

March 2, 2021

David Rozeboom DNR Service Center 1300 W Clairemont Ave. Eau Claire, WI 54701

Re: Private Well Sampling Results Letters - January & February 2021

La Crosse Municipal Wells 23 & 24 WDNR BRRTS # 02-32-000065

Dear Mr. Rozeboom:

Please find attached 61 letters to property owners and occupants conveying the PFAS results of the private wells sampling on French Island. This represents all lab reports received and letters sent in January and February, 2021. As of March 1, 79 wells had been sampled and 10 had been re-sampled since our last summary, dated January 1, 2021. As of March 1, we had yet to receive the lab reports for eighteen (18) additional samples, the last of which was collected on February 24, 2021. The attached table 1 presents private well sampling points. It provides the sampling point number keyed to tax parcel number, address, owner, occupant, well information, sampling date, lab report date, results letter and email dates, and the date the occupant signed the bottled water agreement. The Expanded Sampling Area # column describes whether the well is in the original sampling area (0), the area immediately west (1), the area south of I-90 (2), the area west of the airport (3), or an area outside a targeted sampling area (OUT). The attached table 2 provides the same information for 10 wells that have been re-sampled. The re-sampling was conducted based on this criteria: Wells were re-sampled if original results were equal to or greater than 75% of a proposed enforcement standard for any PFAS compound. Sampling point 250-0 was re-sampled because although the original sample results were below that criteria, the adjacent neighboring well had some of the higher results observed.

Please me let me know if you have any questions or require additional information.

Sincerely,

John C. Storlie, PG Principal Consultant Direct: 608-433-9389

Cell: 608-769-2433

John.storlie@theOSgrp.com

Attachments: Tables 1 & 2 Private Well Sampling Points

Private well results letters (Jan & Feb 2021)

Cc: Mayor Kabat (w/o letter attachments)

Randy Turtenwald (w/o letter attachments)

Table 1 Private Well Sampling Points

								OWNER				Well	Static								
Sampling Point	Tax Parcel		Expanded Sampling					Agreement obtained? Date		Completed		Screen interval	_	Lab Report			Bottled Water Ack.	Resample Completed	Lab Report	e-mail	Results 2 Letter
Number 10267-80	Number 17-10267-80	Owner Name	Area # 0	Property Address 2604 FANTA REED RD	LA CROSSE	Property Zip 54603-1223		of agreement 12/22/2020	from owner) Kathy Raymond	Sampling Date 12/23/2020	UWID	(ft bgs)	bgs)	Date 1/19/2021	1/19/2021	Date 1/19/2021	1/22/2021 -owner	date	2 Date	Date	Date
111-0	4-111-0		0	2548 BAINBRIDGE ST	LA CROSSE	54603	Yes	1/14/2021		1/14/2021				2/2/2021	2/2/2021	2/2/2021	1/22/21 - Tennant 2/3/2021				+
114-01-B	4-114-0		1	301, 303, 305, 307, 309, 401, 403, 405, 407, 409 Callaway Ct	LA CROSSE	54603	No	1/14/2021	See King Properties Tenants Spreadsheet	1/18/2021	UJ245 Hicap well	60-66	20	2/2/2021	2/3/2021	2/3/2021					
114-0-A	4-114-0		1	101, 103, 105, 107, 201, 203, 205,	LA CROSSE	54603	No	1/14/2021	See King Properties	1/18/2021	#69475 UJ230	61-67	24	2/2/2021	2/3/2021	2/3/2021					-
1223-0	4-1223-0		OUT	207, 209, 211 Callaway Ct 1905 Cherokee Ave	LA CROSSE	54603		2/11/2021	Tenants Spreadsheet	2/11/2021											
135-0	4-135-0		2	2312 BAINBRIDGE ST	LA CROSSE	54603		1/18/2021		1/21/2021				2/9/2021	2/9/2021	2/9/2021					
1365-0	4-1365-0		OUT	137 USHER ST	LA CROSSE	54603	Yes	1/18/2021		1/21/2021				2/9/2021	2/10/2021	2/10/2021					
1438-0	4-1438-0		OUT	3507 Lakeshore Drive	LA CROSSE	54603	Yes	1/29/2021		1/31/2021	KS265	63-66	15	2/18/2021	2/18/2021	2/18/2021					
144-0	4-144-0		2	2306 BAINBRIDGE ST	LA CROSSE	54603	Yes	1/18/2021		1/26/2021				2/12/2021	na	2/13/2021					
144-1	4-144-1		2	2304 BAINBRIDGE ST	LA CROSSE	54603		1/22/2021		1/26/2021				2/12/2021	na	2/13/2021					
151-3-A	4-151-3		2	101-209 CAMPBELL CT	LA CROSSE	54603	No	1/14/2021	See King Properties Tenants Spreadsheet	1/18/2021	RR179	57-63	20	2/2/2021	2/3/2021	2/3/2021					
151-3-E	4-151-3		2	302-408 CAMPBELL CT (even)	LA CROSSE	54603	No	1/14/2021	See King Properties Tenants Spreadsheet	1/18/2021	RR 176 or RR 177?	57-63	18	2/2/2021	2/3/2021	2/3/2021					
151-3-0	4-151-3		2	301-507 CAMPBELL CT (odd)	LA CROSSE	54603	No	1/14/2021	See King Properties Tenants Spreadsheet	1/18/2021	RR 176 or RR 177?	57-63	18	2/2/2021	2/3/2021	2/3/2021					
151-5	4-151-5		2	2100 DAWSON AVE	LA CROSSE	54603	Yes	2/11/2021		2/11/2021	SD051	63-70	20								
1556-2	4-1556-2		OUT	905 Plainview Rd	LA CROSSE	54603	Yes	2/17/2021		2/17/2021											
1694-0	4-1694-0		OUT	3065 Edgewater Lane	LA CROSSE	54603	Yes	1/15/2021		1/18/2021	CQ334	126-129	5	2/1/2021	2/1/2021	2/1/2021					
1704-0	4-1704-0		OUT	3049 Edgewater Ln	LA CROSSE	54603	Yes	2/2/2021		2/3/2021	UO868	63-66	12	2/19/2021	2/20/2021	2/20/2021					
182-0	4-182-0		0	2544 2ND AVE E	LA CROSSE	54603	Yes	11/17/2020		1/13/2021		3-4' screen,		2/1/2021	na	2/1/2021	2/12/2021				
1913-16	4-1913-16		OUT	2623 Lakeshore Drive	LA CROSSE	54603	Yes	1/18/2021		1/18/2021	XN338	65-68	30	2/1/2021	2/3/2021	2/3/2021					
197-0	4-197-0		0	2544 1ST AVE E	LA CROSSE	54603	Yes	12/12/2020		12/17/2020	UV469	60-63	28	1/14/2021	na	1/15/2021	2/2/2021				
200-0	4-200-0		0	2532 1ST AVE E	LA CROSSE	54603	Yes	12/8/2020		12/8/2020				1/14/2021	1/15/2021	1/15/2021	2/1/2021				
2027-0	4-2027-0		OUT	3029 Youngdale Ave	LA CROSSE	54603	Yes	2/22/2021		2/24/2021											
203-0	4-203-0		0	2520 1ST AVE E	LA CROSSE	54603	Yes	12/14/2020		12/17/2020	CQ197	63-66	25	1/14/2021	1/15/2021	1/15/2021					
2084-0	4-2084-0		OUT	2603 THOMAS ST	LA CROSSE	54603	Yes	2/19/2021		2/22/2021											
2133-0	4-2133-0		OUT	2523 Baumgartner Dr	LA CROSSE	54603	Yes	2/21/2021		2/22/2021	FM316	62-66	32								
222-0	4-222-0		0	2541 2ND AVE E	LA CROSSE	54603		12/19/2020		1/5/2021	UU266	63-66	27	1/20/2021	1/21/2021	1/21/2020					
223-0	4-223-0		0	2545 2ND AVE E	LA CROSSE	54603	Yes	1/15/2021		1/18/2021				2/2/2021	2/3/2021	2/3/2021					
224-0	4-224-0		0	2549 2ND AVE E	LA CROSSE	54603		12/18/2020		12/22/2020				1/19/2021	1/19/2021	1/19/2021		1/21/2021	2/9/2021	2/9/2021	2/9/2021
232-0	4-232-0		0	2536 BAINBRIDGE ST	LA CROSSE	54603		1/4/2021		1/5/2021	ZE561	63-66	23	1/20/2021	1/21/2021	1/21/2021					
242-0	4-242-0		0	2500 BAINBRIDGE ST	LA CROSSE	54603	Yes	12/8/2020		12/17/2020				1/14/2021	na	1/15/2021					

								OWNER				Well	Static								
Sampling Point	Tax Parcel		Expanded Sampling				Owner	Agreement obtained? Date	Occupant Name (if diff	Completed		Screen	water level (ft	Lab Report	Results e-mail	Results Letter	Bottled Water Ack.	Resample Completed	Lab Report	Results 2 e-mail	Results 2 Letter
Number 243-0	Number 4-243-0	Owner Name	Area #	Property Address 2501 1ST AVE E	Property City LA CROSSE	Property Zip 54603	Occupied? No	of agreement 12/23/2020	from owner) Eli Hubert; Lucas Hubert	Sampling Date 1/5/2021	UWID	(ft bgs)	bgs)	Date 1/20/2021	Date 1/21/2021	Date 1/21/2021	Date	date	2 Date	Date	Date
282-0	4-282-0		OUT	207 Church Dr &	LA CROSSE	54603	Yes	2/2/2021	Karlene Mellem - 209	2/3/2021				2/19/2021	2/19/2021	2/19/2021					
332-0	4-332-0		0	209 Church Dr (SHARED WELL) 2538 1ST AVE W	LA CROSSE	54603	Yes	12/22/2020	Church Dr.	12/23/2020				1/19/2021	1/19/2021	1/19/2021					
335-0	4-335-0		0	2542 1ST AVE W	LA CROSSE	54603	Yes	1/11/2021		1/13/2021	KS250	63-66	22	2/1/2021	na	2/1/2021	2/7/2021				
336-0	4-336-0		0	2546 1ST AVE W	LA CROSSE	54603	No	12/29/2020	Jen Sampson	1/5/2021	WY280	60-63	24	1/20/2021	1/21/2021	1/21/2021					
348-0	4-348-0		0	2515 BAINBRIDGE ST	LA CROSSE	54603	Yes	2/19/2021		2/24/2021	NX482	63-65	27								
349-0	4-349-0		0	2521 BAINBRIDGE ST	LA CROSSE	54603	Yes	12/4/2020		12/8/2020				1/14/2021	1/15/2021	1/15/2021					
353-0	4-353-0		0	2525 BAINBRIDGE ST	LA CROSSE	54603	Yes	1/24/2021	Elizabeth Lubinski	2/22/2021											
354-0	4-354-0			310 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/20/2021	1	1/25/2021	QT264	63-66	35	2/12/2021	2/13/2021	2/13/2021					
									Manullaian												
356-0	4-356-0		1	304 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/26/2021	Mary Heisz	1/28/2021	UV453	60-63	32	2/18/2021	2/18/2021	2/18/2021					
357-0	4-357-0			302 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/25/2021	Ryan Zielke	1/28/2021	TI284	62-65	25	2/18/2021	2/18/2021	2/18/2021					
358-0	4-358-0		1	300 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/16/2021		1/25/2021	KS252	63-66	28	2/12/2021	2/13/2021	2/13/2021					
359-0	4-359-0		1	212 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/18/2021		1/25/2021	SR900	63-66	32	2/12/2021	2/12/2021	2/12/2021	2/12/2021				
362-0	4-362-0		0	110 CALLAWAY BLVD	LA CROSSE	54603	Yes	1/13/2021		1/13/2021	CQ060	63-66	25	2/1/2021	2/1/2021	2/1/2021					
364-0	4-364-0		1	2502 2ND AVE W	LA CROSSE	54603	Yes	1/15/2021		1/18/2021				2/2/2021	2/3/2021	2/3/2021					
368-0	4-368-1		1	2510 2ND AVE W	LA CROSSE	54603	Yes	2/10/2021		2/15/2021											
372-0	4-372-0		1	2518 2ND AVE W	LA CROSSE	54603	Yes	1/13/2021		1/14/2021	UU267	63-66	27	2/2/2021	2/3/2021	2/3/2021					
374-0	4-374-0		0	2523 1ST AVE W	LA CROSSE	54603	Yes	1/25/2021		1/31/2021	CM373	62-65	35	2/18/2021	na	2/18/2021					
375-0	4-375-0		1	2522 2ND AVE W	LA CROSSE	54603	Yes	1/20/2021		1/25/2021	KU569	67-70	36	2/12/2021	2/13/2021	2/13/2021					
378-0	4-378-0		1	2511 2ND AVE W	LA CROSSE	54603	No	1/20/2021	Adam Degenhardt & Kelli Hanson	2/3/2021	SH686	59-63	31	2/22/2021	2/22/2021	2/22/2021					
379-0	4-379-0		1	2515 2ND AVE W	LA CROSSE	54603	Yes	1/28/2021	Halison	2/3/2021	AC679	63-66	40	2/22/2021	2/22/2021	2/22/2021					
381-0	4-381-0		1	2527 2ND AVE W	LA CROSSE	54603	Yes	1/19/2021		1/25/2021	RK335	63-66	35	2/12/2021	2/13/2021	2/13/2021					
384-0	4-384-0		0	2535 1ST AVE W	LA CROSSE	54603	Yes	12/18/2020		12/22/2020				1/19/2021	1/19/2021	1/19/2021					
387-0	4-387-0		0	2547 1ST AVE W	LA CROSSE	54603	Yes	12/18/2020		12/22/2020				1/19/2021	na	1/19/2021	1/19/2021				
406-2	4-406-2		3	510 PLAINVIEW RD	LA CROSSE	54603	Yes	1/19/2021		1/25/2021	UO907	63-66	23	2/12/2021	2/13/2021	2/13/2021					
408-0	4-408-0		3	2642 MUTH RD	LA CROSSE	54603	Yes	1/21/2021		1/26/2021	AD566	63-66		2/12/2021	na	2/12/2021	2/16/2021				
412-0	4-412-0		OUT	504 Dauphin Street	LA CROSSE	54603	Yes	1/22/2021		1/26/2021	ZF047	60-63	27	2/12/2021	2/13/2021	2/13/2021	2/14/2021				
439-1	4-439-1)	OUT	2602 HIBBARD CT	LA CROSSE	54603		2/22/2021		2/23/2021											
468-0	4-468-0)	1	2500 3RD AVE W	LA CROSSE	54603	Yes	2/2/2021		2/15/2021	UJ234	60-63	27								
469-0	4-469-0			2504 3RD AVE W	LA CROSSE	54603	Yes	1/17/2021		1/31/2021	RF178	62.5-66.5		2/18/2021	2/18/2021	2/18/2021					
	1 .55 0					15.000		_, _, _, _,		_, 01, 2021	11.170	02.5 00.5		_, 10, 1021	_, 10, 2021	_,,					

								OMMED				144-II	Ch-Al-								
Sampling Point	Tay Barcol		Expanded				Owner	OWNER Agreement obtained? Date	Occupant Name (if diff	Completed		Well Screen interval	Static water level (ft	Lab Banart	Posulte a mail	Paculta Lattor	Bottled Water Ack.	Resample	Lah Banart		Results 2
Number	Tax Parcel Number	Owner Name	Sampling Area #	Property Address	Property City	Property 7in		of agreement	from owner)	Completed Sampling Date	UWID	(ft bgs)	bgs)	Lab Report Date	Date	Date	Date	Completed date	2 Date	e-mail Date	Letter Date
470-0	4-470-0	Owner Name	1	2508 3RD AVE W	LA CROSSE	54603	Yes	1/18/2021	nom owner)	1/21/2021	WU591	60-63	30	2/9/2021	2/9/2021	2/9/2021	Date	uate	2 Date	Date	Date
.,,,,					21010002	3 1003	103	1,10,2021		1,21,2021	***************************************	00 00		2,3,2022	2,3,2021	2,3,2021					
471-0	4-471-0		1	2512 3RD AVE W	LA CROSSE	54603	Yes	1/18/2021		1/25/2021	UT423	60-63	30	2/12/2021	2/13/2021	2/13/2021					
49-0	4-49-0		OUT	2725 Grand Ave	LA CROSSE	54603		2/21/2021		2/24/2021											
493-2	4-493-2		1	312 CALLAWAY BLVD	LA CROSSE	54603	Yes	2/1/2021		2/9/2021											
531-0	4-531-0		OUT	2539 Island Park Rd	LA CROSSE	54603	Yes	2/24/2021		2/24/2021	IF315	60-63	30								
552-0	4-552-0		OUT	2536 Lakeshore Dr	LA CROSSE	54603	YES	2/24/2021		2/24/2021	XX708	63-66	28								
600-32	4-600-32		2	101 SKY HARBOUR DR	LA CROSSE	54603	Yes	2/5/2021		2/11/2021	EV100	53-65	24								
712-1	4-712-1		OUT	1652 Lakeshore Drive	LA CROSSE	54603	Yes	2/18/2021		2/22/2021											
84-0	4-84-0		3	307 PLAINVIEW RD	LA CROSSE	54603	Yes	1/14/2021		1/18/2021				2/2/2021	2/2/2021	2/2/2021	2/9/2021				
85-0	4-85-0		3	2612 DEL RAY AVE	LA CROSSE	54603	Yes	1/20/2021		1/26/2021				2/12/2021	2/13/2021	2/13/2021					
86-0	4-86-0		3	2618 DEL RAY AVE	LA CROSSE	54603	Yes	1/23/2021		1/31/2021				2/18/2021	2/18/2021	2/18/2021					
87-0	4-87-0		3	2620 DEL RAY AVE	LA CROSSE	54603	Yes	1/24/2021		1/31/2021				2/18/2021	2/18/2021	2/18/2021					
88-0	4-88-0		3	2700 DEL RAY AVE	LA CROSSE	54603	Yes	1/21/2021		1/28/2021	AR895	84-88	30	2/18/2021	na	2/18/2021	2/18/2021				
89-0	4-89-0		3	2712 DEL RAY AVE	LA CROSSE	54603	Yes	2/18/2021		2/24/2021	AX664	60-65	25								
91-0	4-91-0		3	2726 DEL RAY AVE	LA CROSSE	54603	Yes	1/20/2021		1/21/2021	ZY450	63-66	30	2/9/2021	2/9/2021	2/9/2021	2/9/2021				
92-0	4-92-0		3	2736 DEL RAY AVE	LA CROSSE	54603	Yes	1/18/2021		1/21/2021	WY059	68-72	38	2/9/2021	2/9/2021	2/9/2021					
94-0	4-94-0		3	2744 DEL RAY AVE	LA CROSSE	54603	Yes	1/19/2021		1/26/2021	YW025	54-60	37	2/12/2021	2/12/2021	2/12/2021	2/12/2021				
95-0	4-95-0		3	2742 DEL RAY AVE	LA CROSSE	54603	Yes	1/21/2021		1/21/2021	XE170	60-63	35	2/9/2021	2/9/2021	2/9/2021	2/9/2021				
96-0	4-96-0		3	2750 DEL RAY AVE	LA CROSSE	54603	Yes	1/22/2021		2/3/2021	XE180	59-62	36	2/22/2021	2/22/2021	2/22/2021					

