

August 16, 2023

Jacob Sutherland
Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

RE: PFAS Testing
23G0164

Enclosed are the results of analyses for samples received by our laboratory on 7/13/2023. If you have any questions concerning this report, please feel free to contact me.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,



Chue Moua
Project Manager

cmoua@applinc.com
559-862-2155

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Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16172
Project Manager: Jacob Sutherland

Reported: 08/16/2023 12:31

Work Order Case Narrative

Revision 08/16/23: All collection dates were revised to 07/12/23 per the client's request.

Analysis Case Narrative

PFAS: Manual integrations were performed for this method in accordance with APPL's SOP. Chromatograms after manual integration are enclosed for specific samples and analytes. Abbreviated flags for technical justification are listed on the chromatogram.

Some extracted internal standards recovered outside of control limits in some samples; these samples were diluted and recovered in control, unless stated otherwise.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0557-BLK1.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0557-BS1.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0557-MRL1.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
23G0164-01	MW-13D	Water	07/12/2023 11:30	07/13/2023
23G0164-02	MW-13DD	Water	07/12/2023 10:20	07/13/2023
23G0164-03	MW-17D	Water	07/12/2023 01:38	07/13/2023
23G0164-04	MW-17S	Water	07/12/2023 03:00	07/13/2023
23G0164-05	WT BLANK	Water	07/12/2023 05:12	07/13/2023
23G0164-06	Pump Blank	Water	07/12/2023 05:15	07/13/2023

Fibertec Environmental Services
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Holt, MI 48842

Project: PFAS Testing
Project Number: A16172
Project Manager: Jacob Sutherlund

Reported: 08/16/2023 12:31

Sample Results

Sample: MW-13D
23G0164-01 (Water)

Analyte	Result /Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances

PFBA	ND		4.0	ng/L	07/28/23	1	537M	BCG0557
PFPeA	ND	MI4,	1.6	ng/L	07/28/23	1	537M	BCG0557
PFHxA	2.5	MI4	1.6	ng/L	07/28/23	1	537M	BCG0557
PFHpA	2.3	MI4	1.6	ng/L	07/28/23	1	537M	BCG0557
PFOA	2.7	MI4	1.6	ng/L	07/28/23	1	537M	BCG0557
PFNA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFDA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFBS	2.4		1.6	ng/L	07/28/23	1	537M	BCG0557
PFPeS	4.3	MI4	1.6	ng/L	07/28/23	1	537M	BCG0557
PFHxS	5.7	MI4	1.6	ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFOS	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFNS	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
PFDS	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND		2.6	ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND		4.0	ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND		2.6	ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND		2.6	ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND		1.6	ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND		2.4	ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND		1.3	ng/L	07/28/23	1	537M	BCG0557
ADONA	ND		1.3	ng/L	07/28/23	1	537M	BCG0557
9CI-PF3ONS	ND		1.3	ng/L	07/28/23	1	537M	BCG0557
11CI-PF3OUDS	ND		1.3	ng/L	07/28/23	1	537M	BCG0557
<hr/>								
Surrogate: 13C4-PFBA	94.2%		50-150		07/28/23	1	537M	
Surrogate: 13C5-PFPEA	89.2%		50-150		07/28/23	1	537M	
Surrogate: 13C5-PFHXA	93.8%		50-150		07/28/23	1	537M	
Surrogate: 13C4-PFHFA	82.2%		50-150		07/28/23	1	537M	
Surrogate: 13C8-PFOA	99.2%		50-150		07/28/23	1	537M	
Surrogate: 13C9-PFNA	99.4%		50-150		07/28/23	1	537M	
Surrogate: 13C6-PFDA	87.4%		50-150		07/28/23	1	537M	
Surrogate: 13C7-PFUnA	87.6%		50-150		07/28/23	1	537M	
Surrogate: 13C2-PFDOA	76.6%		50-150		07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	81.4%		50-150		07/28/23	1	537M	
Surrogate: 13C3-PFBS	95.6%		50-150		07/28/23	1	537M	
Surrogate: 13C3-PFHXS	99.8%		50-150		07/28/23	1	537M	
Surrogate: 13C8-PFOS	94.9%		50-150		07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	95.0%		50-150		07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	94.7%		50-150		07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	123%		50-150		07/28/23	1	537M	
Surrogate: 13C8-PFOSA	97.8%		50-150		07/28/23	1	537M	
Surrogate: D3-NMEFOSAA	74.5%		50-150		07/28/23	1	537M	

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Sample Results (Continued)

Sample: MW-13D (Continued)
23G0164-01 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D5-NETFOSAA	76.0%	50-150	07/28/23	1	537M
Surrogate: 13C3-HFPO-DA	84.4%	50-150	07/28/23	1	537M

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Sample Results (Continued)

Sample: MW-13DD
23G0164-02 (Water)

