CITY OF RHINELANDER

Office of the Mayor

Home of the Hodag

December 23, 2020

For Immediate Release:

City Receives Landfill PFAS Test Results

In August 2020, the Rhinelander Common Council approved testing for PFAS and its variants at the legacy Rhinelander Landfill. Following the closure of two municipal drinking water wells in 2019, the City has engaged in a broader initiative to identify the extent and possible sources of PFAS groundwater contamination in the Rhinelander area. The testing is a collaborative effort between the City and University of Wisconsin-Madison Geo Engineering Laboratory, under the direction of Dr. James Tinjum. The sampling procedure utilizes the Michigan Department of Environmental Quality General PFAS Sampling Guidance and EPA groundwater sampling methods. Five internal leachate monitoring wells were targeted for groundwater sampling in the Fall. Results indicated trace amounts of PFAS and its variants that are similar to levels that the State of Michigan found in a state-wide study of their landfills.

"I am pleased to report that our first round of analytical samples of five samples from the City of Rhinelander Legacy Landfill contained relatively low-levels of PFAS, as might be expected for a common municipal solid waste landfill", said Dr. James Tinjum.

A second round of sampling consisting of monitoring wells adjacent to the landfill is planned with results anticipated in the early part of 2021. As research develops on emerging contaminates, we continue to study this issue and current available options. Among these, a task to evaluate the soil and groundwater in close proximity to the City wells 7 and 8. A scope on this work is under consideration, in collaboration with external research funding being pursued by UW-Madison, and will be considered at a future date.

"We're pleased to have researched the landfill as a potential source for PFAS contamination, said Mayor Chris Frederickson. The preliminary results indicating low-level, residual amounts of contamination there allow us to begin to focus our efforts on the next target area of concern, he added."

The full results can be found on RhinelanderCityHall.org. To get engaged with the WATR—Water Action Team Rhinelander—search Facebook.com. Following the release of the PFAS Fate and Transport Whitepaper in August, analytical testing of the Rhinelander Legacy Landfill was recommended, along with an evaluation of the near-surface soil and groundwater conditions near City Wells 7 and 8. The above testing stage marks a progression down this remedial investigation pathway.

For questions regarding the testing and results, contact James Tinjum at jmtinjum@wisc.edu or 608.262.0785. For questions regarding the City's efforts, contact Mayor Chris Frederickson at mayor@rhinelandercityhall.org or 715-365-8600.

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Rhinelander WI 54501

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Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
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Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 542543001

Report To:
PAUL BLOCK
UW MADISON CIVIL AND ENVIRONMENTAL ENGINEERING
1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:
JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706
Customer ID: 355368

Field #: OX928
Project No:

Collection End: 1/5/2021 3:15:00 PM
Collection Start:
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: OX928
Sample Location: RHINELANDER CITY LEGACY LANDFILL
Sample Description: BOILER GRAB FROM MW
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall: BOILER GRAB FRO
Sample Depth: 12.7F
Program Code:
Region Code:
County: 44

Sample Comments

SAMPLE RECEIVED PARTIALLY FROZEN. RESULTS APPROXIMATE.

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/05/21 2351

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/17/21 11:00	Analysis Date: 03/05/21 23:51				
Comments: Analyzed past the 30 days holding time.					
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.351	ng/L	0.351	0.392
The internal standard QC limit has failed low.					
PFBS (375-73-5)	WSLH PFAS in Water	<0.434	ng/L	0.434	0.980
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.447	ng/L	0.447	0.980
PFHxA (307-24-4)	WSLH PFAS in Water	2.87	ng/L	0.414	0.980
Compound detected in lab blank.					
Compound detected in field reagent blank (FRB).					
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.268	ng/L	0.268	0.392
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.522	ng/L	0.522	0.980

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/17/21 11:00	Analysis Date: 03/05/21 23:51				
PFHpA (375-85-9)	WSLH PFAS in Water	3.24	ng/L	0.466	0.980
PFHxS (355-46-4)	WSLH PFAS in Water	0.709F	ng/L	0.406	0.980
DONA (919005-14-4)	WSLH PFAS in Water	<0.416	ng/L	0.416	0.980
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.507	ng/L	0.507	0.980
The internal standard QC limit has failed high.					
PFOA (335-67-1)	WSLH PFAS in Water	15.1	ng/L	0.455	0.980
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHpS (375-92-8)	WSLH PFAS in Water	<0.396	ng/L	0.396	0.980
PFOS (1763-23-1)	WSLH PFAS in Water	11.3	ng/L	0.336	0.392
PFNA (375-95-1)	WSLH PFAS in Water	1.62	ng/L	0.427	0.980
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.415	ng/L	0.415	0.980
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.442	ng/L	0.442	0.980
The internal standard QC limit has failed high.					
PFDA (335-76-2)	WSLH PFAS in Water	0.522F	ng/L	0.389	0.980
Compound detected in lab blank.					
Compound detected in field reagent blank (FRB).					
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFNS (68259-12-1)	WSLH PFAS in Water	<0.495	ng/L	0.495	0.980
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.531	ng/L	0.531	0.980
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.424	ng/L	0.424	0.980
FOSA (754-91-6)	WSLH PFAS in Water	<4.03	ng/L	4.03	4.90
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.403	ng/L	0.403	0.980
PFDS (335-77-3)	WSLH PFAS in Water	<0.451	ng/L	0.451	0.980
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.390	ng/L	0.390	0.980
PFDoA (307-55-1)	WSLH PFAS in Water	<0.380	ng/L	0.380	0.980
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.429	ng/L	0.429	0.980
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.512	ng/L	0.512	0.980
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.397	ng/L	0.397	0.980

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/17/21 11:00	Analysis Date: 03/05/21 23:51				
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.796	ng/L	0.796	0.980
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.401	ng/L	0.401	0.980
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.652	ng/L	0.652	0.980
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.409	ng/L	0.409	0.980
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.351	ng/L	0.351	0.392

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543002

Report To:
PAUL BLOCK
UW MADISON CIVIL AND ENVIRONMENTAL ENGINEERING
1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:
JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706
Customer ID: 355368

Field #: MW-10A
Project No:
Collection End: 1/5/2021 4:06:00 PM
Collection Start:
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: MW-19A
Sample Location: RHINELANDER LEGACY LANDFILL
Sample Description: BOILER SAMPLE FROM MW
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth: 15F
Program Code:
Region Code:
County: 44

Sample Comments

SAMPLE RECEIVED PARTIALLY FROZEN. RESULTS APPROXIMATE.