Table 2 Private Well Sampling Points - Resampled

Sampling Point Number	Tax Parcel Number	Owner Name	Expanded Sampling Area #	Property Address	Property City	Property Zip	Owner	OWNER Agreement obtained? Date	Occupant Name (if diff	Completed Sampling Date	UWID	Well Screen interval (ft bgs)	Static water level (ft bgs)	Lab Report Date	Results e-mail	Results Letter	Bottled Water Ack.	Resample Completed date	Lab Report		Results 2 Letter Date
104-0	4-104-0		0	2608 FANTA REED RD	LA CROSSE	54603	Yes	10/26/2020		10/27/2020	-	(* :0:)	.0.,	11/16/2020	11/17/2020	11/17/2020		1/21/2021	2/9/2021		2/9/2021
192-0	4-192-0		0	202 FANTA REED RD	LA CROSSE	54603	Yes	10/26/2020		10/27/2020	ZH086	X - 63		11/16/2020	11/17/2020	11/17/2020	2/10/2021	1/21/2021	2/9/2021	2/9/2021	2/9/2021
221-0	4-221-0		0	2537 2ND AVE E	LA CROSSE	54603	Yes	10/24/2020		10/27/2020				11/16/2020	11/18/2020	11/18/2020		1/21/2021	2/9/2021	2/9/2021	2/9/2021
224-0	4-224-0		0	2549 2ND AVE E	LA CROSSE	54603	Yes	12/18/2020		12/22/2020				1/19/2021	1/19/2021	1/19/2021		1/21/2021	2/9/2021	2/9/2021	2/9/2021
226-0	4-226-0		0	2557 2ND AVE E	LA CROSSE	54603	Yes	10/27/2020		10/29/2020				11/20/2020	11/24/2020	11/23/2020	2/10/2021	1/21/2021	2/9/2021	2/9/2021	2/9/2021
246-0	4-246-0		0	2513 1ST AVE E	LA CROSSE	54603	Yes	10/23/2020		10/29/2020				11/20/2020	na	11/23/2020		1/21/2021	2/9/2021	n/a	2/9/2021
250-0	4-250-0		0	2529 1ST AVE E	LA CROSSE	54603	No	10/26/2020	Janice Bolstad	10/29/2020		62-65		11/20/2020	11/23/2020	11/23/2020		1/21/2021	2/9/2021	2/9/2021	2/9/2021
340-0	4-340-0		0	2554 1ST AVE W	LA CROSSE	54603	Yes	10/24/2020		10/29/2020				11/20/2020	11/24/2020	11/24/2020		1/21/2021	2/9/2021	2/9/2021	2/9/2021
346-0	4-346-0		0	2504 1ST AVE W	LA CROSSE	54603	Yes	11/9/2020		11/9/2020	TY398	60-63	20	12/9/2020	12/9/2020	12/9/2020		1/21/2021	1/26/2021	2/9/2021	2/9/2021
389-0-В	4-389-0		0	2557 1ST AVE W	LA CROSSE	54603	No	10/31/2020	Gregory Wuensch	11/2/2020				11/30/2020	12/1/2020	12/1/2020	2/17/2021	1/21/2021	2/9/2021	2/9/2021	2/9/2021



January 15, 2021

2532 1st Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2532 1st Avenue East, La Crosse, WI 54603

Tax parcel # 4-200-0 Sample ID # 200-0

Dear

We have received and reviewed the test results for the sample collected on December 8, 2020 at the above address. Some PFAS compounds were found at levels <u>above</u> the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Compound	Sample Result (unit)	Recomm Public I Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}) ppt unds I 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed lim ese 6 c ed toto
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	mend of the
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	51 ppt	20 ppt a,b	recom ny <i>one</i> the <i>c</i> c
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	230 ppt	20 ppt ^{a,b}	The for a
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	42 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1200 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	20 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	35 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2532 1st Avenue East, La Crosse, WI 54603 Tax Parcel # 4-200-0 January 15, 2021

Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	38 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	110 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	6.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	6.6 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2532 1st Avenue East, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: VL15007-002 Matrix: Aqueous

Description: 200-0

Date Sampled:12/08/2020 1645

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/15/2020

Project Number: 40219739

Prep Date Batch

Run Prep Method Analytical Method Dilution Analysis Date Analyst 1 SOP SPE PFAS by ID SOP 01/03/2021 1748 MMM 12/29/2020 1225 77951 2 SOP SPE PFAS by ID SOP 5 01/05/2021 1957 SES 12/29/2020 1225 77951

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	42	3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	38	3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	110	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1200	18	4.4	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	20	3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	6.1	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	35	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	51	3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	6.6	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	230	3.6	0.89	ng/L	1
			un 2 Accepta ecovery Limit				
	,		98 25-1				

Surrogate	0		Acceptance	\circ		cceptance
	Q	% Recovery	Limits	Q	% Recovery	Limits
13C2_4:2FTS		104	25-150		98	25-150
13C2_6:2FTS		95	25-150		97	25-150
13C2_8:2FTS		95	25-150		95	25-150
13C2_PFDoA		91	25-150		95	25-150
13C2_PFHxDA		89	25-150		109	25-150

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL W = Reported on wet weight basis H = Out of holding time

Client: Pace Analytical Services, LLC

Laboratory ID: VL15007-002

Description: 200-0

Matrix: Aqueous

Date Sampled:12/08/2020 1645

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/15/2020

Project Number: 40219739

Surrogate	Run 1 Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits	
13C2_PFTeDA	91	25-150		100	25-150	
13C3_PFBS	93	25-150		101	25-150	
13C3_PFHxS	90	25-150		100	25-150	
13C3-HFPO-DA	103	25-150		103	25-150	
13C4_PFBA	100	25-150		99	25-150	
13C4_PFHpA	94	25-150		100	25-150	
13C5_PFHxA	94	25-150		100	25-150	
13C5_PFPeA	94	25-150		100	25-150	
13C6_PFDA	96	25-150		102	25-150	
13C7_PFUdA	91	25-150		94	25-150	
13C8_PFOA	91	25-150		99	25-150	
13C8_PFOS	89	25-150		98	25-150	
13C8_PFOSA	104	10-150		104	10-150	
13C9_PFNA	90	25-150		98	25-150	
d-EtFOSA	87	10-150		106	10-150	
d5-EtFOSAA	93	25-150		101	25-150	
d9-EtFOSE	92	10-150		101	10-150	
d-MeFOSA	88	10-150		114	10-150	
d3-MeFOSAA	102	25-150		112	25-150	
d7-MeFOSE	94	10-150		104	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



January 15, 2021

2544 1st Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2544 1st Avenue East, La Crosse, WI 54603

Tax parcel # 4-197-0 Sample ID # 197-0

Dear

We have received and reviewed the test results for the sample collected on December 17, 2020 at the above address. Some PFAS compounds were found at levels <u>above</u> the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Compound	Sample Result (unit)	Recomm Public H Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}) ppt unds I 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed lim ese 6 c ed tota
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	mend of the
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.5 ppt	20 ppt ^{a,b}	recom ny <i>one</i> the cc
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	84 ppt	20 ppt ^{a,b}	The for a or
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.6ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	39 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	28 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	1.7 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2544 1st Avenue East, La Crosse, WI 54603 Tax Parcel # 4-197-0 January 15, 2021

Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.0 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	6.7 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.1 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2544 1st Avenue East, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: VL19023-001 Matrix: Aqueous

Description: 197-0

Date Sampled:12/17/2020 1510

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/19/2020 Project Number: 40220069

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/03/2021 2257 MMM

Prep Date 12/30/2020 1223 78096

Batch

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 7.3 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7.3 ng/L 1 1.8 PFAS by ID SOP ND 7.3 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.3 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.3 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.3 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.3 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.3 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7.3 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.3 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.6 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.3 1.8 ng/L 1 PFAS by ID SOP ND 7.3 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 8.6 3.6 0.91 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.6 ng/L 0.91 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP 1.0 3.6 0.91 ng/L 1 3.6 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 0.91 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.6 ng/L 0 91 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 6.7 3.6 0.91 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 39 3.6 0.91 ng/L Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 28 3.6 0.91 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.6 0.91 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.6 0.91 ng/L ND Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 3.6 0.91 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 1.7 J 3.6 ng/L 1 0.91 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.6 na/L 1 0 91 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.3 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.5 3.6 0.91 ng/L 2706-90-3 Perfluoro-n-pentanoic acid (PFPeA) PFAS by ID SOP 3.6 3 1 ng/L 1 0.91 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.6 0.91 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.6 0.91 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.6 ng/L 1 0.91 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 24 3.6 ng/L 1 0.91 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 108 25-150 13C2_6:2FTS 115 25-150 112 25-150 13C2_8:2FTS 13C2_PFDoA 102 25-150

ND = Not detected at or above the DL

LOQ = Limit of Quantitation

H = Out of holding time

13C2_PFHxDA

13C2 PFTeDA

B = Detected in the method blank N = Recovery is out of criteria W = Reported on wet weight basis E = Quantitation of compound exceeded the calibration range DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

25-150

25-150

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

100

99

Client: Pace Analytical Services, LLC

Description: 197-0 Matrix: Aqueous

Date Sampled:12/17/2020 1510

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/19/2020 Project Number: 40220069

1202 DEDC 0/ 25 150	
13C3_PFBS 96 25-150	
13C3_PFHxS 100 25-150	
13C3-HFPO-DA 112 25-150	
13C4_PFBA 104 25-150	
13C4_PFHpA 113 25-150	
13C5_PFHxA 105 25-150	
13C5_PFPeA 104 25-150	
13C6_PFDA 103 25-150	
13C7_PFUdA 99 25-150	
13C8_PFOA 102 25-150	
13C8_PFOS 86 25-150	
13C8_PFOSA 108 10-150	
13C9_PFNA 99 25-150	
d-EtFOSA 85 10-150	
d5-EtFOSAA 102 25-150	
d9-EtFOSE 114 10-150	
d-MeFOSA 99 10-150	
d3-MeFOSAA 107 25-150	
d7-MeFOSE 96 10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: VL19023-001

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



January 15, 2021

2520 1st Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2520 1st Avenue East, La Crosse, WI 54603

Tax parcel # 4-203-0 Sample ID # 203-0

Dear

We have received and reviewed the test results for the sample collected on December 17, 2020 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	nit is 20 compou al of all
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	i.
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended ny <i>one</i> of these the <i>combined</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The for a

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	12 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.6 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	2.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	4.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.1 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2520 1st Avenue East, La Crosse, WI 54603 Tax parcel # 4-203-0 Sample ID # 203-0 January 15, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: VL19023-002

Matrix: Aqueous

Description: 203-0

Date Sampled:12/17/2020 1515

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/19/2020

Project Number: 40220069

Run Prep Method 2 SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/11/2021 1549 SES

Prep Date

Batch 01/08/2021 1129 78830

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	2
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	6.5	3.7	0.93	ng/L	2
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.4	3.7	0.93	ng/L	2
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	12	3.7	0.93	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	7.6	3.7	0.93	ng/L	2
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.5 J	3.7	0.93	ng/L	2
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	2
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1 J	3.7	0.93	ng/L	2
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	2
		otance nits					
-		-150					
	119 25	-150					
13C2_8:2FTS	104 25	-150					
13C2_PFDoA	108 25	-150					
13C2_PFHxDA	102 25	-150					
13C2_PFTeDA	107 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 203-0

Laboratory ID: VL19023-002

Matrix: Aqueous

Date Sampled:12/17/2020 1515

Project Name: LACROSSE WELL 23 & 24

Date Received: 12/19/2020

Project Number: 40220069

	Run 2 A	cceptance Limits	
Surrogate			
13C3_PFBS	109	25-150	
13C3_PFHxS	113	25-150	
13C3-HFPO-DA	121	25-150	
13C4_PFBA	119	25-150	
13C4_PFHpA	117	25-150	
13C5_PFHxA	112	25-150	
13C5_PFPeA	117	25-150	
13C6_PFDA	109	25-150	
13C7_PFUdA	111	25-150	
13C8_PFOA	112	25-150	
13C8_PFOS	100	25-150	
13C8_PFOSA	122	10-150	
13C9_PFNA	112	25-150	
d-EtFOSA	122	10-150	
d5-EtFOSAA	110	25-150	
d9-EtFOSE	107	10-150	
d-MeFOSA	102	10-150	
d3-MeFOSAA	124	25-150	
d7-MeFOSE	110	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



January 15, 2021

2500 Bainbridge Street La Crosse, WI 54603

Subject: Private Well Sampling Results

2500 Bainbridge Street, La Crosse, WI 54603

Tax parcel # 4-242-0 Sample ID # 242-0

Dear :

We have received and reviewed the test results for the sample collected on December 17, 2020 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomn Public I Standard	Health	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	nit is 20 compou al of all	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	9	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended ny <i>one</i> of these the <i>combined</i>	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.9 ppt	20 ppt ^{a,b}		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.3 ppt	20 ppt ^{a,b}	The for a	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	5.7 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.2 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2500 Bainbridge Street, La Crosse, WI 54603 Tax parcel # 4-242-0 Sample ID # 242-0 January 15, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: VL19023-003

Description: 242-0 Matrix: Aqueous

Date Sampled:12/17/2020 1525 Project Name: LACROSSE WELL 23 & 24

Date Received: 12/19/2020 Project Number: 40220069

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch
2 SOP SPE PFAS by ID SOP 1 01/11/2021 1559 SES 01/08/2021 1129 78830

