

ANALYTICAL REPORT

Eurofins TestAmerica, Michigan
10448 Citation Drive
Suite 200
Brighton, MI 48116
Tel: (810)229-2763

Laboratory Job ID: 190-27278-1

Client Project/Site: Bronson WWTP PFAS

For:

City of Bronson
141 S Matteson Street
Bronson, Michigan 49028

Attn: Brandon Mersman

Sue Schafer

Authorized for release by:
11/19/2021 3:05:19 PM

Sue Schafer, Project Manager II
(810)229-2763

Sue.Schafer@Eurofinset.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Sample Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
190-27278-1	EFFLUENT	Water	11/02/21 13:30	11/03/21 15:00
190-27278-2	GEOTUBE PIT	Water	11/02/21 13:45	11/03/21 15:00
190-27278-3	STORAGE DIGESTOR	Solid	11/02/21 13:30	11/03/21 15:00

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Case Narrative

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Job ID: 190-27278-1

Laboratory: Eurofins TestAmerica, Michigan

Narrative

Job Narrative 190-27278-1

Comments

No additional comments.

Receipt

The samples were received on 11/3/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was below the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-540841.

Method: 3535_PFC-W

Matrix: Aqueous

Method 3535: The following sample was light green prior to extraction: GEOTUBE PIT (190-27278-2).

preparation batch 320-540841

Method: 3535_PFC-W

Matrix: Aqueous

Method 3535: During the solid phase extraction process, the following sample contained non-settable particulates which clogged the solid phase extraction column: GEOTUBE PIT (190-27278-2).

preparation batch 320-540841

Method: 3535_PFC-W

Matrix: Aqueous

Method 3535: The following sample was light yellow after extraction/final volume: GEOTUBE PIT (190-27278-2).

preparation batch 320-540841

Method: 3535_PFC-W

Matrix: Aqueous

Method SHAKE: The following sample was light yellow after extraction: STORAGE DIGESTOR (190-27278-3).

preparation batch 320-541746

PFC_IDA

Solid

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: EFFLUENT

Lab Sample ID: 190-27278-1

Date Collected: 11/02/21 13:30

Matrix: Water

Date Received: 11/03/21 15:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
11CI-PF3OUdS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
4:2 FTS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
6:2 FTS	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 20:56	1
8:2 FTS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
HFPO-DA (GenX)	<3.6		3.6	ng/L		11/08/21 04:54	11/09/21 20:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 20:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorobutanesulfonic acid (PFBS)	5.6		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorobutanoic acid (PFBA)	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorodecanesulfonic acid (PFDS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorodecanoic acid (PFDA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluoroheptanoic acid (PFHpA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorohexanesulfonic acid (PFHxS)	1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorohexanoic acid (PFHxA)	5.0		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorononanesulfonic acid (PFNS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorononanoic acid (PFNA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorooctanesulfonamide (FOSA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorooctanesulfonic acid (PFOS)	10		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorooctanoic acid (PFOA)	3.0		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluoropentanoic acid (PFPeA)	4.1		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorotetradecanoic acid (PFTeA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluorotridecanoic acid (PFTriA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 20:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	102		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C3 HFPO-DA	115		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C4 PFBA	90		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C3 PFBS	127		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C2 PFDA	110		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C2 PFDoA	102		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C4 PFHpA	115		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C2 PFHxA	117		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C5 PFNA	106		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C4 PFOA	113		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C4 PFOS	106		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C5 PFPeA	102		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C2 PFTeDA	82		25 - 150	11/08/21 04:54	11/09/21 20:56	1
13C2 PFUnA	109		25 - 150	11/08/21 04:54	11/09/21 20:56	1

Eurofins TestAmerica, Michigan

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: EFFLUENT

Lab Sample ID: 190-27278-1

Date Collected: 11/02/21 13:30

Matrix: Water

Date Received: 11/03/21 15:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	131		25 - 150	11/08/21 04:54	11/09/21 20:56	1
d3-NMeFOSAA	121		25 - 150	11/08/21 04:54	11/09/21 20:56	1
M2-4:2 FTS	124		25 - 150	11/08/21 04:54	11/09/21 20:56	1
M2-6:2 FTS	105		25 - 150	11/08/21 04:54	11/09/21 20:56	1
M2-8:2 FTS	114		25 - 150	11/08/21 04:54	11/09/21 20:56	1
18O2 PFHxS	103		25 - 150	11/08/21 04:54	11/09/21 20:56	1

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: GEOTUBE PIT

Lab Sample ID: 190-27278-2

Date Collected: 11/02/21 13:45

Matrix: Water

Date Received: 11/03/21 15:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
11CI-PF3OUdS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
4:2 FTS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
6:2 FTS	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 21:07	1
8:2 FTS	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
HFPO-DA (GenX)	<3.6		3.6	ng/L		11/08/21 04:54	11/09/21 21:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 21:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.5		4.5	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorobutanesulfonic acid (PFBS)	83		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorobutanoic acid (PFBA)	100		4.5	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorodecanesulfonic acid (PFDS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorodecanoic acid (PFDA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluoroheptanoic acid (PFHpA)	34		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorohexanesulfonic acid (PFHxS)	2.3		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorohexanoic acid (PFHxA)	160		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorononanesulfonic acid (PFNS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorononanoic acid (PFNA)	5.0		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorooctanesulfonamide (FOSA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorooctanesulfonic acid (PFOS)	180		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorooctanoic acid (PFOA)	68		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluoropentanoic acid (PFPeA)	180		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorotetradecanoic acid (PFTeA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluorotridecanoic acid (PFTriA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	ng/L		11/08/21 04:54	11/09/21 21:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	66		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C3 HFPO-DA	74		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C4 PFBA	51		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C3 PFBS	79		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C2 PFDA	71		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C2 PFDoA	55		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C4 PFHpA	76		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C2 PFHxA	73		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C5 PFNA	74		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C4 PFOA	72		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C4 PFOS	68		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C5 PFPeA	50		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C2 PFTeDA	43		25 - 150	11/08/21 04:54	11/09/21 21:07	1
13C2 PFUnA	60		25 - 150	11/08/21 04:54	11/09/21 21:07	1