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 0940

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 09:40				
Comments: Analyzed past the 30 days holding time.					
PFPeA (2706-90-3)	WSLH PFAS in Water	5.65	ng/L	0.330	0.369
Interference					
PFBS (375-73-5)	WSLH PFAS in Water	0.597F	ng/L	0.408	0.922
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Transition Ion Ratio Failure.					
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.420	ng/L	0.420	0.922
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHxA (307-24-4)	WSLH PFAS in Water	12.7	ng/L	0.390	0.922
PFPeS (2706-91-4)	WSLH PFAS in Water	0.312F	ng/L	0.253	0.369
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.491	ng/L	0.491	0.922

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 09:40				
PFHpA (375-85-9)	WSLH PFAS in Water	9.96	ng/L	0.439	0.922
PFHxS (355-46-4)	WSLH PFAS in Water	0.931	ng/L	0.382	0.922
DONA (919005-14-4)	WSLH PFAS in Water	<0.392	ng/L	0.392	0.922
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.477	ng/L	0.477	0.922
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFOA (335-67-1)	WSLH PFAS in Water	33.3	ng/L	0.428	0.922
PFHpS (375-92-8)	WSLH PFAS in Water	<0.373	ng/L	0.373	0.922
PFOS (1763-23-1)	WSLH PFAS in Water	3.80	ng/L	0.316	0.369
PFNA (375-95-1)	WSLH PFAS in Water	0.457F	ng/L	0.402	0.922
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.391	ng/L	0.391	0.922
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.416	ng/L	0.416	0.922
PFDA (335-76-2)	WSLH PFAS in Water	<0.366	ng/L	0.366	0.922
PFNS (68259-12-1)	WSLH PFAS in Water	<0.466	ng/L	0.466	0.922
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	0.549F	ng/L	0.500	0.922
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	1.72	ng/L	0.399	0.922
FOSA (754-91-6)	WSLH PFAS in Water	<3.79	ng/L	3.79	4.61
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.379	ng/L	0.379	0.922
PFDS (335-77-3)	WSLH PFAS in Water	<0.424	ng/L	0.424	0.922
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.367	ng/L	0.367	0.922
PFDoA (307-55-1)	WSLH PFAS in Water	<0.358	ng/L	0.358	0.922
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.404	ng/L	0.404	0.922
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.482	ng/L	0.482	0.922
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.373	ng/L	0.373	0.922
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.749	ng/L	0.749	0.922
The internal standard QC limit has failed low.					
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.377	ng/L	0.377	0.922
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.613	ng/L	0.613	0.922
The internal standard QC limit has failed low.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 09:40				
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.384	ng/L	0.384	0.922
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.330	ng/L	0.330	0.369

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 542543003

Report To:
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1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:
JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706
Customer ID: 355368

Field #: MW27A
Project No:

Collection End: 1/5/2021 3:25:00 PM
Collection Start:
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: MW 27A
Sample Location: RHINELANDER CITY LEGACY LANDFILL
Sample Description: BOILER GRAB FROM MW
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth: 10F
Program Code:
Region Code:
County: 44

Sample Comments

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 1050

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 10:50				
Comments: Analyzed past the 30 days holding time.					
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.339	ng/L	0.339	0.378
PFBS (375-73-5)	WSLH PFAS in Water	<0.419	ng/L	0.419	0.946
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.431	ng/L	0.431	0.946
The internal standard QC limit has failed high.					
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHxA (307-24-4)	WSLH PFAS in Water	<0.400	ng/L	0.400	0.946
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.259	ng/L	0.259	0.378
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.504	ng/L	0.504	0.946
PFHpA (375-85-9)	WSLH PFAS in Water	0.519F	ng/L	0.450	0.946
PFHxS (355-46-4)	WSLH PFAS in Water	<0.392	ng/L	0.392	0.946

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543003

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 10:50				
DONA (919005-14-4)	WSLH PFAS in Water	<0.402	ng/L	0.402	0.946
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.489	ng/L	0.489	0.946
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFOA (335-67-1)	WSLH PFAS in Water	0.849F	ng/L	0.439	0.946
PFHpS (375-92-8)	WSLH PFAS in Water	<0.382	ng/L	0.382	0.946
PFOS (1763-23-1)	WSLH PFAS in Water	<0.324	ng/L	0.324	0.378
PFNA (375-95-1)	WSLH PFAS in Water	<0.412	ng/L	0.412	0.946
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.401	ng/L	0.401	0.946
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.427	ng/L	0.427	0.946
PFDA (335-76-2)	WSLH PFAS in Water	<0.375	ng/L	0.375	0.946
PFNS (68259-12-1)	WSLH PFAS in Water	<0.478	ng/L	0.478	0.946
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.513	ng/L	0.513	0.946
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.410	ng/L	0.410	0.946
FOSA (754-91-6)	WSLH PFAS in Water	<3.89	ng/L	3.89	4.73
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.389	ng/L	0.389	0.946
PFDS (335-77-3)	WSLH PFAS in Water	<0.435	ng/L	0.435	0.946
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.376	ng/L	0.376	0.946
PFDoA (307-55-1)	WSLH PFAS in Water	<0.367	ng/L	0.367	0.946
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.414	ng/L	0.414	0.946
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.495	ng/L	0.495	0.946
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.383	ng/L	0.383	0.946
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.768	ng/L	0.768	0.946
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.387	ng/L	0.387	0.946
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.629	ng/L	0.629	0.946
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.394	ng/L	0.394	0.946
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.339	ng/L	0.339	0.378

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543003

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

Wisconsin State Laboratory of Hygiene
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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 542543004

Report To:

PAUL BLOCK
UW MADISON CIVIL AND ENVIRONMENTAL ENGINEERING
1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706

Customer ID: 355368

Field #: MW-20A
Project No:
Collection End: 1/5/2021 12:00:00 PM
Collection Start: 01/05/2021 11:54:00
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: MW-20A
Sample Location: LEGACY LANDFILL - RHINELANDER
Sample Description: BOILER FROM MW
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth: 10F
Program Code:
Region Code:
County: 44

Sample Comments

SAMPLE RECEIVED PARTIALLY FROZEN. RESULTS APPROXIMATE.

