2 FTS	µg/L	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	99
Surrogate $^{13}C_2$ *PFOA*	%	89
Extracted ISTD $^{13}C_3$ *PFBS*	%	80
Extracted ISTD $^{18}O_2$ *PFHxS*	%	105
Extracted ISTD $^{13}C_4$ *PFOS*	%	90
Extracted ISTD $^{13}C_4$ *PFOA*	%	99
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	118
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	184
Total Positive PFHxS & PFOS	µg/L	0.015
Total Positive PFOA & PFOS	µg/L	0.009
Total Positive PFAS	µg/L	0.016

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Water LOW LEVEL Short					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	377271-1
Date prepared	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	04/04/2025
Date analysed	-			04/04/2025	[NT]	[NT]	[NT]	[NT]	04/04/2025	04/04/2025
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	113	114
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	112	111
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	108
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	109
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	115	115
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	113	105
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	102	105
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	90	87
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	71	[NT]	[NT]	[NT]	[NT]	62	72
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	85	[NT]	[NT]	[NT]	[NT]	84	104
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Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	96	95
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	114	[NT]	[NT]	[NT]	[NT]	111	115
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	139	[NT]	[NT]	[NT]	[NT]	138	176

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