11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid (11C1-PF3) 763051-92-9 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 14H, 2H, 2H)-perfluoroedceane sulfonic acid (62-FTS) 3108-344 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 14H, 2H, 2H-perfluoroedceane sulfonic acid (62-FTS) 120226-60 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 14H, 2H-2H-perfluoroedceane sulfonic acid (102-FTS) 120226-60 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 14H, 2H-2H-perfluoroedceane sulfonic acid (12-FTS) 120226-60 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 14H, 2H-2H-perfluoroedceane sulfonic acid (12-FTS) 757124-72-4 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 11H, 2H-2H-perfluoroedceane sulfonic acid (12-FTS) 757124-72-4 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 11H, 2H-2H-perfluoroenanic acid (ADONA) 13252-13-6 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 11H, 2H-2H-perfluoroenanic acid (ADONA) 179005-14-4 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 11H, 2H-2H-perfluoroenanic acid (ADONA) 179005-14-4 PFAS by ID SOP ND 7.4 1.8 ng/L 11H, 11H, 2H-2H-perfluoroenanic acid (ADONA) 179005-14-4 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (EFOSA) 13166-328 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 13166-328 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 13166-328 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1356-33-19 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1356-33-19 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1356-33-19 PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1357-33- PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1357-33- PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (NeFOSA) 1357-34- PFAS by ID SOP ND 7.4 1.8 ng/L 12-N-entylyperfluoro-1-octanesulfonamidoseelic acid (PFDS) 1357-35- PFAS by ID S	Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8.2 FTS) 39108-34.4 PFAS by ID SOP ND 7.4 1.8 ng/L 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (6.2 FTS) 27619-97.2 PFAS by ID SOP ND 7.4 1.8 ng/L 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (1.2 FTS) 127026-60.0 ND 7.4 1.8 ng/L 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (1.2 FTS) 757124-72.4 PFAS by ID SOP ND 7.4 1.8 ng/L 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (4.2 FTS) 757124-72.4 PFAS by ID SOP ND 7.4 1.8 ng/L 148. dickas 3H-perfluorodecane acid (ADONA) 91905-14.4 PFAS by ID SOP ND 7.4 1.8 ng/L 18. dickas 3H-perfluorodecane acid (ADONA) 91905-14.4 PFAS by ID SOP ND 7.4 1.8 ng/L 18. ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (EIFOSA) 291-50-6 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (EIFOSA) 291-50-6 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (EIFOSA) 31506-32.8 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (MeFOSA) 31506-32.8 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (MeFOSA) 3355-33-9 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (MeFOSA) 3355-33-9 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (MeFOSA) 3357-33-9 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamidecetic acid (MeFOSA) 3357-33-9 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonic acid (PFBS) 3357-33-9 PFAS by ID SOP ND 3.7 0.92 ng/L N-ethuro-1-heptanesulfonic acid (PFBS) 3357-33-9 PFAS by ID SOP ND 3.7 0.92 ng/L N-ethuro-1-heptanesulfonic acid (PFBS) 3357-33-9 PFAS by ID SOP ND 3.7 0.92 ng/L N-ethuro-1-heptanesulfonic acid (PFBS) 375-92-8 PFAS by ID SOP ND 3.7	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
1H, 1H, 2H, 2H-perfluorootane sulfonic acid (62 FTS) 27619-97-2 PFAS by ID SOP ND 7.4 1.8 ng/L	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
TH,1H,2H,2H-perfluorododecane sulfonic acid (10.2 FTS) 120226 60 0 PFAS by ID SOP ND 7.4 1.8 ng/L	1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
TH,1H,2H,2H-perfluorohexane sulfonic acid (42 FTS) 757124-72-4 PFAS by ID SOP ND 7.4 1.8 ng/L	1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.4 1.8 ng/L	1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
4.8-dioxa-3H-perfluoron-nonanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.4 1.8 ng/L N-ethylperfluoro-1-octanesulfonamide (EIFOSA) 4151-50-2 PFAS by ID SOP ND 7.4 1.8 ng/L 1.8 ng/	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
N-ethylperfluoro-1-octanesulfonamide (EIFOSA)	Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
N-elthylperfluoro-1-octanesulfonamidoacetic acid (EIFOSAA)	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EIFOSE) 1691-99-2 PFAS by ID SOP ND 7.4 1.8 ng/L N-methylperfluoro-1-octanesulfonamido (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.7 ng/L N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSA) 2355-31-9 PFAS by ID SOP ND 7.4 1.8 ng/L 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 PFAS by ID SOP ND 7.4 1.8 ng/L 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 PFAS by ID SOP ND 7.4 1.8 ng/L 2-N-methylperfluoro-1-octanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-betanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-octanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-octanesulfonic acid (PFBS) 375-73-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-octanesulfonic acid (PFBS) 375-73-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-octanesulfonic acid (PFBS) 375-73-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-octanesulfonic acid (PFDOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-pentanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-1-pentanesulfonic acid (PFBA) 375-24 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-doctanesulfonic acid (PFBA) 375-24 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-doctanoic acid (PFBA) 375-25-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-doctanoic acid (PFDOA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-hexanecanoic acid (PFHAD) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-hexanecanoic acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-hexanecanoic acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-hexanecian acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-hexanecian acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-beanoic acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-beanoic acid (PFHAD) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L 2-Perfluoro-n-pentanoic	N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.7 ng/L N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.4 1.8 ng/L 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 PFAS by ID SOP ND 7.4 1.8 ng/L 18 ng/L	N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSA)	2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	2
Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-heptanesulfonic acid (PFHS) 375-92-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-noanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-noanesulfonic acid (PFNS) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorobadecanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorobadecanesulfonic acid (PFDS) 79780-39-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-becanesulfonic acid (PFBA) 375-22-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-bedacanoic acid (PFDA) 335	N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-octanesulfonandide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFPOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-theanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-butanole acid (PFBA) 375-22-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-butanole acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-benanic acid (PFDA) 375-85-9	2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-octanesulfonic acid (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-decanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-decanesulfonic acid (PFDOS) 355-46-4 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-butanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFDA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHADA) <td< td=""><td>Perfluoro-1-butanesulfonic acid (PFBS)</td><td>375-73-5</td><td>PFAS by ID SOP</td><td>ND</td><td></td><td>3.7</td><td>0.92</td><td>ng/L</td><td>2</td></td<>	Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFPOS) 2706-91-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-nesulfonic acid (PFDAS) 355-46-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFBA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA)<	Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-nesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-nebutanoic acid (PFBA) 375-22-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-nedecanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-nedecanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-nebetanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-nebetanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-nebetanoic acid (PFIXA) 307-24-4	Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluorohexanesulfonic acid (PFHXS) 355-46-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 5.7 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFDA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHXA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFOA) 335-67-	Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 5.7 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-dodecanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octaadecanoic acid (PFNA) 375-95-1	Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 1.0 J 3.7 0.92 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 5.7 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxA) 67905-19-5 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nocanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFOA) 335-67-1 <td< td=""><td>Perfluoro-1-pentanesulfonic acid (PFPeS)</td><td>2706-91-4</td><td>PFAS by ID SOP</td><td>ND</td><td></td><td>3.7</td><td>0.92</td><td>ng/L</td><td>2</td></td<>	Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 5.7 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHAA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-pentanoic acid (PFOA) 376-06-7 PFAS by ID SOP	Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-dodecanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHADA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHxADA) 67905-19-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-hexanoic acid (PFHxADA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octanoic acid (PFODA) 335-67-1 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-pentanoic acid (PFDA) 2706-90-3 PFAS by ID SOP	Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.0	J	3.7	0.92	ng/L	2
Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-pentanoic acid (PFOA) 376-09-3 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8	Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	5.7		3.7	0.92	ng/L	2
Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFOA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA)	Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFOS)	Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L	Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L	Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 1.8 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 1.9 J 3.7 0.92 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.2 J 3.7 0.92 ng/L Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L Run 2 Acceptance	Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	2
Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L 2 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L 2 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L 2 Run 2 Acceptance Acceptance <t< td=""><td>Perfluoro-n-octanoic acid (PFOA)</td><td>335-67-1</td><td>PFAS by ID SOP</td><td>1.9</td><td>J</td><td>3.7</td><td>0.92</td><td>ng/L</td><td>2</td></t<>	Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.9	J	3.7	0.92	ng/L	2
Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L Run 2 Acceptance	Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.2	J	3.7	0.92	ng/L	2
Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L Run 2 Acceptance	Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 2.3 J 3.7 0.92 ng/L 2 Run 2 Acceptance	Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Run 2 Acceptance	Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	2
Run 2 Acceptance Surrogate O % Recovery Limits	Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.3	J	3.7	0.92	ng/L	2
5 2 Notes of Similar		un 2 Accep covery Lir	otance mits						
13C2_4:2FTS 108 25-150	13C2_4:2FTS	108 25	-150						
13C2_6:2FTS 105 25-150	13C2_6:2FTS	105 25	-150						
13C2_8:2FTS 99 25-150	13C2_8:2FTS	99 25	-150						
13C2_PFDoA 95 25-150	13C2_PFDoA	95 25	-150						

13C2_PFTeDA

13C2_PFHxDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

P = The RPD between two GC columns exceeds 40%

25-150

25-150

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

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99

Client: Pace Analytical Services, LLC

Description: 242-0

Date Sampled:12/17/2020 1525

Project Name: LACROSSE WELL 23 & 24

Laboratory ID: VL19023-003

Matrix: Aqueous

Date Received: 12/19/2020

Project Number: 40220069

	Run 2 A	cceptance Limits	
Surrogate			
13C3_PFBS	107	25-150	
13C3_PFHxS	105	25-150	
13C3-HFPO-DA	114	25-150	
13C4_PFBA	118	25-150	
13C4_PFHpA	109	25-150	
13C5_PFHxA	109	25-150	
13C5_PFPeA	115	25-150	
13C6_PFDA	103	25-150	
13C7_PFUdA	109	25-150	
13C8_PFOA	106	25-150	
13C8_PFOS	99	25-150	
13C8_PFOSA	115	10-150	
13C9_PFNA	104	25-150	
d-EtFOSA	111	10-150	
d5-EtFOSAA	104	25-150	
d9-EtFOSE	93	10-150	
d-MeFOSA	94	10-150	
d3-MeFOSAA	119	25-150	
d7-MeFOSE	94	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



January 21, 2021

2541 2nd Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2541 2nd Avenue East, La Crosse, WI 54603

Tax parcel # 4-222-0 Sample ID # 222-0

Dear :

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	nit is 20 compou cal of all
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	<u>≕</u> 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended ny <i>one</i> of these the <i>combined</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.6 ppt	20 ppt ^{a,b}	The for a or

Private Well Sampling Results for 2541 2nd Avenue East, La Crosse, WI 54603 Tax parcel # 4-222-0 Sample ID # 222-0 January 21, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	12 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	29 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	4.6 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

⁴ Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2541 2nd Avenue East, La Crosse, WI 54603 Tax parcel # 4-222-0 Sample ID # 222-0 January 21, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-004

Matrix: Aqueous

Description: 222-0

Date Sampled:01/05/2021 1555

Project Name: 1901155 LACROSSE WELLS 23

Analytical

Date Received: 01/08/2021

Project Number: 40220667

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/14/2021 0201 SES

Prep Date 01/12/2021 1016 79085

Batch

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	16	4.1	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.1	4.1	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.6	4.1	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	12	4.1	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	29	4.1	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.2	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.1	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.6 J	4.1	1.0	ng/L	1
		otance nits					
13C2_4:2FTS	85 25	-150					
13C2_6:2FTS	83 25	-150					
13C2_8:2FTS	82 25	-150					
13C2_PFDoA	79 25	-150					
13C2_PFHxDA	75 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2_PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

80

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-004

Matrix: Aqueous

Description: 222-0

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Date Sampled:01/05/2021 1555

Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	81	25-150
13C3_PFHxS	93	25-150
13C3-HFPO-DA	90	25-150
13C4_PFBA	93	25-150
13C4_PFHpA	88	25-150
13C5_PFHxA	90	25-150
13C5_PFPeA	88	25-150
13C6_PFDA	85	25-150
13C7_PFUdA	83	25-150
13C8_PFOA	85	25-150
13C8_PFOS	79	25-150
13C8_PFOSA	83	10-150
13C9_PFNA	90	25-150
d-EtFOSA	66	10-150
d5-EtFOSAA	79	25-150
d9-EtFOSE	68	10-150
d-MeFOSA	71	10-150
d3-MeFOSAA	87	25-150
d7-MeFOSE	69	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



January 21, 2021

2536 Bainbridge Street La Crosse, WI 54603

Subject: Private Well Sampling Results

2536 Bainbridge Street, La Crosse, WI 54603

Tax Parcel # 4-232-0 Sample ID # 232-0

Dear

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. **PLEASE NOTE: We collected two samples from your well and sent them to two separate labs as a quality control check. These are referred to as "split" samples. The results of the two tests were similar. The results of the higher of the two are shown in the table below.**

Compound	Sample Result (unit)	Recomn Public Standard	Health	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ded lin nese 6 ned tot	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6 Not Detected		20 ppt ^{a,b}	nmenc e of th ombir	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	recor any <i>on</i> r the <i>c</i>	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	11 ppt	20 ppt ^{a,b}	The for a	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a		
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.9 ppt	450,000 ppt		
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	26 ppt	40 ppt ^a		
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	85 ppt	10,000 ppt ^a		
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a		

Private Well Sampling Results for 2536 Bainbridge Street, La Crosse, WI 54603 Tax Parcel # 4-232-0 Sample ID # 232-0 January 21, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	9.8 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-003

Description: 232-0

Date Sampled:01/05/2021 1545

Matrix: Aqueous

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch SOP SPE PFAS by ID SOP 01/14/2021 0140 SES 01/12/2021 1016 79085

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	9.9	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	9.8	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	26	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	85	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.2	3.6	0.91	ng/L	1
		otance mits					
_		-150					
		-150					
13C2_8:2FTS	97 25	-150					
13C2_PFDoA	84 25	-150					
13C2_PFHxDA	80 25	-150					
13C2_PFTeDA	89 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-003

Description: 232-0

Date Received: 01/08/2021

Matrix: Aqueous

Date Sampled:01/05/2021 1545

Project Name: 1901155 LACROSSE WELLS 23

Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	89	25-150
13C3_PFHxS	91	25-150
13C3-HFPO-DA	98	25-150
13C4_PFBA	97	25-150
13C4_PFHpA	96	25-150
13C5_PFHxA	95	25-150
13C5_PFPeA	93	25-150
13C6_PFDA	92	25-150
13C7_PFUdA	91	25-150
13C8_PFOA	89	25-150
13C8_PFOS	89	25-150
13C8_PFOSA	92	10-150
13C9_PFNA	96	25-150
d-EtFOSA	76	10-150
d5-EtFOSAA	85	25-150
d9-EtFOSE	77	10-150
d-MeFOSA	76	10-150
d3-MeFOSAA	88	25-150
d7-MeFOSE	81	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



ANALYTICAL RESULTS

Project: 1901155 LACROSSE WELLS 23 & 24

Pace Project No.: 40220667

Date: 01/20/2021 05:01 PM

Sample: 232-0	Lab ID:	40220667003	Collecte	d: 01/05/21	15:45	Received: 01/	07/21 11:00 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
537.1 PFAS Compounds, Water	Analytical	Method: EPA 5	37.1 Prepa	aration Meth	od: EP/	A 537.1			
•	Pace Anal	ytical Services	- Ormond E	Beach					
11CI-PF3OUdS	<0.0015	ug/L	0.0019	0.0015	1	01/16/21 14:08	01/19/21 02:31	763051-92-9	
9CI-PF3ONS	<0.0011	ug/L	0.0019	0.0011	1	01/16/21 14:08	01/19/21 02:31	756426-58-1	
ADONA	<0.00070	ug/L	0.0019	0.00070	1	01/16/21 14:08	01/19/21 02:31	919005-14-4	
HFPO-DA	<0.0016	ug/L	0.0019	0.0016	1	01/16/21 14:08	01/19/21 02:31	13252-13-6	
NEtFOSAA	<0.00089	ug/L	0.0019	0.00089	1	01/16/21 14:08	01/19/21 02:31	2991-50-6	
NMeFOSAA	<0.0015	ug/L	0.0019	0.0015	1	01/16/21 14:08	01/19/21 02:31	2355-31-9	
Perfluorobutanesulfonic acid	0.0092	ug/L	0.0019	0.00064	1	01/16/21 14:08	01/19/21 02:31	375-73-5	
Perfluorodecanoic acid	< 0.0019	ug/L	0.0019	0.0019	1	01/16/21 14:08	01/19/21 02:31	335-76-2	
Perfluorohexanoic acid	< 0.0012	ug/L	0.0019	0.0012	1	01/16/21 14:08	01/19/21 02:31	307-24-4	
Perfluorododecanoic acid	< 0.0014	ug/L	0.0019	0.0014	1	01/16/21 14:08	01/19/21 02:31	307-55-1	
Perfluoroheptanoic acid	<0.00097	ug/L	0.0019	0.00097	1	01/16/21 14:08	01/19/21 02:31	375-85-9	
Perfluorohexanesulfonic acid	0.022	ug/L	0.0019	0.00070	1	01/16/21 14:08	01/19/21 02:31	355-46-4	
Perfluorononanoic acid	< 0.0019	ug/L	0.0019	0.0019	1	01/16/21 14:08	01/19/21 02:31	375-95-1	
Perfluorooctanesulfonic acid	0.011	ug/L	0.0019	0.0012	1	01/16/21 14:08	01/19/21 02:31	1763-23-1	
Perfluorooctanoic acid	<0.00084	ug/L	0.0019	0.00084	1	01/16/21 14:08	01/19/21 02:31	335-67-1	
Perfluorotetradecanoic acid	<0.0018	ug/L	0.0019	0.0018	1	01/16/21 14:08	01/19/21 02:31	376-06-7	
Perfluorotridecanoic acid	<0.0017	ug/L	0.0019	0.0017	1	01/16/21 14:08	01/19/21 02:31	72629-94-8	
Perfluoroundecanoic acid	< 0.0019	ug/L	0.0019	0.0019	1	01/16/21 14:08	01/19/21 02:31	2058-94-8	
Surrogates									
13C2-PFDA (S)	97	%	70-130		1	01/16/21 14:08	01/19/21 02:31		
13C2-PFHxA (S)	94	%	70-130		1	01/16/21 14:08	01/19/21 02:31		
NEtFOSAA-d5 (S)	83	%	70-130		1	01/16/21 14:08	01/19/21 02:31		
HFPO-DAS (S)	92	%	70-130		1	01/16/21 14:08	01/19/21 02:31		

REPORT OF LABORATORY ANALYSIS



444 21st Street South · La Crosse, Wisconsin · 54601

January 21, 2021

417 LARKSPUR LN E Onalaska, WI 54650

Subject: Private Well Sampling Results

2501 1st Ave East, La Crosse, WI 54603

Tax parcel # 4-243-0 Sample ID # 243-0

Dear

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	lealth	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	nit is 20 compou al of all	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	9	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended ny <i>one</i> of these the <i>combined</i>	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.8 ppt	20 ppt ^{a,b}	The for a or	

Private Well Sampling Results for 2501 1st Ave East, La Crosse, WI 54603 Tax parcel # 4-243-0 Sample ID # 243-0 January 21, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.7 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	2.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2501 1st Ave East, La Crosse, WI 54603 Tax parcel # 4-243-0 Sample ID # 243-0 January 21, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-001

Description: 243-0

Matrix: Aqueous

Date Sampled:01/05/2021 1515

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/13/2021 2322 SES

Prep Date

Batch 01/12/2021 1016 79085

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
${\it 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic\ acid\ (11Cl-PF3)}$	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.1	J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.3	J	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.3		3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	8.7		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.8	J	3.7	0.93	ng/L	1
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Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

ND = Not detected at or above the DL

H = Out of holding time

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N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-001

Matrix: Aqueous

Description: 243-0

Date Sampled:01/05/2021 1515

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	93	25-150
13C3_PFHxS	92	25-150
13C3-HFPO-DA	99	25-150
13C4_PFBA	99	25-150
13C4_PFHpA	98	25-150
13C5_PFHxA	95	25-150
13C5_PFPeA	101	25-150
13C6_PFDA	92	25-150
13C7_PFUdA	92	25-150
13C8_PFOA	95	25-150
13C8_PFOS	90	25-150
13C8_PFOSA	102	10-150
13C9_PFNA	93	25-150
d-EtFOSA	82	10-150
d5-EtFOSAA	94	25-150
d9-EtFOSE	85	10-150
d-MeFOSA	72	10-150
d3-MeFOSAA	101	25-150
d7-MeFOSE	98	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

DL = Detection Limit

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

January 21, 2021

2501 1st Ave East La Crosse, WI 54603

Subject: Private Well Sampling Results

2501 1st Ave East, La Crosse, WI 54603

Tax parcel # 4-243-0 Sample ID # 243-0

Dear

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt ınds 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 mpou of all
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	recommended limit ny <i>one</i> of these 6 co the <i>combined total</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended ny <i>one</i> of these the <i>combined</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.8 ppt	20 ppt a,b	The for a or

Private Well Sampling Results for 2501 1st Ave East, La Crosse, WI 54603 Tax parcel # 4-243-0 Sample ID # 243-0 January 21, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.7 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	2.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

¹ Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2501 1st Ave East, La Crosse, WI 54603 Tax parcel # 4-243-0 Sample ID # 243-0 January 21, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-001

Description: 243-0 Matrix: Aqueous

Date Sampled:01/05/2021 1515

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021 Project Number: 40220667

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/13/2021 2322 SES

Analytical

CAS

Prep Date Batch 01/12/2021 1016 79085

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.1 J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.3 J	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.3	3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	8.7	3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.8 J	3.7	0.93	ng/L	1
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_		-150					
		-150					
	85 25	-150					
13C2_PFDoA	87 25	-150					
13C2_PFHxDA	89 25	-150					
13C2_PFTeDA	88 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-001