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 1118

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 1241

N-MeFOSA not reported in this sample. Internal standard did not meet minimum 10:1 signal-to-noise ratio requirement.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:18				
Comments: Analyzed past the 30 days holding time.					
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.332	ng/L	0.332	0.371
The internal standard QC limit has failed low.					
PFBS (375-73-5)	WSLH PFAS in Water	<0.411	ng/L	0.411	0.927
Interference					
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Transition Ion Ratio Failure.					
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.423	ng/L	0.423	0.927

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PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:18				
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHxA (307-24-4)	WSLH PFAS in Water	12.5	ng/L	0.392	0.927
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.254	ng/L	0.254	0.371
HFPO-DA (13252-13-6)	WSLH PFAS in Water	15.9	ng/L	0.494	0.927
Interference					
The internal standard QC limit has failed low; result may be biased high.					
PFHpA (375-85-9)	WSLH PFAS in Water	9.73	ng/L	0.441	0.927
PFHxS (355-46-4)	WSLH PFAS in Water	2.18	ng/L	0.384	0.927
DONA (919005-14-4)	WSLH PFAS in Water	<0.394	ng/L	0.394	0.927
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.479	ng/L	0.479	0.927
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHpS (375-92-8)	WSLH PFAS in Water	0.676F	ng/L	0.374	0.927
PFOS (1763-23-1)	WSLH PFAS in Water	29.6	ng/L	0.318	0.371
PFNA (375-95-1)	WSLH PFAS in Water	0.797F	ng/L	0.404	0.927
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.393	ng/L	0.393	0.927
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.418	ng/L	0.418	0.927
PFDA (335-76-2)	WSLH PFAS in Water	<0.368	ng/L	0.368	0.927
PFNS (68259-12-1)	WSLH PFAS in Water	<0.468	ng/L	0.468	0.927
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.502	ng/L	0.502	0.927
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	4.76	ng/L	0.401	0.927
FOSA (754-91-6)	WSLH PFAS in Water	<3.81	ng/L	3.81	4.63
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.381	ng/L	0.381	0.927
PFDS (335-77-3)	WSLH PFAS in Water	<0.426	ng/L	0.426	0.927
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.369	ng/L	0.369	0.927
PFDoA (307-55-1)	WSLH PFAS in Water	<0.360	ng/L	0.360	0.927
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.406	ng/L	0.406	0.927
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.485	ng/L	0.485	0.927
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.375	ng/L	0.375	0.927

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Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:18				
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.379	ng/L	0.379	0.927
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.616	ng/L	0.616	0.927
The internal standard QC limit has failed low.					
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.387	ng/L	0.387	0.927
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.332	ng/L	0.332	0.371
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 12:41				
Comments:					
Analyzed past the 30 days holding time.					
PFOA (335-67-1)	WSLH PFAS in Water	146	ng/L	4.30	9.27

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WSLH Sample: 542543004

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

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1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706

Customer ID: 355368

Field #: OX928
Project No:

Collection End: 1/5/2021 3:15:00 PM
Collection Start:
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: OX928
Sample Location: RHINELANDER CITY LEGACY LANDFILL
Sample Description: BOILER GRAB MW SAMPLE
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth: 12.7F
Program Code:
Region Code:
County: 44

Sample Comments

SAMPLE RECEIVED PARTIALLY FROZEN. RESULTS APPROXIMATE.

Analyzed past the 30 days holding time: Method WSLH PFAS in Water analyzed on 03/23/21 1346

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/18/21 11:00	Analysis Date: 03/23/21 13:46				
Comments: Analyzed past the 30 days holding time.					
PFPeA (2706-90-3)	WSLH PFAS in Water	6.06	ng/L	0.331	0.370
Interference					
The internal standard QC limit has failed low.					
Transition Ion Ratio Failure.					
PFBS (375-73-5)	WSLH PFAS in Water	0.671F	ng/L	0.409	0.924
Transition Ion Ratio Failure.					
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.421	ng/L	0.421	0.924
PFHxA (307-24-4)	WSLH PFAS in Water	2.99	ng/L	0.391	0.924
Compound detected in lab blank.					

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PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/18/21 11:00	Analysis Date: 03/23/21 13:46				
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.370
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.492	ng/L	0.492	0.924
The internal standard QC limit has failed low.					
PFHpA (375-85-9)	WSLH PFAS in Water	3.66	ng/L	0.440	0.924
PFHxS (355-46-4)	WSLH PFAS in Water	0.802F	ng/L	0.383	0.924
DONA (919005-14-4)	WSLH PFAS in Water	<0.393	ng/L	0.393	0.924
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.478	ng/L	0.478	0.924
PFOA (335-67-1)	WSLH PFAS in Water	18.0	ng/L	0.429	0.924
PFHpS (375-92-8)	WSLH PFAS in Water	<0.373	ng/L	0.373	0.924
PFOS (1763-23-1)	WSLH PFAS in Water	14.3	ng/L	0.317	0.370
PFNA (375-95-1)	WSLH PFAS in Water	1.70	ng/L	0.403	0.924
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.392	ng/L	0.392	0.924
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.417	ng/L	0.417	0.924
PFDA (335-76-2)	WSLH PFAS in Water	0.525F	ng/L	0.367	0.924
Compound detected in lab blank.					
PFNS (68259-12-1)	WSLH PFAS in Water	<0.467	ng/L	0.467	0.924
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.501	ng/L	0.501	0.924
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.400	ng/L	0.400	0.924
FOSA (754-91-6)	WSLH PFAS in Water	<3.80	ng/L	3.80	4.62
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.380	ng/L	0.380	0.924
PFDS (335-77-3)	WSLH PFAS in Water	<0.425	ng/L	0.425	0.924
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.368	ng/L	0.368	0.924
PFDoA (307-55-1)	WSLH PFAS in Water	<0.359	ng/L	0.359	0.924
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.405	ng/L	0.405	0.924
The internal standard QC limit has failed low.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.483	ng/L	0.483	0.924
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.374	ng/L	0.374	0.924
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.750	ng/L	0.750	0.924
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.378	ng/L	0.378	0.924