Analyte	Result /Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
Per- and Polyfluoroalkyl Substances								
PFBA	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
PFPeA	2.1 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxA	4.6 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpA	1.6 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOA	2.6 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFBS	1.9 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFPeS	3.1 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxS	4.1	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND	2.4		ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
ADONA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
9Cl-PF3ONS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
11Cl-PF3OUDS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
Surrogate: 13C4-PFBA	94.6%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFPEA	95.3%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFHXA	97.2%	50-150			07/28/23	1	537M	
Surrogate: 13C4-PFHFA	78.7%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOA	96.6%	50-150			07/28/23	1	537M	
Surrogate: 13C9-PFNA	99.9%	50-150			07/28/23	1	537M	
Surrogate: 13C6-PFDA	96.7%	50-150			07/28/23	1	537M	
Surrogate: 13C7-PFUnA	106%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFDOA	93.9%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	106%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFBS	99.5%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFHXS	98.8%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOS	92.9%	50-150			07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	97.3%	50-150			07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	88.9%	50-150			07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	139%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOSA	91.7%	50-150			07/28/23	1	537M	
Surrogate: D3-NMEFOSAA	88.2%	50-150			07/28/23	1	537M	

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Sample Results (Continued)

Sample: MW-13DD (Continued)
23G0164-02 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D5-NETFOSAA	87.0%	50-150	07/28/23	1	537M
Surrogate: 13C3-HFPO-DA	83.5%	50-150	07/28/23	1	537M

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Sample Results (Continued)

Sample: MW-17D
23G0164-03 (Water)

Analyte	Result /Qual		PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
Per- and Polyfluoroalkyl Substances									
PFBA	ND	MI6,	4.0		ng/L	07/28/23	1	537M	BCG0557
PFPeA	ND	MI4,	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxA	3.1	MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpA	6.4	MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOA	13	MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFDA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFBS	4.1	MI6	1.6		ng/L	07/28/23	1	537M	BCG0557
PFPeS	4.6	MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxS	8.5	MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFOS	ND	MI4,	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNS	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
PFDS	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND		2.8		ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND		4.0		ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND		2.8		ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND		2.8		ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND		1.6		ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND		2.4		ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND		1.4		ng/L	07/28/23	1	537M	BCG0557
ADONA	ND		1.4		ng/L	07/28/23	1	537M	BCG0557
9Cl-PF3ONS	ND		1.4		ng/L	07/28/23	1	537M	BCG0557
11Cl-PF3OUDS	ND		1.4		ng/L	07/28/23	1	537M	BCG0557
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Surrogate: 13C4-PFBA	93.5%		50-150			07/28/23	1	537M	
Surrogate: 13C5-PFPEA	109%		50-150			07/28/23	1	537M	
Surrogate: 13C5-PFHXA	100%		50-150			07/28/23	1	537M	
Surrogate: 13C4-PFHFA	85.9%		50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOA	95.6%		50-150			07/28/23	1	537M	
Surrogate: 13C9-PFNA	101%		50-150			07/28/23	1	537M	
Surrogate: 13C6-PFDA	91.0%		50-150			07/28/23	1	537M	
Surrogate: 13C7-PFUnA	79.8%		50-150			07/28/23	1	537M	
Surrogate: 13C2-PFDOA	75.0%		50-150			07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	68.2%		50-150			07/28/23	1	537M	
Surrogate: 13C3-PFBS	96.8%		50-150			07/28/23	1	537M	
Surrogate: 13C3-PFHXS	101%		50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOS	95.1%		50-150			07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	148%		50-150			07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	111%		50-150			07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	171%	S2	50-150			07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	104%		50-150			07/28/23	10	537M	
Surrogate: 13C8-PFOSA	75.5%		50-150			07/28/23	1	537M	

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Sample Results (Continued)

Sample: MW-17D (Continued)
23G0164-03 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D3-NMEFOSAA	99.1%	50-150			07/28/23	1	537M	
Surrogate: D5-NETFOSAA	103%	50-150			07/28/23	1	537M	
Surrogate: 13C3-HFPO-DA	83.3%	50-150			07/28/23	1	537M	

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Sample Results (Continued)

Sample: MW-17S
23G0164-04 (Water)

Analyte	Result /Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances

PFBA	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
PFPeA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxA	ND MI4,	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpA	2.2 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOA	5.7 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFBS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFPeS	ND MI4,	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxS	2.1 MI4	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND	2.4		ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
ADONA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
9CI-PF3ONS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
11CI-PF3OUDS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557