Eurofins TestAmerica, Michigan

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: GEOTUBE PIT

Lab Sample ID: 190-27278-2

Date Collected: 11/02/21 13:45

Matrix: Water

Date Received: 11/03/21 15:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	76		25 - 150	11/08/21 04:54	11/09/21 21:07	1
d3-NMeFOSAA	70		25 - 150	11/08/21 04:54	11/09/21 21:07	1
M2-4:2 FTS	98		25 - 150	11/08/21 04:54	11/09/21 21:07	1
M2-6:2 FTS	69		25 - 150	11/08/21 04:54	11/09/21 21:07	1
M2-8:2 FTS	90		25 - 150	11/08/21 04:54	11/09/21 21:07	1
18O2 PFHxS	65		25 - 150	11/08/21 04:54	11/09/21 21:07	1

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: STORAGE DIGESTOR

Lab Sample ID: 190-27278-3

Date Collected: 11/02/21 13:30

Matrix: Solid

Date Received: 11/03/21 15:00

Percent Solids: 7.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
11CI-PF3OUdS	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
4:2 FTS	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
6:2 FTS	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
8:2 FTS	3.8		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
HFPO-DA (GenX)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	7.3		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.5		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorobutanesulfonic acid (PFBS)	2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorobutanoic acid (PFBA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorodecanesulfonic acid (PFDS)	19		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorodecanoic acid (PFDA)	3.9		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorododecanoic acid (PFDoA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluoroheptanoic acid (PFHpA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorohexanesulfonic acid (PFHxS)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorohexanoic acid (PFHxA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorononanesulfonic acid (PFNS)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorononanoic acid (PFNA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorooctanesulfonamide (FOSA)	2.8		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorooctanesulfonic acid (PFOS)	22	I	2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorooctanoic acid (PFOA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluoropentanesulfonic acid (PFPeS)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluoropentanoic acid (PFPeA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorotetradecanoic acid (PFTeA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluorotridecanoic acid (PFTriA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1
Perfluoroundecanoic acid (PFUnA)	<2.6		2.6	ug/Kg	☼	11/11/21 04:43	11/13/21 04:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	92		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C3 HFPO-DA	100		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C4 PFBA	92		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C3 PFBS	103		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C2 PFDA	99		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C2 PFDoA	91		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C4 PFHpA	103		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C2 PFHxA	97		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C5 PFNA	101		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C4 PFOA	103		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C4 PFOS	100		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C5 PFPeA	99		25 - 150	11/11/21 04:43	11/13/21 04:48	1
13C2 PFTeDA	70		25 - 150	11/11/21 04:43	11/13/21 04:48	1

Eurofins TestAmerica, Michigan

Client Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: STORAGE DIGESTOR

Lab Sample ID: 190-27278-3

Date Collected: 11/02/21 13:30

Matrix: Solid

Date Received: 11/03/21 15:00

Percent Solids: 7.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	95		25 - 150	11/11/21 04:43	11/13/21 04:48	1
d5-NEtFOSAA	98		25 - 150	11/11/21 04:43	11/13/21 04:48	1
d3-NMeFOSAA	94		25 - 150	11/11/21 04:43	11/13/21 04:48	1
M2-4:2 FTS	112		25 - 150	11/11/21 04:43	11/13/21 04:48	1
M2-6:2 FTS	115		25 - 150	11/11/21 04:43	11/13/21 04:48	1
M2-8:2 FTS	131		25 - 150	11/11/21 04:43	11/13/21 04:48	1
18O2 PFHxS	98		25 - 150	11/11/21 04:43	11/13/21 04:48	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	92.7		0.1	%			11/08/21 11:06	1
Percent Solids	7.3		0.1	%			11/08/21 11:06	1

Isotope Dilution Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFOSA (25-150)	HFPODA (25-150)	PFBA (25-150)	C3PFBS (25-150)	PFDA (25-150)	PFDaA (25-150)	C4PFHA (25-150)	PFHxA (25-150)
190-27278-3	STORAGE DIGESTOR	92	100	92	103	99	91	103	97
LCS 320-541746/2-A	Lab Control Sample	95	103	90	112	91	96	103	99
MB 320-541746/1-A	Method Blank	103	106	95	121	97	105	111	103

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFNA (25-150)	PFOA (25-150)	PFOS (25-150)	PFPeA (25-150)	PFTDA (25-150)	PFUnA (25-150)	d5NEFOS (25-150)	d3NMFOS (25-150)
190-27278-3	STORAGE DIGESTOR	101	103	100	99	70	95	98	94
LCS 320-541746/2-A	Lab Control Sample	101	108	104	101	98	97	94	99
MB 320-541746/1-A	Method Blank	102	108	112	106	105	99	103	103

