

August 07, 2023

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

RE: PFAS Testing
23G0181

Enclosed are the results of analyses for samples received by our laboratory on 7/19/2023. 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: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

Work Order Case Narrative

These sample are out of temp at 11.8°C. Ok to proceed per the client.

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 BCG0633-BLK1.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0633-BS1.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0633-BSD1.

The extracted internal standards 13C2-8:2FTS recovered above the upper control limit in the BCG0633-MRL1.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
23G0181-01	MW-2D	Water	07/14/2023 16:15	07/19/2023
23G0181-02	MW-6S	Water	07/14/2023 11:35	07/19/2023
23G0181-03	MW-6D	Water	07/14/2023 12:30	07/19/2023
23G0181-04	MW-9D	Water	07/14/2023 10:10	07/19/2023
23G0181-05	WT BLANK	Water	07/14/2023 16:52	07/19/2023
23G0181-06	PUMP BLANK	Water	07/14/2023 17:11	07/19/2023

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherlund

Reported: 08/07/2023 11:03

Sample Results

Sample: MW-2D
23G0181-01 (Water)

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

PFBA	4.7		4.0	ng/L	07/29/23	1	537M	BCG0633
PFPeA	3.7	MI6	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxA	3.8	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpA	3.6	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFOA	ND	MI4,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFNA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFBS	3.2		1.6	ng/L	07/29/23	1	537M	BCG0633
PFPeS	2.9	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxS	2.2		1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFOS	ND	IR2,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFNS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
6:2FTS	20		4.0	ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND		2.4	ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
ADONA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
9Cl-PF3ONS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
11Cl-PF3OUDS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
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Surrogate: 13C4-PFBA	95.2%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFPEA	88.2%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFHXA	97.1%		50-150		07/29/23	1	537M	
Surrogate: 13C4-PFHFA	73.6%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOA	98.7%		50-150		07/29/23	1	537M	
Surrogate: 13C9-PFNA	104%		50-150		07/29/23	1	537M	
Surrogate: 13C6-PFDA	93.5%		50-150		07/29/23	1	537M	
Surrogate: 13C7-PFUnA	84.2%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFDOA	87.8%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	94.6%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFBS	98.7%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFHXS	96.1%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOS	93.9%		50-150		07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	135%		50-150		07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	94.3%		50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	180%	S2	50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	101%		50-150		07/29/23	10	537M	
Surrogate: 13C8-PFOSA	90.1%		50-150		07/29/23	1	537M	

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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: MW-2D (Continued)
23G0181-01 (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	90.1%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	89.8%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	81.7%	50-150			07/29/23	1	537M	

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Sample Results (Continued)

Sample: **MW-6S****23G0181-02 (Water)**

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

PFBA	7.6		4.0	ng/L	07/29/23	1	537M	BCG0633
PFPeA	7.0	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxA	12	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpA	11	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFOA	12	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFNA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFBS	12	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFPeS	14	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxS	6.0	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFOS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFNS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
6:2FTS	ND		4.0	ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND		2.4	ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
ADONA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
9CI-PF3ONS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
11CI-PF3OUDS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633

Surrogate: 13C4-PFBA	88.4%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFPEA	87.4%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFHXA	91.8%		50-150		07/29/23	1	537M	
Surrogate: 13C4-PFHFA	78.3%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOA	94.0%		50-150		07/29/23	1	537M	
Surrogate: 13C9-PFNA	93.1%		50-150		07/29/23	1	537M	
Surrogate: 13C6-PFDA	88.6%		50-150		07/29/23	1	537M	
Surrogate: 13C7-PFUnA	91.7%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFDOA	89.1%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	96.7%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFBS	98.5%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFHXS	98.9%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOS	88.8%		50-150		07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	141%		50-150		07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	92.4%		50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	174%	S2	50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	96.2%		50-150		07/29/23	10	537M	
Surrogate: 13C8-PFOSA	78.2%		50-150		07/29/23	1	537M	

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Sample Results (Continued)

Sample: MW-6S (Continued)
23G0181-02 (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	80.8%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	80.5%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	81.7%	50-150			07/29/23	1	537M	

