From:	Brian Kent
То:	Sager, John E - DNR; John McCue
Cc:	Kloczko, Nathan F - DHS; Saari, Christopher A - DNR
Subject:	RE: Hayward Landfill Notification Letters
Date:	Tuesday, August 22, 2023 1:25:03 PM
Attachments:	PW-1 Notification Letter 08.22.2023.pdf
	PW-2 Notification Letter 08.22.2023.pdf
	PW-6 Notification Letter 08.22.2023.pdf
	PW-8 Notification Letter 08.22.2023.pdf
	PW-10 Notification Letter 08.22.2023.pdf
	PW-15 Notification Letter 08.22.2023.pdf
	PW-17 Notification Letter 08.22.2023.pdf
	PW-18 Notification Letter 08.18.2023.pdf
	PW-19 Notification Letter 08.22.2023.pdf

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

John-

The notification letters are being sent today. I was not planning on sending hard copies to WDNR and DHS. Instead, please find attached electronic copies of each of the letters. If you need a hard copy, please let me know.

Still no word from Melissa Wallace so per your advisement, we are sending the letter to her Hayward address. Once I hear back from her, if she requests, I will email her a copy and arrange a follow up sample event for PW-15 and PW-2.

Should you have any questions please feel free to contact me.

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct Building a Better World for All of Us® Follow SEH on Twitter | Facebook | LinkedIn | Instagram

From: Sager, John E - DNR <John.Sager@wisconsin.gov>
Sent: Monday, August 21, 2023 4:05 PM
To: Brian Kent <bkent@sehinc.com>; John McCue <pw3@centurytel.net>
Cc: Kloczko, Nathan F - DHS <nathan.kloczko@dhs.wisconsin.gov>; Saari, Christopher A - DNR
<Christopher.Saari@wisconsin.gov>
Subject: RE: Hayward Landfill Notification Letters

I think for now send it to her Hayward address. Attached is the letter. Make sure to forward her a copy when she contacts you and please copy me on any emails or regular mail to her containing the

results. Thanks.

#### We are committed to service excellence.

Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

#### John Sager

Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4<sup>th</sup> St. Superior, WI 54880 Phone: (715) 919-7239 john.sager@wisconsin.gov



From: Brian Kent <<u>bkent@sehinc.com</u>>
Sent: Monday, August 21, 2023 3:12 PM
To: Sager, John E - DNR <<u>John.Sager@wisconsin.gov</u>>; John McCue <<u>pw3@centurytel.net</u>>
Cc: Kloczko, Nathan F - DHS <<u>nathan.kloczko@dhs.wisconsin.gov</u>>; Saari, Christopher A - DNR
<<u>Christopher.Saari@wisconsin.gov</u>>
Subject: RE: Hayward Landfill Notification Letters

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

John- Still no response from Melissa Wallace. I left her another voice mail and will let you know if she returns my call. In the interim, should we send to her address in Hayward?

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct Building a Better World for All of Us® Follow SEH on Twitter | Facebook | LinkedIn | Instagram

From: Sager, John E - DNR <<u>John.Sager@wisconsin.gov</u>>
Sent: Tuesday, August 15, 2023 3:26 PM
To: John McCue <<u>pw3@centurytel.net</u>>; Brian Kent <<u>bkent@sehinc.com</u>>
Cc: Kloczko, Nathan F - DHS <<u>nathan.kloczko@dhs.wisconsin.gov</u>>; Saari, Christopher A - DNR

<<u>Christopher.Saari@wisconsin.gov</u>>

Subject: FW: Hayward Landfill Notification Letters

John and Brian,

Attached are the DHS and DNR notification of results letters for Hayward Landfill for the City to send to the well owners. I did not include the Melissa Wallace letter because we do not have an address for her yet. Please send me her address as soon as possible so we can get a notification letter sent to her. Please let me know if you have any questions.

Thank you.

#### We are committed to service excellence.

Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

John Sager

Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4<sup>th</sup> St. Superior, WI 54880 Phone: (715) 919-7239 john.sager@wisconsin.gov





August 21, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Linda Graham, LLC 16297 W Nursery Road Hayward, WI 54843

Dear Linda Graham, LLC:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

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#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

State of Wisconsin Department of Health Services Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

Kirsten L. Johnson Secretary

Tony Evers

Governor

August 14, 2023

Ms. Linda Graham Linda Graham, LLC 16297 West Nursery Road Hayward, WI 54843

# RE: Laboratory results for PFAS for water sample collected from 15297 West Nursery Road, Hayward

Dear Linda Graham, LLC,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 15297 West Nursery Road, Hayward. These results are for the well labeled PW-1 on the attached figure. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. **The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.** 

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm.

#### www.dhs.wisconsin.gov

You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

Mah Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

Result (ng/L)	Recommended Health Value	Result above Recommended
	(ng/L)	Health Value?
ND		
ND		
2.0		
ND		
ND		
ND		
2.0	20*	no
ND	30	no
ND	40	no
ND	300	no
ND	300	no
ND	50	no
ND	3,000	no
ND	3,000	no
ND	10,000	no
ND	10,000	no
ND	150,000	no
ND	400,000	no
0.48	450,000	no
	(ng/L) ND ND 2.0 ND ND ND ND ND ND ND ND ND ND	(ng/L)         Health Value (ng/L)           ND

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

### Client Sample ID: PW-1 (850) Date Collected: 06/05/23 07:00 Date Received: 06/08/23 09:50

# Lab Sample ID: 500-235000-1

Matrix: Water

5

6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.7	2.2	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoropentanoic acid (PFPeA)	<0.46		1.9	0.46	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorohexanoic acid (PFHxA)	<0.54		1.9	0.54	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.9	0.23	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorooctanoic acid (PFOA)	<0.79		1.9	0.79	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.9	0.51	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorotetradecanoic acid (PFTeA)	<0.68		1.9	0.68	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.83		1.9	0.83	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.87	*1	1.9	0.87	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluorobutanesulfonic acid (PFBS)	0.48	J	1.9	0.19	ng/L		06/22/23 19:56	06/26/23 01:24	1
Perfluoropentanesulfonic acid (PFPeS)	0.30	J	1.9	0.28				06/26/23 01:24	1
Perfluorohexanesulfonic acid (PFHxS)	<0.53		1.9	0.53	0		06/22/23 19:56	06/26/23 01:24	1
Perfluoroheptanesulfonic acid PFHpS)	<0.18		1.9	0.18	-			06/26/23 01:24	1
Perfluorooctanesulfonic acid (PFOS)	<0.50		1.9	0.50				06/26/23 01:24	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.9	0.34	0			06/26/23 01:24	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	-			06/26/23 01:24	1
Perfluorododecanesulfonic acid PFDoS)	<0.90		1.9		ng/L			06/26/23 01:24	1
Perfluorooctanesulfonamide	2.0		1.9	0.91	ng/L		06/22/23 19:56	06/26/23 01:24	1
F <mark>OSA)</mark> NEtFOSA	<0.81		1.9	0.81	ng/l		06/22/22 10.56	06/26/23 01:24	1
NMeFOSA	<0.81		1.9		ng/L			06/26/23 01:24	
MeFOSA MeFOSA	<0.40		4.7		ng/L			06/26/23 01:24	1
NEFOSAA	<1.1		4.7		-			06/26/23 01:24	1
NMeFOSE	<1.2		4.7 3.7		ng/L ng/L			06/26/23 01:24	1
NEFOSE	<0.79		3.7 1.9		ng/L			06/26/23 01:24	ا 1
1:2 FTS	<0.79				-				
5:2 FTS	<0.22		1.9 4.7		ng/L ng/L			06/26/23 01:24	1
								06/26/23 01:24	1
3:2 FTS	< 0.43		1.9	0.43	-			06/26/23 01:24	1
10:2 FTS 4,8-Dioxa-3H-perfluorononanoic acid	<0.62 <0.37		1.9 1.9		ng/L ng/L			06/26/23 01:24 06/26/23 01:24	1 1
ADONA) HFPO-DA (GenX)	<1.4		3.7	14	ng/L		06/22/23 19.56	06/26/23 01:24	1
9CI-PF3ONS	<0.22		1.9		ng/L			06/26/23 01:24	1
11CI-PF3OUdS	<0.30		1.9		ng/L			06/26/23 01:24	1
sotope Dilution	%Recovery	Qualifier	Limits	0.00	119/2		Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150				06/22/23 19:56	06/26/23 01:24	1
13C5 PFPeA	99		25 - 150				06/22/23 19:56	06/26/23 01:24	1
13C2 PFHxA	100		25 - 150				06/22/23 19:56	06/26/23 01:24	1
13C4 PFHpA	96		25 - 150				06/22/23 19:56	06/26/23 01:24	1
13C4 PFOA	96		25 - 150				06/22/23 19:56	06/26/23 01:24	1
13C5 PFNA	96		25 - 150				06/22/23 19:56	06/26/23 01:24	1

**Eurofins Chicago** 

#### Job ID: 500-235000-1

#### Client Sample ID: PW-1 (850) Date Collected: 06/05/23 07:00 Date Received: 06/08/23 09:50

#### Lab Sample ID: 500-235000-1 Matrix: Water

5
6
8
9
13

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

Isotope Dilution	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
13C2 PFDA	103	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C2 PFUnA	95	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C2 PFDoA	86	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C2 PFTeDA	86	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C2 PFHxDA	88	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C3 PFBS	85	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
1802 PFHxS	93	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C4 PFOS	94	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C8 FOSA	117	10 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d3-NMeFOSAA	116	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d5-NEtFOSAA	115	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d-N-MeFOSA-M	87	10 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d-N-EtFOSA-M	82	10 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d7-N-MeFOSE-M	84	10 - 150	06/22/23 19:56 06/26/23 01:2	24 1
d9-N-EtFOSE-M	79	10 - 150	06/22/23 19:56 06/26/23 01:2	24 1
M2-4:2 FTS	82	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
M2-6:2 FTS	73	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
M2-8:2 FTS	72	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C3 HFPO-DA	96	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1
13C2 10:2 FTS	75	25 - 150	06/22/23 19:56 06/26/23 01:2	24 1