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	PFHxS (25-150)
190-27278-3	STORAGE DIGESTOR	112	115	131	98
LCS 320-541746/2-A	Lab Control Sample	99	88	82	100
MB 320-541746/1-A	Method Blank	101	92	91	107

Surrogate Legend

PFOSA = 13C8 FOSA
HFPODA = 13C3 HFPO-DA
PFBA = 13C4 PFBA
C3PFBS = 13C3 PFBS
PFDA = 13C2 PFDA
PFDaA = 13C2 PFDaA
C4PFHA = 13C4 PFHpA
PFHxA = 13C2 PFHxA
PFNA = 13C5 PFNA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
PFUnA = 13C2 PFUnA
d5NEFOS = d5-NEtFOSAA
d3NMFOS = d3-NMeFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFHxS = 18O2 PFHxS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFOSA (25-150)	HFPODA (25-150)	PFBA (25-150)	C3PFBS (25-150)	PFDA (25-150)	PFDaA (25-150)	C4PFHA (25-150)	PFHxA (25-150)
190-27278-1	EFFLUENT	102	115	90	127	110	102	115	117
190-27278-2	GEOTUBE PIT	66	74	51	79	71	55	76	73
LCS 320-540841/2-A	Lab Control Sample	102	107	104	133	112	121	106	120
LCSD 320-540841/3-A	Lab Control Sample Dup	93	121	108	139	113	118	104	116
MB 320-540841/1-A	Method Blank	100	116	106	132	111	126	108	122

Eurofins TestAmerica, Michigan

Isotope Dilution Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFNA (25-150)	PFOA (25-150)	PFOS (25-150)	PFPeA (25-150)	PFTDA (25-150)	PFUnA (25-150)	d5NEFOS (25-150)	d3NMFOS (25-150)
190-27278-1	EFFLUENT	106	113	106	102	82	109	131	121
190-27278-2	GEOTUBE PIT	74	72	68	50	43	60	76	70
LCS 320-540841/2-A	Lab Control Sample	108	106	111	116	118	118	140	139
LCSD 320-540841/3-A	Lab Control Sample Dup	111	108	111	120	109	122	134	119
MB 320-540841/1-A	Method Blank	112	110	107	117	114	124	134	133

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	PFHxS (25-150)
190-27278-1	EFFLUENT	124	105	114	103
190-27278-2	GEOTUBE PIT	98	69	90	65
LCS 320-540841/2-A	Lab Control Sample	104	77	90	104
LCSD 320-540841/3-A	Lab Control Sample Dup	93	84	87	102
MB 320-540841/1-A	Method Blank	101	83	95	103

Surrogate Legend

PFOSA = 13C8 FOSA
HFPODA = 13C3 HFPO-DA
PFBA = 13C4 PFBA
C3PFBS = 13C3 PFBS
PFDA = 13C2 PFDA
PFDoA = 13C2 PFDoA
C4PFHA = 13C4 PFHpA
PFHxA = 13C2 PFHxA
PFNA = 13C5 PFNA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
PFUnA = 13C2 PFUnA
d5NEFOS = d5-NEtFOSAA
d3NMFOS = d3-NMeFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFHxS = 18O2 PFHxS

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-540841/1-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 540841

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
11CI-PF3OUdS	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
4:2 FTS	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
6:2 FTS	<5.0		5.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
8:2 FTS	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
HFPO-DA (GenX)	<4.0		4.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<5.0		5.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<5.0		5.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorobutanoic acid (PFBA)	<5.0		5.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluoroheptanesulfonic Acid (PFHpS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorooctanesulfonamide (FOSA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorotetradecanoic acid (PFTeA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluorotridecanoic acid (PFTriA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/08/21 04:54	11/09/21 19:43	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	100		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C3 HFPO-DA	116		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C4 PFBA	106		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C3 PFBS	132		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C2 PFDA	111		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C2 PFDoA	126		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C4 PFHpA	108		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C2 PFHxA	122		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C5 PFNA	112		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C4 PFOA	110		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C4 PFOS	107		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C5 PFPeA	117		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C2 PFTeDA	114		25 - 150	11/08/21 04:54	11/09/21 19:43	1
13C2 PFUnA	124		25 - 150	11/08/21 04:54	11/09/21 19:43	1
d5-NEtFOSAA	134		25 - 150	11/08/21 04:54	11/09/21 19:43	1

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QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-540841/1-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 540841

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	133		25 - 150	11/08/21 04:54	11/09/21 19:43	1
M2-4:2 FTS	101		25 - 150	11/08/21 04:54	11/09/21 19:43	1
M2-6:2 FTS	83		25 - 150	11/08/21 04:54	11/09/21 19:43	1
M2-8:2 FTS	95		25 - 150	11/08/21 04:54	11/09/21 19:43	1
18O2 PFHxS	103		25 - 150	11/08/21 04:54	11/09/21 19:43	1