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Sample Results (Continued)

Sample: MW-6D
23G0181-03 (Water)

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

PFBA	4.1		4.0	ng/L	07/29/23	1	537M	BCG0633
PFPeA	4.5	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxA	6.4	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpA	6.9	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFOA	8.3	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFNA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFBS	5.9	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFPeS	5.7	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxS	5.6		1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFOS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFNS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND		3.0	ng/L	07/29/23	1	537M	BCG0633
6:2FTS	ND		4.0	ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND		3.0	ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND		3.0	ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND		2.4	ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
ADONA	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
9CI-PF3ONS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633
11CI-PF3OUDS	ND		1.5	ng/L	07/29/23	1	537M	BCG0633

Surrogate: 13C4-PFBA	90.0%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFPEA	88.7%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFHXA	92.9%		50-150		07/29/23	1	537M	
Surrogate: 13C4-PFHFA	74.1%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOA	92.7%		50-150		07/29/23	1	537M	
Surrogate: 13C9-PFNA	86.9%		50-150		07/29/23	1	537M	
Surrogate: 13C6-PFDA	75.2%		50-150		07/29/23	1	537M	
Surrogate: 13C7-PFUnA	66.5%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFDOA	55.7%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	62.8%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFBS	99.1%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFHXS	95.3%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOS	86.0%		50-150		07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	118%		50-150		07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	91.9%		50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	185%	S2	50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	72.0%		50-150		07/29/23	10	537M	
Surrogate: 13C8-PFOSA	81.7%		50-150		07/29/23	1	537M	

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Sample Results (Continued)

Sample: MW-6D (Continued)
23G0181-03 (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	62.8%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	57.8%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	79.1%	50-150			07/29/23	1	537M	

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Sample Results (Continued)

Sample: MW-9D
23G0181-04 (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	07/29/23	1	537M	BCG0633
PFPeA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxA	ND	MI4,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpA	ND	MI4,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFOA	ND	IR2,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFNA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFBS	ND	MI4,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFPeS	ND	MI4,	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHxS	2.3	MI4	1.6	ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFOS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFNS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
PFDS	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
6:2FTS	6.3		4.0	ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND		2.9	ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND		1.6	ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND		2.4	ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND		1.4	ng/L	07/29/23	1	537M	BCG0633
ADONA	ND		1.4	ng/L	07/29/23	1	537M	BCG0633
9Cl-PF3ONS	ND		1.4	ng/L	07/29/23	1	537M	BCG0633
11Cl-PF3OUDS	ND		1.4	ng/L	07/29/23	1	537M	BCG0633
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Surrogate: 13C4-PFBA	91.0%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFPEA	86.0%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFHXA	87.0%		50-150		07/29/23	1	537M	
Surrogate: 13C4-PFHFA	75.5%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOA	89.8%		50-150		07/29/23	1	537M	
Surrogate: 13C9-PFNA	94.2%		50-150		07/29/23	1	537M	
Surrogate: 13C6-PFDA	84.7%		50-150		07/29/23	1	537M	
Surrogate: 13C7-PFUnA	84.4%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFDOA	79.4%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	81.8%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFBS	92.4%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFHXS	92.4%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOS	84.7%		50-150		07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	99.3%		50-150		07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	86.8%		50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	180%	S2	50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	90.0%		50-150		07/29/23	10	537M	
Surrogate: 13C8-PFOSA	87.3%		50-150		07/29/23	1	537M	

Fibertec Environmental Services
1914 Holloway Drive
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Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

Sample Results (Continued)

Sample: MW-9D (Continued)
23G0181-04 (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	76.4%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	74.7%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	77.4%	50-150			07/29/23	1	537M	

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Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

Sample Results (Continued)