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Laboratory Report

Environmental Health Division

WSLH Sample: 542543005

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 01/18/21 11:00	Analysis Date: 03/23/21 13:46				
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.614	ng/L	0.614	0.924
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.385	ng/L	0.385	0.924
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.331	ng/L	0.331	0.370

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WSLH Sample: 542543005

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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LOQ = Level of quantification
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WSLH Sample: 542543006

Report To:

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1415 ENGINEERING DRIVE
MADISON, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
MADISON, WI 53706

Customer ID: 355368

Field #: MW-21A
Project No:
Collection End: 1/5/2021 1:56:00 PM
Collection Start:
Collected By: ELLIOT DREXLER
Date Received: 1/6/2021
Date Reported: 3/26/2021
Sample Reason:

ID#: MW-21A
Sample Location: RHINELANDER LEGACY LANDFILL
Sample Description: BOILER SAMPLE IN MW
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth: 5F
Program Code:
Region Code:
County: 44

Sample Comments

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 1145

Analyzed past the 30 days holding time: Method Modified ISO 21675 analyzed on 03/16/21 1255

N-MeFOSA and HFPO-DA not reported in this sample. Internal standard peaks did not meet minimum 10:1 signal-to-noise ratio requirement.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:45				
Comments: Analyzed past the 30 days holding time.					
PFHxS (355-46-4)	WSLH PFAS in Water	16.2	ng/L	0.388	0.937
DONA (919005-14-4)	WSLH PFAS in Water	<0.398	ng/L	0.398	0.937
The internal standard QC limit has failed low.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.484	ng/L	0.484	0.937
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFHpS (375-92-8)	WSLH PFAS in Water	<0.378	ng/L	0.378	0.937
PFOS (1763-23-1)	WSLH PFAS in Water	63.4	ng/L	0.321	0.375
PFNA (375-95-1)	WSLH PFAS in Water	0.733F	ng/L	0.408	0.937

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WSLH Sample: 542543006

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:45				
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.397	ng/L	0.397	0.937
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.423	ng/L	0.423	0.937
PFDA (335-76-2)	WSLH PFAS in Water	<0.372	ng/L	0.372	0.937
PFNS (68259-12-1)	WSLH PFAS in Water	<0.473	ng/L	0.473	0.937
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	3.49	ng/L	0.508	0.937
FOSA (754-91-6)	WSLH PFAS in Water	<3.85	ng/L	3.85	4.68
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.385	ng/L	0.385	0.937
PFDS (335-77-3)	WSLH PFAS in Water	0.571F	ng/L	0.431	0.937
Transition Ion Ratio Failure.					
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.373	ng/L	0.373	0.937
PFDoA (307-55-1)	WSLH PFAS in Water	<0.364	ng/L	0.364	0.937
10:2 FTSA (120226-60-0)	WSLH PFAS in Water	<0.410	ng/L	0.410	0.937
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.490	ng/L	0.490	0.937
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.379	ng/L	0.379	0.937
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	2.07	ng/L	0.383	0.937
The internal standard QC limit has failed low; result may be biased high.					
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	11.5	ng/L	0.623	0.937
The internal standard QC limit has failed low; result may be biased high.					
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.335	ng/L	0.335	0.375
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.335	ng/L	0.335	0.375
The internal standard QC limit has failed low.					
PFBS (375-73-5)	WSLH PFAS in Water	<0.415	ng/L	0.415	0.937
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Transition Ion Ratio Failure.					
The internal standard QC limit has failed low.					
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.427	ng/L	0.427	0.937
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.257	ng/L	0.257	0.375

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WSLH Sample: 542543006

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 11:45				
PFHpA (375-85-9)	WSLH PFAS in Water	40.7	ng/L	0.446	0.937
The internal standard QC limit has failed low.					
Prep Date: 02/01/21 11:45	Analysis Date: 03/16/21 12:55				
Comments: Analyzed past the 30 days holding time.					
PFOA (335-67-1)	WSLH PFAS in Water	262	ng/L	4.35	9.37
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	97.4	ng/L	4.06	9.37
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	87.1	ng/L	3.91	9.37
PFHxA (307-24-4)	WSLH PFAS in Water	59.2	ng/L	3.96	9.37

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WSLH Sample: 542543006

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
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Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

Wisconsin State Laboratory of Hygiene
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Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159001

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: L2D
Project No:
Collection End: 10/13/2020 12:20:00 PM

Collection Start:
Collected By: JAMES TINJUM
Date Received: 10/14/2020
Date Reported: 12/11/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (L2D)
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:03				
PFBA (375-22-4)	WSLH PFAS in Wet Solids	59.0	ng/Kg	32.9	49.9
Interference					
PFPeA (2706-90-3)	WSLH PFAS in Wet Solids	2.70	ng/Kg	1.09	2.00
Interference					
PFBS (375-73-5)	WSLH PFAS in Wet Solids	0.847F	ng/Kg	0.815	2.00
Interference					
4:2 FTSA (757124-72-4)	WSLH PFAS in Wet Solids	<2.35	ng/Kg	2.35	4.99
The internal standard QC limit is exceeded.					
PFHxA (307-24-4)	WSLH PFAS in Wet Solids	4.54	ng/Kg	1.29	2.00
The internal standard QC limit is exceeded.					
PFPeS (2706-91-4)	WSLH PFAS in Wet Solids	<1.09	ng/Kg	1.09	2.00
HFPO-DA (13252-13-6)	WSLH PFAS in Wet Solids	<1.24	ng/Kg	1.24	2.00
PFHpA (375-85-9)	WSLH PFAS in Wet Solids	2.06	ng/Kg	1.04	2.00