Surrogate: 13C4-PFBA	97.1%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFPEA	98.2%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFHXA	98.3%	50-150			07/28/23	1	537M	
Surrogate: 13C4-PFHFA	84.3%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOA	96.4%	50-150			07/28/23	1	537M	
Surrogate: 13C9-PFNA	100%	50-150			07/28/23	1	537M	
Surrogate: 13C6-PFDA	89.4%	50-150			07/28/23	1	537M	
Surrogate: 13C7-PFUnA	93.1%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFDOA	93.7%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	101%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFBS	99.7%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFHXS	98.1%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOS	100%	50-150			07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	98.4%	50-150			07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	89.2%	50-150			07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	109%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOSA	93.3%	50-150			07/28/23	1	537M	
Surrogate: D3-NMEFOSAA	85.2%	50-150			07/28/23	1	537M	

Fibertec Environmental Services	Project: PFAS Testing	
1914 Holloway Drive	Project Number: A16172	
Holt, MI 48842	Project Manager: Jacob Sutherland	Reported: 08/16/2023 12:31

Sample Results
(Continued)

Sample: MW-17S (Continued)
23G0164-04 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D5-NETFOSAA	89.5%	50-150			07/28/23	1	537M	
Surrogate: 13C3-HFPO-DA	90.4%	50-150			07/28/23	1	537M	

Fibertec Environmental Services
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Project: PFAS Testing
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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: WT BLANK
23G0164-05 (Water)

Analyte	Result /Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances

PFBA	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
PFPeA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFBS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFPeS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND	2.8		ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND	2.4		ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
ADONA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
9CI-PF3ONS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
11CI-PF3OUDS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557

Surrogate: 13C4-PFBA	105%		50-150		07/28/23	1	537M	
Surrogate: 13C5-PFPEA	95.0%		50-150		07/28/23	1	537M	
Surrogate: 13C5-PFHXA	99.3%		50-150		07/28/23	1	537M	
Surrogate: 13C4-PFHFA	87.2%		50-150		07/28/23	1	537M	
Surrogate: 13C8-PFOA	95.2%		50-150		07/28/23	1	537M	
Surrogate: 13C9-PFNA	97.8%		50-150		07/28/23	1	537M	
Surrogate: 13C6-PFDA	99.9%		50-150		07/28/23	1	537M	
Surrogate: 13C7-PFUnA	107%		50-150		07/28/23	1	537M	
Surrogate: 13C2-PFDOA	96.7%		50-150		07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	99.4%		50-150		07/28/23	1	537M	
Surrogate: 13C3-PFBS	91.9%		50-150		07/28/23	1	537M	
Surrogate: 13C3-PFHXS	96.9%		50-150		07/28/23	1	537M	
Surrogate: 13C8-PFOS	98.2%		50-150		07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	113%		50-150		07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	94.6%		50-150		07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	160%	S2	50-150		07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	122%		50-150		07/28/23	10	537M	
Surrogate: 13C8-PFOSA	79.6%		50-150		07/28/23	1	537M	

Fibertec Environmental Services
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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: WT BLANK (Continued)
23G0164-05 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D3-NMEFOSAA	101%	50-150			07/28/23	1	537M	
Surrogate: D5-NETFOSAA	114%	50-150			07/28/23	1	537M	
Surrogate: 13C3-HFPO-DA	87.3%	50-150			07/28/23	1	537M	

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Project Number: A16172
Project Manager: Jacob Sutherland

Reported: 08/16/2023 12:31

Sample Results (Continued)

Sample: Pump Blank
23G0164-06 (Water)

Analyte	Result /Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances

PFBA	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
PFPeA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFUnA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDoA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTTrDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFTeDA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFBS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFPeS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHxS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFHpS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFOS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFNS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
PFDS	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
4:2FTS	ND	2.7		ng/L	07/28/23	1	537M	BCG0557
6:2FTS	ND	4.0		ng/L	07/28/23	1	537M	BCG0557
8:2FTS	ND	2.7		ng/L	07/28/23	1	537M	BCG0557
PFOSA	ND	2.7		ng/L	07/28/23	1	537M	BCG0557
NMeFOSAA	ND	1.6		ng/L	07/28/23	1	537M	BCG0557
NEtFOSAA	ND	2.4		ng/L	07/28/23	1	537M	BCG0557
HFPO-DA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
ADONA	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
9CI-PF3ONS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557
11CI-PF3OUDS	ND	1.4		ng/L	07/28/23	1	537M	BCG0557