Sample: WT BLANK
23G0181-05 (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	07/29/23	1	537M	BCG0633
PFPeA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHxA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHpA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFOA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFNA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFBS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFPeS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHxS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFOS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFNS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
6:2FTS	ND	4.0		ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND	2.4		ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND	1.5		ng/L	07/29/23	1	537M	BCG0633
ADONA	ND	1.5		ng/L	07/29/23	1	537M	BCG0633
9CI-PF3ONS	ND	1.5		ng/L	07/29/23	1	537M	BCG0633
11CI-PF3OUDS	ND	1.5		ng/L	07/29/23	1	537M	BCG0633

Surrogate: 13C4-PFBA	99.4%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFPEA	89.1%		50-150		07/29/23	1	537M	
Surrogate: 13C5-PFHXA	92.6%		50-150		07/29/23	1	537M	
Surrogate: 13C4-PFHFA	78.7%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOA	89.9%		50-150		07/29/23	1	537M	
Surrogate: 13C9-PFNA	94.2%		50-150		07/29/23	1	537M	
Surrogate: 13C6-PFDA	87.0%		50-150		07/29/23	1	537M	
Surrogate: 13C7-PFUnA	82.0%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFDOA	84.8%		50-150		07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	86.8%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFBS	88.3%		50-150		07/29/23	1	537M	
Surrogate: 13C3-PFHXS	92.0%		50-150		07/29/23	1	537M	
Surrogate: 13C8-PFOS	92.2%		50-150		07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	100%		50-150		07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	89.6%		50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	158%	S2	50-150		07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	99.7%		50-150		07/29/23	10	537M	
Surrogate: 13C8-PFOSA	84.9%		50-150		07/29/23	1	537M	

Fibertec Environmental Services
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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: WT BLANK (Continued)
23G0181-05 (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	88.2%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	99.0%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	86.2%	50-150			07/29/23	1	537M	

Fibertec Environmental Services
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Holt, MI 48842

Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: PUMP BLANK
23G0181-06 (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	07/29/23	1	537M	BCG0633
PFPeA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHxA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHpA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFOA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFNA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFUnA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDoA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFTTrDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFTeDA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFBS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFPeS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHxS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFHpS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFOS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFNS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
PFDS	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
4:2FTS	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
6:2FTS	7.2	4.0		ng/L	07/29/23	1	537M	BCG0633
8:2FTS	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
PFOSA	ND	2.9		ng/L	07/29/23	1	537M	BCG0633
NMeFOSAA	ND	1.6		ng/L	07/29/23	1	537M	BCG0633
NEtFOSAA	ND	2.4		ng/L	07/29/23	1	537M	BCG0633
HFPO-DA	ND	1.4		ng/L	07/29/23	1	537M	BCG0633
ADONA	ND	1.4		ng/L	07/29/23	1	537M	BCG0633
9Cl-PF3ONS	ND	1.4		ng/L	07/29/23	1	537M	BCG0633
11Cl-PF3OUDS	ND	1.4		ng/L	07/29/23	1	537M	BCG0633
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Surrogate: 13C4-PFBA	96.8%	50-150			07/29/23	1	537M	
Surrogate: 13C5-PFPEA	94.3%	50-150			07/29/23	1	537M	
Surrogate: 13C5-PFHXA	100%	50-150			07/29/23	1	537M	
Surrogate: 13C4-PFHFA	88.3%	50-150			07/29/23	1	537M	
Surrogate: 13C8-PFOA	93.3%	50-150			07/29/23	1	537M	
Surrogate: 13C9-PFNA	97.0%	50-150			07/29/23	1	537M	
Surrogate: 13C6-PFDA	93.2%	50-150			07/29/23	1	537M	
Surrogate: 13C7-PFUnA	93.2%	50-150			07/29/23	1	537M	
Surrogate: 13C2-PFDOA	89.9%	50-150			07/29/23	1	537M	
Surrogate: 13C2-PFTEDA	102%	50-150			07/29/23	1	537M	
Surrogate: 13C3-PFBS	96.4%	50-150			07/29/23	1	537M	
Surrogate: 13C3-PFHXS	91.1%	50-150			07/29/23	1	537M	
Surrogate: 13C8-PFOS	88.8%	50-150			07/29/23	1	537M	
Surrogate: 13C2-4:2FTS	112%	50-150			07/29/23	1	537M	
Surrogate: 13C2-6:2FTS	94.4%	50-150			07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	230%	S2 50-150			07/29/23	1	537M	
Surrogate: 13C2-8:2FTS	101%	50-150			07/29/23	10	537M	
Surrogate: 13C8-PFOSA	87.8%	50-150			07/29/23	1	537M	