# **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

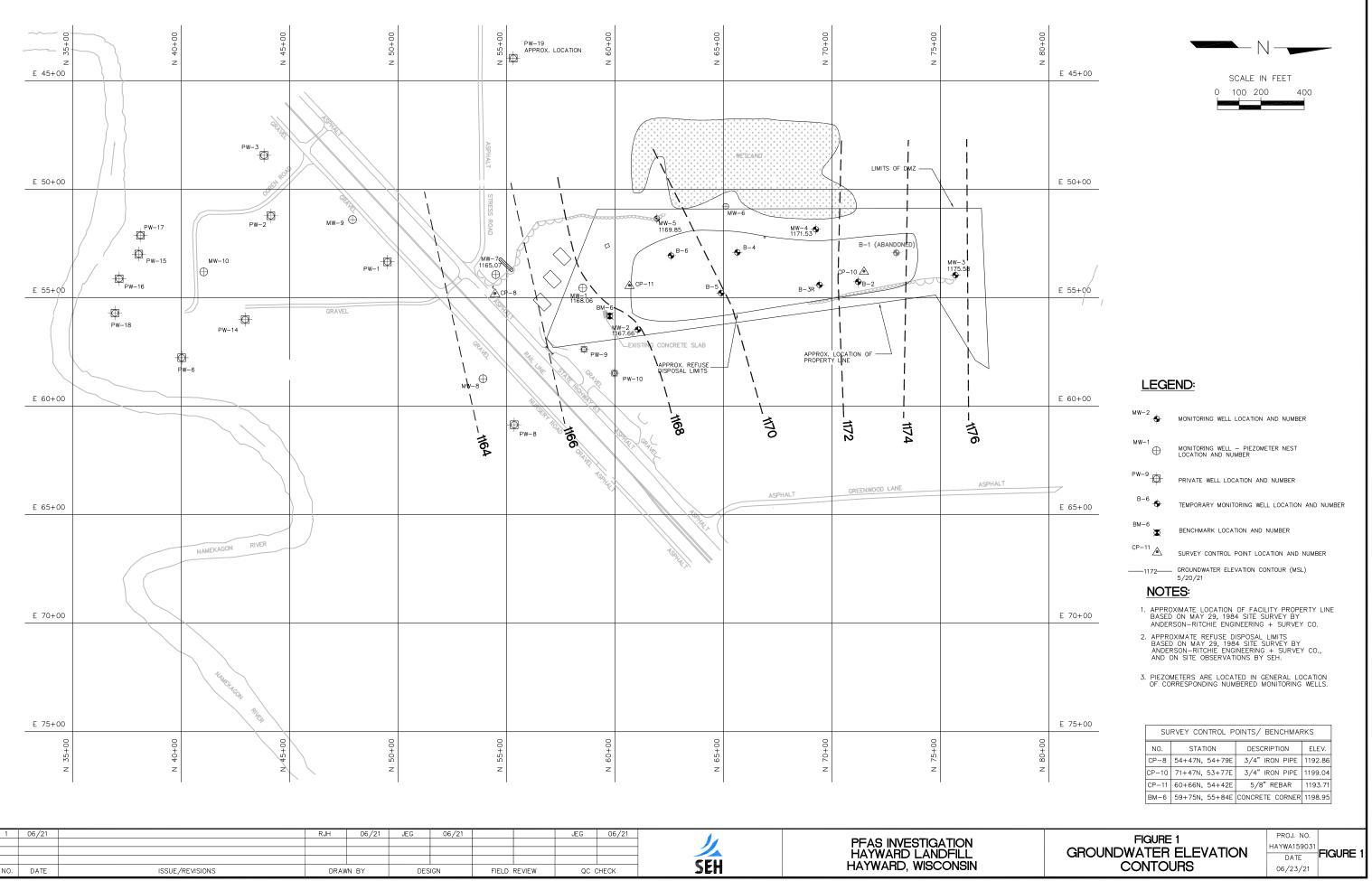


FIGURE 1	PROJ. NO.	
GROUNDWATER ELEVATION	HAYWA159031	FIGURE
CONTOURS	06/23/21	



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Linda Graham, LLC 16297 W Nursery Road Hayward, WI 54843

Dear Linda Graham, LLC:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the analytical results for a groundwater sample collected from your private well on June 5, 2023.

Due to elevated levels of select per- and polyfluoroalkyl substance (PFAS) constituents measured in the June 5, 2023 sample from your private well, the Wisconsin Department of Natural Resources (WDNR) has requested a follow up sample be collected. A representative from SEH will contact you soon to arrange a site visit to collect the sample.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (WDNR) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659



State of Wisconsin Department of Health Services

Kirsten L. Johnson Secretary

Tony Evers

Governor

Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

August 14, 2023

Ms. Linda Graham Linda Graham, LLC 16297 W Nursery Road Hayward, WI 54843

# RE: Laboratory results for PFAS for the water sample collected from: 10024 North Ogren Road, Hayward

Dear Linda Graham, LLC,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of per- and polyfluoroalkyl substances (PFAS) tested in your drinking water well located at 10024 North Ogren Road, Hayward. These results are for the well labeled PW-2 on the attached figure. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. **The levels of one or more PFAS were detected in your well water at levels near Wisconsin recommended public health values.** We recommend you take action to reduce your exposure to PFAS:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, and soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Find a long-term solution. Options include installing a certified treatment device or drilling a new well.
- You can continue using the water for bathing and other household chores.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

Man Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health Value	Result above Recommended
Substance		(ng/L)	Health Value?
PFOS	<b>0.9</b> LD		
PFOA	17		
FOSA	ND		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	17.9	20*	no
PFNA	ND	30	no
PFHxS	2.1	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	5.9	10,000	no
PFTeA	ND	10,000	no
PFHxA	2.3	150,000	no
PFODA	ND	400,000	no
PFBS	<b>0.97</b> LD	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

## **Client Sample Results**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

#### Client Sample ID: PW-2 (851) Date Collected: 06/05/23 07:15 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-2 Matrix: Water

5

6

Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.9		4.7	2.3	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluoropentanoic acid (PFPeA)	3.2		1.9	0.46	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorohexanoic acid (PFHxA)	2.3		1.9	0.55	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluoroheptanoic acid (PFHpA)	2.8		1.9	0.24	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorooctanoic acid (PFOA)	17		1.9	0.80	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorododecanoic acid (PFDoA)	<0.52		1.9	0.52	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorotetradecanoic acid (PFTeA)	<0.69		1.9	0.69	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluoro-n-hexadecanoic acid	<0.84		1.9	0.84	ng/L		06/22/23 19:56	06/26/23 01:34	
PFHxDA) Perfluoro-n-octadecanoic acid PFODA)	<0.89	*1	1.9	0.89	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorobutanesulfonic acid PFBS)	0.97	J	1.9	0.19	ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluoropentanesulfonic acid PFPeS)	0.84	J	1.9		ng/L			06/26/23 01:34	
Perfluorohexanesulfonic acid PFHxS)	2.1		1.9		ng/L			06/26/23 01:34	
Perfluoroheptanesulfonic acid PFHpS)	<0.18		1.9	0.18	-			06/26/23 01:34	
Perfluorooctanesulfonic acid PFOS)	0.90	JI	1.9		ng/L			06/26/23 01:34	
Perfluorononanesulfonic acid (PFNS)	< 0.35		1.9	0.35	-			06/26/23 01:34	
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9		ng/L			06/26/23 01:34	
erfluorododecanesulfonic acid PFDoS)	<0.91		1.9		ng/L		06/22/23 19:56	06/26/23 01:34	
Perfluorooctanesulfonamide (FOSA)	<0.92		1.9	0.92	ng/L		06/22/23 19:56	06/26/23 01:34	
IEtFOSA	<0.82		1.9	0.82	ng/L		06/22/23 19:56	06/26/23 01:34	
IMeFOSA	<0.40		1.9	0.40	ng/L		06/22/23 19:56	06/26/23 01:34	
MeFOSAA	<1.1		4.7	1.1	ng/L		06/22/23 19:56	06/26/23 01:34	
IEtFOSAA	<1.2		4.7	1.2	ng/L		06/22/23 19:56	06/26/23 01:34	
IMeFOSE	<1.3		3.8	1.3	ng/L		06/22/23 19:56	06/26/23 01:34	
IEtFOSE	<0.80		1.9	0.80	ng/L		06/22/23 19:56	06/26/23 01:34	
2 FTS	<0.23		1.9	0.23	ng/L		06/22/23 19:56	06/26/23 01:34	
2 FTS	<2.4		4.7	2.4	ng/L		06/22/23 19:56	06/26/23 01:34	
3:2 FTS	<0.43		1.9		ng/L			06/26/23 01:34	
0:2 FTS	<0.63		1.9		ng/L		06/22/23 19:56	06/26/23 01:34	
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.38		1.9		ng/L		06/22/23 19:56	06/26/23 01:34	
IFPO-DA (GenX)	<1.4		3.8	1.4	ng/L		06/22/23 19:56	06/26/23 01:34	
CI-PF3ONS	<0.23		1.9		ng/L		06/22/23 19:56	06/26/23 01:34	
11CI-PF3OUdS	<0.30		1.9		ng/L		06/22/23 19:56	06/26/23 01:34	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
13C4 PFBA	82		25 - 150				06/22/23 19:56	06/26/23 01:34	
13C5 PFPeA	94		25 - 150				06/22/23 19:56	06/26/23 01:34	
13C2 PFHxA	97		25 - 150				06/22/23 19:56	06/26/23 01:34	
13C4 PFHpA	95		25 - 150				06/22/23 19:56	06/26/23 01:34	
13C4 PFOA	93		25 - 150				06/22/23 19:56	06/26/23 01:34	

**Eurofins Chicago** 

#### Job ID: 500-235000-1

#### Client Sample ID: PW-2 (851) Date Collected: 06/05/23 07:15 Date Received: 06/08/23 09:50

### Lab Sample ID: 500-235000-2 Matrix: Water

2	
-	
-	
c	5
1	
1	6
1	
1 1	
	8
1 1	
1	0
1	3
1 1	
1	
1 1	
1	
1	
1 1	
1 1	
1	
1	
1	
1	

sotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fa
3C5 PFNA	95	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 PFDA	96	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 PFUnA	86	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 PFDoA	85	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 PFTeDA	86	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 PFHxDA	83	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C3 PFBS	83	25 - 150	06/22/23 19:56	06/26/23 01:34	
8O2 PFHxS	92	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C4 PFOS	88	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C8 FOSA	118	10 - 150	06/22/23 19:56	06/26/23 01:34	
3-NMeFOSAA	112	25 - 150	06/22/23 19:56	06/26/23 01:34	
5-NEtFOSAA	109	25 - 150	06/22/23 19:56	06/26/23 01:34	
-N-MeFOSA-M	83	10 - 150	06/22/23 19:56	06/26/23 01:34	
-N-EtFOSA-M	79	10 - 150	06/22/23 19:56	06/26/23 01:34	
7-N-MeFOSE-M	82	10 - 150	06/22/23 19:56	06/26/23 01:34	
9-N-EtFOSE-M	74	10 - 150	06/22/23 19:56	06/26/23 01:34	
2-4:2 FTS	84	25 - 150	06/22/23 19:56	06/26/23 01:34	
12-6:2 FTS	70	25 - 150	06/22/23 19:56	06/26/23 01:34	
12-8:2 FTS	66	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C3 HFPO-DA	92	25 - 150	06/22/23 19:56	06/26/23 01:34	
3C2 10:2 FTS	71	25 - 150	06/22/23 19:56	06/26/23 01:34	