Surrogate: 13C4-PFBA	97.8%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFPEA	95.3%	50-150			07/28/23	1	537M	
Surrogate: 13C5-PFHXA	100%	50-150			07/28/23	1	537M	
Surrogate: 13C4-PFHFA	84.3%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOA	97.2%	50-150			07/28/23	1	537M	
Surrogate: 13C9-PFNA	100%	50-150			07/28/23	1	537M	
Surrogate: 13C6-PFDA	96.7%	50-150			07/28/23	1	537M	
Surrogate: 13C7-PFUnA	104%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFDOA	97.3%	50-150			07/28/23	1	537M	
Surrogate: 13C2-PFTEDA	105%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFBS	98.2%	50-150			07/28/23	1	537M	
Surrogate: 13C3-PFHXS	101%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOS	99.2%	50-150			07/28/23	1	537M	
Surrogate: 13C2-4:2FTS	112%	50-150			07/28/23	1	537M	
Surrogate: 13C2-6:2FTS	101%	50-150			07/28/23	1	537M	
Surrogate: 13C2-8:2FTS	128%	50-150			07/28/23	1	537M	
Surrogate: 13C8-PFOSA	82.3%	50-150			07/28/23	1	537M	
Surrogate: D3-NMEFOSAA	100%	50-150			07/28/23	1	537M	

Fibertec Environmental Services
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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: Pump Blank (Continued)
23G0164-06 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
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Per- and Polyfluoroalkyl Substances (Continued)

Surrogate: D5-NETFOSAA	111%	50-150			07/28/23	1	537M	
Surrogate: 13C3-HFPO-DA	86.0%	50-150			07/28/23	1	537M	

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Project Number: A16172
Project Manager: Jacob Sutherland

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PREPARATION BATCH SUMMARY

537M

Laboratory: APPL, LLC

Client: Fibertec Environmental Services

Batch: BCG0557 Batch Matrix: Water Preparation: 537M

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
MW-13D	23G0164-01	07/26/23 11:30	309.78	2.00
MW-13DD	23G0164-02	07/26/23 11:30	285.25	2.00
MW-17D	23G0164-03	07/26/23 11:30	284.53	2.00
MW-17D	23G0164-03RE1	07/26/23 11:30	284.53	2.00
MW-17S	23G0164-04	07/26/23 11:30	287.86	2.00
WT BLANK	23G0164-05	07/26/23 11:30	290.58	2.00
WT BLANK	23G0164-05RE1	07/26/23 11:30	290.58	2.00
Pump Blank	23G0164-06	07/26/23 11:30	291.45	2.00
Blank	BCG0557-BLK1	07/26/23 11:30	250.00	2.00
LCS	BCG0557-BS1	07/26/23 11:30	250.00	2.00
LCS Dup	BCG0557-BSD1	07/26/23 11:30	250.00	2.00
MRL Check	BCG0557-MRL1	07/26/23 11:30	250.00	2.00

Fibertec Environmental Services
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Project Manager: Jacob Sutherlund

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Quality Control

Per- and Polyfluoroalkyl Substances

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Method: 537M

Batch: BCG0557 - 537M

Blank (BCG0557-BLK1)

Prepared: 07/26/23 11:30 Analyzed: 07/28/23 16:55

PFBA	ND	4.0	ng/L
PFPeA	ND	1.6	ng/L
PFHxA	ND	1.6	ng/L
PFFHpA	ND	1.6	ng/L
PFOA	ND	1.6	ng/L
PFNA	ND	1.6	ng/L
PFDA	ND	1.6	ng/L
PFOA	ND	1.6	ng/L
PFTeDA	ND	1.6	ng/L
PFBs	ND	1.6	ng/L
PFPeS	ND	1.6	ng/L
PFHxS	ND	1.6	ng/L
PFFHpS	ND	1.6	ng/L
PFOS	ND	1.6	ng/L
PFNS	ND	1.6	ng/L
PFDS	ND	1.6	ng/L
4:2FTS	ND	3.2	ng/L
6:2FTS	ND	4.0	ng/L
8:2FTS	ND	3.2	ng/L
PFOSA	ND	3.2	ng/L
NMeFOSAA	ND	1.6	ng/L
NEtFOSAA	ND	2.4	ng/L
HFPO-DA	ND	1.6	ng/L
ADONA	ND	1.6	ng/L
9CI-PF3ONS	ND	1.6	ng/L
11CI-PF3OUDS	ND	1.6	ng/L

