

April 05, 2023

Mark Pauli Wisconsin Department of Natural Resources 101 S Webster St Madison, WI 53707

Project: 2023 Drinking Water Testing - Starks Expanded Area

Project Number: PFAS Private Wells

Work Order: CB02664 Received: 03/20/23

Enclosed are the results of analyses for samples received by our laboratory on 3/20/2023. If you have any questions concerning this report, please feel free to contact a client service representative at clientservices@nlslab.com.

Sincerely,

Tom Priebe For Client Services

Northern Lake Service, Inc.



Wisconsin Department of Natural Resources Project

Project: 2023 Drinking Water Testing - Starks Expanded Area

101 S Webster St Project Number: PFAS Private Wells

Reported:

Work Order:

Project Manager: Mark Pauli

4/5/23 13:11

CB02664

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB02664-01	WQ494	DW			3/20/23 11:15	3/20/23 15:15

Analysis Qualifiers:

Madison, WI 53707

LabNumber Analysis

Qualifier

CB02664-01 537.1 Perfluorinated Chemicals by LC/MS/MS

FBNA

Cancelled Tests:

LabNumber	SampleName	Analysis	Cancelled	Initials
CB02664-02	Field Blank	Perfluorinated Chemicals by EPA Method 537.1 FB	3/28/23 10:15	CSC

Complex WO404

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

Wisconsin Department of Natural Resources Project: 2023 Drinking Water Testing - Starks Expanded Area

101 S Webster StProject Number: PFAS Private WellsReported:Work Order:Madison, WI 53707Project Manager: Mark Pauli4/5/23 13:11CB02664

Sample Results

Sample: WQ494										
CB02664-01 (DW) Sampled: 0	3/20/23 11:15									
Analyte	Result	Qualifier LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles										
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	0.30	0.98		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)	ND	0.33	1.1		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.36	1.2		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND	0.40	1.4		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	0.46	1.6		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	0.39	1.3		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND	0.29	0.98		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND	0.32	1.1		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND	0.23	0.75		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND	0.43	1.5		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND	0.46	1.6		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND	0.33	1.1		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND	0.45	1.5		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND	0.48	1.6		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND	0.30	0.98		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND	0.33	1.1		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTrDA)	ND	0.42	1.4		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND	0.29	0.98		ng/L	3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	95%	Limits:	70-130%			3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	93%	Limits:	70-130%			3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	94%	Limits:	70-130%			3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	90%	Limits:	70-130%			3/27/23 5:15	3/27/23 16:46	RAW	EPA 537.1, Rev 2.0	2



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List of Certifications

Code	Description	Number	Expires
2	NI S (Crandon) WDNR Laboratory ID No	721026460	8/31/23

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Qualifiers and Definitions

Item	Definition
FBNA	The field sample had no detects, therefore the corresponding trip blank/field reagent blank was not analyzed.
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 AND CHAIN OF CUSTODY RECORD

Wisconsin Lab Cert. No. 721026460 WI DATCP 105-000330 21°53707 765-499-0612 WISCONSIN DNK-DRINHOR AND GROWDOUTHER QUOTATION NO. DNR LICENSE # FAX PROJECT DESCRIPTION / NO. ADDRESS BOX 7921, DG 15 PURCHASE ORDER NO. 22899 CONTRACTORIC AMOUSON



COLLECTION REMARKS (i.e. DNR Well ID #) 15mars USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered. المراجعة Indicate G or C if WW Sample is Grab or Composite. 14 14 85 PALLEWAY ANALYZE PER ORDER OF ANALYSIS DW = drinking water (See above) SW = surface water WW = waste water GW = groundwater B PROD = product SL = sludge OTHER SED = sediment AIR = air TIS = lissue MATRIX: TIME 1:1 COLLECTION 12/23 DATE. SAMPLE ID 17/2 D THE PARTY OF 河野屋 老い 悉等其人 LABINO بن. (خ.) v... NO. 7 m 4 5

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REPORT TO			INVOICE TO	
DATE/TIME 15	DATE/TIME	DATE/TIME	ТЕМВ	
3. (IF ANY) 3-20-33 DATE/TIME	3-20-23 DATE/INE		CONDITION	E-MAIL ADDRESS
CUSTODY SEAL NO. (IF ANY)	RECEIVED BY (signature)	METHOD OF TRANSPORT	S/200-53. (S)	WDNR FACILITY NUMBER
Poplad	- Milied	4		OH = sodium hydroxide HA = hydrochloric & ascorbic acid H = hydrochloric acid
COLLECTED BY (signature) /	RELINQUISHED BY (signature)	DISPATCHED BY (signature)	RECEIVED AT MISSEY SIGNATURE	COOLER # \$ 7.25 PRESERVATIVE: NP = no preservative

IMPORTANT

1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE FER SAMPLE, MOTE PRE BOTTLE.
3. PLEASE USE ONE WHIT SAMPLE, CLIENT MAY KEEP PINK COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICED TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

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SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

	×	0000022899 FAX	PURCHASE ORDER NO. 0000	PURCHASI
	PHONE 715-499-0612	PH	Mark Pauli	CONTACT
	DNR LICENSE #	DNR LIC		FID #
	QUOTATION NO.DNR	Vells	PROJ DESC PFAS Private Wells	PROJ DESC
	ZIP 53707	STATE WI	Madison	CITY
Wiscon 105-000)G/5	PO Box 7921, DG/5	ADDRESS
Wiscon 721026	d Groundwater	ng Water and	WDNR - Drinking Water and Groundwater	CLIENT

NOM NOM NOM

NLS LAB. NO.

WQ494

0330 (Cran) / 105-000479 (Wauk) ISIN DATCP ID 460 (Cran) / 268533760 (Wauk) Isin DNR cert ID

NORTHERN LAKE SERVICE, INC.

400 North Lake Avenue • Crandon, WI 54520-1298 Analytical Laboratory and Environmental Services

JSE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.	Tel: (715) 478-2777 • Fax: (715) 478-3060
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REMARK	рателіме	METH	RECEI		?										3/20/2023	SAMPLE ID DATE		899	1	PHONE 715-499-0612	DNR LICENSE #	S QUOTATION NO.DNR	VVI
REMARKS & OTHER INFORMATION	ME	METHOD OF TRANSPORT	RECEIVED BY (signature)	CUSTODY SEAL NO. (IF ANY)											11:	MATRIX TIME (See above),	OTHER	PROD = product	SED = sediment	AIR = air	GW = groundwater DW = drinking water		MATRIX:
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	INVOICE TO			REPORT TO																		Grab or	סטר מסאבס מברסאי ווימוסמים בי מונא ווי סאי סמוויסופ יפ וופוס ווויפופטי
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															(2)Sample/(1) Field Blank	(i.e. DNR Well ID #)					\ <u></u>		i.

Rev. 7/20/15

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3. RETURN THIS FORM WITH SAMPLES-CLIENT MAY KEEP YELLOW COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICE TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

S = sulfuric acid PRESERVATIVE:

M = methanolZ = zinc acetate N = nitric acid

II = hydrochloric acid

NP = no preservative

COOLER#

RELINOVISHED BY/Signature

DISPATCHED BY (Sighature)

RECEIVED AT NLS BY (signature)

COLLECTED BY Signature

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