# **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

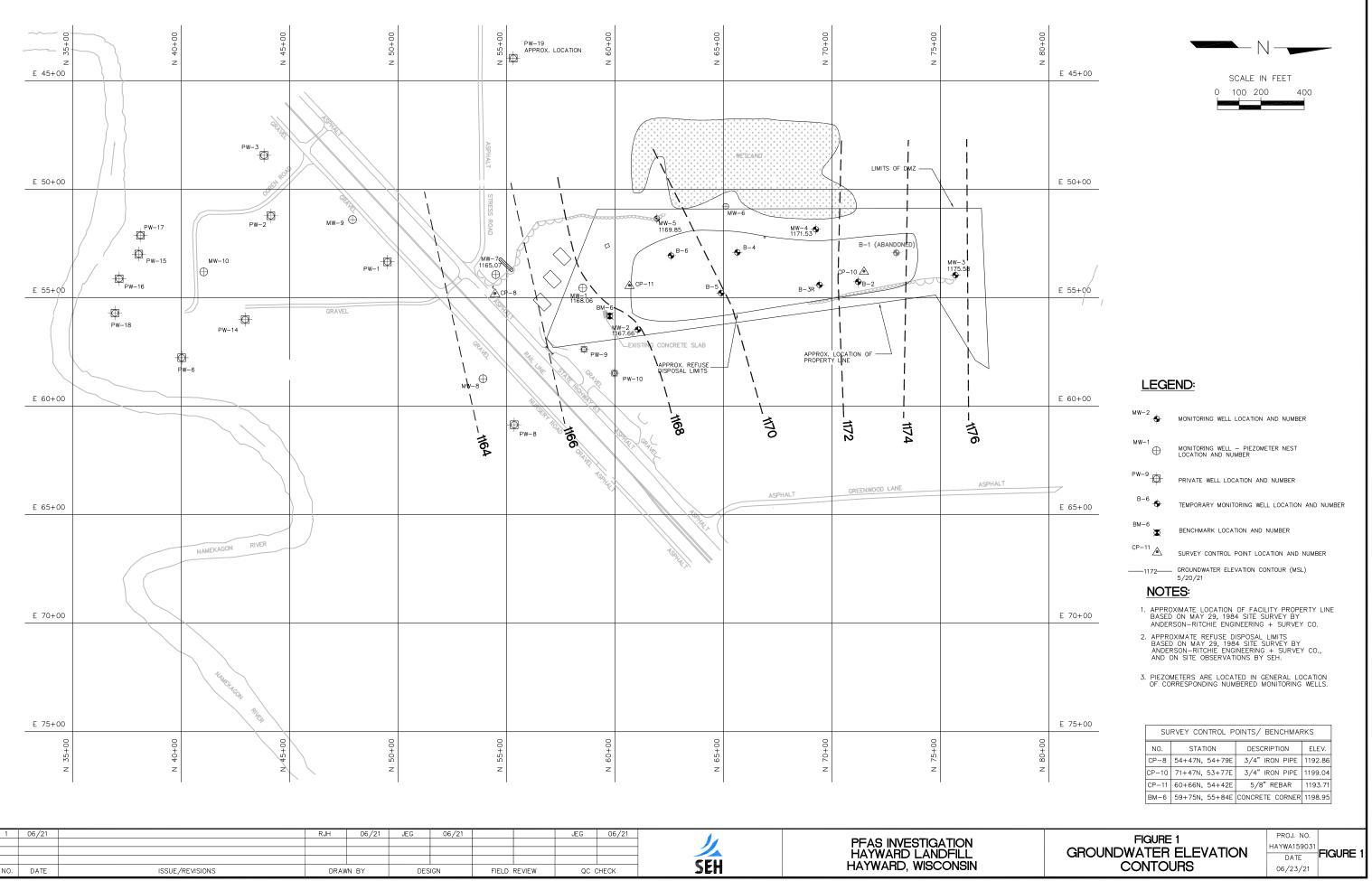


FIGURE 1	PROJ. NO.	
GROUNDWATER ELEVATION	HAYWA159031	FIGURE
CONTOURS	06/23/21	



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Anthony and Martha Wolowicz 9967 N Orgen Road Hayward, WI 54843

Dear Mr. and Mrs. Wolowicz:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034 608.782.3161 | 888.908.8166 fax | sehinc.com SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

State of Wisconsin Department of Health Services

Kirsten L. Johnson Secretary

Tony Evers

Governor

Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

August 14, 2023

Anthony and Martha Wolowicz 9967 North Ogren Road Hayward, WI 54843

# RE: Laboratory results for PFAS for water sample collected from 9967 North Ogren Road, Hayward

Dear Anthony and Martha Wolowics,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 9967 North Ogren Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

Man Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health Value	Result above Recommended
Substance		(ng/L)	Health Value?
PFOS	ND		
PFOA	ND		
FOSA	2.1		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	2.1	20*	no
PFNA	ND	30	no
PFHxS	0.75	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	ND	10,000	no
PFTeA	ND	10,000	no
PFHxA	ND	150,000	no
PFODA	ND	400,000	no
PFBS	1.9	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

### Client Sample ID: PW-6 (853) Date Collected: 06/05/23 10:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-8 Matrix: Water

5 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorobutanoic acid (PFBA)	<2.2		4.5	2.2	ng/L		06/22/23 19:56	06/26/23 02:35	
Perfluoropentanoic acid (PFPeA)	<0.44		1.8		ng/L		06/22/23 19:56	06/26/23 02:35	
erfluorohexanoic acid (PFHxA)	<0.53		1.8	0.53	ng/L		06/22/23 19:56	06/26/23 02:35	
erfluoroheptanoic acid (PFHpA)	<0.23		1.8	0.23	ng/L		06/22/23 19:56	06/26/23 02:35	
erfluorooctanoic acid (PFOA)	<0.77		1.8		ng/L			06/26/23 02:35	
Perfluorononanoic acid (PFNA)	<0.25		1.8		ng/L			06/26/23 02:35	
erfluorodecanoic acid (PFDA)	<0.28		1.8		ng/L			06/26/23 02:35	
erfluoroundecanoic acid (PFUnA)	<1.0		1.8		ng/L			06/26/23 02:35	
erfluorododecanoic acid (PFDoA)	<0.50		1.8		ng/L			06/26/23 02:35	
erfluorotridecanoic acid (PFTrDA)	<1.2		1.8		ng/L			06/26/23 02:35	
Perfluorotetradecanoic acid (PFTeA)	<0.66		1.8		ng/L			06/26/23 02:35	
Perfluoro-n-hexadecanoic acid	<0.81		1.8		ng/L			06/26/23 02:35	
PFHxDA)		+4							
Perfluoro-n-octadecanoic acid PFODA)	<0.85	*1	1.8	0.85	ng/L		06/22/23 19:56	06/26/23 02:35	
Perfluorobutanesulfonic acid PFBS)	1.9		1.8	0.18	ng/L		06/22/23 19:56	06/26/23 02:35	
Perfluoropentanesulfonic acid PFPeS)	<0.27		1.8	0.27	ng/L		06/22/23 19:56	06/26/23 02:35	
Perfluorohexanesulfonic acid PFHxS)	0.75	JI	1.8	0.52	ng/L		06/22/23 19:56	06/26/23 02:35	
erfluoroheptanesulfonic acid PFHpS)	<0.17		1.8	0.17	ng/L		06/22/23 19:56	06/26/23 02:35	
erfluorooctanesulfonic acid (PFOS)	<0.49		1.8	0.49	ng/L		06/22/23 19:56	06/26/23 02:35	
erfluorononanesulfonic acid (PFNS)	<0.34		1.8		ng/L			06/26/23 02:35	
erfluorodecanesulfonic acid (PFDS)	<0.29		1.8		ng/L			06/26/23 02:35	
erfluorododecanesulfonic acid	<0.88		1.8		ng/L			06/26/23 02:35	
erfluorooctanesulfonamide	2.1		1.8	0.89	ng/L		06/22/23 19:56	06/26/23 02:35	
F <mark>OSA</mark> ) IEtFOSA	<0.79		1.8	0.70	ng/L		06/22/22 10.56	06/26/23 02:35	
MeFOSA					-				
	<0.39		1.8		ng/L			06/26/23 02:35	
MeFOSAA EtFOSAA	<1.1		4.5		ng/L			06/26/23 02:35	
	<1.2		4.5		ng/L			06/26/23 02:35	
MeFOSE	<1.3		3.6		ng/L			06/26/23 02:35	
EtFOSE	<0.77		1.8		ng/L			06/26/23 02:35	
2 FTS	<0.22		1.8		ng/L			06/26/23 02:35	
2 FTS	<2.3		4.5		ng/L			06/26/23 02:35	
2 FTS	<0.42		1.8		ng/L			06/26/23 02:35	
0:2 FTS	<0.61		1.8		ng/L			06/26/23 02:35	
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.36		1.8	0.36	ng/L		06/22/23 19:56	06/26/23 02:35	
IFPO-DA (GenX)	<1.4		3.6	1.4	ng/L		06/22/23 19:56	06/26/23 02:35	
CI-PF3ONS	<0.22		1.8		ng/L		06/22/23 19:56	06/26/23 02:35	
1CI-PF3OUdS	<0.29		1.8	0.29	ng/L		06/22/23 19:56	06/26/23 02:35	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
3C4 PFBA	92		25 - 150				06/22/23 19:56	06/26/23 02:35	
3C5 PFPeA	96		25 - 150				06/22/23 19:56	06/26/23 02:35	
3C2 PFHxA	94		25 - 150				06/22/23 19:56	06/26/23 02:35	
3C4 PFHpA	96		25 - 150				06/22/23 19:56	06/26/23 02:35	
I3C4 PFOA	94		25 - 150				06/22/23 19:56	06/26/23 02:35	

**Eurofins Chicago** 

#### Job ID: 500-235000-1

#### Client Sample ID: PW-6 (853) Date Collected: 06/05/23 10:00 Date Received: 06/08/23 09:50

Lab Sample ID: 500-235000-8 Matrix: Water

Isotope Dilution	%Recovery Qualifier	Limits	Prepared An	alyzed	Dil Fac	
13C5 PFNA	96	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C2 PFDA	101	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	6
13C2 PFUnA	99	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C2 PFDoA	95	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C2 PFTeDA	99	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C2 PFHxDA	89	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	\$
13C3 PFBS	86	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
18O2 PFHxS	92	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	6
13C4 PFOS	92	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C8 FOSA	116	10 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d3-NMeFOSAA	124	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d5-NEtFOSAA	118	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d-N-MeFOSA-M	92	10 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d-N-EtFOSA-M	82	10 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d7-N-MeFOSE-M	91	10 - 150	06/22/23 19:56 06/26	/23 02:35	1	
d9-N-EtFOSE-M	89	10 - 150	06/22/23 19:56 06/26	/23 02:35	1	
M2-4:2 FTS	79	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
M2-6:2 FTS	73	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
M2-8:2 FTS	70	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C3 HFPO-DA	97	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	
13C2 10:2 FTS	79	25 - 150	06/22/23 19:56 06/26	/23 02:35	1	