Surrogate: 13C4-PFBA	64.9	ng/L	64.0	101	50-150
Surrogate: 13C5-PFPEA	31.8	ng/L	32.0	99.3	50-150
Surrogate: 13C5-PFHXA	16.4	ng/L	16.0	103	50-150
Surrogate: 13C4-PFHPA	14.7	ng/L	16.0	91.8	50-150
Surrogate: 13C8-PFOA	15.9	ng/L	16.0	99.2	50-150
Surrogate: 13C9-PFNA	7.72	ng/L	8.00	96.5	50-150
Surrogate: 13C6-PFDA	7.81	ng/L	8.00	97.6	50-150
Surrogate: 13C7-PFUnA	8.83	ng/L	8.00	110	50-150
Surrogate: 13C2-PFDOA	8.07	ng/L	8.00	101	50-150
Surrogate: 13C2-PFTEDA	9.02	ng/L	8.00	113	50-150
Surrogate: 13C3-PFBs	15.7	ng/L	16.0	98.4	50-150
Surrogate: 13C3-PFHXS	15.7	ng/L	16.0	98.2	50-150
Surrogate: 13C8-PFOS	15.4	ng/L	16.0	96.0	50-150
Surrogate: 13C2-4:2FTS	35.0	ng/L	32.0	109	50-150
Surrogate: 13C2-6:2FTS	30.1	ng/L	32.0	93.9	50-150
Surrogate: 13C2-8:2FTS	50.7 S2	ng/L	32.0	158	50-150
Surrogate: 13C8-PFOSA	11.5	ng/L	16.0	72.0	50-150
Surrogate: D3-NMeFOSAA	30.4	ng/L	32.0	95.1	50-150
Surrogate: D5-NETFOSAA	29.2	ng/L	32.0	91.4	50-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (BCG0557-BLK1)					Prepared: 07/26/23 11:30		Analyzed: 07/28/23 16:55			
Surrogate: 13C3-HFPO-DA	58.4			ng/L	64.0		91.2	50-150		
LCS (BCG0557-BS1)					Prepared: 07/26/23 11:30		Analyzed: 07/28/23 17:08			
PFBA	34.6			ng/L	32.0		108	73-129		
PFPeA	17.5			ng/L	16.0		109	72-129		
PFHxA	8.62			ng/L	8.00		108	72-129		
PFFHpA	9.83			ng/L	8.00		123	72-130		
PFOA	8.57			ng/L	8.00		107	71-133		
PFNA	8.54			ng/L	8.00		107	69-130		
PFDA	9.09			ng/L	8.00		114	71-129		
PFOA	8.73			ng/L	8.00		109	69-133		
PFDaA	8.55			ng/L	8.00		107	72-134		
PFTTrDA	9.34			ng/L	8.00		117	65-144		
PFTeDA	8.45			ng/L	8.00		106	71-132		
PFBS	7.53			ng/L	7.08		106	72-130		
PFPeS	8.19			ng/L	7.52		109	71-127		
PFHxS	7.67			ng/L	7.32		105	68-131		
PFFHpS	7.93			ng/L	7.64		104	69-134		
PFOS	7.81			ng/L	7.44		105	65-140		
PFNS	7.96			ng/L	7.68		104	69-127		
PFDS	8.47			ng/L	7.72		110	53-142		
4:2FTS	32.4			ng/L	30.0		108	63-143		
6:2FTS	34.2			ng/L	30.4		113	64-140		
8:2FTS	37.1			ng/L	30.7		121	67-138		
PFOSA	8.83			ng/L	8.00		110	67-137		
NMeFOSAA	8.45 MI4			ng/L	8.00		106	65-136		
NEtFOSAA	8.58			ng/L	8.00		107	61-135		
HFPO-DA	8.29			ng/L	8.00		104	44-175		
ADONA	8.27			ng/L	7.56		109	61-169		
9CI-PF3ONS	8.26			ng/L	7.48		110	62-140		
11CI-PF3OUDS	9.20			ng/L	7.56		122	54-138		
Surrogate: 13C4-PFBA	64.3			ng/L	64.0		100	50-150		
Surrogate: 13C5-PFPEA	32.1			ng/L	32.0		100	50-150		
Surrogate: 13C5-PFHXA	16.9			ng/L	16.0		106	50-150		
Surrogate: 13C4-PFHXA	14.3			ng/L	16.0		89.5	50-150		
Surrogate: 13C8-PFOA	16.0			ng/L	16.0		99.8	50-150		
Surrogate: 13C9-PFNA	8.08			ng/L	8.00		101	50-150		
Surrogate: 13C6-PFDA	7.71			ng/L	8.00		96.4	50-150		
Surrogate: 13C7-PFOA	7.89			ng/L	8.00		98.7	50-150		
Surrogate: 13C2-PFDOA	7.67			ng/L	8.00		95.9	50-150		
Surrogate: 13C2-PFTEDA	8.16			ng/L	8.00		102	50-150		
Surrogate: 13C3-PFBS	15.1			ng/L	16.0		94.1	50-150		
Surrogate: 13C3-PFHXS	16.0			ng/L	16.0		99.8	50-150		
Surrogate: 13C8-PFOS	16.0			ng/L	16.0		99.8	50-150		
Surrogate: 13C2-4:2FTS	35.4			ng/L	32.0		111	50-150		
Surrogate: 13C2-6:2FTS	30.3			ng/L	32.0		94.8	50-150		
Surrogate: 13C2-8:2FTS	61.2 S2			ng/L	32.0		191	50-150		
Surrogate: 13C8-PFOA	13.8			ng/L	16.0		86.3	50-150		
Surrogate: D3-NMEFOSAA	29.9			ng/L	32.0		93.5	50-150		
Surrogate: D5-NETFOSAA	29.4			ng/L	32.0		91.9	50-150		