Fibertec Environmental Services
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Project Manager: Jacob Sutherland

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Sample Results (Continued)

Sample: PUMP BLANK (Continued)
23G0181-06 (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	89.0%	50-150			07/29/23	1	537M	
Surrogate: D5-NETFOSAA	93.3%	50-150			07/29/23	1	537M	
Surrogate: 13C3-HFPO-DA	89.3%	50-150			07/29/23	1	537M	

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Project Number: A16193
Project Manager: Jacob Sutherland

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PREPARATION BATCH SUMMARY

537M

Laboratory: APPL, LLC

Client: Fibertec Environmental Services

Batch: BCG0633 Batch Matrix: Water Preparation: 537M

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
MW-2D	23G0181-01	07/26/23 10:56	275.34	2.00
MW-2D	23G0181-01RE1	07/26/23 10:56	275.34	2.00
MW-6S	23G0181-02	07/26/23 10:56	273.15	2.00
MW-6S	23G0181-02RE1	07/26/23 10:56	273.15	2.00
MW-6D	23G0181-03	07/26/23 10:56	267.46	2.00
MW-6D	23G0181-03RE1	07/26/23 10:56	267.46	2.00
MW-9D	23G0181-04	07/26/23 10:56	278.56	2.00
MW-9D	23G0181-04RE1	07/26/23 10:56	278.56	2.00
WT BLANK	23G0181-05	07/26/23 10:56	273.04	2.00
WT BLANK	23G0181-05RE1	07/26/23 10:56	273.04	2.00
PUMP BLANK	23G0181-06	07/26/23 10:56	279.29	2.00
PUMP BLANK	23G0181-06RE1	07/26/23 10:56	279.29	2.00
Blank	BCG0633-BLK1	07/26/23 10:56	250.00	2.00
LCS	BCG0633-BS1	07/26/23 10:56	250.00	2.00
LCS Dup	BCG0633-BSD1	07/26/23 10:56	250.00	2.00
MRL Check	BCG0633-MRL1	07/26/23 10:56	250.00	2.00

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16193
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: BCG0633 - 537M

Blank (BCG0633-BLK1)

Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:01

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
PFTTrDA	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	63.4	ng/L	64.0	99.1	50-150
Surrogate: 13C5-PFPEA	29.3	ng/L	32.0	91.6	50-150
Surrogate: 13C5-PFHXA	16.8	ng/L	16.0	105	50-150
Surrogate: 13C4-PFHPA	13.0	ng/L	16.0	81.1	50-150
Surrogate: 13C8-PFOA	15.2	ng/L	16.0	95.2	50-150
Surrogate: 13C9-PFNA	8.21	ng/L	8.00	103	50-150
Surrogate: 13C6-PFDA	7.66	ng/L	8.00	95.8	50-150
Surrogate: 13C7-PFUnA	7.94	ng/L	8.00	99.2	50-150
Surrogate: 13C2-PFDOA	7.35	ng/L	8.00	91.8	50-150
Surrogate: 13C2-PFTEDA	7.84	ng/L	8.00	98.0	50-150
Surrogate: 13C3-PFBS	15.9	ng/L	16.0	99.3	50-150
Surrogate: 13C3-PFHXS	16.1	ng/L	16.0	100	50-150
Surrogate: 13C8-PFOS	15.3	ng/L	16.0	95.6	50-150
Surrogate: 13C2-4:2FTS	34.0	ng/L	32.0	106	50-150
Surrogate: 13C2-6:2FTS	31.9	ng/L	32.0	99.7	50-150
Surrogate: 13C2-8:2FTS	68.5 S2	ng/L	32.0	214	50-150
Surrogate: 13C8-PFOSA	13.8	ng/L	16.0	86.2	50-150
Surrogate: D3-NMeFOSAA	29.4	ng/L	32.0	91.9	50-150
Surrogate: D5-NETFOSAA	28.2	ng/L	32.0	88.1	50-150