# **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Duane L. Asp 16245 W Nursery Road Hayward WI 54843

Dear Mr. Asp:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

State of Wisconsin Department of Health Services Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

Kirsten L. Johnson Secretary

Tony Evers

Governor

August 14, 2023

Duane Asp 16245 West Nursery Road Hayward, WI 54843

# RE: Laboratory results for PFAS for water sample collected from 16245 West Nursery Road, Hayward

Dear Duane Asp,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 16245 West Nursery Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

Mah Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health Value	Result above Recommended
Substance		(ng/L)	Health Value?
PFOS	ND		
PFOA	ND		
FOSA	1.9		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	1.9	20*	no
PFNA	ND	30	no
PFHxS	0.75	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	ND	10,000	no
PFTeA	ND	10,000	no
PFHxA	ND	150,000	no
PFODA	ND	400,000	no
PFBS	7.5	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

### Client Sample ID: PW-8 (854) Date Collected: 06/05/23 08:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-3 Matrix: Water

5

6

nalyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
erfluorobutanoic acid (PFBA)	<2.0		4.3	2.0	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluoropentanoic acid (PFPeA)	<0.42		1.7	0.42	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorohexanoic acid (PFHxA)	<0.49		1.7	0.49	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluoroheptanoic acid (PFHpA)	<0.21		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorooctanoic acid (PFOA)	<0.72		1.7	0.72	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluoroundecanoic acid (PFUnA)	<0.94		1.7	0.94	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorotetradecanoic acid (PFTeA)	<0.62		1.7	0.62	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluoro-n-hexadecanoic acid PFHxDA)	<0.76		1.7	0.76	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluoro-n-octadecanoic acid PFODA)	<0.80	*1	1.7	0.80	ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorobutanesulfonic acid PFBS)	7.5		1.7	0.17	•		06/22/23 19:56	06/26/23 01:44	
erfluoropentanesulfonic acid PFPeS)	<0.26		1.7		ng/L		06/22/23 19:56	06/26/23 01:44	
erfluorohexanesulfonic acid PFHxS)	0.75	J	1.7	0.49	-			06/26/23 01:44	
erfluoroheptanesulfonic acid PFHpS)	<0.16		1.7	0.16	-			06/26/23 01:44	
erfluorooctanesulfonic acid (PFOS)	<0.46		1.7	0.46				06/26/23 01:44	
erfluorononanesulfonic acid (PFNS)	<0.32		1.7	0.32	-			06/26/23 01:44	
erfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	•			06/26/23 01:44	
erfluorododecanesulfonic acid PFDoS)	<0.83		1.7	0.83			06/22/23 19:56	06/26/23 01:44	
erfluorooctanesulfonamide <sup>:</sup> OSA)	1.9		1.7	0.83	-			06/26/23 01:44	
EtFOSA	<0.74		1.7	0.74	-		06/22/23 19:56	06/26/23 01:44	
MeFOSA	<0.37		1.7	0.37	ng/L		06/22/23 19:56	06/26/23 01:44	
MeFOSAA	<1.0		4.3	1.0	ng/L			06/26/23 01:44	
EtFOSAA	<1.1		4.3		ng/L			06/26/23 01:44	
MeFOSE	<1.2		3.4		ng/L		06/22/23 19:56	06/26/23 01:44	
EtFOSE	<0.72		1.7	0.72	ng/L			06/26/23 01:44	
2 FTS	<0.20		1.7	0.20	0			06/26/23 01:44	
2 FTS	<2.1		4.3	2.1	ng/L		06/22/23 19:56	06/26/23 01:44	
2 FTS	<0.39		1.7	0.39	ng/L		06/22/23 19:56	06/26/23 01:44	
0:2 FTS	<0.57		1.7	0.57	ng/L		06/22/23 19:56	06/26/23 01:44	
8-Dioxa-3H-perfluorononanoic acid \DONA)	<0.34		1.7	0.34	ng/L		06/22/23 19:56	06/26/23 01:44	
FPO-DA (GenX)	<1.3		3.4	1.3	ng/L		06/22/23 19:56	06/26/23 01:44	
CI-PF3ONS	<0.20		1.7	0.20	ng/L		06/22/23 19:56	06/26/23 01:44	
1CI-PF3OUdS	<0.27		1.7	0.27	ng/L		06/22/23 19:56	06/26/23 01:44	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
3C4 PFBA	90		25 - 150					06/26/23 01:44	
3C5 PFPeA	97		25 - 150					06/26/23 01:44	
3C2 PFHxA	95		25 - 150					06/26/23 01:44	
3C4 PFHpA	95		25 - 150				06/22/23 19:56	06/26/23 01:44	

**Eurofins Chicago** 

#### Job ID: 500-235000-1

#### Client Sample ID: PW-8 (854) Date Collected: 06/05/23 08:00 Date Received: 06/08/23 09:50

### Lab Sample ID: 500-235000-3 Matrix: Water

	5
	6
	8
	9
-	13

sotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	96	25 - 150	06/22/23 19:56	06/26/23 01:44	1
13C2 PFDA	95	25 - 150	06/22/23 19:56	06/26/23 01:44	1
13C2 PFUnA	90	25 - 150	06/22/23 19:56 (	06/26/23 01:44	1
13C2 PFDoA	85	25 - 150	06/22/23 19:56	06/26/23 01:44	1
13C2 PFTeDA	88	25 - 150	06/22/23 19:56	06/26/23 01:44	1
13C2 PFHxDA	87	25 - 150	06/22/23 19:56	06/26/23 01:44	1
13C3 PFBS	87	25 - 150	06/22/23 19:56	06/26/23 01:44	1
18O2 PFHxS	94	25 - 150	06/22/23 19:56 (	06/26/23 01:44	1
3C4 PFOS	94	25 - 150	06/22/23 19:56	06/26/23 01:44	1
3C8 FOSA	111	10 - 150	06/22/23 19:56	06/26/23 01:44	1
I3-NMeFOSAA	111	25 - 150	06/22/23 19:56	06/26/23 01:44	1
15-NEtFOSAA	101	25 - 150	06/22/23 19:56	06/26/23 01:44	1
I-N-MeFOSA-M	84	10 - 150	06/22/23 19:56 (	06/26/23 01:44	1
I-N-EtFOSA-M	76	10 - 150	06/22/23 19:56	06/26/23 01:44	1
17-N-MeFOSE-M	84	10 - 150	06/22/23 19:56	06/26/23 01:44	1
19-N-EtFOSE-M	77	10 - 150	06/22/23 19:56	06/26/23 01:44	1
12-4:2 FTS	81	25 - 150	06/22/23 19:56	06/26/23 01:44	1
12-6:2 FTS	72	25 - 150	06/22/23 19:56	06/26/23 01:44	1
12-8:2 FTS	67	25 - 150	06/22/23 19:56	06/26/23 01:44	1
3C3 HFPO-DA	95	25 - 150	06/22/23 19:56 (	06/26/23 01:44	1
13C2 10:2 FTS	74	25 - 150	06/22/23 19:56	06/26/23 01:44	1

# **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
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NEG	Negative / Absent
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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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Greg and Colleen Neff P O Box 366 Hayward WI 54843

Dear Mr. and Mrs. Neff:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

State of Wisconsin Department of Health Services

Kirsten L. Johnson Secretary

Tony Evers

Governor

Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

August 14, 2023

Greg and Colleen Neff P.O. Box 366 Hayward, WI 54843

# RE: Laboratory results for PFAS for water sample collected from 16252 West US Highway 63, Hayward

Dear Greg and Colleen Neff,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 16252 West US Highway 63, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - $\circ~$  Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

Mah Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

Result (ng/L)	Recommended Health Value	Result above Recommended
	(ng/L)	Health Value?
ND		
ND		
2.8		
ND		
ND		
ND		
2.8	20*	no
ND	30	no
0.71	40	no
ND	300	no
ND	300	no
ND	50	no
ND	3,000	no
ND	3,000	no
ND	10,000	no
ND	10,000	no
ND	150,000	no
ND	400,000	no
1.9	450,000	no
	(ng/L) ND ND 2.8 ND ND ND 2.8 ND 0.71 ND ND ND ND ND ND ND ND ND ND	(ng/L)         Health Value (ng/L)           ND           ND           ND           2.8           ND           300           ND           3,000           ND           3,000           ND           3,000           ND           10,000           ND           150,000           ND           400,000