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159001

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:03				
PFHxS (355-46-4)	WSLH PFAS in Wet Solids	<0.935	ng/Kg	0.935	2.00
DONA (919005-14-4)	WSLH PFAS in Wet Solids	<0.990	ng/Kg	0.990	2.00
6:2 FTSA (27619-97-2)	WSLH PFAS in Wet Solids	<1.49	ng/Kg	1.49	2.00
The internal standard QC limit is exceeded.					
PFOA (335-67-1)	WSLH PFAS in Wet Solids	13.0	ng/Kg	2.43	4.99
The internal standard QC limit is exceeded.					
PFHpS (375-92-8)	WSLH PFAS in Wet Solids	<1.27	ng/Kg	1.27	2.00
PFOS (1763-23-1)	WSLH PFAS in Wet Solids	<1.65	ng/Kg	1.65	2.00
PFNA (375-95-1)	WSLH PFAS in Wet Solids	1.69F	ng/Kg	1.53	2.00
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Wet Solids	<1.41	ng/Kg	1.41	2.00
8:2 FTSA (39108-34-4)	WSLH PFAS in Wet Solids	<1.57	ng/Kg	1.57	2.00
The internal standard QC limit is exceeded.					
PFDA (335-76-2)	WSLH PFAS in Wet Solids	<1.67	ng/Kg	1.67	2.00
PFNS (68259-12-1)	WSLH PFAS in Wet Solids	<1.72	ng/Kg	1.72	2.00
N-MeFOSAA (2355-31-9)	WSLH PFAS in Wet Solids	<1.47	ng/Kg	1.47	2.00
N-EtFOSAA (2991-50-6)	WSLH PFAS in Wet Solids	<0.990	ng/Kg	0.990	2.00
FOSA (754-91-6)	WSLH PFAS in Wet Solids	<1.54	ng/Kg	1.54	2.00
PFUnA (2058-94-8)	WSLH PFAS in Wet Solids	<1.01	ng/Kg	1.01	2.00
PFDS (335-77-3)	WSLH PFAS in Wet Solids	<1.66	ng/Kg	1.66	2.00
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Wet Solids	<1.04	ng/Kg	1.04	2.00
PFDoA (307-55-1)	WSLH PFAS in Wet Solids	<1.50	ng/Kg	1.50	2.00
10:2 FTSA (120226-60-0)	WSLH PFAS in Wet Solids	<1.49	ng/Kg	1.49	2.00
PFDoS (79780-39-5)	WSLH PFAS in Wet Solids	<2.66	ng/Kg	2.66	4.99

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159001

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:03				
PFTrDA (72629-94-8)	WSLH PFAS in Wet Solids	<0.927	ng/Kg	0.927	2.00
N-MeFOSA (31506-32-8)	WSLH PFAS in Wet Solids	<6.41	ng/Kg	6.41	9.98
N-MeFOSE (24448-09-7)	WSLH PFAS in Wet Solids	<1.47	ng/Kg	1.47	2.00
N-EtFOSA (4151-50-2)	WSLH PFAS in Wet Solids	<6.39	ng/Kg	6.39	9.98
N-EtFOSE (1691-99-2)	WSLH PFAS in Wet Solids	<1.27	ng/Kg	1.27	2.00
PFTeDA (376-06-7)	WSLH PFAS in Wet Solids	<1.01	ng/Kg	1.01	2.00
PFHxDA (67905-19-5)	WSLH PFAS in Wet Solids	<0.791	ng/Kg	0.791	2.00
PFODA (16517-11-6)	WSLH PFAS in Wet Solids	<1.89	ng/Kg	1.89	4.99

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
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if LOD=LOQ, Limits were not statistically derived

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159002

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: SC1
Project No:
Collection End: 10/13/2020 1:00:00 PM

Collection Start:
Collected By: JAMES TINJUM
Date Received: 10/14/2020
Date Reported: 12/11/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (SC1)
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:17				
PFBA (375-22-4)	WSLH PFAS in Wet Solids	72.1	ng/Kg	35.3	53.5
Interference					
PFPeA (2706-90-3)	WSLH PFAS in Wet Solids	8.82	ng/Kg	1.16	2.14
Interference					
PFBS (375-73-5)	WSLH PFAS in Wet Solids	<0.873	ng/Kg	0.873	2.14
4:2 FTSA (757124-72-4)	WSLH PFAS in Wet Solids	<2.52	ng/Kg	2.52	5.35
The internal standard QC limit is exceeded.					
PFHxA (307-24-4)	WSLH PFAS in Wet Solids	13.3	ng/Kg	1.39	2.14
PFPeS (2706-91-4)	WSLH PFAS in Wet Solids	<1.16	ng/Kg	1.16	2.14
HFPO-DA (13252-13-6)	WSLH PFAS in Wet Solids	<1.33	ng/Kg	1.33	2.14
PFHpA (375-85-9)	WSLH PFAS in Wet Solids	7.97	ng/Kg	1.11	2.14
PFHxS (355-46-4)	WSLH PFAS in Wet Solids	1.12F	ng/Kg	1.00	2.14