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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
Blank (BCG0633-BLK1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:01					
Surrogate: 13C3-HFPO-DA	58.2			ng/L	64.0		90.9	50-150		
LCS (BCG0633-BS1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:14					
PFBA	33.3			ng/L	32.0		104	73-129		
PFPeA	16.2			ng/L	16.0		101	72-129		
PFHxA	8.19			ng/L	8.00		102	72-129		
PFHpA	9.10			ng/L	8.00		114	72-130		
PFOA	8.36			ng/L	8.00		105	71-133		
PFNA	8.56			ng/L	8.00		107	69-130		
PFDA	8.36			ng/L	8.00		105	71-129		
PFUnA	8.81			ng/L	8.00		110	69-133		
PFDaA	8.67			ng/L	8.00		108	72-134		
PFTTrDA	9.09			ng/L	8.00		114	65-144		
PFTeDA	7.82			ng/L	8.00		97.8	71-132		
PFBS	7.54			ng/L	7.08		106	72-130		
PFPeS	8.01			ng/L	7.52		106	71-127		
PFHxS	7.52 MI4			ng/L	7.32		103	68-131		
PFHpS	7.90			ng/L	7.64		103	69-134		
PFOS	7.81			ng/L	7.44		105	65-140		
PFNS	7.90			ng/L	7.68		103	69-127		
PFDS	7.84			ng/L	7.72		102	53-142		
4:2FTS	34.3			ng/L	30.0		114	63-143		
6:2FTS	33.9			ng/L	30.4		112	64-140		
8:2FTS	33.8			ng/L	30.7		110	67-138		
PFOSA	8.23			ng/L	8.00		103	67-137		
NMeFOSAA	7.97 MI4			ng/L	8.00		99.6	65-136		
NEtFOSAA	8.00			ng/L	8.00		100	61-135		
HFPO-DA	7.58			ng/L	8.00		94.7	44-175		
ADONA	7.33			ng/L	7.56		96.9	61-169		
9CI-PF3ONS	7.48			ng/L	7.48		100	62-140		
11CI-PF3OUDS	8.47			ng/L	7.56		112	54-138		
Surrogate: 13C4-PFBA	65.2			ng/L	64.0		102	50-150		
Surrogate: 13C5-PFPEA	31.7			ng/L	32.0		99.0	50-150		
Surrogate: 13C5-PFHXA	16.0			ng/L	16.0		99.7	50-150		
Surrogate: 13C4-PFHFA	13.9			ng/L	16.0		86.8	50-150		
Surrogate: 13C8-PFOA	16.0			ng/L	16.0		99.8	50-150		
Surrogate: 13C9-PFNA	8.42			ng/L	8.00		105	50-150		
Surrogate: 13C6-PFDA	7.91			ng/L	8.00		98.9	50-150		
Surrogate: 13C7-PFUnA	6.99			ng/L	8.00		87.4	50-150		
Surrogate: 13C2-PFDOA	7.81			ng/L	8.00		97.6	50-150		
Surrogate: 13C2-PFTEDA	8.77			ng/L	8.00		110	50-150		
Surrogate: 13C3-PFBS	15.4			ng/L	16.0		96.0	50-150		
Surrogate: 13C3-PFHXS	15.9			ng/L	16.0		99.4	50-150		
Surrogate: 13C8-PFOS	16.2			ng/L	16.0		102	50-150		
Surrogate: 13C2-4:2FTS	35.2			ng/L	32.0		110	50-150		
Surrogate: 13C2-6:2FTS	30.7			ng/L	32.0		96.0	50-150		
Surrogate: 13C2-8:2FTS	59.4 S2			ng/L	32.0		186	50-150		
Surrogate: 13C8-PFOA	14.3			ng/L	16.0		89.7	50-150		
Surrogate: D3-NMEFOSAA	32.6			ng/L	32.0		102	50-150		
Surrogate: D5-NETFOSAA	32.3			ng/L	32.0		101	50-150		

