Envirolab Services Pty Ltd
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CERTIFICATE OF ANALYSIS 381657

Client Details

Client	NSW Health
Attention	Fernan Reyes
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Namoi Reservoir N-27**
Number of Samples	3 Water
Date samples received	27/05/2025
Date completed instructions received	27/05/2025

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	28/05/2025
Date of Issue	28/05/2025

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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		381657-1	381657-2	381657-3
Your Reference	UNITS	Namoi Reservoir A24NA0100009	Namoi Reservoir Duplicate	Namoi Reservoir Field Blank
Barcode		A24NA0100009	-	-
Sample Site Code		N27	-	-
Date Sampled		26/05/2025	26/05/2025	26/05/2025
Type of sample		Water	Water	Water
Date prepared	-	28/05/2025	28/05/2025	28/05/2025
Date analysed	-	28/05/2025	28/05/2025	28/05/2025
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	0.006	<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*	%	100	101	101
Surrogate $^{13}C_2$ *PFOA*	%	99	102	99
Extracted ISTD $^{13}C_3$ *PFBS*	%	78	76	81
Extracted ISTD $^{18}O_2$ *PFHxS*	%	85	83	81
Extracted ISTD $^{13}C_4$ *PFOS*	%	77	75	76
Extracted ISTD $^{13}C_4$ *PFOA*	%	88	85	91
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	109	106	103
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	131	126	126
Total Positive PFHxS & PFOS	µg/L	0.011	0.011	<0.001
Total Positive PFOA & PFOS	µg/L	0.006	0.006	<0.001
Total Positive PFAS	µg/L	0.011	0.011	<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	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[NT]
Date analysed	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[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]	99	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	103	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	116	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	73	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	77	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	76	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	75	[NT]	[NT]	[NT]	[NT]	83	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	124	[NT]	[NT]	[NT]	[NT]	123	[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.

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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

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CERTIFICATE OF ANALYSIS 381660

Client Details

Client	NSW Health
Attention	Fernan Reyes
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Elizabeth Bore N30**
Number of Samples	3 Water
Date samples received	27/05/2025
Date completed instructions received	27/05/2025

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	28/05/2025
Date of Issue	28/05/2025

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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		381660-1
Your Reference	UNITS	Elizabeth Bore A25NA0100027
Barcode		A25NA0100027
Sample Site Code		N30
Date Sampled		26/05/2025
Type of sample		Water
Date prepared	-	28/05/2025
Date analysed	-	28/05/2025
Perfluorobutanesulfonic acid	µg/L	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.002
Perfluorooctanesulfonic acid PFOS	µg/L	0.005
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*	%	97
Surrogate $^{13}C_2$ *PFOA*	%	107
Extracted ISTD $^{13}C_3$ *PFBS*	%	71
Extracted ISTD $^{18}O_2$ *PFHxS*	%	79
Extracted ISTD $^{13}C_4$ *PFOS*	%	78
Extracted ISTD $^{13}C_4$ *PFOA*	%	74
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	88
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	95
Total Positive PFHxS & PFOS	µg/L	0.007
Total Positive PFOA & PFOS	µg/L	0.005
Total Positive PFAS	µg/L	0.007

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	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[NT]
Date analysed	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[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]	99	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	103	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	116	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	73	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	77	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	76	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	75	[NT]	[NT]	[NT]	[NT]	83	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	107	[NT]
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Result Definitions

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NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
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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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Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

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CERTIFICATE OF ANALYSIS 381659

Client Details

Client	NSW Health
Attention	Fernan Reyes
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Killarney Bore**
Number of Samples	3 Water
Date samples received	27/05/2025
Date completed instructions received	27/05/2025

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	28/05/2025
Date of Issue	28/05/2025

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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		381659-1
Your Reference	UNITS	Killarney Bore A25NA0100026
Barcode		A25NA0100026
Sample Site Code		N29
Date Sampled		26/05/2025
Type of sample		Water
Date prepared	-	28/05/2025
Date analysed	-	28/05/2025
Perfluorobutanesulfonic acid	µg/L	0.005
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.020
Perfluorooctanesulfonic acid PFOS	µg/L	0.021
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*	%	101
Surrogate $^{13}C_2$ *PFOA*	%	95
Extracted ISTD $^{13}C_3$ *PFBS*	%	70
Extracted ISTD $^{18}O_2$ *PFHxS*	%	77
Extracted ISTD $^{13}C_4$ *PFOS*	%	72
Extracted ISTD $^{13}C_4$ *PFOA*	%	85
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	81
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	82
Total Positive PFHxS & PFOS	µg/L	0.041
Total Positive PFOA & PFOS	µg/L	0.023
Total Positive PFAS	µg/L	0.048

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	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[NT]
Date analysed	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[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]	99	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	103	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	116	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	73	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	77	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	76	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	75	[NT]	[NT]	[NT]	[NT]	83	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	124	[NT]	[NT]	[NT]	[NT]	123	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
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RPD	Relative Percent Difference
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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.
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Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

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www.envirolab.com.au

CERTIFICATE OF ANALYSIS 381658

Client Details

Client	NSW Health
Attention	Fernan Reyes
Address	Locked Bag 2030, ST LEONARDS, NSW, 1590

Sample Details

Your Reference	**Narrabri Shire Tibberena Bore N03**
Number of Samples	3 Water
Date samples received	27/05/2025
Date completed instructions received	27/05/2025

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	28/05/2025
Date of Issue	28/05/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

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		381658-1
Your Reference	UNITS	Tibberena Bore
Barcode		-
Sample Site Code		N03
Date Sampled		26/05/2025
Type of sample		Water
Date prepared	-	28/05/2025
Date analysed	-	28/05/2025
Perfluorobutanesulfonic acid	µg/L	0.002
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.007
Perfluorooctanesulfonic acid PFOS	µg/L	0.012
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*	%	103
Surrogate $^{13}C_2$ *PFOA*	%	108
Extracted ISTD $^{13}C_3$ *PFBS*	%	74
Extracted ISTD $^{18}O_2$ *PFHxS*	%	83
Extracted ISTD $^{13}C_4$ *PFOS*	%	72
Extracted ISTD $^{13}C_4$ *PFOA*	%	75
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	79
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	92
Total Positive PFHxS & PFOS	µg/L	0.019
Total Positive PFOA & PFOS	µg/L	0.012
Total Positive PFAS	µg/L	0.021

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	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[NT]
Date analysed	-			28/05/2025	[NT]	[NT]	[NT]	[NT]	28/05/2025	[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]	99	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	103	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	116	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	73	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	77	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	73	[NT]	[NT]	[NT]	[NT]	76	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	75	[NT]	[NT]	[NT]	[NT]	83	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	124	[NT]	[NT]	[NT]	[NT]	123	[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.
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