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

#### Client Sample ID: PW-10 (856) Date Collected: 06/05/23 08:20 Date Received: 06/08/23 09:50

### Lab Sample ID: 500-235000-4 Matrix: Water

nalyte	Result Qua		MDL		D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.0	4.1		ng/L		06/22/23 19:56		1
Perfluoropentanoic acid (PFPeA)	<0.41	1.7	0.41	-			06/26/23 01:55	1
Perfluorohexanoic acid (PFHxA)	<0.48	1.7	0.48				06/26/23 01:55	1
Perfluoroheptanoic acid (PFHpA)	<0.21	1.7	0.21	-			06/26/23 01:55	1
Perfluorooctanoic acid (PFOA)	<0.70	1.7	0.70	-		06/22/23 19:56	06/26/23 01:55	1
Perfluorononanoic acid (PFNA)	<0.22	1.7	0.22			06/22/23 19:56	06/26/23 01:55	1
Perfluorodecanoic acid (PFDA)	<0.26	1.7	0.26	-			06/26/23 01:55	1
Perfluoroundecanoic acid (PFUnA)	<0.91	1.7	0.91	-		06/22/23 19:56	06/26/23 01:55	1
Perfluorododecanoic acid (PFDoA)	<0.46	1.7	0.46	ng/L		06/22/23 19:56	06/26/23 01:55	1
Perfluorotridecanoic acid (PFTrDA)	<1.1	1.7	1.1	ng/L		06/22/23 19:56	06/26/23 01:55	1
Perfluorotetradecanoic acid (PFTeA)	<0.61	1.7	0.61	-		06/22/23 19:56	06/26/23 01:55	1
Perfluoro-n-hexadecanoic acid PFHxDA)	<0.74	1.7	0.74	•		06/22/23 19:56		1
Perfluoro-n-octadecanoic acid PFODA)	<0.78 *1	1.7	0.78	-			06/26/23 01:55	1
Perfluorobutanesulfonic acid PFBS)	1.9	1.7	0.17	•			06/26/23 01:55	1
Perfluoropentanesulfonic acid PFPeS)	0.30 J	1.7	0.25	-		06/22/23 19:56		1
Perfluorohexanesulfonic acid PFHxS)	0.71 J	1.7	0.47	-		06/22/23 19:56		1
Perfluoroheptanesulfonic acid PFHpS) Parfluoroastanesulfonic acid (REOS)	<0.16	1.7	0.16	-		06/22/23 19:56		1
Perfluorooctanesulfonic acid (PFOS)	< 0.45	1.7	0.45				06/26/23 01:55	1
Perfluorononanesulfonic acid (PFNS)	< 0.31	1.7	0.31	-			06/26/23 01:55	1
Perfluorodecanesulfonic acid (PFDS)	<0.27	1.7	0.27	-			06/26/23 01:55	1
Perfluorododecanesulfonic acid PFDoS)	<0.80	1.7	0.80				06/26/23 01:55	1
Perfluorooctanesulfonamide FOSA)	2.8	1.7	0.81	•		06/22/23 19:56		1
NETFOSA	<0.72	1.7	0.72	-			06/26/23 01:55	1
IMeFOSA	<0.36	1.7	0.36				06/26/23 01:55	1
MeFOSAA	<1.0	4.1		ng/L			06/26/23 01:55	1
IEtFOSAA	<1.1	4.1		ng/L			06/26/23 01:55	1
NMeFOSE	<1.2	3.3		ng/L		06/22/23 19:56		1
NETFOSE	<0.70	1.7	0.70	-			06/26/23 01:55	1
I:2 FTS	<0.20	1.7	0.20	0			06/26/23 01:55	1
2 FTS	<2.1	4.1		ng/L		06/22/23 19:56		1
3:2 FTS	<0.38	1.7		ng/L		06/22/23 19:56		1
10:2 FTS	<0.56	1.7	0.56	ng/L		06/22/23 19:56	06/26/23 01:55	1
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.33	1.7	0.33	-		06/22/23 19:56		1
IFPO-DA (GenX)	<1.2	3.3		ng/L		06/22/23 19:56		1
CI-PF3ONS	<0.20	1.7	0.20	-		06/22/23 19:56	06/26/23 01:55	1
1CI-PF3OUdS	<0.27	1.7	0.27			06/22/23 19:56	06/26/23 01:55	1
sotope Dilution	%Recovery Qua					Prepared	Analyzed	Dil Fac
ISC4 PFBA	92	25 - 150				06/22/23 19:56		1
13C5 PFPeA	96	25 - 150					06/26/23 01:55	1
13C2 PFHxA	99	25 - 150					06/26/23 01:55	1
I3C4 PFHpA	100	25 - 150				06/22/23 19:56	06/26/23 01:55	1
13C4 PFOA	95	25 - 150				06/22/23 19:56	06/26/23 01:55	1

**Eurofins Chicago** 

#### Client Sample ID: PW-10 (856) Date Collected: 06/05/23 08:20 Date Received: 06/08/23 09:50

# Lab Sample ID: 500-235000-4

Matrix: Water

sotope Dilution	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
13C5 PFNA	96	25 - 150	06/22/23 19:56 06/26/23 01:5	55 1
13C2 PFDA	96	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
13C2 PFUnA	98	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
3C2 PFDoA	95	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
13C2 PFTeDA	93	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
3C2 PFHxDA	89	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
I3C3 PFBS	87	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
802 PFHxS	98	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
3C4 PFOS	97	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
3C8 FOSA	121	10 - 150	06/22/23 19:56 06/26/23 01:	55 1
I3-NMeFOSAA	120	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
5-NEtFOSAA	114	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
-N-MeFOSA-M	91	10 - 150	06/22/23 19:56 06/26/23 01:	55 1
-N-EtFOSA-M	83	10 - 150	06/22/23 19:56 06/26/23 01:	55 1
7-N-MeFOSE-M	92	10 - 150	06/22/23 19:56 06/26/23 01:	55 1
9-N-EtFOSE-M	87	10 - 150	06/22/23 19:56 06/26/23 01:	55 1
12-4:2 FTS	79	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
12-6:2 FTS	74	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
12-8:2 FTS	68	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
3C3 HFPO-DA	98	25 - 150	06/22/23 19:56 06/26/23 01:	55 1
13C2 10:2 FTS	74	25 - 150	06/22/23 19:56 06/26/23 01:	55 1

# **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

5

## Qualifiers

LCMS Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Glossary	

Clossury	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Melissa Wallace 9989N Ogren Road Hayward, WI 54843

Dear Ms. Wallace:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the analytical results for a groundwater sample collected from your private well on June 5, 2023.

Due to elevated levels of select per- and polyfluoroalkyl substance (PFAS) constituents measured in the June 5, 2023 sample from your private well, the Wisconsin Department of Natural Resources (WDNR) has requested a follow up sample be collected. A representative from SEH will contact you soon to arrange a site visit to collect the sample.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (WDNR) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034 608.782.3161 | 888.908.8166 fax | sehinc.com SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659



State of Wisconsin Department of Health Services Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

Kirsten L. Johnson Secretary

Tony Evers

Governor

August 11, 2023

Melissa Wallace 9989 Ogren Road Hayward, WI 54843

# **RE:** Laboratory results for PFAS for the water sample collected from your residence at: 9989 North Ogren Road, Hayward

Dear Melissa Wallace,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of per- and polyfluoroalkyl substances (PFAS) tested in your well located at 9989 North Ogren Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. The levels of PFOA and PFOS were detected in your well water at levels above the Wisconsin recommended public health values.

### You should take action to reduce your exposure to PFAS:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, and soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Find a long-term solution. Options include installing a certified treatment device or drilling a new well.
- You can continue using the water for bathing and other household chores.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm.

You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager	715-919-7239	John.Sager@Wisconsin.gov
DHS Nathan Kloczko	608-867-4448	Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

May Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health value	Result above Recommended
Substance		(ng/L)	health value?
PFOS	5.4		
PFOA	19		
FOSA	ND		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	24.4	20*	YES
PFNA	ND	30	no
PFHxS	3.6	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	9.4	10,000	no
PFTeA	ND	10,000	no
PFHxA	4.2	150,000	no
PFODA	ND	400,000	no
PFBS	5.9	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion (ppt) \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure.

## **Client Sample Results**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

### Client Sample ID: PW-15 (858) Date Collected: 06/05/23 16:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-5 Matrix: Water

5

6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	9.4		4.3	2.1	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluoropentanoic acid (PFPeA)	4.4		1.7	0.42	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluorohexanoic acid (PFHxA)	4.2		1.7	0.50	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluoroheptanoic acid (PFHpA)	3.9		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorooctanoic acid (PFOA)	19		1.7	0.73	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoroundecanoic acid (PFUnA)	<0.94		1.7	0.94	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorotetradecanoic acid (PFTeA)	<0.63		1.7	0.63	-		06/22/23 19:56	06/26/23 02:05	
Perfluoro-n-hexadecanoic acid PFHxDA)	<0.76		1.7	0.76	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoro-n-octadecanoic acid PFODA)	<0.81	*1	1.7	0.81	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorobutanesulfonic acid PFBS)	3.6		1.7	0.17	•		06/22/23 19:56	06/26/23 02:05	
Perfluoropentanesulfonic acid PFPeS)	1.3		1.7	0.26	-			06/26/23 02:05	
Perfluorohexanesulfonic acid PFHxS)	3.6		1.7	0.49	-			06/26/23 02:05	
Perfluoroheptanesulfonic acid PFHpS)	0.20		1.7	0.16	-			06/26/23 02:05	
Perfluorooctanesulfonic acid PFOS)	5.4	I	1.7	0.46	-			06/26/23 02:05	
Perfluorononanesulfonic acid (PFNS)	< 0.32		1.7		ng/L			06/26/23 02:05	
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	-			06/26/23 02:05	
erfluorododecanesulfonic acid PFDoS)	<0.83		1.7	0.83				06/26/23 02:05	
Perfluorooctanesulfonamide (FOSA)	< 0.84		1.7	0.84	-			06/26/23 02:05	
IEtFOSA	<0.75		1.7	0.75	-			06/26/23 02:05	
IMeFOSA	<0.37		1.7	0.37				06/26/23 02:05	
IMeFOSAA	<1.0		4.3		ng/L			06/26/23 02:05	
IEtFOSAA	<1.1		4.3		ng/L			06/26/23 02:05	
IMeFOSE	<1.2		3.4		ng/L		06/22/23 19:56	06/26/23 02:05	
IEtFOSE	<0.73		1.7	0.73	ng/L		06/22/23 19:56	06/26/23 02:05	
2 FTS	<0.21		1.7	0.21	0			06/26/23 02:05	
2 FTS	<2.1		4.3	2.1	ng/L		06/22/23 19:56	06/26/23 02:05	
:2 FTS	<0.39		1.7		ng/L		06/22/23 19:56	06/26/23 02:05	
0:2 FTS	<0.58		1.7	0.58	ng/L		06/22/23 19:56	06/26/23 02:05	
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.34		1.7	0.34	ng/L		06/22/23 19:56	06/26/23 02:05	
IFPO-DA (GenX)	<1.3		3.4		ng/L		06/22/23 19:56	06/26/23 02:05	
CI-PF3ONS	<0.21		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 02:05	
1CI-PF3OUdS	<0.27		1.7	0.27	ng/L		06/22/23 19:56	06/26/23 02:05	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
3C4 PFBA	73		25 - 150				06/22/23 19:56	06/26/23 02:05	
3C5 PFPeA	94		25 - 150				06/22/23 19:56	06/26/23 02:05	
3C2 PFHxA	97		25 - 150					06/26/23 02:05	
I3C4 PFHpA	97		25 - 150					06/26/23 02:05	
13C4 PFOA	95		25 - 150					06/26/23 02:05	

**Eurofins Chicago** 

#### Client Sample ID: PW-15 (858) Date Collected: 06/05/23 16:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-5 Matrix: Water

sotope Dilution	%Recovery Q	ualifier Limits	Prepared Analyzed	Dil Fac
3C5 PFNA	97	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFDA	97	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFUnA	96	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFDoA	89	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFTeDA	92	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFHxDA	85	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C3 PFBS	85	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
8O2 PFHxS	99	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
3C4 PFOS	96	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C8 FOSA	115	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3-NMeFOSAA	111	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
5-NEtFOSAA	111	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
-N-MeFOSA-M	81	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
-N-EtFOSA-M	81	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
7-N-MeFOSE-M	83	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
9-N-EtFOSE-M	82	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
2-4:2 FTS	98	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
2-6:2 FTS	79	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
12-8:2 FTS	70	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C3 HFPO-DA	91	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
3C2 10:2 FTS	79	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1

## **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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"
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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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Steven and Ruth Erickson-Roberts 508 Prairie Way S Bayport MN 55003-1606

Dear Mr. and Mrs. Erickson-Roberts:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

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#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

