



Northern Lake Service, Inc • 400 N Lake Ave • Crandon, WI 54520
800-278-1254 • www.nlslab.com

May 23, 2024

Mark Pauli
Wisconsin Dept of Natural Res - Madison
107 Sutliff Ave
Rhinelander, WI 54501

Project: 2024 0.5 Expanded Zone (Starks/Stella)
Project Number: Tom La Due - 3974 Camp Bryn Afon Road
Work Order: CC05274
Received: 05/15/24

Enclosed are the results of analyses for samples received by our laboratory on 5/15/2024. If you have any questions concerning this report, please feel free to contact a client service representative at clientservices@nlslab.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald T. Krueger".

Ronald T. Krueger For Client Services
Northern Lake Service, Inc.



Wisconsin Dept of Natural Res - Madison
107 Sutliff Ave
Rhineland, WI 54501

Project: 2024 0.5 Expanded Zone (Starks/Stella)
Project Number: Tom La Due - 3974 Camp Bryn Afon Road
Project Manager: Mark Pauli

Reported:
5/23/24 15:34

Work Order:
CC05274

Sample Summary

Descriptions of all qualifiers listed throughout this report can be found on the Qualifiers and Definitions Page.

Lab ID	Sample	Matrix	Qualifiers	Date Sampled	Date Received
CC05274-01	Kitchen Sink	DW		5/15/24 7:05	5/15/24 11:50
CC05274-02	Kitchen Sink Field Blank	DW		5/15/24 7:05	5/15/24 11:50



Wisconsin Dept of Natural Res - Madison 107 Sutliff Ave Rhineland, WI 54501	Project: 2024 0.5 Expanded Zone (Starks/Stella) Project Number: Tom La Due - 3974 Camp Bryn Afon Road Project Manager: Mark Pauli	Reported: 5/23/24 15:34	Work Order: CC05274
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Sample Results

Sample: Kitchen Sink

CC05274-01 (DW) Sampled: 05/15/24 07:05

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.32	1.1		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.49	1.6		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.43	1.4		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.97	3.2		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.67	2.2		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.67	2.2		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.76	2.6		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.56	1.9		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.65	2.1		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	37		0.56	1.9		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	85		0.52	1.7		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.66	2.2		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.54	1.8		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	3.2		0.49	1.6		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.50	1.7		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.56	1.9		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.56	1.9		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.54	1.8		ng/L	5/16/24 10:01	5/17/24 18:43	RAW	EPA 537.1, Rev 2.0	2
<i>Surrogate: (SURR) C13-PFHxA</i>	<i>94%</i>		<i>Limits: 70-130%</i>				<i>5/16/24 10:01</i>	<i>5/17/24 18:43</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-HFPODA</i>	<i>92%</i>		<i>Limits: 70-130%</i>				<i>5/16/24 10:01</i>	<i>5/17/24 18:43</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-PFDA</i>	<i>88%</i>		<i>Limits: 70-130%</i>				<i>5/16/24 10:01</i>	<i>5/17/24 18:43</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	<i>88%</i>		<i>Limits: 70-130%</i>				<i>5/16/24 10:01</i>	<i>5/17/24 18:43</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>



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Sample: Kitchen Sink Field Blank

CC05274-02 (DW) Sampled: 05/15/24 07:05

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.31	1.0		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.47	1.5		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.41	1.3		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.93	3.1		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.64	2.1		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.64	2.1		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.72	2.4		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.54	1.8		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.62	2.0		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.54	1.8		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.50	1.6		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.63	2.1		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.52	1.7		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.47	1.5		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.48	1.6		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.54	1.8		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.54	1.8		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.52	1.7		ng/L	5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
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Surrogate: (SURR) C13-PFHxA	88%		Limits: 70-130%				5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	87%		Limits: 70-130%				5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	91%		Limits: 70-130%				5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	87%		Limits: 70-130%				5/21/24 12:05	5/23/24 9:14	RAW	EPA 537.1, Rev 2.0	2



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List of Certifications

Code	Description	Number	Expires
2	NLS (Crandon) WDNR Laboratory ID No.	721026460	8/31/24



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Qualifiers and Definitions

Item	Definition
J	Result is between LOD and LOQ and considered to be within a region of less-certain quantitation.
ND	Analyte NOT DETECTED at or above the LOD or MRL.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
NA	Not Applicable.
Dry	Dry Weight Basis.
Wet	Wet Weight Basis.
% Dry	Equal to: (mg/kg dry) / 10000.
1000 ug/L	Equal to: 1 mg/L.
MCL	Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.

All LOD/LOQs adjusted to reflect preparation volumes, dilutions, and/or solids content.

Sample Collection Record

Town of Stella-Starks Expanded PFAS (537.1) Sampling Project

Return your sample no later than 2 days after collection to:

Northern Lake Service
400 N Lake Ave
Crandon, WI 54520

CC05274



Please provide the following information:

Name: Tom LaDue
Address: 3974 Camp Bryn Aton Rd.
City/State/Zip: Rhineclauder, WI 54501
Phone: 262-751-3523
Sample Collection Date: 5/15/24 Sample Collection Time: 7:05 AM/PM
Sample Collection Location (ex. Kitchen Sink): Kitchen Sink
Sample Collected By (Signature): [Signature]

Per EPA 537.1, each sample set **must be accompanied by a field blank. The purpose of the field blank is to allow for the identification of potential contamination during sample collection and handling.

Final results will be reported directly to the Wisconsin DNR. WDNR will review, interpret, and inform residents of further action. **DO NOT CONTACT NORTHERN LAKE SERVICE DIRECTLY FOR SAMPLE RESULTS.**

*There was no 537-B bottle. I
Marked the bottle with a B but
I poured 537-A into.*

Laboratory use only:

Received at NLS by (Signature): [Signature] Date/Time: 5/15/24 1150
Method of Delivery: Spec Dec Condition (on ice / no ice) Ice
Receiving Temperature (°C) 6.6 Thermometer # 12

cooling

**GLJ - There was a FB
bottle "B" - FB was
transferred correctly [Signature]*