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Project Number: A16172
Project Manager: Jacob Sutherland

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (BCG0557-BS1)					Prepared: 07/26/23 11:30 Analyzed: 07/28/23 17:08					
Surrogate: 13C3-HFPO-DA	60.6			ng/L	64.0		94.7	50-150		
LCS Dup (BCG0557-BSD1)					Prepared: 07/26/23 11:30 Analyzed: 07/28/23 17:20					
PFBA	34.5			ng/L	32.0		108	73-129	0.337	30
PFPeA	17.5			ng/L	16.0		109	72-129	0.0739	30
PFHxA	9.44			ng/L	8.00		118	72-129	9.03	30
PFHpA	10.0			ng/L	8.00		125	72-130	2.04	30
PFOA	9.09			ng/L	8.00		114	71-133	5.91	30
PFNA	8.60			ng/L	8.00		108	69-130	0.781	30
PFDA	9.07			ng/L	8.00		113	71-129	0.233	30
PFUnA	8.91			ng/L	8.00		111	69-133	2.00	30
PFDoA	9.01			ng/L	8.00		113	72-134	5.24	30
PFTTrDA	9.67			ng/L	8.00		121	65-144	3.44	30
PFTeDA	8.54			ng/L	8.00		107	71-132	1.04	30
PFBS	7.94			ng/L	7.08		112	72-130	5.29	30
PFPeS	8.36			ng/L	7.52		111	71-127	2.00	30
PFHxS	7.87			ng/L	7.32		108	68-131	2.61	30
PFHpS	8.33			ng/L	7.64		109	69-134	4.87	30
PFOS	7.69			ng/L	7.44		103	65-140	1.55	30
PFNS	8.09			ng/L	7.68		105	69-127	1.55	30
PFDS	7.98			ng/L	7.72		103	53-142	5.94	30
4:2FTS	34.8			ng/L	30.0		116	63-143	7.31	30
6:2FTS	34.1			ng/L	30.4		112	64-140	0.446	30
8:2FTS	34.7			ng/L	30.7		113	67-138	6.54	30
PFOSA	8.45			ng/L	8.00		106	67-137	4.42	30
NMeFOSAA	8.21 MI4			ng/L	8.00		103	65-136	2.85	30
NEtFOSAA	8.67			ng/L	8.00		108	61-135	1.01	30
HFPO-DA	8.28			ng/L	8.00		103	44-175	0.0957	30
ADONA	8.67			ng/L	7.56		115	61-169	4.73	30
9CI-PF3ONS	8.36			ng/L	7.48		112	62-140	1.20	30
11CI-PF3OUDS	9.32			ng/L	7.56		123	54-138	1.27	30
Surrogate: 13C4-PFBA	66.3			ng/L	64.0		104	50-150		
Surrogate: 13C5-PFPEA	30.6			ng/L	32.0		95.6	50-150		
Surrogate: 13C5-PFHXA	15.7			ng/L	16.0		98.3	50-150		
Surrogate: 13C4-PFHFA	13.8			ng/L	16.0		86.2	50-150		
Surrogate: 13C8-PFOA	16.0			ng/L	16.0		99.9	50-150		
Surrogate: 13C9-PFNA	8.45			ng/L	8.00		106	50-150		
Surrogate: 13C6-PFDA	7.97			ng/L	8.00		99.6	50-150		
Surrogate: 13C7-PFUnA	7.79			ng/L	8.00		97.3	50-150		
Surrogate: 13C2-PFDOA	7.82			ng/L	8.00		97.8	50-150		
Surrogate: 13C2-PFTEDA	8.74			ng/L	8.00		109	50-150		
Surrogate: 13C3-PFBS	16.2			ng/L	16.0		101	50-150		
Surrogate: 13C3-PFHXS	16.3			ng/L	16.0		102	50-150		
Surrogate: 13C8-PFOS	15.7			ng/L	16.0		98.0	50-150		
Surrogate: 13C2-4:2FTS	36.8			ng/L	32.0		115	50-150		
Surrogate: 13C2-6:2FTS	31.8			ng/L	32.0		99.4	50-150		
Surrogate: 13C2-8:2FTS	47.7			ng/L	32.0		149	50-150		
Surrogate: 13C8-PFOSA	13.1			ng/L	16.0		81.8	50-150		
Surrogate: D3-NMEFOSAA	27.7			ng/L	32.0		86.4	50-150		
Surrogate: D5-NETFOSAA	26.7			ng/L	32.0		83.3	50-150		

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16172
Project Manager: Jacob Sutherland

