ANALYTICAL RESULTS: Perfluorinated Chemicals by EPA 537 Rev 1.1 Safe Drinking Water Analysis

Customer: Peshtigo Dept Public Works - (DW) **NLS Project: 319097**

Project Description: Investigative Samples

Project Title: **Template: 537PPT2** **Printed: 04/24/2019 09:53**

Sample: 1114191 EP-2 Collected: 04/09/19 Analyzed: 04/18/19 - Analytes: 12

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	3.6	11		
perfluorohexanoic acid (PFHxA)	ND	ppt	1	0.83	2.6		
perfluoroheptanoic acid (PFHpA)	ND	ppt	1	0.45	1.4		
perfluorohexanesulfonic acid (PFHxS)	ND	ppt	1	1.3	4.1		
perfluorooctanoic acid (PFOA)	ND	ppt	1	0.70	2.2		
perfluorononanoic acid (PFNA)	ND	ppt	1	1.3	4.1		
perfluorooctanesulfonic acid (PFOS)	ND	ppt	1	1.5	4.7		
perfluorodecanoic acid (PFDA)	ND	ppt	1	1.2	3.8		
perfluoroundecanoic acid (PFUnA)	ND	ppt	1	1.2	3.7		
perfluorododecanoic acid (PFDoA)	ND	ppt	1	0.95	3.0		
perfluorotridecanoic acid (PFTrDA)	ND	ppt	1	0.97	3.1		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	0.88	2.8		
C13-PFHxA (SURR)	77.866%		1				S
C13-PFDA (SURR)	76.268%		1				S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

Sample: 1114192 EP-3 Collected: 04/09/19 Analyzed: 04/18/19 - Analytes: 12

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	3.6	11		
perfluorohexanoic acid (PFHxA)	ND	ppt	1	0.83	2.6		
perfluoroheptanoic acid (PFHpA)	ND	ppt	1	0.45	1.4		
perfluorohexanesulfonic acid (PFHxS)	ND	ppt	1	1.3	4.1		
perfluorooctanoic acid (PFOA)	ND	ppt	1	0.70	2.2		
perfluorononanoic acid (PFNA)	ND	ppt	1	1.3	4.1		
perfluorooctanesulfonic acid (PFOS)	ND	ppt	1	1.5	4.7		
perfluorodecanoic acid (PFDA)	ND	ppt	1	1.2	3.8		
perfluoroundecanoic acid (PFUnA)	ND	ppt	1	1.2	3.7		
perfluorododecanoic acid (PFDoA)	ND	ppt	1	0.95	3.0		
perfluorotridecanoic acid (PFTrDA)	ND	ppt	1	0.97	3.1		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	0.88	2.8		
C13-PFHxA (SURR)	78.638%		1				S
C13-PFDA (SURR)	83.724%		1				S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

The PFOA branch isotope peak is included in the PFOA calculation per EPA directive.

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Project Description: Investigative Samples

Project Title: **Template: 537PPT2** **Printed: 04/24/2019 09:53**

Sample: 1114193 EP-4 Collected: 04/09/19 Analyzed: 04/18/19 - Analytes: 12

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	3.6	11		
perfluorohexanoic acid (PFHxA)	ND	ppt	1	0.83	2.6		
perfluoroheptanoic acid (PFHpA)	[0.85]	ppt	1	0.45	1.4		J
perfluorohexanesulfonic acid (PFHxS)	ND	ppt	1	1.3	4.1		
perfluorooctanoic acid (PFOA)	ND	ppt	1	0.70	2.2		
perfluorononanoic acid (PFNA)	ND	ppt	1	1.3	4.1		
perfluorooctanesulfonic acid (PFOS)	ND	ppt	1	1.5	4.7		
perfluorodecanoic acid (PFDA)	ND	ppt	1	1.2	3.8		
perfluoroundecanoic acid (PFUnA)	ND	ppt	1	1.2	3.7		
perfluorododecanoic acid (PFDoA)	ND	ppt	1	0.95	3.0		
perfluorotridecanoic acid (PFTrDA)	ND	ppt	1	0.97	3.1		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	0.88	2.8		
C13-PFHxA (SURR)	79.099%		1				S
C13-PFDA (SURR)	81.237%		1				S

NOTES APPLICABLE TO THIS ANALYSIS:

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.

S = This compound is a surrogate used to evaluate the quality control of a method.

NORTHERN LAKE SERVICE, INC.
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ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

Client: **Peshtigo Dept Public Works - (DW)**
Attn: Jeff Thompson
331 French Street, Suite A
Peshtigo, WI 54157 1219

NLS Project: 319097
NLS Customer: 83954
Phone: 715 582 0545

Project: Investigative Samples

EP-2 NLS ID: 1114191
COC: 226155:1 Matrix: DW
Collected: 04/09/19 10:00 Received: 04/10/19

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Perfluorinated Chemicals by EPA Method 537 Rev 1.1	see attached					04/18/19	EPA 537 Rev 1.1	721026460
Solid Phase Extraction by EPA Method 537	yes					04/16/19	EPA 537	721026460

EP-3 NLS ID: 1114192
COC: 226155:2 Matrix: DW
Collected: 04/09/19 10:30 Received: 04/10/19

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Perfluorinated Chemicals by EPA Method 537 Rev 1.1	see attached					04/18/19	EPA 537 Rev 1.1	721026460
Solid Phase Extraction by EPA Method 537	yes					04/16/19	EPA 537	721026460

EP-4 NLS ID: 1114193
COC: 226155:3 Matrix: DW
Collected: 04/09/19 11:00 Received: 04/10/19

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Perfluorinated Chemicals by EPA Method 537 Rev 1.1	see attached					04/18/19	EPA 537 Rev 1.1	721026460
Solid Phase Extraction by EPA Method 537	yes					04/16/19	EPA 537	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable
DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:

Authorized by:
R. T. Krueger
President