Description: 243-0

Project Name: 1901155 LACROSSE WELLS 23

Date Sampled:01/05/2021 1515

Matrix: Aqueous

Date Received: 01/08/2021

Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	93	25-150	
13C3_PFHxS	92	25-150	
13C3-HFPO-DA	99	25-150	
13C4_PFBA	99	25-150	
13C4_PFHpA	98	25-150	
13C5_PFHxA	95	25-150	
13C5_PFPeA	101	25-150	
13C6_PFDA	92	25-150	
13C7_PFUdA	92	25-150	
13C8_PFOA	95	25-150	
13C8_PFOS	90	25-150	
13C8_PFOSA	102	10-150	
13C9_PFNA	93	25-150	
d-EtFOSA	82	10-150	
d5-EtFOSAA	94	25-150	
d9-EtFOSE	85	10-150	
d-MeFOSA	72	10-150	
d3-MeFOSAA	101	25-150	
d7-MeFOSE	98	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

January 21, 2021

2546 1st Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2546 1st Avenue West, La Crosse, WI 54603

Tax parcel # 4-336-0 Sample ID # 336-0

Dear :

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were *below* the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. PLEASE NOTE: At your residence we took a second "duplicate" sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit e)		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for ids or 6	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pour of all	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	6 E	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	mende of thes ombine	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.4 ppt	20 ppt ^{a,b}	The recommended any <i>one</i> of these the <i>combined</i>	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.1 ppt	20 ppt ^{a,b}	The an)	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	10 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	54 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	3.6 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	5.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	4.0 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2546 1st Avenue West, La Crosse, WI 54603 Tax parcel # 4-336-0 Sample ID # 336-0 January 21, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-002

Description: 336-0 Matrix: Aqueous

Date Sampled:01/05/2021 1530

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/14/2021 0119 SES

Analytical

Prep Date

Batch 01/12/2021 1016 79085

Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 7 2 756426-58-1 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7 2 ng/L 1 1.8 PFAS by ID SOP ND 7 2 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.2 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7 2 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.2 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7 2 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.2 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 14 3.6 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7 2 1.8 ng/L 1 PFAS by ID SOP ND 7.2 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 5.8 3.6 0.90 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.6 0.90 ng/L 1 3.6 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 0.90 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 4.0 3.6 0.90 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 9.5 3.6 ng/L 0.90 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 54 3.6 0.90 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.6 ng/L 0.90 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 1.0 3.6 0.90 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 3.6 3.6 ng/L 1 0.90 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.6 na/L 1 0.90 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.2 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.0 3.6 0.90 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 3.6 40 ng/L 1 0.90 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.6 ng/L 1 0.90 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 4 1 3.6 ng/L 1 0.90 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 84 25-150 13C2_6:2FTS 79 25-150 92 25-150 13C2_8:2FTS 13C2_PFDoA 85 25-150 13C2_PFHxDA 81 25-150 13C2 PFTeDA 86 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-002

Matrix: Aqueous

Description: 336-0

Project Name: 1901155 LACROSSE WELLS 23

Date Sampled:01/05/2021 1530

Date Received: 01/08/2021 Project Number: 40220667

Surrogate	Run 1 Ao Q % Recovery	Acceptance Limits
13C3_PFBS	80	25-150
13C3_PFHxS	96	25-150
13C3-HFPO-DA	91	25-150
13C4_PFBA	92	25-150
13C4_PFHpA	91	25-150
13C5_PFHxA	90	25-150
13C5_PFPeA	87	25-150
13C6_PFDA	86	25-150
13C7_PFUdA	89	25-150
13C8_PFOA	88	25-150
13C8_PFOS	84	25-150
13C8_PFOSA	86	10-150
13C9_PFNA	85	25-150
d-EtFOSA	75	10-150
d5-EtFOSAA	90	25-150
d9-EtFOSE	77	10-150
d-MeFOSA	79	10-150
d3-MeFOSAA	88	25-150
d7-MeFOSE	83	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-005 Matrix: Aqueous

Description: DUP #8

Date Sampled:01/05/2021 1535 Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021 Project Number: 40220667

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/14/2021 0212 SES

Prep Date

Batch 01/12/2021 1016 79085

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	6.1	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	5.1	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	10	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	52	3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.2 J	3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.6	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.4 J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.8	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.0	3.5	0.87	ng/L	1
Surrogate Q % Rec	covery Lir	otance mits					
		-150					
		-150					
	92 25	-150					
13C2_PFDoA	88 25	-150					
13C2_PFHxDA	79 25	-150					
13C2_PFTeDA	87 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-005 Matrix: Aqueous

Description: DUP #8

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Date Sampled:01/05/2021 1535

Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	83	25-150	
13C3_PFHxS	89	25-150	
13C3-HFPO-DA	100	25-150	
13C4_PFBA	95	25-150	
13C4_PFHpA	89	25-150	
13C5_PFHxA	92	25-150	
13C5_PFPeA	93	25-150	
13C6_PFDA	87	25-150	
13C7_PFUdA	89	25-150	
13C8_PFOA	91	25-150	
13C8_PFOS	84	25-150	
13C8_PFOSA	88	10-150	
13C9_PFNA	89	25-150	
d-EtFOSA	73	10-150	
d5-EtFOSAA	84	25-150	
d9-EtFOSE	81	10-150	
d-MeFOSA	90	10-150	
d3-MeFOSAA	89	25-150	
d7-MeFOSE	83	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

January 21, 2021

812 Callaway Ct. La Crosse, WI 54603

Subject: Private Well Sampling Results

2546 1st Avenue West, La Crosse, WI 54603

Tax parcel # 4-336-0 Sample ID # 336-0

Dear :

We have received and reviewed the test results for the sample collected on January 5, 2021 at the above address. Some PFAS compounds were found, but the levels found were *below* the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. PLEASE NOTE: At your property we took a second "duplicate" sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	t for or
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	mit is 20 ppt compounds c <i>otal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt a,b	4 li 6 7 t
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	mmended of these (
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.4 ppt	20 ppt ^{a,b}	ne recommended any <i>one</i> of these the <i>combined</i>
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.1 ppt	20 ppt ^{a,b}	The an}

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	10 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	54 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	3.6 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	5.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	4.0 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2546 1st Avenue West, La Crosse, WI 54603 Tax parcel # 4-336-0 Sample ID # 336-0 January 21, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-002

Description: 336-0 Matrix: Aqueous

Date Sampled:01/05/2021 1530

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

Run	Prep Method
1	SOP SPE

Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/14/2021 0119 SES

Prep Date

Batch 01/12/2021 1016 79085

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.8	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.0	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	9.5	3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	54	3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.0 J	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.6	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.0 J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.0	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	4.1	3.6	0.90	ng/L	1
cindo occidiosano ne dela (1100)				0.0	0.90	119/2	•
		otance nits					
13C2_4:2FTS		-150					·
13C2_6:2FTS	79 25	-150					
13C2_8:2FTS	92 25	-150					
13C2_PFDoA	85 25	-150					
 13C2_PFHxDA		-150					
		-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-002

Matrix: Aqueous

Description: 336-0

Date Sampled:01/05/2021 1530

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021 Project Number: 40220667

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	80	25-150
13C3_PFHxS	96	25-150
13C3-HFPO-DA	91	25-150
13C4_PFBA	92	25-150
13C4_PFHpA	91	25-150
13C5_PFHxA	90	25-150
13C5_PFPeA	87	25-150
13C6_PFDA	86	25-150
13C7_PFUdA	89	25-150
13C8_PFOA	88	25-150
13C8_PFOS	84	25-150
13C8_PFOSA	86	10-150
13C9_PFNA	85	25-150
d-EtFOSA	75	10-150
d5-EtFOSAA	90	25-150
d9-EtFOSE	77	10-150
d-MeFOSA	79	10-150
d3-MeFOSAA	88	25-150
d7-MeFOSE	83	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-005 Matrix: Aqueous

Description: DUP #8

Analytical

Date Sampled:01/05/2021 1535

Project Name: 1901155 LACROSSE WELLS 23

Date Received: 01/08/2021

Project Number: 40220667

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/14/2021 0212 SES

Prep Date

Batch 01/12/2021 1016 79085

Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 6.9 1.7 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 69 ng/L 1 17 PFAS by ID SOP ND 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 6.9 ng/L 1 1.7 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 6.9 ng/L 1 1.7 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 6.9 ng/L 1 1.7 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 6.9 ng/L 1 1.7 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 6.9 1.7 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 69 1 7 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 6.9 1.7 ng/L 1 6.9 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 1 7 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 6.9 1.7 ng/L 3.5 N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 14 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 6.9 1.7 ng/L 1 PFAS by ID SOP 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND 6.9 1.7 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 6.1 3.5 0.87 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.5 ng/L 0.87 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.5 0.87 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.5 0.87 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.5 0.87 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 5.1 3.5 0.87 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 6.9 ng/L 1 1.7 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 10 3.5 ng/L 0.87 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 52 3.5 0.87 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.5 0.87 ng/L 1 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.5 0.87 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 1.2 3.5 0.87 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 6.9 ng/L 1 1.7 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 3.6 3.5 ng/L 1 0.87 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.5 na/L 1 0.87 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 6.9 ng/L 1.7 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.5 3.4 0.87 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 3.8 3.5 ng/L 1 0.87 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.5 0.87 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.5 0.87 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.5 ng/L 1 0.87 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 40 3.5 ng/L 1 0.87 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 91 25-150 13C2_6:2FTS 81 25-150 92 25-150 13C2_8:2FTS 13C2_PFDoA 88 25-150 13C2_PFHxDA 79 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2 PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

87

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA08113-005

Description: DUP #8

Project Name: 1901155 LACROSSE WELLS 23

Date Sampled:01/05/2021 1535

Matrix: Aqueous

Date Received: 01/08/2021

Project Number: 40220667

Common marks	Run 1 Acc	ceptance Limits
Surrogate	-	
13C3_PFBS	83	25-150
13C3_PFHxS	89	25-150
13C3-HFPO-DA	100	25-150
13C4_PFBA	95	25-150
13C4_PFHpA	89	25-150
13C5_PFHxA	92	25-150
13C5_PFPeA	93	25-150
13C6_PFDA	87	25-150
13C7_PFUdA	89	25-150
13C8_PFOA	91	25-150
13C8_PFOS	84	25-150
13C8_PFOSA	88	10-150
13C9_PFNA	89	25-150
d-EtFOSA	73	10-150
d5-EtFOSAA	84	25-150
d9-EtFOSE	81	10-150
d-MeFOSA	90	10-150
d3-MeFOSAA	89	25-150
d7-MeFOSE	83	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 1, 2021

2544 2nd Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2544 2nd Avenue East, La Crosse, WI 54603

Tax parcel # 4-182-0 Sampling Point # 182-0 Sampling Date: 01/13/21

Dear :

We have received and reviewed the test results for the sample collected on January 13, 2021 at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public H Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds otal of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	The recommended lim any <i>one</i> of these 6 com <i>combined total</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.2 ppt	20 ppt ^{a,b}	ecomr ne of t com
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	18 ppt	20 ppt a,b	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.2 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.0 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	5.8 ppt	10,000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	2.7 ppt	150,000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10,000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2544 2nd Avenue East, La Crosse, WI 54603 Tax Parcel # 4-182-0 February 1, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.6 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2544 2nd Avenue East, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA19030-003

Description: 182-0

Date Sampled:01/13/2021 1540

Matrix: Aqueous

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/19/2021

Project Number: 40221047

Run Prep Method SOP SPE

Prep Date

Batch

Analytical Method Dilution Analysis Date Analyst PFAS by ID SOP 01/26/2021 2038 JJG 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.2	3.8	0.96	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.0 J	3.8	0.96	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	5.8	3.8	0.96	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.8 J	3.8	0.96	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.7 J	3.8	0.96	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.2	3.8	0.96	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.6 J	3.8	0.96	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.8	0.96	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	18	3.8	0.96	ng/L	1
		otance mits					
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		-150					
13C2_6:2FTS	94 25	-150					
13C2_8:2FTS	88 25	-150					
13C2_PFDoA	90 25	-150					
13C2_PFHxDA	88 25	-150					
13C2_PFTeDA	85 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA19030-003 Description: 182-0 Matrix: Aqueous

Date Sampled:01/13/2021 1540

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/19/2021 Project Number: 40221047

Surrogate	Run 1 A Q % Recovery	ceptance Limits	
13C3_PFBS	93	25-150	
13C3_PFHxS	87	25-150	
13C3-HFPO-DA	91	25-150	
13C4_PFBA	94	25-150	
13C4_PFHpA	90	25-150	
13C5_PFHxA	86	25-150	
13C5_PFPeA	95	25-150	
13C6_PFDA	91	25-150	
13C7_PFUdA	95	25-150	
13C8_PFOA	92	25-150	
13C8_PFOS	88	25-150	
13C8_PFOSA	92	10-150	
13C9_PFNA	89	25-150	
d-EtFOSA	69	10-150	
d5-EtFOSAA	94	25-150	
d9-EtFOSE	90	10-150	
d-MeFOSA	77	10-150	
d3-MeFOSAA	95	25-150	
d7-MeFOSE	93	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 1, 2021

2542 1st Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2542 1st Avenue West, La Crosse, WI 54603

Tax parcel # 4-335-0 Sampling Point # 335-0 Sampling Date: 01/13/21

Dear :

We have received and reviewed the test results for the sample collected on January 13, 2021 at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public I Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds otal of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended lim of these 6 com combined total
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	9.3 ppt	20 ppt ^{a,b}	The recommendec any <i>one</i> of these 6 <i>combined t</i>
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	14 ppt	20 ppt ^{a,b}	The r any o
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	7.6 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	12 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	50 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10,000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2542 1st Avenue West, La Crosse, WI 54603 Tax Parcel # 4-335-0 February 1, 2021

Perfluoro-1-pentanesulfonic acid (PFPeS)	F 7t	Name Fatablish adf
CAS # 2706-91-4	5.7 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2542 1st Avenue West, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: (

Client: Pace Analytical Services, LLC

Laboratory ID: WA19030-001

Description: 335-0

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/13/2021 1515

Matrix: Aqueous

Date Received: 01/19/2021

Run Prep Method SOP SPE Project Number: 40221047

Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2017 JJG

Prep Date Batch

01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	7.6	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	5.7	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	12	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	50	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	9.3	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	14	3.6	0.91	ng/L	1
Terridoroctanesarione dela (TTOS)	1703 23 1	1176 by 10 301	14	3.0	0.91	ngrL	
		otance mits					
		-150					
	96 25	-150					
13C2_8:2FTS	102 25	-150					
	89 25	-150					
13C2_PFHxDA	89 25	-150					
13C2_PFTeDA	90 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 335-0

Date Sampled:01/13/2021 1515

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/19/2021 Project Number: 40221047

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	93	25-150
13C3_PFHxS	92	25-150
13C3-HFPO-DA	94	25-150
13C4_PFBA	92	25-150
13C4_PFHpA	92	25-150
13C5_PFHxA	87	25-150
13C5_PFPeA	93	25-150
13C6_PFDA	91	25-150
13C7_PFUdA	87	25-150
13C8_PFOA	93	25-150
13C8_PFOS	91	25-150
13C8_PFOSA	97	10-150
13C9_PFNA	89	25-150
d-EtFOSA	74	10-150
d5-EtFOSAA	95	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	91	10-150
d3-MeFOSAA	97	25-150
d7-MeFOSE	100	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Laboratory ID: WA19030-001

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 1, 2021

110 Callaway Boulevard La Crosse, WI 54603

Subject: Private Well Sampling Results

110 Callaway Boulevard, La Crosse, WI 54603

Tax Parcel # 4-362-0 Sampling Point # 362-0 Sample Date: 01/13/21

Dear :

We have received and reviewed the test results for the sample collected on January 13, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	l limit is 20 ppt compounds or 1 otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit i 6 compc ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.6 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 110 Callaway Boulevard, La Crosse, WI 54603 Tax Parcel # 4-362-0 Sampling Point # 362-0 February 1, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.1 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 110 Callaway Boulevard, La Crosse, WI 54603 Tax Parcel # 4-362-0 Sampling Point # 362-0 February 1, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA19030-002

Description: 362-0

Date Sampled:01/13/2021 1525

Matrix: Aqueous

Date Received: 01/19/2021

Project Name: LACROSSE WELLS 23 & 24

Run Prep Method SOP SPE Project Number: 40221047

Analytical Method Dilution Analysis Date Analyst PF

Ratch

rytical Mctriod	Dilation	Alialysis Date F	anaryst	1 TCP Date	Daten
FAS by ID SOP	1	01/26/2021 2027	IJG	01/24/2021 1615	80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	18	4.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.7 J	4.4	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.6 J	4.4	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	2.1 J	4.4	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.8	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.9 J	4.4	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.4	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.6 J	4.4	1.1	ng/L	1
		otance nits					
13C2_4:2FTS	88 25	-150					
13C2_6:2FTS	95 25	-150					
13C2_8:2FTS	88 25	-150					
13C2_PFDoA	83 25	-150					
13C2_PFHxDA	87 25	-150					
13C2_PFTeDA	86 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 362-0

Matrix: Aqueous

Laboratory ID: WA19030-002

Date Sampled:01/13/2021 1525

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/19/2021 Project Number: 40221047

	Run 1 A	cceptance Limits	
Surrogate	Q % Recovery	Limits	
13C3_PFBS	87	25-150	
13C3_PFHxS	88	25-150	
13C3-HFPO-DA	88	25-150	
13C4_PFBA	91	25-150	
13C4_PFHpA	90	25-150	
13C5_PFHxA	83	25-150	
13C5_PFPeA	93	25-150	
13C6_PFDA	93	25-150	
13C7_PFUdA	84	25-150	
13C8_PFOA	89	25-150	
13C8_PFOS	87	25-150	
13C8_PFOSA	92	10-150	
13C9_PFNA	87	25-150	
d-EtFOSA	72	10-150	
d5-EtFOSAA	92	25-150	
d9-EtFOSE	85	10-150	
d-MeFOSA	81	10-150	
d3-MeFOSAA	83	25-150	
d7-MeFOSE	91	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

2545 2nd Avenue East La Crosse, WI 54603

Subject: Private Well Sampling Results

2545 2nd Avenue East, La Crosse, WI 54603

Tax Parcel # 4-223-0 Sampling Point # 223-0

Sample Date: January 18, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt compounds or otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ommended limit i of these 6 compc combined total of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended one of these 6 (
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.3 ppt	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	12 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2545 2nd Avenue East, La Crosse, WI 54603 Tax Parcel # 4-223-0 Sampling Point # 223-0 February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	7.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	15 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	37 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.3 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	6.2 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2545 2nd Avenue East, La Crosse, WI 54603 Tax Parcel # 4-223-0 Sampling Point # 223-0 February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-008