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Laboratory Report

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WSLH Sample: 531159002

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:17				
DONA (919005-14-4)	WSLH PFAS in Wet Solids	<1.06	ng/Kg	1.06	2.14
6:2 FTSA (27619-97-2)	WSLH PFAS in Wet Solids	<1.59	ng/Kg	1.59	2.14
The internal standard QC limit is exceeded.					
PFOA (335-67-1)	WSLH PFAS in Wet Solids	27.5	ng/Kg	2.60	5.35
PFHpS (375-92-8)	WSLH PFAS in Wet Solids	<1.36	ng/Kg	1.36	2.14
PFOS (1763-23-1)	WSLH PFAS in Wet Solids	6.35	ng/Kg	1.77	2.14
PFNA (375-95-1)	WSLH PFAS in Wet Solids	<1.64	ng/Kg	1.64	2.14
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Wet Solids	<1.51	ng/Kg	1.51	2.14
8:2 FTSA (39108-34-4)	WSLH PFAS in Wet Solids	<1.68	ng/Kg	1.68	2.14
PFDA (335-76-2)	WSLH PFAS in Wet Solids	<1.79	ng/Kg	1.79	2.14
PFNS (68259-12-1)	WSLH PFAS in Wet Solids	<1.84	ng/Kg	1.84	2.14
N-MeFOSAA (2355-31-9)	WSLH PFAS in Wet Solids	<1.58	ng/Kg	1.58	2.14
N-EtFOSAA (2991-50-6)	WSLH PFAS in Wet Solids	5.53	ng/Kg	1.06	2.14
FOSA (754-91-6)	WSLH PFAS in Wet Solids	2.59	ng/Kg	1.65	2.14
PFUnA (2058-94-8)	WSLH PFAS in Wet Solids	<1.09	ng/Kg	1.09	2.14
PFDS (335-77-3)	WSLH PFAS in Wet Solids	<1.78	ng/Kg	1.78	2.14
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Wet Solids	<1.11	ng/Kg	1.11	2.14
PFDoA (307-55-1)	WSLH PFAS in Wet Solids	<1.61	ng/Kg	1.61	2.14
10:2 FTSA (120226-60-0)	WSLH PFAS in Wet Solids	<1.60	ng/Kg	1.60	2.14
PFDoS (79780-39-5)	WSLH PFAS in Wet Solids	<2.85	ng/Kg	2.85	5.35
PFTrDA (72629-94-8)	WSLH PFAS in Wet Solids	<0.993	ng/Kg	0.993	2.14
N-MeFOSA (31506-32-8)	WSLH PFAS in Wet Solids	<6.88	ng/Kg	6.88	10.7

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159002

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:17				
N-MeFOSE (24448-09-7)	WSLH PFAS in Wet Solids	<1.58	ng/Kg	1.58	2.14
N-EtFOSA (4151-50-2)	WSLH PFAS in Wet Solids	<6.85	ng/Kg	6.85	10.7
N-EtFOSE (1691-99-2)	WSLH PFAS in Wet Solids	<1.36	ng/Kg	1.36	2.14
PFTeDA (376-06-7)	WSLH PFAS in Wet Solids	<1.08	ng/Kg	1.08	2.14
PFHxDA (67905-19-5)	WSLH PFAS in Wet Solids	<0.848	ng/Kg	0.848	2.14
PFODA (16517-11-6)	WSLH PFAS in Wet Solids	<2.03	ng/Kg	2.03	5.35

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159003

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: L1
Project No:
Collection End: 10/12/2020 11:30:00 AM

Collection Start:
Collected By: JAMES TINJUM
Date Received: 10/14/2020
Date Reported: 12/11/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (L1)
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Customer Requests Cancellation

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date:	Analysis Date:				
PFAS in Wet Solids					
PFBA (375-22-4)		Invalid Result			
PFPeA (2706-90-3)		Invalid Result			
PFBS (375-73-5)		Invalid Result			
4:2 FTSA (757124-72-4)		Invalid Result			
PFHxA (307-24-4)		Invalid Result			
PFPeS (2706-91-4)		Invalid Result			
HFPO-DA (13252-13-6)		Invalid Result			
PFHpA (375-85-9)		Invalid Result			
PFHxS (355-46-4)		Invalid Result			
DONA (919005-14-4)		Invalid Result			
6:2 FTSA (27619-97-2)		Invalid Result			

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159003

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date:	Analysis Date:				
PFOA (335-67-1)		Invalid Result			
PFHpS (375-92-8)		Invalid Result			
PFOS (1763-23-1)		Invalid Result			
PFNA (375-95-1)		Invalid Result			
9Cl-PF3ONS (756426-58-1)		Invalid Result			
8:2 FTSA (39108-34-4)		Invalid Result			
PFDA (335-76-2)		Invalid Result			
PFNS (68259-12-1)		Invalid Result			
N-MeFOSAA (2355-31-9)		Invalid Result			
N-EtFOSAA (2991-50-6)		Invalid Result			
FOSA (754-91-6)		Invalid Result			
PFUnA (2058-94-8)		Invalid Result			
PFDS (335-77-3)		Invalid Result			
11Cl-PF3OUdS (763051-92-9)		Invalid Result			
PFDoA (307-55-1)		Invalid Result			
10:2 FTSA (120226-60-0)		Invalid Result			
PFDoS (79780-39-5)		Invalid Result			
PFTrDA (72629-94-8)		Invalid Result			
N-MeFOSA (31506-32-8)		Invalid Result			
N-MeFOSE (24448-09-7)		Invalid Result			
N-EtFOSA (4151-50-2)		Invalid Result			
N-EtFOSE (1691-99-2)		Invalid Result			
PFTeDA (376-06-7)		Invalid Result			
PFHxDA (67905-19-5)		Invalid Result			
PFODA (16517-11-6)		Invalid Result			

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Laboratory Report

Environmental Health Division

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WSLH Sample: 531159003

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159004

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: L5
Project No:
Collection End: 10/13/2020 12:15:00 PM