Lab Sample ID: LCS 320-540841/2-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 540841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
9CI-PF3ONS	37.3	35.4		ng/L		95	75 - 135
11CI-PF3OUdS	37.7	39.2		ng/L		104	54 - 114
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	36.3		ng/L		96	79 - 139
4:2 FTS	37.4	34.1		ng/L		91	79 - 139
6:2 FTS	37.9	46.4		ng/L		122	59 - 175
8:2 FTS	38.3	40.9		ng/L		107	75 - 135
HFPO-DA (GenX)	40.0	43.9		ng/L		110	51 - 173
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.4		ng/L		91	76 - 136
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	35.0		ng/L		87	76 - 136
Perfluorobutanesulfonic acid (PFBS)	35.4	30.7		ng/L		87	67 - 127
Perfluorobutanoic acid (PFBA)	40.0	40.6		ng/L		102	76 - 136
Perfluorodecanesulfonic acid (PFDS)	38.6	41.2		ng/L		107	71 - 131
Perfluorodecanoic acid (PFDA)	40.0	38.9		ng/L		97	76 - 136
Perfluorododecanoic acid (PFDoA)	40.0	39.7		ng/L		99	71 - 131
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	34.1		ng/L		89	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	42.2		ng/L		105	72 - 132
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.1		ng/L		96	59 - 119
Perfluorohexanoic acid (PFHxA)	40.0	37.3		ng/L		93	73 - 133
Perfluorononanesulfonic acid (PFNS)	38.4	38.8		ng/L		101	75 - 135
Perfluorononanoic acid (PFNA)	40.0	40.3		ng/L		101	75 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	41.2		ng/L		103	73 - 133
Perfluorooctanesulfonic acid (PFOS)	37.1	33.1		ng/L		89	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	38.7		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	37.5	30.6		ng/L		81	66 - 126
Perfluoropentanoic acid (PFPeA)	40.0	37.3		ng/L		93	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	33.7		ng/L		84	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	37.0		ng/L		93	71 - 131

Eurofins TestAmerica, Michigan

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-540841/2-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 540841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid (PFUnA)	40.0	37.0		ng/L		93	68 - 128
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C8 FOSA	102		25 - 150				
13C3 HFPO-DA	107		25 - 150				
13C4 PFBA	104		25 - 150				
13C3 PFBS	133		25 - 150				
13C2 PFDA	112		25 - 150				
13C2 PFDoA	121		25 - 150				
13C4 PFHpA	106		25 - 150				
13C2 PFHxA	120		25 - 150				
13C5 PFNA	108		25 - 150				
13C4 PFOA	106		25 - 150				
13C4 PFOS	111		25 - 150				
13C5 PFPeA	116		25 - 150				
13C2 PFTeDA	118		25 - 150				
13C2 PFUnA	118		25 - 150				
d5-NEtFOSAA	140		25 - 150				
d3-NMeFOSAA	139		25 - 150				
M2-4:2 FTS	104		25 - 150				
M2-6:2 FTS	77		25 - 150				
M2-8:2 FTS	90		25 - 150				
18O2 PFHxS	104		25 - 150				

Lab Sample ID: LCSD 320-540841/3-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 540841

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
9CI-PF3ONS	37.3	37.0		ng/L		99	75 - 135	4	30
11CI-PF3OUdS	37.7	36.0		ng/L		95	54 - 114	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	36.5		ng/L		97	79 - 139	1	30
4:2 FTS	37.4	35.1		ng/L		94	79 - 139	3	30
6:2 FTS	37.9	39.2		ng/L		103	59 - 175	17	30
8:2 FTS	38.3	41.4		ng/L		108	75 - 135	1	30
HFPO-DA (GenX)	40.0	36.0		ng/L		90	51 - 173	20	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.2		ng/L		91	76 - 136	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.9		ng/L		102	76 - 136	16	30
Perfluorobutanesulfonic acid (PFBS)	35.4	28.7		ng/L		81	67 - 127	7	30
Perfluorobutanoic acid (PFBA)	40.0	39.4		ng/L		99	76 - 136	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	41.3		ng/L		107	71 - 131	0	30
Perfluorodecanoic acid (PFDA)	40.0	38.8		ng/L		97	76 - 136	0	30
Perfluorododecanoic acid (PFDoA)	40.0	39.2		ng/L		98	71 - 131	1	30

Eurofins TestAmerica, Michigan

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-540841/3-A

Matrix: Water

Analysis Batch: 541351

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 540841

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	34.4		ng/L		90	76 - 136	1	30
Perfluoroheptanoic acid (PFHpA)	40.0	37.9		ng/L		95	72 - 132	11	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6		ng/L		95	59 - 119	1	30
Perfluorohexanoic acid (PFHxA)	40.0	37.0		ng/L		92	73 - 133	1	30
Perfluorononanesulfonic acid (PFNS)	38.4	37.6		ng/L		98	75 - 135	3	30
Perfluorononanoic acid (PFNA)	40.0	37.0		ng/L		93	75 - 135	8	30
Perfluorooctanesulfonamide (FOSA)	40.0	42.8		ng/L		107	73 - 133	4	30
Perfluorooctanesulfonic acid (PFOS)	37.1	33.8		ng/L		91	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	40.0	38.4		ng/L		96	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	28.7		ng/L		77	66 - 126	6	30
Perfluoropentanoic acid (PFPeA)	40.0	35.8		ng/L		89	71 - 131	4	30
Perfluorotetradecanoic acid (PFTeA)	40.0	37.2		ng/L		93	70 - 130	10	30
Perfluorotridecanoic acid (PFTriA)	40.0	39.2		ng/L		98	71 - 131	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	39.6		ng/L		99	68 - 128	7	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 FOSA	93		25 - 150
13C3 HFPO-DA	121		25 - 150
13C4 PFBA	108		25 - 150
13C3 PFBS	139		25 - 150
13C2 PFDA	113		25 - 150
13C2 PFDoA	118		25 - 150
13C4 PFHpA	104		25 - 150
13C2 PFHxA	116		25 - 150
13C5 PFNA	111		25 - 150
13C4 PFOA	108		25 - 150
13C4 PFOS	111		25 - 150
13C5 PFPeA	120		25 - 150
13C2 PFTeDA	109		25 - 150
13C2 PFUnA	122		25 - 150
d5-NEtFOSAA	134		25 - 150
d3-NMeFOSAA	119		25 - 150
M2-4:2 FTS	93		25 - 150
M2-6:2 FTS	84		25 - 150
M2-8:2 FTS	87		25 - 150
18O2 PFHxS	102		25 - 150