Reported: 08/16/2023 12:31

Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS Dup (BCG0557-BSD1)					Prepared: 07/26/23 11:30		Analyzed: 07/28/23 17:20			
Surrogate: 13C3-HFPO-DA	57.5			ng/L	64.0		89.9	50-150		
MRL Check (BCG0557-MRL1)					Prepared: 07/26/23 11:30		Analyzed: 07/28/23 17:33			
PFBA	6.97			ng/L	6.40		109	73-129		
PFPeA	3.36			ng/L	3.20		105	72-129		
PFHxA	1.80			ng/L	1.60		112	72-129		
PFFHpA	1.81			ng/L	1.60		113	72-130		
PFOA	1.69			ng/L	1.60		106	71-133		
PFNA	1.58			ng/L	1.60		98.7	69-130		
PFDA	1.51			ng/L	1.60		94.6	71-129		
PFUnA	1.57			ng/L	1.60		98.2	69-133		
PFDaA	1.62			ng/L	1.60		101	72-134		
PFTTrDA	1.79			ng/L	1.60		112	65-144		
PFTeDA	1.54			ng/L	1.60		96.1	71-132		
PFBS	1.36			ng/L	1.42		95.9	72-130		
PFPeS	1.63			ng/L	1.50		109	71-127		
PFHxS	1.53			ng/L	1.46		104	68-131		
PFFHpS	1.60			ng/L	1.53		104	69-134		
PFOS	1.62			ng/L	1.49		109	65-140		
PFNS	1.53			ng/L	1.54		99.9	69-127		
PFDS	1.52			ng/L	1.54		98.5	53-142		
4:2FTS	6.60			ng/L	6.00		110	63-143		
6:2FTS	6.39			ng/L	6.08		105	64-140		
8:2FTS	5.69			ng/L	6.14		92.5	67-138		
PFOSA	1.48 , J			ng/L	1.60		92.3	67-137		
NMeFOSAA	1.70 MI4			ng/L	1.60		106	65-136		
NEtFOSAA	1.62 MI4			ng/L	1.60		102	61-135		
HFPO-DA	1.41 , J			ng/L	1.60		88.0	44-175		
ADONA	1.53 , J			ng/L	1.51		101	61-169		
9CI-PF3ONS	1.36 , J			ng/L	1.50		91.1	62-140		
11CI-PF3OUDS	1.66			ng/L	1.51		110	54-138		
Surrogate: 13C4-PFBA	63.0			ng/L	64.0		98.4	50-150		
Surrogate: 13C5-PFPEA	31.7			ng/L	32.0		99.0	50-150		
Surrogate: 13C5-PFHXA	16.9			ng/L	16.0		106	50-150		
Surrogate: 13C4-PFHXA	15.0			ng/L	16.0		93.6	50-150		
Surrogate: 13C8-PFOA	15.4			ng/L	16.0		96.3	50-150		
Surrogate: 13C9-PFNA	8.01			ng/L	8.00		100	50-150		
Surrogate: 13C6-PFDA	7.67			ng/L	8.00		95.8	50-150		
Surrogate: 13C7-PFUnA	8.64			ng/L	8.00		108	50-150		
Surrogate: 13C2-PFDOA	7.91			ng/L	8.00		98.8	50-150		
Surrogate: 13C2-PFTEDA	8.78			ng/L	8.00		110	50-150		
Surrogate: 13C3-PFBS	15.6			ng/L	16.0		97.3	50-150		
Surrogate: 13C3-PFHXS	15.2			ng/L	16.0		94.9	50-150		
Surrogate: 13C8-PFOS	14.7			ng/L	16.0		91.7	50-150		
Surrogate: 13C2-4:2FTS	31.2			ng/L	32.0		97.5	50-150		
Surrogate: 13C2-6:2FTS	31.3			ng/L	32.0		97.8	50-150		
Surrogate: 13C2-8:2FTS	50.4 S2			ng/L	32.0		157	50-150		
Surrogate: 13C8-PFOA	11.5			ng/L	16.0		71.9	50-150		
Surrogate: D3-NMEFOSAA	27.6			ng/L	32.0		86.4	50-150		
Surrogate: D5-NETFOSAA	26.6			ng/L	32.0		83.2	50-150		

Fibertec Environmental Services	Project: PFAS Testing	
1914 Holloway Drive	Project Number: A16172	
Holt, MI 48842	Project Manager: Jacob Sutherland	Reported: 08/16/2023 12:31

Quality Control
(Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
MRL Check (BCG0557-MRL1)					Prepared: 07/26/23 11:30 Analyzed: 07/28/23 17:33					
Surrogate: 13C3-HFPO-DA	60.9			ng/L	64.0		95.1	50-150		

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16172
Project Manager: Jacob Sutherlund

Reported: 08/16/2023 12:31

Notes and Definitions

Item	Definition
J	Estimated value
MI4	Manual integration, peak unsplit
MI6	Manual integration, wrong peak integrated
S2	Surrogate recovered above the upper control limit
U	Not detected
Dry	Sample results reported on a dry weight basis.
MDL	Method Detection Limit (only displays if reported to the MDL)
ND	Analyte NOT DETECTED at or above the reporting limit.
DF	Dilution Factor
DL	Detection Limit
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
PQL, Practical Quantitation Limit = Method Reporting Limit (MRL).	