Collection Start:
Collected By: JAMES TINJUM
Date Received: 10/14/2020
Date Reported: 12/11/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (L5)
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:32				
PFBA (375-22-4)	WSLH PFAS in Wet Solids	328	ng/Kg	33.8	51.3
Interference					
PFPeA (2706-90-3)	WSLH PFAS in Wet Solids	13.3	ng/Kg	1.12	2.05
Interference					
PFBS (375-73-5)	WSLH PFAS in Wet Solids	1.64F	ng/Kg	0.838	2.05
Interference					
Confirmation ion transition ratio failure					
4:2 FTSA (757124-72-4)	WSLH PFAS in Wet Solids	<2.42	ng/Kg	2.42	5.13
The internal standard QC limit is exceeded.					
PFHxA (307-24-4)	WSLH PFAS in Wet Solids	23.4	ng/Kg	1.33	2.05
PFPeS (2706-91-4)	WSLH PFAS in Wet Solids	<1.12	ng/Kg	1.12	2.05
HFPO-DA (13252-13-6)	WSLH PFAS in Wet Solids	<1.27	ng/Kg	1.27	2.05
PFHpA (375-85-9)	WSLH PFAS in Wet Solids	47.2	ng/Kg	1.07	2.05

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159004

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:32				
PFHxS (355-46-4)	WSLH PFAS in Wet Solids	6.60	ng/Kg	0.961	2.05
DONA (919005-14-4)	WSLH PFAS in Wet Solids	<1.02	ng/Kg	1.02	2.05
6:2 FTSA (27619-97-2)	WSLH PFAS in Wet Solids	<1.53	ng/Kg	1.53	2.05
The internal standard QC limit is exceeded.					
PFOA (335-67-1)	WSLH PFAS in Wet Solids	99.4	ng/Kg	2.50	5.13
PFHpS (375-92-8)	WSLH PFAS in Wet Solids	<1.31	ng/Kg	1.31	2.05
PFOS (1763-23-1)	WSLH PFAS in Wet Solids	<1.70	ng/Kg	1.70	2.05
PFNA (375-95-1)	WSLH PFAS in Wet Solids	<1.57	ng/Kg	1.57	2.05
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Wet Solids	<1.45	ng/Kg	1.45	2.05
8:2 FTSA (39108-34-4)	WSLH PFAS in Wet Solids	<1.61	ng/Kg	1.61	2.05
PFDA (335-76-2)	WSLH PFAS in Wet Solids	<1.72	ng/Kg	1.72	2.05
PFNS (68259-12-1)	WSLH PFAS in Wet Solids	<1.77	ng/Kg	1.77	2.05
N-MeFOSAA (2355-31-9)	WSLH PFAS in Wet Solids	<1.51	ng/Kg	1.51	2.05
N-EtFOSAA (2991-50-6)	WSLH PFAS in Wet Solids	<1.02	ng/Kg	1.02	2.05
FOSA (754-91-6)	WSLH PFAS in Wet Solids	<1.59	ng/Kg	1.59	2.05
PFUnA (2058-94-8)	WSLH PFAS in Wet Solids	<1.04	ng/Kg	1.04	2.05
PFDS (335-77-3)	WSLH PFAS in Wet Solids	<1.71	ng/Kg	1.71	2.05
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Wet Solids	<1.07	ng/Kg	1.07	2.05
PFDoA (307-55-1)	WSLH PFAS in Wet Solids	<1.54	ng/Kg	1.54	2.05
10:2 FTSA (120226-60-0)	WSLH PFAS in Wet Solids	<1.54	ng/Kg	1.54	2.05
PFDoS (79780-39-5)	WSLH PFAS in Wet Solids	<2.74	ng/Kg	2.74	5.13
PFTrDA (72629-94-8)	WSLH PFAS in Wet Solids	<0.953	ng/Kg	0.953	2.05

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159004

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/09/20 11:15	Analysis Date: 11/23/20 16:32				
N-MeFOSA (31506-32-8)	WSLH PFAS in Wet Solids	<6.60	ng/Kg	6.60	10.3
N-MeFOSE (24448-09-7)	WSLH PFAS in Wet Solids	<1.51	ng/Kg	1.51	2.05
N-EtFOSA (4151-50-2)	WSLH PFAS in Wet Solids	<6.57	ng/Kg	6.57	10.3
N-EtFOSE (1691-99-2)	WSLH PFAS in Wet Solids	<1.31	ng/Kg	1.31	2.05
PFTeDA (376-06-7)	WSLH PFAS in Wet Solids	<1.04	ng/Kg	1.04	2.05
PFHxDA (67905-19-5)	WSLH PFAS in Wet Solids	<0.813	ng/Kg	0.813	2.05
PFODA (16517-11-6)	WSLH PFAS in Wet Solids	<1.95	ng/Kg	1.95	5.13

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159004

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159005

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: L2
Project No:
Collection End: 10/12/2020 12:00:00 PM

Collection Start:
Collected By: JAMES TINJUM
Date Received: 10/14/2020
Date Reported: 12/11/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (L2)
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Customer Requests Cancellation

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date:	Analysis Date:				
6:2 FTSA (27619-97-2)		Invalid Result			
PFOA (335-67-1)		Invalid Result			
PFHpS (375-92-8)		Invalid Result			
PFOS (1763-23-1)		Invalid Result			
PFNA (375-95-1)		Invalid Result			
9Cl-PF3ONS (756426-58-1)		Invalid Result			
8:2 FTSA (39108-34-4)		Invalid Result			
PFDA (335-76-2)		Invalid Result			
PFNS (68259-12-1)		Invalid Result			
N-MeFOSAA (2355-31-9)		Invalid Result			
N-EtFOSAA (2991-50-6)		Invalid Result			
FOSA (754-91-6)		Invalid Result			

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159005

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date:	Analysis Date:				
PFUnA (2058-94-8)		Invalid Result			
PFDS (335-77-3)		Invalid Result			
11Cl-PF3OUdS (763051-92-9)		Invalid Result			
PFDoA (307-55-1)		Invalid Result			
10:2 FTSA (120226-60-0)		Invalid Result			
PFDoS (79780-39-5)		Invalid Result			
PFTrDA (72629-94-8)		Invalid Result			
N-MeFOSA (31506-32-8)		Invalid Result			
N-MeFOSE (24448-09-7)		Invalid Result			
N-EtFOSA (4151-50-2)		Invalid Result			
N-EtFOSE (1691-99-2)		Invalid Result			
PFTeDA (376-06-7)		Invalid Result			
PFHxDA (67905-19-5)		Invalid Result			
PFODA (16517-11-6)		Invalid Result			
PFAS in Wet Solids					
PFBA (375-22-4)		Invalid Result			
PFPeA (2706-90-3)		Invalid Result			
PFBS (375-73-5)		Invalid Result			
4:2 FTSA (757124-72-4)		Invalid Result			
PFHxA (307-24-4)		Invalid Result			
PFPeS (2706-91-4)		Invalid Result			
HFPO-DA (13252-13-6)		Invalid Result			
PFHpA (375-85-9)		Invalid Result			
PFHxS (355-46-4)		Invalid Result			
DONA (919005-14-4)		Invalid Result			