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Project: PFAS Testing
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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 (BCG0633-BS1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:14					
Surrogate: 13C3-HFPO-DA	58.5			ng/L	64.0		91.4	50-150		
LCS Dup (BCG0633-BS1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:26					
PFBA	32.1			ng/L	32.0		100	73-129	3.79	30
PFPeA	16.0			ng/L	16.0		99.8	72-129	1.65	30
PFHxA	8.30			ng/L	8.00		104	72-129	1.36	30
PFFHpA	8.98			ng/L	8.00		112	72-130	1.30	30
PFOA	8.18			ng/L	8.00		102	71-133	2.25	30
PFNA	8.28			ng/L	8.00		103	69-130	3.32	30
PFDA	8.84			ng/L	8.00		110	71-129	5.58	30
PFUnA	8.04			ng/L	8.00		100	69-133	9.17	30
PFDaA	8.00			ng/L	8.00		100	72-134	8.05	30
PFTTrDA	8.53			ng/L	8.00		107	65-144	6.37	30
PFTeDA	8.05			ng/L	8.00		101	71-132	2.91	30
PFBS	7.01			ng/L	7.08		99.0	72-130	7.21	30
PFPeS	7.87			ng/L	7.52		105	71-127	1.77	30
PFHxS	7.31 MI4			ng/L	7.32		99.9	68-131	2.83	30
PFFHpS	7.34			ng/L	7.64		96.1	69-134	7.30	30
PFOS	7.36			ng/L	7.44		98.9	65-140	6.00	30
PFNS	7.67			ng/L	7.68		99.8	69-127	3.02	30
PFDS	7.51			ng/L	7.72		97.2	53-142	4.31	30
4:2FTS	28.2			ng/L	30.0		94.2	63-143	19.3	30
6:2FTS	30.9			ng/L	30.4		102	64-140	9.13	30
8:2FTS	31.3			ng/L	30.7		102	67-138	7.50	30
PFOSA	8.49			ng/L	8.00		106	67-137	3.06	30
NMeFOSAA	7.71 MI4			ng/L	8.00		96.3	65-136	3.31	30
NEtFOSAA	8.13 MI4			ng/L	8.00		102	61-135	1.61	30
HFPO-DA	7.73			ng/L	8.00		96.6	44-175	1.98	30
ADONA	7.56			ng/L	7.56		100	61-169	3.10	30
9CI-PF3ONS	7.18			ng/L	7.48		96.0	62-140	4.03	30
11CI-PF3OUDS	8.33			ng/L	7.56		110	54-138	1.66	30
Surrogate: 13C4-PFBA	63.9			ng/L	64.0		99.8	50-150		
Surrogate: 13C5-PFPEA	30.8			ng/L	32.0		96.2	50-150		
Surrogate: 13C5-PFHXA	16.2			ng/L	16.0		101	50-150		
Surrogate: 13C4-PFHPA	13.7			ng/L	16.0		85.9	50-150		
Surrogate: 13C8-PFOA	15.2			ng/L	16.0		95.1	50-150		
Surrogate: 13C9-PFNA	7.78			ng/L	8.00		97.2	50-150		
Surrogate: 13C6-PFDA	7.75			ng/L	8.00		96.9	50-150		
Surrogate: 13C7-PFUnA	8.53			ng/L	8.00		107	50-150		
Surrogate: 13C2-PFDOA	7.70			ng/L	8.00		96.3	50-150		
Surrogate: 13C2-PFTEDA	8.10			ng/L	8.00		101	50-150		
Surrogate: 13C3-PFBS	15.9			ng/L	16.0		99.1	50-150		
Surrogate: 13C3-PFHXS	15.9			ng/L	16.0		99.6	50-150		
Surrogate: 13C8-PFOS	15.6			ng/L	16.0		97.2	50-150		
Surrogate: 13C2-4:2FTS	40.6			ng/L	32.0		127	50-150		
Surrogate: 13C2-6:2FTS	32.2			ng/L	32.0		101	50-150		
Surrogate: 13C2-8:2FTS	61.2 S2			ng/L	32.0		191	50-150		
Surrogate: 13C8-PFOSA	13.6			ng/L	16.0		84.9	50-150		
Surrogate: D3-NMEFOSAA	30.1			ng/L	32.0		94.1	50-150		
Surrogate: D5-NETFOSAA	29.5			ng/L	32.0		92.2	50-150		