Matrix: Aqueous

Description: 223-0

Date Sampled:01/18/2021 1345

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/27/2021 1750 JJG

Prep Date 01/26/2021 1336 80695

Batch

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 7 2 756426-58-1 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7 2 ng/L 1 1.8 PFAS by ID SOP ND 7 2 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.2 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7 2 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.2 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7 2 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.2 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 14 3.6 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7 2 1.8 ng/L 1 PFAS by ID SOP ND 7.2 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 7.0 3.6 0.90 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP 1.3 3.6 0.90 ng/L 1 3.6 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 0.90 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 6.2 3.6 0.90 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 15 3.6 ng/L 0.90 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 37 3.6 0.90 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.6 0.90 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.6 ng/L 0.90 ND Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 3.6 0.90 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.6 na/L 1 0.90 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.2 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 2.3 3.6 0.90 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.6 ng/L 1 0.90 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.6 ng/L 1 0.90 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 12 3.6 ng/L 1 0.90 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 92 25-150 13C2_6:2FTS 92 25-150 94 13C2_8:2FTS 25-150 91 13C2_PFDoA 25-150

LOQ = Limit of Quantitation ND = Not detected at or above the DL

13C2_PFHxDA

13C2 PFTeDA

B = Detected in the method blank N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

25-150

25-150

DL = Detection Limit

H = Out of holding time

W = Reported on wet weight basis

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

89

91

Client: Pace Analytical Services, LLC

Description: 223-0

Date Sampled:01/18/2021 1345

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

13C3_PFBS 91 25-150 13C3_PFHxS 93 25-150 13C3_HFPO-DA 91 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 100 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150 d7-MeFOSE 91 10-150	Surrogate	Run 1 Acce Q % Recovery Li	eptance Limits	
13C3-HFPO-DA 91 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 100 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C3_PFBS	91 2	25-150	
13C4_PFBA 100 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 100 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C3_PFHxS	93 29	25-150	
13C4_PFHpA 99 25-150 13C5_PFHxA 100 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C3-HFPO-DA	91 2!	25-150	
13C5_PFHxA 100 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C4_PFBA	100 29	25-150	
13C5_PFPeA 95 25-150 13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C4_PFHpA	99 2	25-150	
13C6_PFDA 90 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C5_PFHxA	100 29	25-150	
13C7_PFUdA 96 25-150 13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C5_PFPeA	95 29	25-150	
13C8_PFOA 91 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C6_PFDA	90 29	25-150	
13C8_PFOS 86 25-150 13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C7_PFUdA	96 29	25-150	
13C8_PFOSA 98 10-150 13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C8_PFOA	91 2!	25-150	
13C9_PFNA 92 25-150 d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C8_PFOS	86 29	25-150	
d-EtFOSA 76 10-150 d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C8_PFOSA	98 10	10-150	
d5-EtFOSAA 101 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	13C9_PFNA	92 2	25-150	
d9-EtFOSE 90 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	d-EtFOSA	76 10	10-150	
d-MeFOSA 87 10-150 d3-MeFOSAA 97 25-150	d5-EtFOSAA	101 25	25-150	
d3-MeFOSAA 97 25-150	d9-EtFOSE	90 10	10-150	
	d-MeFOSA	87 10	10-150	
d7-MeFOSE 91 10-150	d3-MeFOSAA	97 25	25-150	
	d7-MeFOSE	91 10	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and > DL

Laboratory ID: WA20028-008

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

2502 2nd Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2502 2nd Avenue West, La Crosse, WI 54603

Tax Parcel # 4-364-0 Sampling Point # 364-0

Sample Date: January 18, 2021

Dear

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt i compounds or † otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo 1 <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	9 ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2502 2nd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-364-0 Sampling Point # 364-0 February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.9 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2502 2nd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-364-0 Sampling Point # 364-0 February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-009

Description: **364-0** Matrix: **Aqueous**

Date Sampled:01/18/2021 1414 Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

 Run
 Prep Method
 Analytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 1
 SOP SPE
 PFAS by ID SOP
 1
 01/27/2021 1811
 JJG
 01/26/2021 1336
 80695

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	7.9	3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
		otance nits					
13C2_4:2FTS	83 25	-150					
13C2_6:2FTS	92 25	-150					
13C2_8:2FTS	91 25	-150					
13C2_PFDoA	89 25	-150					
13C2_PFHxDA	85 25	-150					
13C2_PFTeDA	84 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P =The RPD between two GC columns exceeds 40%

DL = Detection Limit

 $J = Estimated result < LOQ and \ge DL$

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-009 Description: 364-0 Matrix: Aqueous

Date Sampled:01/18/2021 1414 Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

Surrogate	Run 1 Q % Recovery	Acceptance Limits
13C3_PFBS	84	25-150
13C3_PFHxS	85	25-150
13C3-HFPO-DA	90	25-150
13C4_PFBA	96	25-150
13C4_PFHpA	93	25-150
13C5_PFHxA	94	25-150
13C5_PFPeA	90	25-150
13C6_PFDA	88	25-150
13C7_PFUdA	88	25-150
13C8_PFOA	89	25-150
13C8_PFOS	79	25-150
13C8_PFOSA	86	10-150
13C9_PFNA	88	25-150
d-EtFOSA	68	10-150
d5-EtFOSAA	88	25-150
d9-EtFOSE	82	10-150
d-MeFOSA	63	10-150
d3-MeFOSAA	91	25-150
d7-MeFOSE	95	10-150

LOQ = Limit of Quantitation ND = Not detected at or above the DL B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P =The RPD between two GC columns exceeds 40%

 $J = Estimated result < LOQ and \ge DL$

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

2518 2nd Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results 2518 2nd Avenue West, La Crosse, WI 54603

Tax Parcel # 4-372-0 Sampling Point # 372-0

Sample Date: January 14, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 14, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	5 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommende of these (combined
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt a,b	The

Private Well Sampling Results for 2518 2nd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-372-0 Sampling Point # 372-0 February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.5 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2518 2nd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-372-0 Sampling Point # 372-0 February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-001

Description: 372-0

Date Received: 01/20/2021

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/14/2021 1415

Matrix: Aqueous

Project Number: 40221144

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2120 JJG

Prep Date

Batch 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7 J	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	2.5 J	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
		otance nits					
		-150					
		-150					
		-150					
		-150					
		-150					
		-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

ND = Not detected at or above the DL

H = Out of holding time

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 372-0 Date Sampled:01/14/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

	Run 1 A	cceptance Limits	
Surrogate	Q % Recovery	Limits	
13C3_PFBS	87	25-150	
13C3_PFHxS	87	25-150	
13C3-HFPO-DA	88	25-150	
13C4_PFBA	90	25-150	
13C4_PFHpA	93	25-150	
13C5_PFHxA	83	25-150	
13C5_PFPeA	91	25-150	
13C6_PFDA	93	25-150	
13C7_PFUdA	84	25-150	
13C8_PFOA	90	25-150	
13C8_PFOS	89	25-150	
13C8_PFOSA	90	10-150	
13C9_PFNA	83	25-150	
d-EtFOSA	76	10-150	
d5-EtFOSAA	98	25-150	
d9-EtFOSE	86	10-150	
d-MeFOSA	79	10-150	
d3-MeFOSAA	91	25-150	
d7-MeFOSE	97	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA20028-001

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 2, 2021

307 Plainview Road La Crosse, WI 54603

Subject: Private Well Sampling Results

307 Plainview Road, La Crosse, WI 54603

Tax parcel # 4-84-0 Sampling Point # 84-0

Sampling Date: January 18, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 18, 20201 at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}) ppt total
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 2C ese 6 bined
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ended lim one of the or the com
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.3 ppt	20 ppt a,b	recommended limit is 20 for any <i>one</i> of these 6 pounds or the <i>combined</i> t
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	56 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined tota</i> l of all 6
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	21 ppt	20 ppt ^{a,b}	The
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.9 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	100 ppt	10	0,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	7.2 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10	0,000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.9 ppt	None Esta	ablished ^c

Private Well Sampling Results for 307 Plainview Road, La Crosse, WI 54603 Tax Parcel # 4-84-0 February 2, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.3 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	11 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

307 Plainview Road, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-010 Matrix: Aqueous

Description: 84-0

Date Sampled:01/18/2021 1510

Project Name: LACROSSE WELLS 23 & 24

Analytical

Date Received: 01/20/2021

Project Number: 40221144

CAS

Run Prep Method SOP SPE Analytical Method Dilution

Prep Date

Batch

Analysis Date Analyst PFAS by ID SOP 01/27/2021 1822 JJG 01/26/2021 1336 80695

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7	3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.3 J	3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.9 J	3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.9	3.5	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	100	3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.3 J	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	7.2	3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	56	3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	11	3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	21	3.5	0.89	ng/L	1
		otance mits					
_	96 25	-150					
	96 25	-150					
13C2_8:2FTS	93 25	-150					
13C2_PFDoA	84 25	-150					
13C2_PFHxDA	86 25	-150					
13C2_PFTeDA	83 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL



444 21st Street South · La Crosse, Wisconsin · 54601

March 1, 2021

905 Plainview Road La Crosse, WI 54603

Subject: Private Well Sampling Results

905 Plainview Road, La Crosse, WI 54603

Tax Parcel # 4-1556-2 Sampling Point # 1556-2

Sampling Date: February 17, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public F Standard	lealth		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for		
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pg ounds c all 6		
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ommended limit is 20 p of these 6 compounds combined total of all 6		
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt a,b			
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.6 ppt	20 ppt ^{a,b}	The recommended any <i>one</i> of these 6 <i>combined t</i>		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	54 ppt	20 ppt ^{a,b}	The r		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a		
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	19 ppt	450),000 ppt ^a		
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.9 ppt		40 ppt ^a		
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.1 ppt	10),000 ppt ^a		
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a		
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a		
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	6.0 ppt	150),000 ppt ^a		
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a		
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a		
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a		
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a		
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a		
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	110 ppt	None Esta	ıblished ^c		

Private Well Sampling Results for 905 Plainview Road, La Crosse, WI 54603 Tax Parcel # 4-1556-2 March 1, 2021

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	4.1 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.





March 01, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222418

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com (920)469-2436

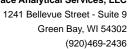
Chuskpher Hyske

Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC







SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222418

Lab ID	Sample ID	Matrix	Date Collected	Date Received			
40222418001	1556-2	Water	02/17/21 09:52	02/23/21 11:15			

REPORT OF LABORATORY ANALYSIS

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Company Name:	The OS Group LLC		7					. 6			MN:	812-607-17	700	W1: 920-469-2436		,	
Branch/Location:	LaCrosse WI		٦ /	/_/	Pace										COC No.	4022	2418
Project Contact:	Steven Osesek		1 /	•		WHAY D	acelabs.	com .						Quote #:			
Phone:	608-433-9388		1 '	C	HA	IN	OF	= C	US	TO	DY	•		Mail To Contact:	Steven Os	esek	
Project Number:	LaCrosse Wells.	コスキング	A=N		HCL C=			ation Co		F=Metha		1		Mail To Company:	The OS Gr	roup LLC	
Project Name:	> Here vose viers.	<u> </u>	H=S	odium Bisu				m Thiosu		J=Other				Mail To Address:	444 21st S	et S	
Project State:	WI			ERED?	Y/N	۱۸۱			I						LaCrosse,	WI 54601	
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EPA Leve	till ; (billable)	B = Biota C = Charcoal O = Oil	DW = Drinki GW = Grou SW = Surfa	nd Water	ses/	5								Invoice To Phone:	608-433-93	388	
EPA Leve	ACT Reeded on	S = Soll SI = Sludge	WW = Was WP = Wipe	te Water	Analy	PFKS			-				,	CLIENT	1	OMMENTS	Profile #
PACE LAB#	CLIENT FIELD ID	DATE	LECTION	MATRIX	•	Z	<u> </u>							COMMENTS	(Lab l	Use Only)	
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Email #2: Telephone:		Re	linquished By:				Di	ate/T#me:			Receive	ed By:		Date/Time:		OK / Ad	ljusted
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Workorder: 402	22418 Workorde			SSE WELLS	23 & 24		Ow	ner R	eceiv	ed [Date:		/2021			s Req	uest	ed By	y: 3/5/2021
Christopher Hyska Pace Analytical Gr 1241 Bellevue Stre Suite 9 Green Bay, WI 54 Phone (920)469-24	een Bay et 302	ple Collect Date/Til	106 Va West C Phone	Analytical West intage Point Dri Columbia, SC 2 (803)791-9700 Lab ID 40222418001	ve 9172 Matrix Water	Preserved 2	Served C		rs I	X WI 36 PFAS by ID	IR77 - Rush '	MDL re		ı - Qu	Coo			023)	LAB USE ONLY
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Cooler Tempera	ture on Receipt	°C	Cust	tody Seal Y	or N		Re	ceive	d on	ıce	Y or	N			Sa	ımpıe	s inta	ict \	or N

^{***}In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

WO#: 40222418



Samples Receipt Checklist (SRC) (ME0018C-15) Issuing Authority: Pace ENV - WCOL

40222418

Sample Receipt Checklist (SRC)

Client: THE OS GROUP LLC Cooler Inspected by/date: JRG2 / 2/23/2021 Lot #: WS/23023
Means of receipt: ☐ Pace ☐ Client ☐ UPS ✓ FedEx ☐ Other:
Yes No 1. Were custody seals present on the cooler?
Yes No No NA 2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA
3.3 /3.3 °C NA /NA °C NA /NA °C NA /NA °C
Method: ✓ Temperature Blank Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C
Method of coolant: Wet Ice Lice Packs Dry Ice None
Yes No
PM was Notified by: phone / email / face-to-face (circle one).
✓ Yes No NA 4. Is the commercial courier's packing slip attached to this form?
Yes No 5. Were proper custody procedures (relinquished/received) followed?
Yes No 6. Were sample IDs listed on the COC?
Yes No 7. Were sample IDs listed on all sample containers?
Yes No 8. Was collection date & time listed on the COC?
Yes No 9. Was collection date & time listed on all sample containers?
Yes No 10. Did all container label information (ID, date, time) agree with the COC?
Yes No 11. Were tests to be performed listed on the COC?
12. Did all samples arrive in the proper containers for each test and/or in good condition
Yes No (unbroken, lids on, etc.)?
✓ Yes No 13. Was adequate sample volume available?
Yes No 14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes No 15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
Yes No No NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter)
in any of the VOA vials?
Yes No √NA 17. Were all DRO/metals/nutrient samples received at a pH of < 2?
Yes No NA 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
Yes No No NA 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
20 Ware glight remarks/requests (i.e. requested dilutions MC/MCD decimal)
Yes No No NA Correctly transcribed from the COC into the comment section in LIMS?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)
Sample(s) NA were received incorrectly preserved and were adjusted accordingly
in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA .
Time of preservation NA
Sample(s) NA were received with bubbles >6 mm in diameter.
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were
adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA
SR barcode labels applied by: JRG2 Date: 2/23/2021
Comments:
COMMITCALES,



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222418 Lot Number: WB23023 Date Completed: 02/26/2021



02/28/2021 10:47 AM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

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This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB23023

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

In the Matrix Spike (MS) associated with sample -001, two analytes recovered outside of the acceptance limits. The Laboratory Control Spike (LCS) recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary Pace Analytical Services, LLC

Lot Number: WB23023

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222418

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1556-2	Aqueous	02/17/2021 0952	02/23/2021

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Pace Analytical Services, LLC

Lot Number: WB23023

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222418

Sampl	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1556-2	Aqueous	6:2 FTS	PFAS by ID	110		ng/L	5
001	1556-2	Aqueous	PFBS	PFAS by ID	19		ng/L	5
001	1556-2	Aqueous	PFPeS	PFAS by ID	1.1	J	ng/L	5
001	1556-2	Aqueous	PFHxS	PFAS by ID	5.9		ng/L	5
001	1556-2	Aqueous	PFBA	PFAS by ID	6.1		ng/L	5
001	1556-2	Aqueous	PFHpA	PFAS by ID	2.2	J	ng/L	6
001	1556-2	Aqueous	PFHxA	PFAS by ID	6.0		ng/L	6
001	1556-2	Aqueous	PFOA	PFAS by ID	6.6		ng/L	6
001	1556-2	Aqueous	PFPeA	PFAS by ID	4.1		ng/L	6
001	1556-2	Aqueous	PFOS	PFAS by ID	54		ng/L	6

(10 detections)

Client: Pace Analytical Services, LLC

Laboratory ID: WB23023-001

Description: 1556-2 Matrix: Aqueous

Date Sampled:02/17/2021 0952 Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/23/2021 Project Number: 40222418

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch SOP SPE PFAS by ID SOP 02/25/2021 1837 JJG 02/24/2021 1132 83776

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	110	7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	19	3.9	0.97	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1 J	3.9	0.97	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.9	3.9	0.97	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	6.1	3.9	0.97	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.2 J	3.9	0.97	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	6.0	3.9	0.97	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.8	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.6	3.9	0.97	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.1	3.9	0.97	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.9	0.97	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	54	3.9	0.97	ng/L	1
		otance nits					
3		-150					
13C2 6:2FTS	107 25	-150					

Surrogate	Q	% Recovery	Limits	
13C2_4:2FTS		103	25-150	
13C2_6:2FTS		107	25-150	
13C2_8:2FTS		99	25-150	
13C2_PFDoA		98	25-150	
13C2_PFHxDA		105	25-150	
13C2_PFTeDA		92	25-150	

LOQ = Limit of Quantitation ND = Not detected at or above the DL B = Detected in the method blank N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

H = Out of holding time

Client: Pace Analytical Services, LLC

Description: 1556-2

Matrix: Aqueous

Laboratory ID: WB23023-001

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/23/2021

Date Sampled:02/17/2021 0952

Project Number: 40222418

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits
13C3_PFBS	94	25-150
13C3_PFHxS	91	25-150
13C3-HFPO-DA	110	25-150
13C4_PFBA	95	25-150
13C4_PFHpA	99	25-150
13C5_PFHxA	95	25-150
13C5_PFPeA	92	25-150
13C6_PFDA	93	25-150
13C7_PFUdA	90	25-150
13C8_PFOA	96	25-150
13C8_PFOS	103	25-150
13C8_PFOSA	102	10-150
13C9_PFNA	97	25-150
d-EtFOSA	79	10-150
d5-EtFOSAA	99	25-150
d9-EtFOSE	90	10-150
d-MeFOSA	79	10-150
d3-MeFOSAA	97	25-150
d7-MeFOSE	103	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Sample ID: WQ83776-001 Batch: 83776 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/24/2021 1132