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-541746/1-A

Matrix: Solid

Analysis Batch: 542273

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 541746

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
11CI-PF3OUdS	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
4:2 FTS	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
6:2 FTS	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
8:2 FTS	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
HFPO-DA (GenX)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorobutanoic acid (PFBA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorodecanesulfonic acid (PFDS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorodecanoic acid (PFDA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorododecanoic acid (PFDoA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluoroheptanoic acid (PFHpA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorohexanesulfonic acid (PFHxS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorohexanoic acid (PFHxA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorononanesulfonic acid (PFNS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorononanoic acid (PFNA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorooctanesulfonamide (FOSA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorooctanesulfonic acid (PFOS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorooctanoic acid (PFOA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluoropentanesulfonic acid (PFPeS)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluoropentanoic acid (PFPeA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorotetradecanoic acid (PFTeA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluorotridecanoic acid (PFTriA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1
Perfluoroundecanoic acid (PFUnA)	<0.20		0.20	ug/Kg		11/11/21 04:43	11/13/21 03:17	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	103		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C3 HFPO-DA	106		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C4 PFBA	95		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C3 PFBS	121		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C2 PFDA	97		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C2 PFDoA	105		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C4 PFHpA	111		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C2 PFHxA	103		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C5 PFNA	102		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C4 PFOA	108		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C4 PFOS	112		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C5 PFPeA	106		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C2 PFTeA	105		25 - 150	11/11/21 04:43	11/13/21 03:17	1
13C2 PFUnA	99		25 - 150	11/11/21 04:43	11/13/21 03:17	1
d5-NEtFOSAA	103		25 - 150	11/11/21 04:43	11/13/21 03:17	1

Eurofins TestAmerica, Michigan

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-541746/1-A

Matrix: Solid

Analysis Batch: 542273

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 541746

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	103		25 - 150	11/11/21 04:43	11/13/21 03:17	1
M2-4:2 FTS	101		25 - 150	11/11/21 04:43	11/13/21 03:17	1
M2-6:2 FTS	92		25 - 150	11/11/21 04:43	11/13/21 03:17	1
M2-8:2 FTS	91		25 - 150	11/11/21 04:43	11/13/21 03:17	1
18O2 PFHxS	107		25 - 150	11/11/21 04:43	11/13/21 03:17	1

Lab Sample ID: LCS 320-541746/2-A

Matrix: Solid

Analysis Batch: 542273

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 541746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
9CI-PF3ONS	1.86	1.66		ug/Kg		89	74 - 134
11CI-PF3OUdS	1.88	1.71		ug/Kg		91	66 - 136
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.88	1.76		ug/Kg		93	79 - 139
4:2 FTS	1.87	1.59		ug/Kg		85	68 - 143
6:2 FTS	1.90	1.76		ug/Kg		93	73 - 139
8:2 FTS	1.92	1.86		ug/Kg		97	75 - 135
HFPO-DA (GenX)	2.00	1.87		ug/Kg		94	53 - 158
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.92		ug/Kg		96	72 - 132
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.68		ug/Kg		84	72 - 132
Perfluorobutanesulfonic acid (PFBS)	1.77	1.41		ug/Kg		80	69 - 129
Perfluorobutanoic acid (PFBA)	2.00	1.88		ug/Kg		94	76 - 136
Perfluorodecanesulfonic acid (PFDS)	1.93	1.63		ug/Kg		85	71 - 131
Perfluorodecanoic acid (PFDA)	2.00	1.90		ug/Kg		95	72 - 132
Perfluorododecanoic acid (PFDoA)	2.00	1.97		ug/Kg		99	71 - 131
Perfluoroheptanesulfonic Acid (PFHpS)	1.90	1.71		ug/Kg		90	76 - 136
Perfluoroheptanoic acid (PFHpA)	2.00	1.91		ug/Kg		95	71 - 131
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.66		ug/Kg		91	62 - 122
Perfluorohexanoic acid (PFHxA)	2.00	1.95		ug/Kg		98	71 - 131
Perfluorononanesulfonic acid (PFNS)	1.92	1.70		ug/Kg		89	72 - 132
Perfluorononanoic acid (PFNA)	2.00	1.91		ug/Kg		96	73 - 133
Perfluorooctanesulfonamide (FOSA)	2.00	1.92		ug/Kg		96	77 - 137
Perfluorooctanesulfonic acid (PFOS)	1.86	1.66		ug/Kg		89	68 - 141
Perfluorooctanoic acid (PFOA)	2.00	1.80		ug/Kg		90	72 - 132
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.60		ug/Kg		85	66 - 126
Perfluoropentanoic acid (PFPeA)	2.00	1.84		ug/Kg		92	69 - 129
Perfluorotetradecanoic acid (PFTeA)	2.00	1.82		ug/Kg		91	67 - 127
Perfluorotridecanoic acid (PFTriA)	2.00	1.94		ug/Kg		97	71 - 131