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16172
Project Manager: Jacob Sutherlund

Reported: 08/16/2023 12:31



WORK ORDER

23G0164

Printed: 08/16/2023 12:31 pm

Project: PFAS Testing
Project Number: A16172
Project Manager: Chue Moua
PO Number: NA

Report To:

Fibertec Environmental Services
Jacob Sutherlund
1914 Holloway Drive
Holt, MI 48842
Phone: (517) 699-0345
Fax: (517) 699-0388

Invoice To:

Fibertec Environmental Services
Kathy Jones
1914 Holloway Drive
Holt, MI 48842
Phone: (517) 699-0345
Fax: (517) 699-0388

Date Received: 07/13/2023 11:30 AM
Date Due: 07/27/2023 (10.00 day TAT)

Logged In By: Sophia Herrera
Received By: Sophia Herrera

Analysis	Comments
23G0164-01 MW-13D [Water] Sampled 7/12/2023 11:30:00AM B-15 DOD 28-compound list	
23G0164-02 MW-13DD [Water] Sampled 7/12/2023 10:20:00AM B-15 DOD 28-compound list	
23G0164-03 MW-17D [Water] Sampled 7/12/2023 1:38:00AM B-15 DOD 28-compound list	
23G0164-04 MW-17S [Water] Sampled 7/12/2023 3:00:00AM B-15 DOD 28-compound list	
23G0164-05 WT BLANK [Water] Sampled 7/12/2023 5:12:00AM <i>Sample Comments: DI Water</i> B-15 DOD 28-compound list	
23G0164-06 Pump Blank [Water] Sampled 7/12/2023 5:15:00AM <i>Sample Comments: Di Water</i> B-15 DOD 28-compound list	

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
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23G0164

Sample Receipt Log

Default Cooler

Samples Received at: **0.1°C**

Custody Seals	No	Were all containers sealed in separate bags?	Yes
Containers Intact	Yes	Did all containers arrive in good condition?	Yes
COC/Labels Agree	Yes	Correct containers/preserv. for tests indicated?	Yes
Preservation Confirmed	Yes	Sufficient volume sent for tests requested?	No
Received On Ice	Yes	Were bubbles absent in volatile samples?	No
Was a chain of custody received?	Yes	Sufficient remaining holding time for analyses?	No
COCs complete/signed in the appropriate places?	Yes	pH of non-VOA preserved containers documented?	No
Sample labels complete? Sample ID, date/time, etc.	Yes	Unpreserved vials received for VOA analysis?	No
Did all container labels agree with COCs?	Yes	If "yes", are unpreserved VOA vials noted on Work	No



Analytical Laboratory

1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.

1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertecihs.com

Geoprobe

11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody #

212938-S

PAGE 1 of 1

Temp
IRB 2.7
0.1

Client Name: Metiri Group - Holt				MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PFAS 537.1 Modified*	PARAMETERS																HOLD SAMPLE	Matrix Code				Deliverables	
Contact Person: Jacob Sutherland							S	Soil	GW	Ground Water	X	Level 2																	
Project Name/ Number: A16172							A	Air	SW	Surface Water		Level 3																	
Email distribution list: lab.holt@metirigroup.com							O	Oil	WW	Waste Water		Level 4																	
Quote#							P	Wipe	X	Other: Specify	X	EDD																	
Purchase Order#							*Compound list attached																						
Date	Time	Sample #	Client Sample Descriptor																	Remarks:									
7/13/23	11:30 AM	1	MW-13D	GW	3	✓																							
7/13/23	10:20 AM	2	MW-13DD	GW	3	✓																							
7/13/23	1:38 PM	3	MW-17D	GW	3	✓																							
7/13/23	3:00 PM	4	MW-17S	GW	3	✓																							
7/13/23	5:12 PM	5	WT Blank	W	3	✓													DI Water										
7/13/23	5:15 PM	6	Pump Blank	W	3	✓													DI Water										
Comments:																													
Sampled/Relinquished By:				Date/ Time				Received By:																					
Relinquished By:				Date/ Time				Received By:																					
Relinquished By:				Date/ Time				Received By Laboratory: <i>Yuriko Rodriguez 9:40am 7/18/23</i>																					
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY																		LAB USE ONLY											
_____ 1 bus. day _____ 2 bus. days _____ 3 bus. days _____ 4 bus. days																		Fibertec project number:											
_____ 5-7 bus. days (standard) Other (specify time/date requirement): _____ Standard - 8/8/23																		Temperature upon receipt at Lab:											
Please see back for terms and conditions																													