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
8:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
6:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
10:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
4:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
GenX	ND		1	8.0	2.0	ng/L	02/25/2021 1816
ADONA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSAA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSE	ND		1	8.0	2.0	ng/L	02/25/2021 1816
MeFOSA	ND		1	16	4.0	ng/L	02/25/2021 1816
MeFOSAA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
MeFOSE	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFBS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHpS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFNS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFOSA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFPeS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDOS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFHxS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFBA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDoA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHpA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHxDA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFHxA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFNA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFODA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFOA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFPeA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFTeDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFTrDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFUdA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFOS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
Surrogate	Q % Red	Acce C L	eptance .imit				
13C2_4:2FTS	114	2	5-150				
13C2_6:2FTS	109	2	5-150				
13C2_8:2FTS	105	2	5-150				
13C2_PFDoA	99	2	5-150				
13C2_PFHxDA	108	2	5-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ83776-001 Batch: 83776 Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/24/2021 1132

Analytical Method: PFAS by ID SOP

Surrogate	Q % Rec	Acceptance Limit	
13C2_PFTeDA	97	25-150	
13C3_PFBS	101	25-150	
13C3_PFHxS	99	25-150	
13C3-HFPO-DA	114	25-150	
13C4_PFBA	102	25-150	
13C4_PFHpA	102	25-150	
13C5_PFHxA	94	25-150	
13C5_PFPeA	99	25-150	
13C6_PFDA	94	25-150	
13C7_PFUdA	97	25-150	
13C8_PFOA	105	25-150	
13C8_PFOS	95	25-150	
13C8_PFOSA	104	10-150	
13C9_PFNA	103	25-150	
d-EtFOSA	85	10-150	
d5-EtFOSAA	99	25-150	
d9-EtFOSE	100	10-150	
d-MeFOSA	85	10-150	
d3-MeFOSAA	101	25-150	
d7-MeFOSE	104	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ83776-002 Batch: 83776 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/24/2021 1132

	Spike					
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Data
9CI-PF3ONS	15	16	 1	110	50-150	Analysis Date 02/25/2021 1827
11CI-PF3OUdS	15	15		102	50-150	02/25/2021 1827
8:2 FTS	15	18	1	102		
	15	16	1	106	50-150	02/25/2021 1827
6:2 FTS			1		50-150	02/25/2021 1827
10:2 FTS	15 15	15	1	98	50-150	02/25/2021 1827
4:2 FTS	15	17	1	112	50-150	02/25/2021 1827
GenX	32 15	34	1 1	106	50-150 50-150	02/25/2021 1827 02/25/2021 1827
ADONA	16	17	1	111		
EtFOSA		20		128	50-150	02/25/2021 1827
EtFOSAA	16	15	1	96	50-150	02/25/2021 1827
EtFOSE	16	17	1	107	50-150	02/25/2021 1827
MeFOSA	16	16	1	98	50-150	02/25/2021 1827
MeFOSAA	16	17	1	107	50-150	02/25/2021 1827
MeFOSE	16	17	1	104	50-150	02/25/2021 1827
PFBS	14	16	1	113	50-150	02/25/2021 1827
PFDS	15	15	1	95	50-150	02/25/2021 1827
PFHpS	15	16	1	106	50-150	02/25/2021 1827
PFNS	15	16	1	105	50-150	02/25/2021 1827
PFOSA	16	17	1	103	50-150	02/25/2021 1827
PFPeS	15	19	1	124	50-150	02/25/2021 1827
PFDOS	15	16	1	105	50-150	02/25/2021 1827
PFHxS	15	17	1	114	50-150	02/25/2021 1827
PFBA	16	18	1	112	50-150	02/25/2021 1827
PFDA	16	17	1	109	50-150	02/25/2021 1827
PFDoA	16	19	1	118	50-150	02/25/2021 1827
PFHpA	16	18	1	111	50-150	02/25/2021 1827
PFHxDA	16	17	1	107	50-150	02/25/2021 1827
PFHxA	16	17	1	108	50-150	02/25/2021 1827
PFNA	16	18	1	112	50-150	02/25/2021 1827
PFODA	16	17	1	106	50-150	02/25/2021 1827
PFOA	16	18	1	113	50-150	02/25/2021 1827
PFPeA	16	17	1	109	50-150	02/25/2021 1827
PFTeDA	16	19	1	116	50-150	02/25/2021 1827
PFTrDA	16	17	1	103	50-150	02/25/2021 1827
PFUdA	16	17	1	105	50-150	02/25/2021 1827
PFOS	15	16	1	105	50-150	02/25/2021 1827
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	96	25-150				
13C2_6:2FTS	99	25-150				
13C2_8:2FTS	92	25-150				
13C2_PFDoA	90	25-150				
13C2_PFHxDA	101	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ83776-002 Batch: 83776 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE

Prep Date: 02/24/2021 1132

Surrogate	Q % Rec	Acceptance Limit
13C2_PFTeDA	86	25-150
13C3_PFBS	87	25-150
13C3_PFHxS	91	25-150
13C3-HFPO-DA	103	25-150
13C4_PFBA	93	25-150
13C4_PFHpA	96	25-150
13C5_PFHxA	92	25-150
13C5_PFPeA	91	25-150
13C6_PFDA	90	25-150
13C7_PFUdA	90	25-150
13C8_PFOA	91	25-150
13C8_PFOS	92	25-150
13C8_PFOSA	95	10-150
13C9_PFNA	91	25-150
d-EtFOSA	74	10-150
d5-EtFOSAA	94	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	77	10-150
d3-MeFOSAA	97	25-150
d7-MeFOSE	97	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MS

Sample ID: WB23023-001MS

Matrix: Aqueous Prep Method: SOP SPE Prep Date: 02/24/2021 1132

Batch: 83776
Analytical Method: PFAS by ID SOP

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	ND	14	14		1	100	50-150	02/25/2021 1848
11CI-PF3OUdS	ND	14	15		1	102	50-150	02/25/2021 1848
8:2 FTS	ND	14	15		1	106	50-150	02/25/2021 1848
6:2 FTS	110	14	20	N	1	-655	50-150	02/25/2021 1848
10:2 FTS	ND	15	14		1	97	50-150	02/25/2021 1848
4:2 FTS	ND	14	14		1	101	50-150	02/25/2021 1848
GenX	ND	30	29		1	97	50-150	02/25/2021 1848
ADONA	ND	14	14		1	101	50-150	02/25/2021 1848
EtFOSA	ND	15	17		1	112	50-150	02/25/2021 1848
EtFOSAA	ND	15	14		1	94	50-150	02/25/2021 1848
EtFOSE	ND	15	13		1	85	50-150	02/25/2021 1848
MeFOSA	ND	15	15		1	101	50-150	02/25/2021 1848
MeFOSAA	ND	15	15		1	100	50-150	02/25/2021 1848
MeFOSE	ND	15	15		1	99	50-150	02/25/2021 1848
PFBS	19	13	31		1	94	50-150	02/25/2021 1848
PFDS	ND	15	15		1	105	50-150	02/25/2021 1848
PFHpS	ND	14	16		1	111	50-150	02/25/2021 1848
PFNS	ND	14	15		1	103	50-150	02/25/2021 1848
PFOSA	ND	15	15		1	96	50-150	02/25/2021 1848
PFPeS	1.1	14	17		1	115	50-150	02/25/2021 1848
PFDOS	ND	15	15		1	103	50-150	02/25/2021 1848
PFHxS	5.9	14	19		1	93	50-150	02/25/2021 1848
PFBA	6.1	15	21		1	102	50-150	02/25/2021 1848
PFDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFDoA	ND	15	17		1	112	50-150	02/25/2021 1848
PFHpA	2.2	15	18		1	107	50-150	02/25/2021 1848
PFHxDA	ND	15	15		1	97	50-150	02/25/2021 1848
PFHxA	6.0	15	18		1	82	50-150	02/25/2021 1848
PFNA	ND	15	17		1	110	50-150	02/25/2021 1848
PFODA	ND	15	15		1	98	50-150	02/25/2021 1848
PFOA	6.6	15	22		1	103	50-150	02/25/2021 1848
PFPeA	4.1	15	20		1	104	50-150	02/25/2021 1848
PFTeDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFTrDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFUdA	ND	15	15		1	99	50-150	02/25/2021 1848
PFOS	54	14	60	N	1	41	50-150	02/25/2021 1848
Surrogate	Q % Re	Acc ec	ceptance Limit					
13C2_4:2FTS	107		25-150					
13C2_6:2FTS	100		25-150					
13C2_8:2FTS	102		25-150					
13C2_PFDoA	91		25-150					
13C2_PFHxDA	109		25-150					
.552_111MD/	107							

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Data for Lot Number: WB23023

PFAS by LC/MS/MS - MS

Sample ID: WB23023-001MS Batch: 83776

Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/24/2021 1132

Acceptance Surrogate Q % Rec Limit 13C2_PFTeDA 95 25-150 13C3_PFBS 94 25-150 13C3_PFHxS 94 25-150 13C3-HFPO-DA 104 25-150 13C4 PFBA 93 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 92 25-150 13C5_PFPeA 92 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 96 25-150 13C8_PFOA 100 25-150 13C8_PFOS 95 25-150 13C8_PFOSA 108 10-150 13C9_PFNA 94 25-150 d-EtFOSA 72 10-150 25-150 d5-EtFOSAA 96 d9-EtFOSE 98 10-150 d-MeFOSA 76 10-150

25-150

10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

d3-MeFOSAA

d7-MeFOSE

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody and Miscellaneous Documents

(Picase Print Clearly)		7				UPPER MIDWES	T REGION 00 WI: 920-469-2436		Page	of
Company Name: The OS Group LLC	_ _ /**	done	Ann	h dinal*		MA: 612-607-17	00 WI: 920-469-2435			
Branch/Location: LaCrosse Wi	_	Tauc	MININD	lytical ®				COC No.		
Project Contact: Steven Osesek	/						Quote #:			
Phone: 608-433-9388		CH/	VIN	OF C	USTC	DY	Mail To Contact:	Steven Ose	esek	
Project Number: /LaCVOSSE Wolls 234		B=HCL CA		Preservation Cod D=HNO3 E≃DI	<u>les</u>	anol G=NaOH	Mail To Company:	The OS Gro	oup LLC	
Project Name:	H=Sodi.m B)	sullate Solut	kan	i=Sadium Thiosulf	late J=Other		Mail To Address:	444 21st St		
Project State: WI	FILTERED? (YESINO)	YIN	N					LaCrosse, V	WI 54601	
Sampled By (Print): Kristie L Tureed	PRESERVATION (CODE)*	Pick Letter	A				Invoice To Contact:	Steven Ose	sek	
Sampled By (Sign): Krustio R Twoco			. 0				Invoice To Company:	The OS Gro	oup LLC	
PO#: Reguli Progr Data Package Options MS/MSD	matrix Codes	Analyses Requested	W 36				Invoice To Address:	444 21st St LaCrosse, V		
(bilinbie) EPA Level III (bilinbie) (bilinbie) (bilinbie) C - Chart NOT regarded on C - Column	coal GW = Ground Water SW = Surface Visiter	yses R	1 1				Invoice To Phone:	608-433-93	88	
your sample a south	WW = Waste Water	_ E	PFHS				CLIENT		DMMENTS	Profile #
PACE LAB# CLIENT FIELD ID	DATE TIME MATRI	IX .	D				COMMENTS	(Lab U	ise Only)	
1556-2 2	179:52 DV	J	X							
		187							WB230	
		- 1	92						VVDZJ	JLO
		1000							KLG2	
	1	92.7.50 310.00								
		22.593							-	
		75%								-
		2333								
-		3/1/20 3/1/20						-		
		7.2.20	——-i			1				
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		3.3				<u> </u>		<u> </u>		
		950	إ					<u> </u>		
Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed: 7/0 boy	Retrigioned By: Notice of Retriguished By:	& Two	ees,	/ Date/Time: 2-/7-2/ Date/Time:	342p	Received By: Received By:	Date/Time:		PACE Pro	jact No.
Transmit Protein Rush Results by (complete what you want):									Reselpt Temp = '	2.3.0
Email #1: Email #2:	Reinquished By:			Daţe/Tim9:		Received By:	Date/firme:	ŀ	Sample Re	
Telephone:	Reinquished By:	-		Date/fime:		Received By:	Date/Time:		OK / Adj	2. 2
Fax:									Cooler Cus	
Samples on HQLD are subject to special pricing and release of liability	Relinquished By: FCCIやX		2	Date/Time: 272ろ72.1	1115	Registed By A	10-U/U 2/23/21	11115	Present / No Intact / No	
CC48-727.5 (*C3C3)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		V			veroloi: 6.0 0914/26	

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: THE OS GROUP LLA	Cooler Inspected by/date: IRG2 / 2/23/2021 Lot #: WB73073
Means of receipt: Pa	ice Client UPS V FedEx Other:
Yes No	Were custody seals present on the cooler?
	2. If custody scals were present, were they intact and unbroken?
pH Strip ID: NA	Chlorine Strip ID: NA Tested by: NA
3.3 /3.3°C NA /N	reccipt / Derived (Corrected) temperature upon receipt
	Blank Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C
	Wet Ice Ice Packs Dry Ice None
☐Yes ☐No ☑NA	 If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
Yes No NA	Is the commercial courier's packing slip attached to this form?
✓ Yes No	Were proper custody procedures (relinquished/received) followed?
✓ Yes No	6. Were sample IDs listed on the COC?
✓ Yes No	Were sample IDs listed on all sample containers?
✓ Yes □No	Was collection date & time listed on the COC?
✓ Yes No	9. Was collection date & time listed on all sample containers?
✓ Yes No	10. Did all container label information (1D, date, time) agree with the COC?
✓ Yes No	11. Were tests to be performed listed on the COC?
☑ Yes ☐ No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
✓ Yes No	13. Was adequate sample volume available?
Yes No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes ☑ No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes ☐ No ☑NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (%"or 6mm in diameter) in any of the VOA vials?
Yes No VNA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
Yes No NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc)
UYe3 □No ☑NA	correctly transcribed from the COC into the comment section in LIMS?
Yes No	21. Was the quote number listed on the container label? If yes, Quote #
	flust be completed for any sample(s) incorrectly preserved or with headspace.)
Sample(s) NA	
in sample receiving with 1	
Time of preservation NA	If more than one preservative is needed, please note in the comments below.
Sample(s) NA	were received with bubbles >6 mm in diameter.
Samples(s) NA	were received with TRC \geq 0.5 mg/L (If #19 is n_{θ}) and were
adjusted accordingly in sar	nple receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA
SR barcode labels applied	by: IRG2 Date: 2/23/2021
Comments:	



444 21st Street South · La Crosse, Wisconsin · 54601

February 2, 2021

2548 Bainbridge Street La Crosse, WI 54603

Subject: Private Well Sampling Results

2548 Bainbridge Street, La Crosse, WI 54603

Tax parcel # 4-111-0 Sampling Point # 111-0

Sampling Date: January 14, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 14, 20201 at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public H Standard	lealth	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	or the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pg ounds c all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ommended limit is 20 p of these 6 compounds combined total of all 6	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt a,b		
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	16 ppt	20 ppt a,b		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	420 ppt	20 ppt ^{a,b}	The r any <i>o</i>	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a	
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	21 ppt	450),000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	550 ppt		40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	46 ppt	10),000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	16 ppt	150),000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a	

Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	24 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	44 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	4.4 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2548 Bainbridge Street, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-002

Description: 111-0 Matrix: Aqueous

Date Sampled:01/14/2021 1425

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch SOP SPE PFAS by ID SOP 01/26/2021 2131 JJG 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	21	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	24	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	44	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	550	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	46	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.8 J	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	16	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	16	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.4	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	420	3.6	0.91	ng/L	1
		otance nits					
3		-150					

Surrogate	Q	% Recovery	Limits	
13C2_4:2FTS		90	25-150	
13C2_6:2FTS		91	25-150	
13C2_8:2FTS		82	25-150	
13C2_PFDoA		85	25-150	
13C2_PFHxDA		84	25-150	
13C2_PFTeDA		83	25-150	

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

DL = Detection Limit J = Estimated result < LOQ and \geq DL

ND = Not detected at or above the DL H = Out of holding time

W = Reported on wet weight basis

P = The RPD between two GC columns exceeds 40%

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E = Quantitation of compound exceeded the calibration range

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-002 Matrix: Aqueous

Description: 111-0 Date Sampled:01/14/2021 1425

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	86	25-150
13C3_PFHxS	80	25-150
13C3-HFPO-DA	84	25-150
13C4_PFBA	85	25-150
13C4_PFHpA	82	25-150
13C5_PFHxA	78	25-150
13C5_PFPeA	89	25-150
13C6_PFDA	80	25-150
13C7_PFUdA	88	25-150
13C8_PFOA	80	25-150
13C8_PFOS	86	25-150
13C8_PFOSA	88	10-150
13C9_PFNA	80	25-150
d-EtFOSA	76	10-150
d5-EtFOSAA	89	25-150
d9-EtFOSE	85	10-150
d-MeFOSA	92	10-150
d3-MeFOSAA	89	25-150
d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

812 Callaway Court La Crosse, WI 54603

Subject: Private Well Sampling Results

101 – 211 Callaway Court, La Crosse, WI 54603

Tax Parcel # 4-114-0 Sampling Point # 114-0-A Sample Date: January 18, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt compounds or otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	9 -
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The

Private Well Sampling Results for 101 – 211 Callaway Court, La Crosse, WI 54603 Tax Parcel # 4-114-0 Sampling Point # 114-0-A February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.7 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	2.2 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.9 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 101 – 211 Callaway Court, La Crosse, WI 54603 Tax Parcel # 4-114-0 Sampling Point # 114-0-A February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-003 Matrix: Aqueous

Description: 114-0-A

Date Sampled:01/18/2021 1330

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2142 JJG

Prep Date

Batch 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.3 J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.5	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.7	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.9 J	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.2 J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.9 J	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.3 J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Terridoroocidiresalionile acid (FT 03)	1703 23 1	11 A3 by 15 301	ND	3.7	0.92	rig/L	
Surrogate Ru Q % Rec		otance nits					
_		-150					
		-150					
13C2_8:2FTS	87 25	-150					
13C2_PFDoA	86 25	-150					
13C2_PFHxDA	83 25	-150					
13C2_PFTeDA	85 25	-150					