Eurofins TestAmerica, Michigan

QC Sample Results

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-541746/2-A

Matrix: Solid

Analysis Batch: 542273

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 541746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid (PFUnA)	2.00	1.80		ug/Kg		90	66 - 126

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	95		25 - 150
13C3 HFPO-DA	103		25 - 150
13C4 PFBA	90		25 - 150
13C3 PFBS	112		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFDaA	96		25 - 150
13C4 PFHpA	103		25 - 150
13C2 PFHxA	99		25 - 150
13C5 PFNA	101		25 - 150
13C4 PFOA	108		25 - 150
13C4 PFOS	104		25 - 150
13C5 PFPeA	101		25 - 150
13C2 PFTeDA	98		25 - 150
13C2 PFUnA	97		25 - 150
d5-NEtFOSAA	94		25 - 150
d3-NMeFOSAA	99		25 - 150
M2-4:2 FTS	99		25 - 150
M2-6:2 FTS	88		25 - 150
M2-8:2 FTS	82		25 - 150
18O2 PFHxS	100		25 - 150

QC Association Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

LCMS

Prep Batch: 540841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
190-27278-1	EFFLUENT	Total/NA	Water	3535	
190-27278-2	GEOTUBE PIT	Total/NA	Water	3535	
MB 320-540841/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-540841/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-540841/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 541351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
190-27278-1	EFFLUENT	Total/NA	Water	537 (modified)	540841
190-27278-2	GEOTUBE PIT	Total/NA	Water	537 (modified)	540841
MB 320-540841/1-A	Method Blank	Total/NA	Water	537 (modified)	540841
LCS 320-540841/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	540841
LCSD 320-540841/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	540841

Prep Batch: 541746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
190-27278-3	STORAGE DIGESTOR	Total/NA	Solid	SHAKE	
MB 320-541746/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-541746/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 542273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
190-27278-3	STORAGE DIGESTOR	Total/NA	Solid	537 (modified)	541746
MB 320-541746/1-A	Method Blank	Total/NA	Solid	537 (modified)	541746
LCS 320-541746/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	541746

General Chemistry

Analysis Batch: 540924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
190-27278-3	STORAGE DIGESTOR	Total/NA	Solid	D 2216	

Lab Chronicle

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: EFFLUENT

Date Collected: 11/02/21 13:30

Date Received: 11/03/21 15:00

Lab Sample ID: 190-27278-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			540841	11/08/21 04:54	EFG	TAL SAC
Total/NA	Analysis	537 (modified)		1	541351	11/09/21 20:56	K1S	TAL SAC

Client Sample ID: GEOTUBE PIT

Date Collected: 11/02/21 13:45

Date Received: 11/03/21 15:00

Lab Sample ID: 190-27278-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			540841	11/08/21 04:54	EFG	TAL SAC
Total/NA	Analysis	537 (modified)		1	541351	11/09/21 21:07	K1S	TAL SAC

Client Sample ID: STORAGE DIGESTOR

Date Collected: 11/02/21 13:30

Date Received: 11/03/21 15:00

Lab Sample ID: 190-27278-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	540924	11/08/21 11:06	KDB	TAL SAC

Client Sample ID: STORAGE DIGESTOR

Date Collected: 11/02/21 13:30

Date Received: 11/03/21 15:00

Lab Sample ID: 190-27278-3

Matrix: Solid

Percent Solids: 7.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			541746	11/11/21 04:43	HK	TAL SAC
Total/NA	Analysis	537 (modified)		1	542273	11/13/21 04:48	RS1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Analyst References:

Lab: TAL SAC

Batch Type: Prep

EFG = Elizabeth Green

HK = Harmandeep Kaur

Batch Type: Analysis

K1S = Kotechakon Sorndee

KDB = Kristen Burrick

RS1 = Rungtip Sanjumnai

Definitions/Glossary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-22
Arkansas DEQ	State	88-0691	06-17-21 *
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-22
Florida	NELAP	E87570	06-30-22
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Louisiana	NELAP	01944	06-30-22
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA00044	08-31-22
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-22
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	11-17-21
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-22
USDA	US Federal Programs	P330-18-00239	07-31-24
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-22
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Michigan

Detection Summary

Client: City of Bronson
Project/Site: Bronson WWTP PFAS

Job ID: 190-27278-1

Client Sample ID: EFFLUENT

Lab Sample ID: 190-27278-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	5.6		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.8		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.0		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.0		1.8	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		1.8	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GEOTUBE PIT

Lab Sample ID: 190-27278-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	83		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	100		4.5	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	34		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.3		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	160		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.0		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	180		1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	68		1.8	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	180		1.8	ng/L	1		537 (modified)	Total/NA

Client Sample ID: STORAGE DIGESTOR

Lab Sample ID: 190-27278-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
8:2 FTS	3.8		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	7.3		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.5		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.6		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	19		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.9		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	2.8		2.6	ug/Kg	1	✱	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	22	I	2.6	ug/Kg	1	✱	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Michigan