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531159005

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531162001

Report To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Invoice To:

JAMES TINJUM
UW MADISON
2214 ENGINEERING HALL
1415 ENGINEERING DR
Madison, WI 53706

Customer ID: 355368

Field #: 1286715
Project No:
Collection End: 10/13/2020 12:35:00 PM

Collection Start:
Collected By: J. TINJUM
Date Received: 10/14/2020
Date Reported: 11/30/2020
Sample Reason:

ID#:
Sample Location:
Sample Description: CLOSED RHINELANDER LANDFILL (LID)
Sample Type: SE-SEDIMENT
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

The sample was not collected in a WSLH-certified container. The sample (approximately 500mL) was collected in what appears to be a large plastic coring device (broken and leaking) and placed in a plastic bag. No equipment blank was provided to verify the absence of PFAS on the collection device.

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/04/20 16:45	Analysis Date: 11/06/20 11:52				
PFBA (375-22-4)	WSLH PFAS in Wet Solids	<429	ng/Kg	429	651
PFPeA (2706-90-3)	WSLH PFAS in Wet Solids	<14.2	ng/Kg	14.2	26.0
PFBS (375-73-5)	WSLH PFAS in Wet Solids	<10.6	ng/Kg	10.6	26.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Wet Solids	<30.6	ng/Kg	30.6	65.1
PFHxA (307-24-4)	WSLH PFAS in Wet Solids	<16.9	ng/Kg	16.9	26.0
PFPeS (2706-91-4)	WSLH PFAS in Wet Solids	<14.2	ng/Kg	14.2	26.0
HFPO-DA (13252-13-6)	WSLH PFAS in Wet Solids	<16.1	ng/Kg	16.1	26.0
PFHpA (375-85-9)	WSLH PFAS in Wet Solids	<13.5	ng/Kg	13.5	26.0

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Laboratory Report

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WSLH Sample: 531162001

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/04/20 16:45	Analysis Date: 11/06/20 11:52				
PFHxS (355-46-4)	WSLH PFAS in Wet Solids	<12.2	ng/Kg	12.2	26.0
DONA (919005-14-4)	WSLH PFAS in Wet Solids	<12.9	ng/Kg	12.9	26.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Wet Solids	<19.4	ng/Kg	19.4	26.0
PFOA (335-67-1)	WSLH PFAS in Wet Solids	42.6F	ng/Kg	31.7	65.1
PFHpS (375-92-8)	WSLH PFAS in Wet Solids	<16.6	ng/Kg	16.6	26.0
PFOS (1763-23-1)	WSLH PFAS in Wet Solids	<21.6	ng/Kg	21.6	26.0
PFNA (375-95-1)	WSLH PFAS in Wet Solids	<19.9	ng/Kg	19.9	26.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Wet Solids	<18.3	ng/Kg	18.3	26.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Wet Solids	<20.4	ng/Kg	20.4	26.0
PFDA (335-76-2)	WSLH PFAS in Wet Solids	<21.8	ng/Kg	21.8	26.0
PFNS (68259-12-1)	WSLH PFAS in Wet Solids	<22.4	ng/Kg	22.4	26.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Wet Solids	<19.2	ng/Kg	19.2	26.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Wet Solids	<12.9	ng/Kg	12.9	26.0
FOSA (754-91-6)	WSLH PFAS in Wet Solids	<20.1	ng/Kg	20.1	26.0
PFUnA (2058-94-8)	WSLH PFAS in Wet Solids	<13.2	ng/Kg	13.2	26.0
PFDS (335-77-3)	WSLH PFAS in Wet Solids	<21.7	ng/Kg	21.7	26.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Wet Solids	<13.5	ng/Kg	13.5	26.0
PFDoA (307-55-1)	WSLH PFAS in Wet Solids	<19.6	ng/Kg	19.6	26.0
10:2 FTSA (120226-60-0)	WSLH PFAS in Wet Solids	<19.5	ng/Kg	19.5	26.0
PFDoS (79780-39-5)	WSLH PFAS in Wet Solids	<34.7	ng/Kg	34.7	65.1
PFTrDA (72629-94-8)	WSLH PFAS in Wet Solids	<12.1	ng/Kg	12.1	26.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Wet Solids	<83.6	ng/Kg	83.6	130

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531162001

PFAS in Wet Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 11/04/20 16:45	Analysis Date: 11/06/20 11:52				
The internal standard QC limit is exceeded.					
N-MeFOSE (24448-09-7)	WSLH PFAS in Wet Solids	<19.2	ng/Kg	19.2	26.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Wet Solids	<83.3	ng/Kg	83.3	130
The internal standard QC limit is exceeded.					
N-EtFOSE (1691-99-2)	WSLH PFAS in Wet Solids	<16.6	ng/Kg	16.6	26.0
PFTeDA (376-06-7)	WSLH PFAS in Wet Solids	<13.1	ng/Kg	13.1	26.0
PFHxDA (67905-19-5)	WSLH PFAS in Wet Solids	<10.3	ng/Kg	10.3	26.0
The internal standard QC limit is exceeded.					
PFODA (16517-11-6)	WSLH PFAS in Wet Solids	<24.7	ng/Kg	24.7	65.1
The internal standard QC limit is exceeded.					

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Laboratory Report

Environmental Health Division

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

WSLH Sample: 531162001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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