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

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 (BCG0633-BSD1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:26					
Surrogate: 13C3-HFPO-DA	56.5			ng/L	64.0		88.2	50-150		
MRL Check (BCG0633-MRL1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:39					
PFBA	6.34			ng/L	6.40		99.0	73-129		
PFPeA	3.32			ng/L	3.20		104	72-129		
PFHxA	1.58			ng/L	1.60		98.5	72-129		
PFFHpA	1.76			ng/L	1.60		110	72-130		
PFOA	1.59			ng/L	1.60		99.5	71-133		
PFNA	1.56			ng/L	1.60		97.6	69-130		
PFDA	1.60			ng/L	1.60		99.8	71-129		
PFUnA	1.56			ng/L	1.60		97.6	69-133		
PFDaA	1.55			ng/L	1.60		96.9	72-134		
PFTTrDA	1.71			ng/L	1.60		107	65-144		
PFTeDA	1.56			ng/L	1.60		97.5	71-132		
PFBS	1.17			ng/L	1.42		82.6	72-130		
PFPeS	1.49			ng/L	1.50		98.9	71-127		
PFHxS	1.41 MI4			ng/L	1.46		96.4	68-131		
PFFHpS	1.49			ng/L	1.53		97.6	69-134		
PFOS	1.47			ng/L	1.49		98.9	65-140		
PFNS	1.40			ng/L	1.54		91.1	69-127		
PFDS	1.34			ng/L	1.54		86.5	53-142		
4:2FTS	5.88			ng/L	6.00		98.0	63-143		
6:2FTS	6.64			ng/L	6.08		109	64-140		
8:2FTS	6.31			ng/L	6.14		103	67-138		
PFOSA	1.53 , J			ng/L	1.60		95.5	67-137		
NMeFOSAA	1.58 MI4			ng/L	1.60		99.0	65-136		
NEtFOSAA	1.54 MI4			ng/L	1.60		96.0	61-135		
HFPO-DA	1.44 , J			ng/L	1.60		89.8	44-175		
ADONA	1.42 , J			ng/L	1.51		93.6	61-169		
9CI-PF3ONS	1.38 , J			ng/L	1.50		92.4	62-140		
11CI-PF3OUDS	1.63			ng/L	1.51		108	54-138		
Surrogate: 13C4-PFBA	64.2			ng/L	64.0		100	50-150		
Surrogate: 13C5-PFPEA	28.9			ng/L	32.0		90.4	50-150		
Surrogate: 13C5-PFHXA	15.0			ng/L	16.0		93.5	50-150		
Surrogate: 13C4-PFHPA	13.4			ng/L	16.0		83.5	50-150		
Surrogate: 13C8-PFOA	16.5			ng/L	16.0		103	50-150		
Surrogate: 13C9-PFNA	9.10			ng/L	8.00		114	50-150		
Surrogate: 13C6-PFDA	7.92			ng/L	8.00		99.0	50-150		
Surrogate: 13C7-PFUnA	8.02			ng/L	8.00		100	50-150		
Surrogate: 13C2-PFDOA	7.74			ng/L	8.00		96.8	50-150		
Surrogate: 13C2-PFTEDA	8.88			ng/L	8.00		111	50-150		
Surrogate: 13C3-PFBS	17.3			ng/L	16.0		108	50-150		
Surrogate: 13C3-PFHXS	16.3			ng/L	16.0		102	50-150		
Surrogate: 13C8-PFOS	16.4			ng/L	16.0		102	50-150		
Surrogate: 13C2-4:2FTS	37.6			ng/L	32.0		117	50-150		
Surrogate: 13C2-6:2FTS	31.3			ng/L	32.0		97.7	50-150		
Surrogate: 13C2-8:2FTS	73.3 S2			ng/L	32.0		229	50-150		
Surrogate: 13C8-PFOA	13.8			ng/L	16.0		86.5	50-150		
Surrogate: D3-NMEFOSAA	30.7			ng/L	32.0		95.9	50-150		
Surrogate: D5-NETFOSAA	31.3			ng/L	32.0		98.0	50-150		