Client Information		Sampler: <u>Layne Clark</u>		Lab PM: <u>Schafer, Sue</u>		COC No: 190-27261-1467.1	
Client Contact: <u>Chuck Buckley</u>		Phone:		E-Mail: <u>Sue.Schafer@Eurofinset.com</u>		Page: Page 1 of 1	
Company: <u>City of Bronson</u>		PWSID:		Carrier Tracking No(s):		Job #:	
Address: <u>141 S Matteson Street</u>		Due Date Requested: <u>ASAP</u>		Analysis Requested			
City: <u>Bronson</u>		TAT Requested (days):		PFAS, IDA - (MOD) PFAS, Standard List (24 Analytes)			
State, Zip: <u>MI, 49028</u>		Compliance Project: <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/>		Perform MS/MSD (Yes or No)			
Phone: <u>1517-462-8380</u>		PO #: <u>Purchase Order not required</u>		Field Filtered Sample (Yes or No)			
Email: <u>bronsonh2o@hotmail.com</u>		WO #: <u>19001688</u>		PFAS, IDA - PFAS, Standard List (24 Analytes)			
Project Name: <u>City of Bronson - PFAS</u>		Project #: <u>19001688</u>		PFAS, IDA - (MOD) PFAS, Standard List (24 Analytes)			
Site: <u>BRONSON WWTP</u>		SSOW#:		Total Number of Containers			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code: (1=100%, 2=50%, 3=25%, 4=10%, 5=5%, 6=2%, 7=1%, 8=0.5%, 9=0.1%, 10=0.05%, 11=0.01%, 12=0.005%, 13=0.001%, 14=0.0005%, 15=0.0001%, 16=0.00005%, 17=0.00001%, 18=0.000005%, 19=0.000001%, 20=0.0000005%, 21=0.0000001%, 22=0.00000005%, 23=0.00000001%, 24=0.000000005%, 25=0.000000001%, 26=0.0000000005%, 27=0.0000000001%, 28=0.00000000005%, 29=0.00000000001%, 30=0.000000000005%, 31=0.000000000001%, 32=0.0000000000005%, 33=0.0000000000001%, 34=0.00000000000005%, 35=0.00000000000001%, 36=0.000000000000005%, 37=0.000000000000001%, 38=0.0000000000000005%, 39=0.0000000000000001%, 40=0.00000000000000005%, 41=0.00000000000000001%, 42=0.000000000000000005%, 43=0.000000000000000001%, 44=0.0000000000000000005%, 45=0.0000000000000000001%, 46=0.00000000000000000005%, 47=0.00000000000000000001%, 48=0.000000000000000000005%, 49=0.000000000000000000001%, 50=0.0000000000000000000005%, 51=0.0000000000000000000001%, 52=0.00000000000000000000005%, 53=0.00000000000000000000001%, 54=0.000000000000000000000005%, 55=0.000000000000000000000001%, 56=0.0000000000000000000000005%, 57=0.0000000000000000000000001%, 58=0.00000000000000000000000005%, 59=0.00000000000000000000000001%, 60=0.000000000000000000000000005%, 61=0.0000000000000000000000000001%, 62=0.00000000000000000000000000005%, 63=0.00000000000000000000000000001%, 64=0.000000000000000000000000000005%, 65=0.000000000000000000000000000001%, 66=0.0000000000000000000000000000005%, 67=0.0000000000000000000000000000001%, 68=0.00000000000000000000000000000005%, 69=0.00000000000000000000000000000001%, 70=0.000000000000000000000000000000005%, 71=0.000000000000000000000000000000001%, 72=0.0000000000000000000000000000000005%, 73=0.0000000000000000000000000000000001%, 74=0.00000000000000000000000000000000005%, 75=0.00000000000000000000000000000000001%, 76=0.000000000000000000000000000000000005%, 77=0.000000000000000000000000000000000001%, 78=0.0000000000000000000000000000000000005%, 79=0.0000000000000000000000000000000000001%, 80=0.00000000000000000000000000000000000005%, 81=0.00000000000000000000000000000000000001%, 82=0.000000000000000000000000000000000000005%, 83=0.000000000000000000000000000000000000001%, 84=0.0000000000000000000000000000000000000005%, 85=0.0000000000000000000000000000000000000001%, 86=0.005%, 87=0.001%, 88=0.0005%, 89=0.0001%, 90=0.005%, 91=0.001%, 92=0.0005%, 93=0.0001%, 94=0.005%, 95=0.001%, 96=0.0005%, 97=0.0001%, 98=0.005%, 99=0.001%, 100=0.0005%	Matrix (W=water, S=solid, O=other)	
<u>EFFLUENT</u>	<u>11/2/21</u>	<u>1:30</u>	<u>W</u>	<u>Water</u>			
<u>GEOTUBE PIT</u>	<u>11/2/21</u>	<u>1:45</u>	<u>W</u>	<u>Water</u>			
<u>Storage Digestor</u>	<u>11/2/21</u>	<u>1:30</u>	<u>S</u>	<u>Solid</u>			
Special Instructions/Note:		190-27278 Chain of Custody					
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by: <u>CHUCK BUCKLEY</u>		Date: <u>11/2/21</u>		Time: <u>2:30</u>		Method of Shipment:	
Relinquished by: <u>CHUCK BUCKLEY</u>		Date/Time: <u>11/2/21 2:30</u>		Company: <u>BRONSON</u>		Date/Time: <u>11/2/21 2:30</u> Company: <u>BRONSON</u>	
Relinquished by: <u>COLD STORAGE TO ELABORIS</u>		Date/Time: <u>11/2/21 1:00</u>		Company: <u>ETA</u>		Date/Time: <u>11/3/21 1410</u> Company: <u>ETA</u>	
Custody Seal Intact: <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Environment Testing
TestAmerica