State of Wisconsin Department of Health Services

Kirsten L. Johnson Secretary

Tony Evers

Governor

Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

August 14, 2023

Steven and Ruth Erickson-Roberts 508 Prairie Way South Bayport, MN 55003-1606

# RE: Laboratory results for PFAS for water sample collected from 9997 North Ogren Road, Hayward

Dear Steven and Ruth Erickson-Roberts,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 9997 North Ogren Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at <u>www.dhs.wisconsin.gov/chemical/pfas.htm</u>. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

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Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health Value	Result above Recommended
Substance		(ng/L)	Health Value?
PFOS	ND		
PFOA	ND		
FOSA	1.4		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	1.4	20*	no
PFNA	ND	30	no
PFHxS	1.0	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	ND	10,000	no
PFTeA	ND	10,000	no
PFHxA	ND	150,000	no
PFODA	ND	400,000	no
PFBS	0.38	450,000	no
/1 0 1 /	1. 0	• • •	

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

### Client Sample ID: PW-17 (860) Date Collected: 06/05/23 09:20 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-6 Matrix: Water

nalyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.1		4.4		ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluoropentanoic acid (PFPeA)	<0.43		1.8	0.43	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluorohexanoic acid (PFHxA)	<0.51		1.8	0.51	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluoroheptanoic acid (PFHpA)	<0.22		1.8	0.22	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluorooctanoic acid (PFOA)	<0.75		1.8	0.75	-		06/22/23 19:56	06/26/23 02:15	1
Perfluorononanoic acid (PFNA)	<0.24		1.8	0.24	-		06/22/23 19:56	06/26/23 02:15	1
Perfluorodecanoic acid (PFDA)	<0.27		1.8	0.27			06/22/23 19:56		1
Perfluoroundecanoic acid (PFUnA)	<0.97		1.8	0.97	-		06/22/23 19:56		1
Perfluorododecanoic acid (PFDoA)	<0.48		1.8	0.48	•		06/22/23 19:56		1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.8		ng/L		06/22/23 19:56		1
Perfluorotetradecanoic acid (PFTeA)	<0.64		1.8	0.64	-			06/26/23 02:15	1
Perfluoro-n-hexadecanoic acid	<0.78		1.8	0.78	•		06/22/23 19:56		1
PFHxDA)	0.70			2.70	<b>J</b> =				
Perfluoro-n-octadecanoic acid PFODA)	<0.83	*1	1.8	0.83	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluorobutanesulfonic acid PFBS)	0.38	J	1.8	0.18	-		06/22/23 19:56	06/26/23 02:15	1
Perfluoropentanesulfonic acid PFPeS)	<0.26		1.8	0.26	-		06/22/23 19:56	06/26/23 02:15	1
Perfluorohexanesulfonic acid PFHxS)	1.0	J	1.8	0.50	-		06/22/23 19:56		1
Perfluoroheptanesulfonic acid PFHpS)	<0.17		1.8	0.17	-		06/22/23 19:56		1
Perfluorooctanesulfonic acid (PFOS)	<0.48		1.8	0.48			06/22/23 19:56		1
Perfluorononanesulfonic acid (PFNS)	<0.33		1.8	0.33	-			06/26/23 02:15	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.8	0.28	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluorododecanesulfonic acid PFDoS)	<0.86		1.8	0.86	ng/L		06/22/23 19:56	06/26/23 02:15	1
Perfluorooctanesulfonamide FOSA)	1.4	J	1.8	0.86	-		06/22/23 19:56		1
IEtFOSA	<0.77		1.8	0.77	-		06/22/23 19:56		1
IMeFOSA	<0.38		1.8	0.38	ng/L		06/22/23 19:56	06/26/23 02:15	1
IMeFOSAA	<1.1		4.4	1.1	ng/L		06/22/23 19:56	06/26/23 02:15	1
IEtFOSAA	<1.1		4.4		ng/L		06/22/23 19:56	06/26/23 02:15	1
IMeFOSE	<1.2		3.5	1.2	ng/L		06/22/23 19:56	06/26/23 02:15	1
NEtFOSE	<0.75		1.8	0.75	ng/L		06/22/23 19:56	06/26/23 02:15	1
4:2 FTS	<0.21		1.8	0.21	0		06/22/23 19:56		1
:2 FTS	<2.2		4.4	2.2	ng/L		06/22/23 19:56	06/26/23 02:15	1
3:2 FTS	<0.41		1.8	0.41			06/22/23 19:56		1
10:2 FTS	<0.59		1.8		ng/L		06/22/23 19:56		1
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.35		1.8	0.35	-			06/26/23 02:15	1
IFPO-DA (GenX)	<1.3		3.5	1.3	ng/L		06/22/23 19:56	06/26/23 02:15	1
ICI-PF3ONS	<0.21		1.8	0.21	-		06/22/23 19:56		1
1CI-PF3OUdS	<0.28		1.8	0.28			06/22/23 19:56		1
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	96		25 - 150				06/22/23 19:56		1
13C5 PFPeA	101		25 - 150				06/22/23 19:56		1
3C2 PFHxA	98		25 - 150				06/22/23 19:56		1
3C4 PFHpA	96		25 - 150				06/22/23 19:56	06/26/23 02:15	1
13C4 PFOA	96		25 - 150				06/22/23 19:56	06/26/23 02:15	1

**Eurofins Chicago** 

#### Client Sample ID: PW-17 (860) Date Collected: 06/05/23 09:20 Date Received: 06/08/23 09:50

# Lab Sample ID: 500-235000-6

Matrix: Water

sotope Dilution	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
3C5 PFNA	99	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C2 PFDA	103	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C2 PFUnA	101	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C2 PFDoA	99	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C2 PFTeDA	100	25 - 150	06/22/23 19:56 06/26/23 02:1	51
3C2 PFHxDA	98	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C3 PFBS	90	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
8O2 PFHxS	99	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C4 PFOS	99	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C8 FOSA	124	10 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3-NMeFOSAA	128	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
5-NEtFOSAA	121	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
-N-MeFOSA-M	92	10 - 150	06/22/23 19:56 06/26/23 02:1	5 1
-N-EtFOSA-M	81	10 - 150	06/22/23 19:56 06/26/23 02:1	5 1
7-N-MeFOSE-M	87	10 - 150	06/22/23 19:56 06/26/23 02:1	5 1
9-N-EtFOSE-M	81	10 - 150	06/22/23 19:56 06/26/23 02:1	5 1
2-4:2 FTS	80	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
12-6:2 FTS	66	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
12-8:2 FTS	71	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C3 HFPO-DA	98	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1
3C2 10:2 FTS	83	25 - 150	06/22/23 19:56 06/26/23 02:1	5 1

## **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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
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Dil Fac	Dilution Factor
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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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Dodson and Kristin Thompson 9977 N Ogren Road Hayward WI 54843

Dear Mr. and Mrs. Thompson:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 5, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034 608.782.3161 | 888.908.8166 fax | sehinc.com SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659

Tony Evers Governor



State of Wisconsin Department of Health Services Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

Kirsten L. Johnson Secretary

August 14, 2023

Dodson and Kristin Thompson 9977 North Ogren Road Hayward, WI 54843

# RE: Laboratory results for PFAS for water sample collected from 9977 North Ogren Road, Hayward

Dear Steven and Ruth Erickson-Roberts,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your drinking water well located at 9977 North Ogren Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. In this letter, we will discuss PFAS levels tested for in your well. The results show that one or more PFAS were found in your well, but not above Wisconsin recommended public health values. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm. You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager DHS Nathan Kloczko 715-919-7239 608-867-4448 John.Sager@Wisconsin.gov Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

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Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health Value	Result above Recommended
Substance		(ng/L)	Health Value?
PFOS	0.85		
PFOA	4.4		
FOSA	2.2		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	7.45	20*	no
PFNA	ND	30	no
PFHxS	0.85	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	3.5	10,000	no
PFTeA	ND	10,000	no
PFHxA	ND	150,000	no
PFODA	ND	400,000	no
PFBS	2.3	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure. LD stands for "low detection." This means that the compound was present in your water sample but the concentration is lower than 1 ppt. The actual concentration can only be estimated.

### Client Sample ID: PW-18 (861) Date Collected: 06/05/23 09:45 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-7 Matrix: Water

Analyte	Result Qu	ualifier RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.5 J	4.4	2.1	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluoropentanoic acid (PFPeA)	<0.43	1.7	0.43	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorohexanoic acid (PFHxA)	<0.51	1.7	0.51	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluoroheptanoic acid (PFHpA)	0.76 J	1.7	0.22	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorooctanoic acid (PFOA)	4.4	1.7	0.74	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorononanoic acid (PFNA)	<0.24	1.7	0.24	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorodecanoic acid (PFDA)	<0.27	1.7	0.27	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluoroundecanoic acid (PFUnA)	<0.96	1.7		ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorododecanoic acid (PFDoA)	<0.48	1.7	0.48	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorotridecanoic acid (PFTrDA)	<1.1	1.7		ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorotetradecanoic acid (PFTeA)	<0.64	1.7		ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.78	1.7		ng/L			06/26/23 02:25	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.82 *1	1.7	0.82	ng/L		06/22/23 19:56	06/26/23 02:25	1
Perfluorobutanesulfonic acid (PFBS)	2.3	1.7	0.17	-		06/22/23 19:56	06/26/23 02:25	1
Perfluoropentanesulfonic acid (PFPeS)	0.34 J	1.7		ng/L			06/26/23 02:25	1
Perfluorohexanesulfonic acid (PFHxS)	0.85 J	1.7	0.50	-			06/26/23 02:25	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.17	1.7	0.17	-			06/26/23 02:25	1
Perfluorooctanesulfonic acid (PFOS)	0.85 J	1.7	0.47				06/26/23 02:25	1
Perfluorononanesulfonic acid (PFNS)	<0.32	1.7		ng/L			06/26/23 02:25	1
Perfluorodecanesulfonic acid (PFDS)	<0.28	1.7		ng/L			06/26/23 02:25	1
Perfluorododecanesulfonic acid PFDoS)	<0.84	1.7		ng/L		06/22/23 19:56		1
Perfluorooctanesulfonamide FOSA)	2.2	1.7		ng/L			06/26/23 02:25	1
NEtFOSA	<0.76	1.7	0.76	-			06/26/23 02:25	1
NMeFOSA	<0.37	1.7		ng/L			06/26/23 02:25	1
NMeFOSAA	<1.0	4.4		ng/L			06/26/23 02:25	1
NEtFOSAA	<1.1	4.4		ng/L			06/26/23 02:25	1
NMeFOSE	<1.2	3.5		ng/L			06/26/23 02:25	1
NEtFOSE	<0.74	1.7		ng/L			06/26/23 02:25	1
4:2 FTS	<0.21	1.7	0.21			06/22/23 19:56	06/26/23 02:25	1
6:2 FTS	<2.2	4.4		ng/L		06/22/23 19:56	06/26/23 02:25	1
B:2 FTS	<0.40	1.7	0.40	ng/L		06/22/23 19:56	06/26/23 02:25	1
10:2 FTS	<0.58	1.7	0.58	ng/L		06/22/23 19:56	06/26/23 02:25	1
1,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.35	1.7	0.35	ng/L		06/22/23 19:56	06/26/23 02:25	1
HFPO-DA (GenX)	<1.3	3.5	1.3	ng/L		06/22/23 19:56	06/26/23 02:25	1
OCI-PF3ONS	<0.21	1.7		ng/L		06/22/23 19:56	06/26/23 02:25	1
11CI-PF3OUdS	<0.28	1.7		ng/L			06/26/23 02:25	1
Isotope Dilution	%Recovery Qu					Prepared	Analyzed	Dil Fac
13C4 PFBA	88	25 - 150				06/22/23 19:56	06/26/23 02:25	1
13C5 PFPeA	98	25 - 150				06/22/23 19:56	06/26/23 02:25	1
13C2 PFHxA	99	25 - 150				06/22/23 19:56	06/26/23 02:25	1
13C4 PFHpA	97	25 - 150				06/22/23 19:56	06/26/23 02:25	1
13C4 PFOA	95	25 - 150				06/22/23 19:56	06/26/23 02:25	1