Fibertec Environmental Services
1914 Holloway Drive
Holt, MI 48842

Project: PFAS Testing
Project Number: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

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 (BCG0633-MRL1)					Prepared: 07/26/23 10:56 Analyzed: 07/29/23 00:39					
Surrogate: 13C3-HFPO-DA	54.3			ng/L	64.0		84.8	50-150		

Fibertec Environmental Services
1914 Holloway Drive
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Project: PFAS Testing
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Notes and Definitions

Item	Definition
IR2	Ion ratio above the upper control limit
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: A16193
Project Manager: Jacob Sutherland

Reported: 08/07/2023 11:03

**WORK ORDER****23G0181**

Printed: 08/07/2023 11:03 am

Project: PFAS Testing
Project Number: A16193
Project Manager: Chue Moua
PO Number: NA

Report To:

Fibertec Environmental Services
Jacob Sutherland
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: 07/19/2023 09:45 AM
Date Due: 08/02/2023 (10.00 day TAT)

Logged In By: Paula McCartney
Received By: Jake Henige

Analysis	Comments
23G0181-01 MW-2D [Water] Sampled 7/14/2023 4:15:00PM	
B-15 DOD	28-compound list
23G0181-02 MW-6S [Water] Sampled 7/14/2023 11:35:00AM	
B-15 DOD	28-compound list
23G0181-03 MW-6D [Water] Sampled 7/14/2023 12:30:00PM	
B-15 DOD	28-compound list
23G0181-04 MW-9D [Water] Sampled 7/14/2023 10:10:00AM	
B-15 DOD	28-compound list
23G0181-05 WT BLANK [Water] Sampled 7/14/2023 4:52:00PM	
B-15 DOD	28-compound list
23G0181-06 PUMP BLANK [Water] Sampled 7/14/2023 5:11:00PM	
B-15 DOD	28-compound list

23G0181**Sample Receipt Log**

Default Cooler

Samples Received at: **11.8°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?	Yes
Received On Ice	No	Were bubbles absent in volatile samples?	No
Was a chain of custody received?	Yes	Sufficient remaining holding time for analyses?	Yes
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 #

PAGE 1 of 1

Client Name: Fibertec				MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PFAS 537.1 MOD	PARAMETERS												Matrix Code			Deliverables
Contact Person: Jacob Sutherlund							HOLD SAMPLE	S	Soil	GW	Ground Water	Level 2										
Project Name/ Number: A16193								A	Air	SW	Surface Water		Level 3									
Email distribution list: Lab Email								O	Oil	WW	Waste Water			Level 4								
Quote#								P	Wipe	X	Other: Specify				EDD							
Purchase Order#								Remarks:														
Date	Time	Sample #	Client Sample Descriptor																			
7/14/23	16:15		MW-2D	GW	3	✓																
7/14/23	11:35		MW-6S	GW	3	✓																
7/14/23	12:30		MW-6D	GW	3	✓																
7/14/23	10:10		MW-9D	GW	3	✓																
7/14/23	16:52		WT blank		3	✓																
7/14/23	17:11		Pump blank		3	✓																
Comments:																						
Sampled/Relinquished By:				Date/ Time				Received By:														
Relinquished By:				Date/ Time				Received By:														
Relinquished By:				Date/ Time 7/19/23 945				Received By Laboratory: <i>[Signature]</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:			
X ____ 5-7 bus. days (standard) Other (specify time/date requirement): STANDARD																			Temperature upon receipt at Lab: <i>12.1/11.8°C</i>			
Please see back for terms and conditions																						