☐ SDS or Known Hazard Information Supplied by Client

☐ Discrepancies

☐ Short Hold

☐ Rush ☐ 24 Hr ☐ 2-Day ☐ 3-Day ☐ 5-Day ☐ Other: _____

Receipt Evaluation Performed by: Initials: TEH Date: 11/3/21 Time: 1500

Client ID: City of Bronson

Work Order #: 190-27278

Cooler / Sample Receipt

After hours receipt: complete gray areas. Place cooler in walk-in, place form in Receiving box. Date: _____ Time: _____

Method of Shipment:

Walk-In Client Eurofins TA Field/Courier

Other Client / 3rd Party Courier: _____

Fed Ex Tracking #: _____

UPS Tracking #: Ground

Other: _____

Shipping Container Type:

☒ Cooler ☐ Box

☐ None ☐ Other: _____

Packing Materials:

☒ Plastic Bags ☐ Foam

☐ Bubble Wrap ☐ Paper

☐ Packing Peanuts ☐ None

☐ Other: _____

Custody Seals Intact:

☒ Yes ☐ No

☐ NA (not used or required)

Cooling Materials:

☐ Ice (Solid) ☒ Ice (Melted)

☐ Blue Ice ☐ None

☐ Other: _____

Bacteriological Samples	Temp Corrected (°C)	Frozen?		Rec'd Within 2 Hrs?		Sample Flagged?	
		Yes	No	Yes	No	Yes	No

Received on same day sampled? Yes No

Additional Sheets Required? Yes No

Receipt Temperatures

Thermometer ID	Observed (°C)	Corrected (°C)	Temp Blank	Sample Temp	Acceptable	Cooler ID	Affected Samples
<u>CP313207</u>	<u>3.0</u>	<u>3.0</u>			<u>Y</u> <u>N</u>		
					<u>Y</u> <u>N</u>		
					<u>Y</u> <u>N</u>		

Receipt Questions**	Y	N	NA	"No" answers require additional comment
CoC present and ETA receipt signature, date, and time properly documented?	<input checked="" type="checkbox"/>			
Containers and Labels in good condition? (unbroken, not leaking, appropriately filled, labels legible & attached)	<input checked="" type="checkbox"/>			
Appropriate containers used and adequate volume provided?	<input checked="" type="checkbox"/>			Preserved bottles checked for pH?* Yes No
Number of sample containers match CoC?	<input checked="" type="checkbox"/>			pH strip lot # _____
Samples received within hold?	<input checked="" type="checkbox"/>			
Samples submitted for GRO and Volatiles analysis (8260, 624, 524) received without headspace?			<input checked="" type="checkbox"/>	
Was a Trip Blank received with VOA samples?			<input checked="" type="checkbox"/>	
Were the samples free of any questionable physical conformities? (i.e.; field duplicates or multiple bottles of the same sample do not significantly vary in appearance – color, solid proportions, etc.)	<input checked="" type="checkbox"/>			
Were the CoC bottle labels and all other items free of all other discrepancies or issues that would need to be addressed with the Project Manager and/or Client?	<input checked="" type="checkbox"/>			
**May not be applicable if samples are not for compliance testing				*Excludes FOG, VOAs, TOC Vials, HEM

Client Contact Record

Contact Via: ☐ Phone ☐ Email ☐ Other: _____ Person Contacted: _____ Date/Time: _____

☐ Discrepancy allowance agreement is on record in the client project file

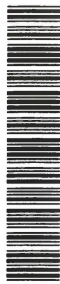
Discussion / Resolution

Any additional documentation and clarification from the client must be noted in the narrative and/or scanned into the CoC directory.

Reviewed by J. Hall Date: 11/3/21

WI-MI-010_020720

Chain of Custody Record



Client Information (Sub Contract Lab)		Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Schafer, Sue	190-30558.1
Company: TestAmerica Laboratories, Inc.		State of Origin: Michigan	Page: Page 1 of 1
Address: 880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email:		Job #: 190-27278-1	
Project Name: Bronson WWTP PFAS Site:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify) Other:	
Due Date Requested: 11/23/2021 TAT Requested (days):		Analysis Requested	
PO #:		Total Number of containers	
WO #:			
Project #: 19001688 SSOW#:			
Sample Date		Field Filtered Sample (Yes or No)	
Sample Time		Perform MS/MSD (Yes or No)	
Sample Type (C=Comp, G=grab)		PFC_IDA/3535_PFC PFAS 28	
Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)		Moisture	
Preservation Code:		PFC_IDA/SHAke_Bath_14D (MOD) PFAS 28	
Sample Date			
Sample Time			
Sample Type (C=Comp, G=grab)			
Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)			
Preservation Code:			
Sample Date			
Sample Time			
Sample Type (C=Comp, G=grab)			
Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)			
Preservation Code:			
Sample Date			
Sample Time			
Sample Type (C=Comp, G=grab)			
Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)			
Preservation Code:			
Sample Date			
Sample Time			
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