**Eurofins Chicago** 

#### Client Sample ID: PW-18 (861) Date Collected: 06/05/23 09:45 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-7 Matrix: Water

sotope Dilution	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
I3C5 PFNA	96	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
I3C2 PFDA	100	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C2 PFUnA	98	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C2 PFDoA	91	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C2 PFTeDA	91	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C2 PFHxDA	83	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C3 PFBS	87	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
802 PFHxS	95	25 - 150	06/22/23 19:56 06/26/23 02:	25 1
3C4 PFOS	97	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C8 FOSA	116	10 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3-NMeFOSAA	119	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
5-NEtFOSAA	112	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
-N-MeFOSA-M	86	10 - 150	06/22/23 19:56 06/26/23 02:2	25 1
-N-EtFOSA-M	78	10 - 150	06/22/23 19:56 06/26/23 02:	25 1
7-N-MeFOSE-M	85	10 - 150	06/22/23 19:56 06/26/23 02:2	25 1
9-N-EtFOSE-M	80	10 - 150	06/22/23 19:56 06/26/23 02:2	25 1
2-4:2 FTS	77	25 - 150	06/22/23 19:56 06/26/23 02:	25 1
2-6:2 FTS	70	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
2-8:2 FTS	72	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C3 HFPO-DA	97	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1
3C2 10:2 FTS	77	25 - 150	06/22/23 19:56 06/26/23 02:2	25 1

## **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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



August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Ronald Hobart 16378 W Stress Road Hayward, WI 5484

Dear Mr. Hobart:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the per- and polyfluoroalkyl substances (PFAS) analytical results for a groundwater sample collected from your private well on June 19, 2023.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (Wisconsin Department of Natural Resources (WDNR)) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

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#### State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 2501 Golf Course Road Ashland WI 54806

Tony Evers, Governor Adam N. Payne, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



August 14, 2023

Ron Hobart 16378 West Stresss Road Hayward, WI 54843

#### SUBJECT: Notification of Drinking Water Sample Results at 16378 West Stress Road, Hayward BRRTS Activity Name: Hayward City Landfill #1751 US Highway 63 and Stress Road, Hayward, WI BRRTS #: 02-58-000380

Dear Ron Hobart:

Results were recently received for the sampling conducted of your well located at 16378 West Stress Road, Hayward. Sampling was conducted by the City of Hayward for the reason of determining the concentration of PFAS compounds in your drinking water.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at the Wisconsin Department of Health Services Website: www.dhs.wisconsin.gov/chemical/pfas.htm.

At the time and location of sampling, reported concentrations of PFAS analyzed were not detected above the laboratory detection limit.

If you have questions or concerns regarding this letter, please contact me at (715) 919-7239 or John.sager@Wisconsin.gov.

Sincerely,

John Sager Hydrogeologist Remediation and Redevelopment Program

Attachment: Laboratory analytical results



## Client Sample ID: PW-19 (862) Date Collected: 06/19/23 09:00 Date Received: 06/20/23 09:50

## Lab Sample ID: 500-235500-1 Matrix: Water

Analyte		Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.6	2.2	ng/L		07/03/23 04:40	07/12/23 20:52	1
erfluoropentanoic acid (PFPeA)	<0.45		1.9	0.45	-		07/03/23 04:40	07/12/23 20:52	1
erfluorohexanoic acid (PFHxA)	<0.54		1.9	0.54	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.9	0.23	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluorooctanoic acid (PFOA)	<0.79		1.9	0.79	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.9	0.51	0		07/03/23 04:40	07/12/23 20:52	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluorotetradecanoic acid (PFTeA)	<0.68		1.9	0.68	ng/L		07/03/23 04:40	07/12/23 20:52	1
Perfluoro-n-hexadecanoic acid PFHxDA)	<0.82		1.9	0.82	-		07/03/23 04:40	07/12/23 20:52	1
Perfluoro-n-octadecanoic acid PFODA)	<0.87		1.9	0.87	-			07/12/23 20:52	1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	0			07/12/23 20:52	1
Perfluoropentanesulfonic acid PFPeS)	<0.28		1.9	0.28				07/12/23 20:52	1
Perfluorohexanesulfonic acid (PFHxS)	<0.53		1.9	0.53	-			07/12/23 20:52	1
Perfluoroheptanesulfonic acid PFHpS)	<0.18		1.9	0.18	-			07/12/23 20:52	1
erfluorooctanesulfonic acid (PFOS)	<0.50		1.9	0.50				07/12/23 20:52	1
erfluorononanesulfonic acid (PFNS)	<0.34		1.9	0.34	-			07/12/23 20:52	1
erfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	-			07/12/23 20:52	1
erfluorododecanesulfonic acid PFDoS)	<0.90		1.9	0.90	-			07/12/23 20:52	1
erfluorooctanesulfonamide (FOSA)	<0.91		1.9	0.91	-			07/12/23 20:52	1
IEtFOSA	<0.80		1.9	0.80	-			07/12/23 20:52	1
IMeFOSA	<0.40		1.9	0.40				07/12/23 20:52	1
IMeFOSAA	<1.1		4.6		ng/L			07/12/23 20:52	1
IEtFOSAA	<1.2		4.6		ng/L			07/12/23 20:52	1
IMeFOSE	<1.3		3.7		ng/L			07/12/23 20:52	1
IEtFOSE	<0.79		1.9	0.79	-			07/12/23 20:52	1
2 FTS	<0.22		1.9	0.22	-			07/12/23 20:52	1
2 FTS	<2.3		4.6		ng/L			07/12/23 20:52	1
:2 FTS	<0.43		1.9	0.43	-			07/12/23 20:52	1
0:2 FTS	<0.62		1.9	0.62				07/12/23 20:52	1
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.37		1.9	0.37				07/12/23 20:52	1
IFPO-DA (GenX)	<1.4		3.7		ng/L			07/12/23 20:52	1
CI-PF3ONS	<0.22		1.9	0.22	-			07/12/23 20:52	1
1CI-PF3OUdS	<0.30		1.9	0.30	ng/L		07/03/23 04:40	07/12/23 20:52	1
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
3C4 PFBA	91		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C5 PFPeA	98		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C2 PFHxA	99		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C4 PFHpA	97		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C4 PFOA	103		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C5 PFNA	100		25 - 150				07/03/23 04:40	07/12/23 20:52	1
3C2 PFDA	107		25 - 150					07/12/23 20:52	1
13C2 PFUnA	97		25 - 150				07/03/23 04:40	07/12/23 20:52	1

**Eurofins Chicago** 

## Lab Sample ID: 500-235500-1 er

Date Collected: 06/19/23 09:00 Date Received: 06/20/23 09:50

Client Sample ID: PW-19 (862)

Matrix:	Wate
---------	------

Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
13C2 PFDoA	95		25 - 150				07/03/23 04:40	07/12/23 20:52	1	1
13C2 PFTeDA	86		25 - 150				07/03/23 04:40	07/12/23 20:52	1	1
13C2 PFHxDA	56		25 - 150				07/03/23 04:40	07/12/23 20:52	1	1
13C3 PFBS	88		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
18O2 PFHxS	93		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
13C4 PFOS	96		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
13C8 FOSA	102		10 - 150				07/03/23 04:40	07/12/23 20:52	1	
d3-NMeFOSAA	100		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
d5-NEtFOSAA	111		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
d-N-MeFOSA-M	91		10 - 150				07/03/23 04:40	07/12/23 20:52	1	
d-N-EtFOSA-M	87		10 - 150				07/03/23 04:40	07/12/23 20:52	1	
d7-N-MeFOSE-M	90		10 - 150				07/03/23 04:40	07/12/23 20:52	1	
d9-N-EtFOSE-M	88		10 - 150				07/03/23 04:40	07/12/23 20:52	1	
M2-4:2 FTS	100		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
M2-6:2 FTS	99		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
M2-8:2 FTS	107		25 - 150				07/03/23 04:40	07/12/23 20:52	1	[
13C3 HFPO-DA	98		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
13C2 10:2 FTS	102		25 - 150				07/03/23 04:40	07/12/23 20:52	1	
-										
Method: EPA Field Sam		-								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Field Conductivity	225				umhos/cm			06/19/23 09:00	1	
Field pH	7.85				SU			06/19/23 09:00	1	
Field Temperature	14.5				Degrees C			06/19/23 09:00	1	

## **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

## Qualifiers

LCMS		
Qualifier	Qualifier Description	
*1	LCS/LCSD RPD exceeds control limits.	
I	Value is EMPC (estimated maximum possible concentration).	5
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	7
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
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)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
MI	Minimum Level (Dioxin)	

Glussaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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DER	Duplicate Error Ratio (normalized absolute difference)
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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)
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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

Brian Kent
Sager, John E - DNR; John McCue; melissa.wallace51@gmail.com
<u>Kloczko, Nathan F - DHS; Saari, Christopher A - DNR</u>
RE: Hayward Landfill Notification Letters
Monday, August 28, 2023 3:51:03 PM
PW-15 Notification Letter 08.22.2023.pdf

# CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Melissa- Thank you for returning my call this afternoon. Per our discussion, please find attached a copy of the notification letter and Department of Health Services (DHS) letter summarizing the results and recommendations associated with the June 2023 PFAS sample collected from your well located at 9989N Ogren Road, Hayward Wi. Veronica will be contacting you to arrange access to resample your well, which will likely occur on September 7<sup>th</sup> or September 5<sup>th</sup>. Should you have any questions, please do not hesitate to contact me as provided below or, John Sager (WDNR) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter. Thank you.

John/Nathan – for future reference, Melissa Wallace's Duluth address is as follows:

Melissa Wallace 719 South 64<sup>th</sup> Avenue West Duluth, MN 55807

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct Building a Better World for All of Us® Follow SEH on Twitter | Facebook | LinkedIn | Instagram

From: Sager, John E - DNR <John.Sager@wisconsin.gov>
Sent: Monday, August 21, 2023 4:05 PM
To: Brian Kent <bkent@sehinc.com>; John McCue <pw3@centurytel.net>
Cc: Kloczko, Nathan F - DHS <nathan.kloczko@dhs.wisconsin.gov>; Saari, Christopher A - DNR
<Christopher.Saari@wisconsin.gov>
Subject: RE: Hayward Landfill Notification Letters

I think for now send it to her Hayward address. Attached is the letter. Make sure to forward her a copy when she contacts you and please copy me on any emails or regular mail to her containing the results. Thanks.

#### We are committed to service excellence.

Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

John Sager Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4<sup>th</sup> St. Superior, WI 54880 Phone: (715) 919-7239 john.sager@wisconsin.gov



From: Brian Kent <<u>bkent@sehinc.com</u>>
Sent: Monday, August 21, 2023 3:12 PM
To: Sager, John E - DNR <<u>John.Sager@wisconsin.gov</u>>; John McCue <<u>pw3@centurytel.net</u>>
Cc: Kloczko, Nathan F - DHS <<u>nathan.kloczko@dhs.wisconsin.gov</u>>; Saari, Christopher A - DNR
<<u>Christopher.Saari@wisconsin.gov</u>>
Subject: RE: Hayward Landfill Notification Letters

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

John- Still no response from Melissa Wallace. I left her another voice mail and will let you know if she returns my call. In the interim, should we send to her address in Hayward?

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct Building a Better World for All of Us® Follow SEH on Twitter | Facebook | LinkedIn | Instagram

From: Sager, John E - DNR <<u>John.Sager@wisconsin.gov</u>>

**Sent:** Tuesday, August 15, 2023 3:26 PM

**To:** John McCue <<u>pw3@centurytel.net</u>>; Brian Kent <<u>bkent@sehinc.com</u>>

**Cc:** Kloczko, Nathan F - DHS <<u>nathan.kloczko@dhs.wisconsin.gov</u>>; Saari, Christopher A - DNR <<u>Christopher.Saari@wisconsin.gov</u>>

Subject: FW: Hayward Landfill Notification Letters

John and Brian,

Attached are the DHS and DNR notification of results letters for Hayward Landfill for the City to send to the well owners. I did not include the Melissa Wallace letter because we do not have an address for her yet. Please send me her address as soon as possible so we can get a notification letter sent to her. Please let me know if you have any questions.

Thank you.

#### We are committed to service excellence.

Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

## John Sager Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4<sup>th</sup> St. Superior, WI 54880 Phone: (715) 919-7239 john.sager@wisconsin.gov





August 22, 2023

RE: City of Hayward PFAS Investigation SEH No. HAYWA 171210 14.00

Melissa Wallace 9989N Ogren Road Hayward, WI 54843

Dear Ms. Wallace:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the analytical results for a groundwater sample collected from your private well on June 5, 2023.

Due to elevated levels of select per- and polyfluoroalkyl substance (PFAS) constituents measured in the June 5, 2023 sample from your private well, the Wisconsin Department of Natural Resources (WDNR) has requested a follow up sample be collected. A representative from SEH will contact you soon to arrange a site visit to collect the sample.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (WDNR) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

Brian L. Kent, CHMM Project Manager

BLK/blk/BKO
Enclosure
c: John Sager, WDNR
Nathan Kloczko, DHS
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034 608.782.3161 | 888.908.8166 fax | sehinc.com SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

#### DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET PO BOX 2659 MADISON WI 53701-2659



State of Wisconsin Department of Health Services Telephone: 608-266-1251 Fax: 608-267-2832 TTY: 711 or 800-947-3529

Kirsten L. Johnson Secretary

Tony Evers

Governor

August 11, 2023

Melissa Wallace 9989 Ogren Road Hayward, WI 54843

# **RE:** Laboratory results for PFAS for the water sample collected from your residence at: 9989 North Ogren Road, Hayward

Dear Melissa Wallace,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of per- and polyfluoroalkyl substances (PFAS) tested in your well located at 9989 North Ogren Road, Hayward. The table on the last page of this letter summarizes these results. The complete laboratory analytical results are also attached. The levels of PFOA and PFOS were detected in your well water at levels above the Wisconsin recommended public health values.

### You should take action to reduce your exposure to PFAS:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, and soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our <u>Reducing PFAS in Your Drinking Water Brochure</u> <u>http://www.dhs.wisconsin.gov/publications/p03012.pdf</u>) has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Find a long-term solution. Options include installing a certified treatment device or drilling a new well.
- You can continue using the water for bathing and other household chores.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at www.dhs.wisconsin.gov/chemical/pfas.htm.

You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager	715-919-7239	John.Sager@Wisconsin.gov
DHS Nathan Kloczko	608-867-4448	Nathan.Kloczko@dhs.wisconsin.gov

Sincerely,

May Jul

Nathan Kloczko, MPH Site Evaluation Program Coordinator Bureau of Environmental and Occupational Health

	Result (ng/L)	Recommended Health value	Result above Recommended
Substance		(ng/L)	health value?
PFOS	5.4		
PFOA	19		
FOSA	ND		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
Total of the six above:	24.4	20*	YES
PFNA	ND	30	no
PFHxS	3.6	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	9.4	10,000	no
PFTeA	ND	10,000	no
PFHxA	4.2	150,000	no
PFODA	ND	400,000	no
PFBS	5.9	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion (ppt) \*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for "not detected." This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure.

## **Client Sample Results**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

### Client Sample ID: PW-15 (858) Date Collected: 06/05/23 16:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-5 Matrix: Water

5

6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	9.4		4.3	2.1	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluoropentanoic acid (PFPeA)	4.4		1.7	0.42	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluorohexanoic acid (PFHxA)	4.2		1.7	0.50	ng/L		06/22/23 19:56	06/26/23 02:05	1
Perfluoroheptanoic acid (PFHpA)	3.9		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorooctanoic acid (PFOA)	19		1.7	0.73	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoroundecanoic acid (PFUnA)	<0.94		1.7	0.94	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorotetradecanoic acid (PFTeA)	<0.63		1.7		ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoro-n-hexadecanoic acid	<0.76		1.7		ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoro-n-octadecanoic acid PFODA)	<0.81	*1	1.7	0.81	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorobutanesulfonic acid PFBS)	3.6		1.7	0.17	ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluoropentanesulfonic acid PFPeS)	1.3	J	1.7		ng/L		06/22/23 19:56	06/26/23 02:05	
Perfluorohexanesulfonic acid PFHxS)	3.6		1.7		ng/L			06/26/23 02:05	
Perfluoroheptanesulfonic acid PFHpS)	0.20		1.7		ng/L			06/26/23 02:05	
Perfluorooctanesulfonic acid PFOS)	5.4		1.7		ng/L			06/26/23 02:05	
Perfluorononanesulfonic acid (PFNS)	<0.32		1.7		ng/L			06/26/23 02:05	
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7		ng/L			06/26/23 02:05	
Perfluorododecanesulfonic acid PFDoS)	<0.83		1.7		ng/L			06/26/23 02:05	
Perfluorooctanesulfonamide (FOSA)	<0.84		1.7		ng/L			06/26/23 02:05	
IEtFOSA	<0.75		1.7		ng/L			06/26/23 02:05	
IMeFOSA	<0.37		1.7		ng/L			06/26/23 02:05	
IMeFOSAA	<1.0		4.3		ng/L		06/22/23 19:56	06/26/23 02:05	
IEtFOSAA	<1.1		4.3	1.1	ng/L		06/22/23 19:56	06/26/23 02:05	
IMeFOSE	<1.2		3.4	1.2	ng/L		06/22/23 19:56	06/26/23 02:05	
IEtFOSE	<0.73		1.7	0.73	ng/L		06/22/23 19:56	06/26/23 02:05	
:2 FTS	<0.21		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 02:05	
:2 FTS	<2.1		4.3	2.1	ng/L		06/22/23 19:56	06/26/23 02:05	
:2 FTS	<0.39		1.7	0.39	ng/L		06/22/23 19:56	06/26/23 02:05	
0:2 FTS	<0.58		1.7	0.58	ng/L		06/22/23 19:56	06/26/23 02:05	
,8-Dioxa-3H-perfluorononanoic acid ADONA)	<0.34		1.7	0.34	ng/L		06/22/23 19:56	06/26/23 02:05	
IFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		06/22/23 19:56	06/26/23 02:05	
CI-PF3ONS	<0.21		1.7	0.21	ng/L		06/22/23 19:56	06/26/23 02:05	
1CI-PF3OUdS	<0.27		1.7	0.27	ng/L		06/22/23 19:56	06/26/23 02:05	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
3C4 PFBA	73		25 - 150				06/22/23 19:56	06/26/23 02:05	
3C5 PFPeA	94		25 - 150				06/22/23 19:56	06/26/23 02:05	
I3C2 PFHxA	97		25 - 150				06/22/23 19:56	06/26/23 02:05	
3C4 PFHpA	97		25 - 150				06/22/23 19:56	06/26/23 02:05	
13C4 PFOA	95		25 - 150				06/22/23 19:56	06/26/23 02:05	

**Eurofins Chicago** 

#### Client Sample ID: PW-15 (858) Date Collected: 06/05/23 16:00 Date Received: 06/08/23 09:50

## Lab Sample ID: 500-235000-5 Matrix: Water

sotope Dilution	%Recovery G	Qualifier Limits	Prepared Analyzed	Dil Fac
3C5 PFNA	97	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFDA	97	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFUnA	96	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFDoA	89	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFTeDA	92	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C2 PFHxDA	85	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C3 PFBS	85	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
802 PFHxS	99	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
3C4 PFOS	96	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C8 FOSA	115	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3-NMeFOSAA	111	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
5-NEtFOSAA	111	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
-N-MeFOSA-M	81	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
-N-EtFOSA-M	81	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
7-N-MeFOSE-M	83	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
9-N-EtFOSE-M	82	10 - 150	06/22/23 19:56 06/26/23 02:0	05 1
2-4:2 FTS	98	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
2-6:2 FTS	79	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
2-8:2 FTS	70	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1
3C3 HFPO-DA	91	25 - 150	06/22/23 19:56 06/26/23 02:0	)5 1
3C2 10:2 FTS	79	25 - 150	06/22/23 19:56 06/26/23 02:0	05 1

## **Definitions/Glossary**

Client: Short Elliott Hendrickson, Inc. dba SEH Project/Site: Hayward Landfill - PFAS

Job ID: 500-235000-1

5

## Qualifiers

LCMS Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Glossary	

Clossury	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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