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LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 114-0-A

Project Name: LACROSSE WELLS 23 & 24

Laboratory ID: WA20028-003

Matrix: Aqueous

Date Sampled:01/18/2021 1330

Date Received: 01/20/2021 Project Number: 40221144

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	90	25-150
13C3_PFHxS	88	25-150
13C3-HFPO-DA	89	25-150
13C4_PFBA	90	25-150
13C4_PFHpA	88	25-150
13C5_PFHxA	84	25-150
13C5_PFPeA	90	25-150
13C6_PFDA	90	25-150
13C7_PFUdA	85	25-150
13C8_PFOA	87	25-150
13C8_PFOS	86	25-150
13C8_PFOSA	88	10-150
13C9_PFNA	87	25-150
d-EtFOSA	76	10-150
d5-EtFOSAA	94	25-150
d9-EtFOSE	86	10-150
d-MeFOSA	88	10-150
d3-MeFOSAA	87	25-150
d7-MeFOSE	93	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

812 Callaway Court La Crosse, WI 54603

Subject: Private Well Sampling Results 301 – 409 Callaway Court, La Crosse, WI 54603

Tax Parcel # 4-114-0 Sampling Point # 114-0-B Sample Date: January 18, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt 1 ompounds or 1 <i>tal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ende ese (
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 301 – 409 Callaway Court, La Crosse, WI 54603 Tax Parcel # 4-114-0 Sampling Point # 114-0-B February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.3 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 301 – 409 Callaway Court, La Crosse, WI 54603 Tax Parcel # 4-114-0 Sampling Point # 114-0-B February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-004

Description: 114-01-B

Matrix: Aqueous

Date Sampled:01/18/2021 1345

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2152 JJG

Prep Date

Batch 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.4 J	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.2 J	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.3 J	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
		otance nits					
13C2_4:2FTS	93 25	-150					
13C2_6:2FTS	92 25	-150					
13C2_8:2FTS	81 25	-150					
13C2_PFDoA	81 25	-150					
13C2_PFHxDA	88 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2_PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

88

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 114-01-B

Date Sampled:01/18/2021 1345

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits
13C3_PFBS	85	25-150
13C3_PFHxS	85	25-150
13C3-HFPO-DA	88	25-150
13C4_PFBA	90	25-150
13C4_PFHpA	89	25-150
13C5_PFHxA	80	25-150
13C5_PFPeA	90	25-150
13C6_PFDA	90	25-150
13C7_PFUdA	91	25-150
13C8_PFOA	87	25-150
13C8_PFOS	84	25-150
13C8_PFOSA	92	10-150
13C9_PFNA	89	25-150
d-EtFOSA	73	10-150
d5-EtFOSAA	89	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	89	10-150
d3-MeFOSAA	89	25-150
d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Laboratory ID: WA20028-004

Matrix: Aqueous

 $\label{thm:pace-analytical} \mbox{Pace Analytical Services, LLC} \ \ (\mbox{formerly Shealy Environmental Services, Inc.})$

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

812 Callaway Court La Crosse, WI 54603

Subject: Private Well Sampling Results

301 – 507 Campbell Court, La Crosse, WI 54603

Tax Parcel # 4-151-3 Sampling Point # 151-3-O Sample Date: January 18, 2021

Dear

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit) Recomm Public F Standard		Health	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt pounds or of all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	lim om <i>tal</i>	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended lim one of these 6 com combined total	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	rec one	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.1 ppt	20 ppt a,b	The	

Private Well Sampling Results for 301 – 507 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-0 February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	5.5 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	1.2 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.4 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 301 – 507 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-0 February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Description: 115-3-0 Date Sampled:01/18/2021 1410 151-3-0

301-507 Campbell Ct. (odd addresses)

Project Name: LACROSSE WELLS 23 & 24

Laboratory ID: WA20028-007

Matrix: Aqueous

Date Received: 01/20/2021

Project Number: 40221144

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/27/2021 1729 JJG

Prep Date 01/26/2021 1336 80695

Batch

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Parameter	CAS Number	Analytical Method	Result C	2 LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.4 J	3.9	0.98	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	5.5	3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.2 J	3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.9	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4 J	3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.4 J	3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.1 J	3.9	0.98	ng/L	1
Surrogate Ru		otance nits					
13C2_4:2FTS 1	03 25	-150					
13C2_6:2FTS	99 25	-150					
13C2_8:2FTS 1	05 25	-150					
13C2_PFDoA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2_PFHxDA

13C2_PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

100

95

Page 23 of 49

25-150

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Project Name: LACROSSE WELLS 23 & 24

Client: Pace Analytical Services, LLC

Description: 115-3-0

Date Sampled:01/18/2021 1410

151-3-0

301-507 Campbell Ct. (odd addresses)

Laboratory ID: WA20028-007

Matrix: Aqueous

Date Received: 01/20/2021 Project Number: 40221144

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	95	25-150
13C3_PFHxS	94	25-150
13C3-HFPO-DA	102	25-150
13C4_PFBA	103	25-150
13C4_PFHpA	103	25-150
13C5_PFHxA	105	25-150
13C5_PFPeA	98	25-150
13C6_PFDA	96	25-150
13C7_PFUdA	100	25-150
13C8_PFOA	97	25-150
13C8_PFOS	96	25-150
13C8_PFOSA	94	10-150
13C9_PFNA	99	25-150
d-EtFOSA	89	10-150
d5-EtFOSAA	100	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	87	10-150
d3-MeFOSAA	101	25-150
d7-MeFOSE	98	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

812 Callaway Court La Crosse, WI 54603

Subject: Private Well Sampling Results

101 – 209 Campbell Court, La Crosse, WI 54603

Tax Parcel # 4-151-3 Sampling Point # 151-3-A Sample Date: January 18, 2021

Dear :

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt for pounds or the of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed lim 5 com total
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	0.97 ppt	20 ppt ^{a,b}	w - - -
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 101 – 209 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-A February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.0 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 101 – 209 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-A February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-005

Description: 115-3-A

109-209 Campbell Ct

151-3-A

Matrix: Aqueous

Date Sampled:01/18/2021 1430

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221144

Run Prep Method 1 SOP SPE Analytical Method Dilution PFAS by ID SOP 1

Analysis Date Analyst 01/26/2021 2203 JJG

Prep Date Batch 01/24/2021 1615 80489

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 7.8 756426-58-1 1.9 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7.8 19 ng/L 1 PFAS by ID SOP ND 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 7.8 ng/L 1 1.9 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.8 1.9 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.8 19 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.8 1.9 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7.8 19 ng/L 1 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.8 1.9 ng/L 1 N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 16 39 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.8 1.9 ng/L 1 PFAS by ID SOP 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND 7.8 1.9 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 3.9 1.4 0.97 ng/L 335-77-3 Perfluoro-1-decanesulfonic acid (PFDS) PFAS by ID SOP ND 3.9 ng/L 0.97 1 Perfluoro-1-heptanesulfonic acid (PFHpS) PFAS by ID SOP 375-92-8 ND 3.9 0.97 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 39 0.97 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP 0.97 39 ng/L 0.97 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 1.3 3.9 ng/L 0.97 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 2.0 3.9 0.97 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.9 ng/L 0.97 3.9 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 0.97 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.9 ng/L 1 0.97 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.9 ng/L 1 0.97 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.8 ng/L 1.9 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.9 0.97 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 39 ng/L 1 0.97 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 39 ng/L 1 0.97 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 39 ng/L 1 0.97 Run 1 Acceptance Surrogato

Surrogate	Q	% Recovery	Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		101	25-150
13C2_8:2FTS		95	25-150
13C2_PFDoA		89	25-150
13C2_PFHxDA		91	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation

B = Detected in the method blank

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria
W = Reported on wet weight basis

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Description: 115-3-A

Date Sampled:01/18/2021 1430

151-3-A 101-209 Campbell Ct Laboratory ID: WA20028-005

Matrix: Aqueous

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021 Project Number: 40221144

C	Run 1 A	cceptance	
Surrogate	Q % Recovery	Limits	
13C3_PFBS	90	25-150	
13C3_PFHxS	90	25-150	
13C3-HFPO-DA	92	25-150	
13C4_PFBA	93	25-150	
13C4_PFHpA	92	25-150	
13C5_PFHxA	87	25-150	
13C5_PFPeA	96	25-150	
13C6_PFDA	92	25-150	
13C7_PFUdA	90	25-150	
13C8_PFOA	93	25-150	
13C8_PFOS	96	25-150	
13C8_PFOSA	90	10-150	
13C9_PFNA	94	25-150	
d-EtFOSA	66	10-150	
d5-EtFOSAA	97	25-150	
d9-EtFOSE	86	10-150	
d-MeFOSA	78	10-150	
d3-MeFOSAA	92	25-150	
d7-MeFOSE	94	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

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444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

812 Callaway Court La Crosse, WI 54603

Subject: Private Well Sampling Results

302 – 408 Campbell Court, La Crosse, WI 54603

Tax Parcel # 4-151-3 Sampling Point # 151-3-E Sample Date: January 18, 2021

Dear

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	l limit is 20 ppt 1 compounds or 1 otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit is 6 compou <i>total</i> of a
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.6 ppt	20 ppt ^{a,b}	ende ese (
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 302 – 408 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-E February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.3 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 302 – 408 Campbell Court, La Crosse, WI 54603 Tax Parcel # 4-151-3 Sampling Point # 151-3-E February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA20028-006 Matrix: Aqueous

Description: 115-3-E

302-408 Campbell Ct (even)

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Date Sampled:01/18/2021 1400

Project Number: 40221144

CAS

151-3-E

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2214 JJG

Analytical

Prep Date Batch 01/24/2021 1615 80489

Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 8.3 756426-58-1 2.1 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 8.3 2.1 ng/L 1 PFAS by ID SOP ND 8.3 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 2.1 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 8.3 ng/L 1 2.1 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 8.3 ng/L 1 2.1 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 8.3 ng/L 1 2.1 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 8.3 2 1 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 8.3 2.1 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 8.3 2.1 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 8.3 2 1 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 8.3 2.1 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 17 4 1 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 8.3 2 1 ng/L 1 PFAS by ID SOP 2 1 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND 8.3 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 4.1 1.0 ng/L 335-77-3 Perfluoro-1-decanesulfonic acid (PFDS) PFAS by ID SOP ND 4 1 ng/L 1.0 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 4.1 1.0 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 4 1 1.0 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP 1.6 4 1 ng/L 1 0 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 4.1 1.0 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 8.3 ng/L 1 2 1 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP ND 4.1 ng/L 1.0 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 2.3 4.1 ng/L 1.0 Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 4 1 ng/L 1.0 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 4.1 ng/L 1 0 4.1 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 1.0 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 8.3 ng/L 1 2 1 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 4.1 ng/L 1 1.0 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 4.1 ng/L 1 1.0 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 8.3 ng/L 2 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 4.1 ng/L 1.0 Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 4 1 ng/L 1 1.0 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 4.1 1.0 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 4 1 1.0 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 4 1 ng/L 1 1.0 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 4 1 ng/L 1 1.0 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 96 25-150 13C2_6:2FTS 99 25-150 92 13C2_8:2FTS 25-150 13C2_PFDoA 89 25-150 13C2_PFHxDA 91 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2 PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

87

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

PFAS by LC/MS/MS

Project Name: LACROSSE WELLS 23 & 24

Client: Pace Analytical Services, LLC

Description: 115-3-E

Date Sampled:01/18/2021 1400

151-3-E 302-408 Campbell Ct (even) Laboratory ID: WA20028-006

Matrix: Aqueous

Date Received: 01/20/2021

Project Number: 40221144

13C3_PFBS 92 25-150 13C3_PFHxS 88 25-150 13C3_HFPO-DA 96 25-150 13C4_PFBA 98 25-150 13C4_PFHpA 97 25-150 13C5_PFHxA 88 25-150 13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EIFOSA 66 10-150 d5-EIFOSAA 103 25-150 d-MeFOSA 87 10-150 d-MeFOSAA 92 25-150	Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3-HFPO-DA 96 25-150 13C4_PFBA 98 25-150 13C4_PFHpA 97 25-150 13C5_PFHxA 88 25-150 13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C3_PFBS	92	25-150	
13C4_PFBA 98 25-150 13C4_PFHpA 97 25-150 13C5_PFHxA 88 25-150 13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C3_PFHxS	88	25-150	
13C4_PFHpA 97 25-150 13C5_PFHxA 88 25-150 13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C3-HFPO-DA	96	25-150	
13C5_PFHxA 88 25-150 13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C4_PFBA	98	25-150	
13C5_PFPeA 99 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C4_PFHpA	97	25-150	
13C6_PFDA 96 25-150 13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C5_PFHxA	88	25-150	
13C7_PFUdA 92 25-150 13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C5_PFPeA	99	25-150	
13C8_PFOA 95 25-150 13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C6_PFDA	96	25-150	
13C8_PFOS 87 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C7_PFUdA	92	25-150	
13C8_PFOSA 96 10-150 13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C8_PFOA	95	25-150	
13C9_PFNA 93 25-150 d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C8_PFOS	87	25-150	
d-EtFOSA 66 10-150 d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C8_PFOSA	96	10-150	
d5-EtFOSAA 103 25-150 d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	13C9_PFNA	93	25-150	
d9-EtFOSE 95 10-150 d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	d-EtFOSA	66	10-150	
d-MeFOSA 87 10-150 d3-MeFOSAA 92 25-150	d5-EtFOSAA	103	25-150	
d3-MeFOSAA 92 25-150	d9-EtFOSE	95	10-150	
	d-MeFOSA	87	10-150	
d7-MeFOSE 98 10-150	d3-MeFOSAA	92	25-150	
	d7-MeFOSE	98	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 1, 2021

3065 Edgewater Lane La Crosse, WI 54603

Subject: Private Well Sampling Results

3065 Edgewater Lane, La Crosse, WI 54603

Tax Parcel # 4-1694-0 Sampling Point # 1694-0 Sample Date: 01/18/21

Dear

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.5 ppt	20 ppt ^{a,b}	recc one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	11 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 3065 Edgewater Lane, La Crosse, WI 54603 Tax Parcel # 4-1694-0 Sampling Point # 1694-0 February 1, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	7.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	17 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1Ama	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 3065 Edgewater Lane, La Crosse, WI 54603 Tax Parcel # 4-1694-0 Sampling Point # 1694-0 February 1, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well





February 01, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL #23 & 24

Pace Project No.: 40221146

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on January 19, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com (920)469-2436

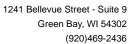
Chushpher Hyske

Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC







SAMPLE SUMMARY

Project: LACROSSE WELL #23 & 24

Pace Project No.: 40221146

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40221146001	1694-0	Water	01/18/21 14:15	01/19/21 09:00

REPORT OF LABORATORY ANALYSIS

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Company Name:	The OS Group LLC			7		100	. i	-01®			MN: 6	612-607-	1700	WI: 920-469-2436		4022	1146
Branch/Location:	LaCrosse WI] /	/_1	ace	Alla	IYUC ecelabs.	idi m							COC No.	احات	160
Project Contact:	Steven Osesek		1 /											Quote #:			
Phone:	608-433-9388		1 '	C	HA	IN	OI	FC	US	TO	DY			Mail To Contact:	Steven Ose	esek	
Project Number:			A=No		HCL C=		*Preserv	vation Co	des					Mail To Company:	The OS Gro	oup LLC	
Project Name:	La Crosse Well:	23+24	H=Sc FILTE	odium Bisul				um Thiosu		J=Other	<u> </u>			Mail To Address:	444 21st St LaCrosse, \		
Sampled By (Print)	 	. J	PRESER		Pick	Ä								Invoice To Contact:	Steven Ose	esek	× .
	THISTIE TWEE	00) (coi	DE)*	Letter	<i>1</i> \								Invoice To Company:	The OS Gro	oup LLC	Y.
Sampled By (Sign):	73111001111 1000	Regulatory Program:	trix Codes		Analyses Requested	<i>}</i> {								Invoice To Address:	444 21st St LaCrosse, \	S	
Data Package O (billable) EPA Leve	On your sample	A = Air B = Biota C = Charcoal	W = Water DW = Drinkir GW = Groun	ng Water	es Re	PENS								Invoice To Phone:	608-433-93		
EPA Leve	NOT needed on	O = Oil S = Soil	SW = Surfac	ce Water	alys	<u>)</u>								CLIENT		OMMENTS	Profile #
PACE LAB#	your sample S	12,200	WP = Wipe ECTION	MATRIX	Ā	M								COMMENTS		Jse Only)	1, cine a
PAGE LAB #		DATE (Cilva)	TIME		786	~									\ 	• •	
<u>u</u> _	1694-0	01/18/2	2:15	DW/	Y	<u> </u>											
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Email #2: Telephone:		Relin	nquished By:				Da	ate/Time:			Received	d By:		Date/Time:		OK / Ad	justed
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NaOH pH ≥12	HNO3 pH s2	
NaOH pH	HNO3 pH	
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Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302

Document Name:

Sample Condition Upon Receipt (SCUR)

Document No.:

ENV-FRM-GBAY-0014-Rev.00

Document Revised: 26Mar2020

Author:

Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: <u>/ ハe しこ</u>	Gro	uf)	WO#:	402211	.46
Courier: CS Logistics Fed Ex Speed Client Pace Other: Tracking #: 78274923	lee □UPS	r w 	altco	40221146		
Custody Seal on Cooler/Box Present: yes Custody Seal on Samples Present: yes Packing Material: Bubble Wrap Bub Thermometer Used Cooler Temperature Uncorr: ROT ICorr:	no Seals	intact:	yes [] yes [] Other	no r	les on ice, cooling proc Person exar	ess has begun mining contents:
Temp Blank Present: yes yes yeno Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on E		gical T	issue is Fro	zen: ☐ yes ☐ no	Date: Labeled By Init	/Initials:
Chain of Custody Present:	Yes □No	□n/a	1.			
Chain of Custody Filled Out:	□Yes ØNo	□n/a	2 Projeth	Pa # , FAVOR	to Shone #	1-19-2
Chain of Custody Relinquished: 1-1921)	Yes Pro	□n/a	3.	<i>d</i> - 1		8
Sampler Name & Signature on COC:	ZÎYes □No	□N/A	4.			
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	ZYes □No □Yes □No	,	5.			
	□Yes □No		Date/Time: 6.			
Short Hold Time Analysis (<72hr): Rush Turn Around Time Requested:	□Yes □/No	a filosopoli L	7.			
Sufficient Volume:	D: □Yes ØÑo	□n/a	8.			·
Correct Containers Used:	ZYes □No		9.			
-Pace Containers Used:	ZYes □No	□N/A			en e	
-Pace IR Containers Used:	□Yes □No	ØN/A	-: <u>}</u> .		-	
Containers Intact:	ZÍYes □No		10.			
Filtered volume received for Dissolved tests	□Yes □No	Øn/a	11.		2. N	
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	⊠Yes □No	□n/a	12.		•	
Trip Blank Present:	□Yes □No	ZÎN/A	13.			
Trip Blank Custody Seals Present	□Yes □No	EN/A				
Pace Trip Blank Lot # (if purchased):		1		<u>an i Tarat Balandara da a</u>		
Client Notification/ Resolution: Person Contacted: Comments/ Resolution:		_Date/	Time:	If checked, see	attached form for addi 	tional comments 🔲
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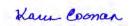


Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221146
Lot Number: WA20026
Date Completed: 01/29/2021



01/29/2021 6:29 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WA20026

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary Pace Analytical Services, LLC

Lot Number: WA20026
Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221146

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1694-0	Aqueous	01/18/2021 1415	01/20/2021

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Pace Analytical Services, LLC

Lot Number: WA20026

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221146

Sample	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1694-0	Aqueous	PFBS	PFAS by ID	7.5		ng/L	5
001	1694-0	Aqueous	PFOSA	PFAS by ID	1.1	J	ng/L	5
001	1694-0	Aqueous	PFHxS	PFAS by ID	2.1	J	ng/L	5
001	1694-0	Aqueous	PFBA	PFAS by ID	17		ng/L	5
001	1694-0	Aqueous	PFOA	PFAS by ID	2.5	J	ng/L	6
001	1694-0	Aqueous	PFOS	PFAS by ID	11		ng/L	6

(6 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA20026-001

Matrix: Aqueous

Description: 1694-0

Date Sampled:01/18/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221146

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 01/26/2021 2048 JJG

Prep Date Batch 01/24/2021 1615 80489

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 7 2 756426-58-1 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7 2 ng/L 1 1.8 PFAS by ID SOP ND 7 2 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.2 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.2 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7 2 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.2 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7 2 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.2 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 14 3.6 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7 2 1.8 ng/L 1 PFAS by ID SOP 7.2 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 7.5 3.6 0.90 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.6 0.90 ng/L 1 3.6 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 0.90 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP 1.1 3.6 ng/L 0.90 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 2.1 3.6 ng/L 0.90 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 17 3.6 0.90 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.6 0.90 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.6 ng/L 0.90 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.6 0.90 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.2 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.6 ng/L 0.90 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.6 na/L 1 0.90 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.2 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 2.5 3.6 0.90 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.6 ng/L 1 0.90 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.6 0.90 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.6 ng/L 1 0.90 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 11 3.6 ng/L 1 0.90 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 89 25-150 13C2_6:2FTS 89 25-150 81 13C2_8:2FTS 25-150 13C2_PFDoA 80 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2_PFHxDA

13C2 PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

73

73

25-150

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Description: 1694-0

Date Sampled:01/18/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221146

Surrogate	Run 1 Acceptan Q % Recovery Limits	ce
13C3_PFBS	82 25-150	
13C3_PFHxS	78 25-150	
13C3-HFPO-DA	83 25-150	
13C4_PFBA	85 25-150	
13C4_PFHpA	84 25-150	
13C5_PFHxA	80 25-150	
13C5_PFPeA	89 25-150	
13C6_PFDA	81 25-150	
13C7_PFUdA	85 25-150	
13C8_PFOA	83 25-150	
13C8_PFOS	80 25-150	
13C8_PFOSA	84 10-150	
13C9_PFNA	82 25-150	
d-EtFOSA	71 10-150	
d5-EtFOSAA	85 25-150	
d9-EtFOSE	78 10-150	
d-MeFOSA	84 10-150	
d3-MeFOSAA	84 25-150	
d7-MeFOSE	70 10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

P = The RPD between two GC columns exceeds 40%

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis J = Estimated result < LOQ and \geq DL

Laboratory ID: WA20026-001

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Sample ID: WQ80489-001 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/24/2021 1615

Parameter	Result	Q Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
11CI-PF3OUdS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
8:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
6:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
10:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
4:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
GenX	ND	1	8.0	2.0	ng/L	01/26/2021 1623
ADONA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSAA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSE	ND	1	8.0	2.0	ng/L	01/26/2021 1623
MeFOSA	ND	1	16	4.0	ng/L	01/26/2021 1623
MeFOSAA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
MeFOSE	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFBS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHpS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFNS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFOSA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFPeS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDOS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFHxS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFBA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDoA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHpA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHxDA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFHxA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFNA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFODA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFOA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFPeA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFTeDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFTrDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFUdA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFOS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	99	25-150				
13C2_6:2FTS	110	25-150				
13C2_8:2FTS	98	25-150				
13C2_PFDoA	96	25-150				
13C2_PFHxDA	102	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ80489-001 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 01/24/2021 1615

Surrogate	Q	% Rec	Acceptance Limit	
13C2_PFTeDA		98	25-150	
13C3_PFBS		95	25-150	
13C3_PFHxS		95	25-150	
13C3-HFPO-DA		102	25-150	
13C4_PFBA		100	25-150	
13C4_PFHpA		103	25-150	
13C5_PFHxA		95	25-150	
13C5_PFPeA		104	25-150	
13C6_PFDA		99	25-150	
13C7_PFUdA		102	25-150	
13C8_PFOA		101	25-150	
13C8_PFOS		95	25-150	
13C8_PFOSA		93	10-150	
13C9_PFNA		97	25-150	
d-EtFOSA		89	10-150	
d5-EtFOSAA		106	25-150	
d9-EtFOSE		104	10-150	
d-MeFOSA		97	10-150	
d3-MeFOSAA		101	25-150	
d7-MeFOSE		103	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

 $J = Estimated result < LOQ and <math>\geq DL$

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ80489-002 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/24/2021 1615

	Spike				04.5	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17	1	113	50-150	01/26/2021 1633
11CI-PF3OUdS	15	16	1	109	50-150	01/26/2021 1633
8:2 FTS	15	17	1	108	50-150	01/26/2021 1633
6:2 FTS	15	18	1	116	50-150	01/26/2021 1633
10:2 FTS	15	16	1	101	50-150	01/26/2021 1633
4:2 FTS	15	16	1	107	50-150	01/26/2021 1633
GenX	32	37	1	114	50-150	01/26/2021 1633
ADONA	15	18	1	117	50-150	01/26/2021 1633
EtFOSA	16	16	1	98	50-150	01/26/2021 1633
EtFOSAA	16	17	1	103	50-150	01/26/2021 1633
EtFOSE	16	16	1	101	50-150	01/26/2021 1633
MeFOSA	16	21	1	129	50-150	01/26/2021 1633
MeFOSAA	16	19	1	118	50-150	01/26/2021 1633
MeFOSE	16	16	1	100	50-150	01/26/2021 1633
PFBS	14	15	1	104	50-150	01/26/2021 1633
PFDS	15	18	1	117	50-150	01/26/2021 1633
PFHpS	15	16	1	105	50-150	01/26/2021 1633
PFNS	15	18	1	120	50-150	01/26/2021 1633
PFOSA	16	18	1	109	50-150	01/26/2021 1633
PFPeS	15	15	1	102	50-150	01/26/2021 1633
PFDOS	15	16	1	103	50-150	01/26/2021 1633
PFHxS	15	15	1	106	50-150	01/26/2021 1633
PFBA	16	17	1	108	50-150	01/26/2021 1633
PFDA	16	18	1	111	50-150	01/26/2021 1633
PFDoA	16	17	1	109	50-150	01/26/2021 1633
PFHpA	16	17	1	107	50-150	01/26/2021 1633
PFHxDA	16	17	1	109	50-150	01/26/2021 1633
PFHxA	16	17	1	107	50-150	01/26/2021 1633
PFNA	16	17	1	108	50-150	01/26/2021 1633
PFODA	16	18	1	114	50-150	01/26/2021 1633
PFOA	16	18	1	110	50-150	01/26/2021 1633
PFPeA	16	17	1	108	50-150	01/26/2021 1633
PFTeDA	16	18	1	113	50-150	01/26/2021 1633
PFTrDA	16	18	1	112	50-150	01/26/2021 1633
PFUdA	16	17	1	108	50-150	01/26/2021 1633
PFOS	15	16	1	105	50-150	01/26/2021 1633
1103	13	Acceptance	'	103	30-130	01/20/2021 1033
Surrogate	Q % Rec	Limit				
13C2_4:2FTS	88	25-150				
13C2_6:2FTS	98	25-150				
13C2_8:2FTS	88	25-150				
13C2_PFDoA	94	25-150				
13C2_PFHxDA	97	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ80489-002 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 01/24/2021 1615

Surrogate	Q % Rec	Acceptance Limit	
13C2_PFTeDA	92	25-150	
13C3_PFBS	90	25-150	
13C3_PFHxS	88	25-150	
13C3-HFPO-DA	95	25-150	
13C4_PFBA	94	25-150	
13C4_PFHpA	95	25-150	
13C5_PFHxA	90	25-150	
13C5_PFPeA	97	25-150	
13C6_PFDA	93	25-150	
13C7_PFUdA	94	25-150	
13C8_PFOA	95	25-150	
13C8_PFOS	89	25-150	
13C8_PFOSA	90	10-150	
13C9_PFNA	93	25-150	
d-EtFOSA	66	10-150	
d5-EtFOSAA	94	25-150	
d9-EtFOSE	96	10-150	
d-MeFOSA	74	10-150	
d3-MeFOSAA	97	25-150	
d7-MeFOSE	104	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

 $J = Estimated result < LOQ and \ge DL$

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Chain of Custody and Miscellaneous Documents

Pace Analytical Services, 106 Vantage Point Drive	Internal Transfer Chain of Custody	State Of Origin: Wi
rvices	Samples Pre-Logged into aCOC.	Cert. Needad: X Yes No
	Workorder: 40221146 Workorder Name: LACROSSE WELL #23 & 24 Report To	Owner Received Date: 7:3/2021 7:034/10
LLC (formerly Shealy Environmental Services, West Columbia, SC 29172 (803) 791-9700	Christopher Hyska Pace Analytical West Columbia Pace Analytical Green Bay 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700 Phone (920)469-2436	WA20026
ental Service 03) 791-970	Sample Collect Type Date/Time Lab ID Matrix	LAB USE ONLY
_	PS 1/18/2021 14:15 40221146001 Water 2	
nc.) Fax (803) 791-9111	2	
)3) 70	3	
91-91	6	Comments
11 www.pacelabs.com	Transfers Roles and By Date/Time Received By 1 192 (atry)	Date/Time IR77 - MDL reporting - Quote 23492
abs.c	3 Fedex 120 21/0935 4n Homely Cooler Temperature on Receipt 1.3 °C Custody Seal (M) or N	Received on Ice (Y) or N Samples Intact (Y) or N
Ö M	***In order to maintain client confidentiality, location/name of the sampling site, sampler This chain of custody is considered complete as is since this information is evailable	s name and signature may not be provided on this COC document.

Pace Analytical Services, 106 Vantage Point Drive UPPER MIDWEST REGION (Please Print Clearly) MN: 612-607-1700 WI: 920-469-2438 The OS Group LLC many Name: aCrosse WI nch/Location: Quote #: ject Contact: Steven Csesck CHAIN OF CUSTODY Steven Osesek Mail To Contact: 608-433-9388 The OS Group LLC Mail To Company: rect Number: BEHCL C=H2504 D=HNO3 E=DIWater F=Methanol G=NaOH H-Sodium Bisultate Solution I=Sodium Thiosufate J=C0rer Mail To Address: 444 21st St S lect Name: LaCrosse, WI 54601 FILTERED? YIN gect State: (YESINO) PRESERVATION Ptek Steven Osesek Invoice To Contact: mpled By (Print): The OS Group LLC Invoice To Company: npled By (Sign): Analyses Requested Invoice To Address: 444 21st St S ø: Program: LaCrosse, WI 54601 Matrix Codes eta Package Options MS/MSD Wir Water On your sample DW = Drinking Weter 3 - Bota EPA Level III 608-433-9388 Invoice To Phone: (billable) C= Charcost GW = Ground Water 0 = 01 SW - Surface Water ☐ EPA Lavel IV NOT needed on LAB COMMENTS Profile # CLIENT 3 - 300 Why - Weste Water your sample. (Lab Use Only) COLLECTION COMMENTS CLIENT FIELD ID CE LAB # DATE TIME 275 20.00 Date/Time: Received By: Date/Times Rush Turnaround Time Requested - Prelims Relinquished By: (Rush TAT subject to approval/surcharge) Date Needed: esting the bad By: Transmit Preim Rush Results by (complete what you want): Date/Times Relinquished By: ail #1: Sample Receipt pH all #2: OK / Adjusted Date/Tane: Received By: Date/Times Reinquished By: ephone: Cooler Custody Seal Present / Not Pres Date/Time: Received By: Reinquished By: Date/Times Samples on HOLD are subject to Intact / Not Intact special pricing and release of liability

Page

Page 15 of 16

All containers needing preservation have been chocked and noted below. CYNs although preservation (if pH adjusted):	ient	Nε	ıme):	7	h	e	Ć	2	<u>-</u> S	G		San			res oje		atlo	n F					dЬ	,						Page / 1241	Believus	al Services, LLC e Street, Suite : Bay, WI 5430
Glass Plastic Vials Jans General G	Al	cont	ainers	needir	ng pre	serva	tion h	ave b	een d						s oNo	p K V		ab Std	押りっ	f pres	erveti	on (if ;	oH adj	usted)									
2.575/10 2.575/30 2.5					ass						Plas	tic				V						Jars				al	(>emm) *	152	Act pH 25	212	Ø	pessed	
2.5757.0 2.5757	AG1U	8610	AGTH	AG4S	AG4U	AGSU	AG2S	BG3U		120 11 1 1	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VGSM	VG9D	JGFU	JG9U	WGFU	WPFU	SP6T	ZPLC	<u>8</u>	VOA Vial	H2SO4 pi	NaO!+Zr	NaOH PH	HNO3 pH	pH affer a	(mL)
2.5/5/10 2.5			8	200											20.20			1/6	36 1							20			in a	100	9195A	250	
2.5/6/10 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/5/0 2.5/5/10 2.	3			42000	Sec		1254	Para	dices		3 100 100	3 20 3 69	10000	2000	1036	10000	22.00	16000	20,000	5,000	333490	S SIGNAS	-	ar £5.0	\$160.00C	Vestige	STORE S	250	Billiania.	250	-	20000000	2.5/5/10
25/5/10 2.5/5/10		hiteri	SI SPECIAL	31000425	all to be seen	- Constitution	10000	a (1000)	6 GRAN	27,869	80.00	A NEW YORK	666664 666664	9888	100000	S SAMBLE	(AP)		100	1920年		18348		1	Best	223	排號	1966					1
2.5 / 5 / 10 2.			120		B ₁	No.							遗			200	4		150	*		100	380	雕	180	1	M	100				源系	CORPORATION PROPERTY AND ADDRESS OF THE PARTY
2.5 / 5 / 10 2.		额				CV.		基础		M	150	17.8	307		30.8		4	1	13.39	90		568	Spic h		988	e de la		2597	150 Sept.	Section 1	No.		4 10 1000
2.57/5/10 2.57/5/10	F 983572	Strange	S 51555100	Georgia.	Zasta		Money	November 1		1112000						- Company			SHIPHICS	110000	1000000	-	150,000	19056838	PLEASE.	06.200.3	Service	-	SPECIAL PROPERTY.	2535	STREET,	PM272	77.00
2.5/5/10 2.5/5/10		100		1000				25 500	10 Co	16:98	E	200	WEST.		**	變				以	200				對學		200	證實		物度	242		
2.5/5/10 2.5/5/10 2.5/5/10 2.5/5/10 2.5/5/10 2.5/5/10 2.5/5/10 2.5/6/		Q	100	1433	dia.				834			8		機器	製學	10 m			200	260	建港	200	200		兒太樂	46	ISSA	語名	NESS:	337A		45.22	
2.575/10 2.575/10		2000	Section 2	2 300000	caerbale	Lekinordo	OF SECTION	riska mov	Sentence	W. 6090	W-more	SITURE:	SATORCIO:	ica caga:	#Cru-Tair	Neguna	-arcana	MAX-PS:								-0.44		-	274 PA, 375	1000000	OFFICE TO	17021 gyg	The agreement the earth-public country.
2.5/5/10 2.5/5/	e esseni	3000	5200	200.000	医硬型的	2626		e saile s		機能等	STATE OF	整體														遊戲			1 1		機能		
25/5/10 25/									W.	機能		8		2			(A)				440		影響	100	193	美		Gray's	2040		114-157	164	St. St. Majoriera y consumo a
2.5/5/10 2.5/6/10 2.5/6/10 2.5/6/10 2.5/6/10 2.5/5/10 2.5/6/	420	20.2		(後期		21950	が終		ALC:	2.00	and the	10255E	14.725	S S S S S	4 P	dat es	ex Service	STATE OF THE PARTY.	STREET, ST	a Paris	0,500,50	8.85-26	146000	National St.	700 Gall	970	dromes in	ORENRO	1000000	eseption of	March 1	grant'i Le	
ptions to preservation check: VCA, Coliform; TOC, TOX, TOH, O&G, Wi DRO, Phenolics, Other: Headspace in VOA Vials (>6mm): oYes oNo viviA *If yes look in headspace column 1 liter amber glass 1 liter clear glass 250 mL plastic unpres 1 liter amber glass HCL 1 liter amber glass HCL 250 mL plastic unpres 40 mL clear secorbic 40 mL clear vial unpres 40 mL clear vial HCL 40 mL clear vial mpres	1	20,040,00		POSTAGE	SHEWAR		Series in	e a participa de la companya de la c	STATUTE OF	The state of the s		CONTRACTOR	Equilibries (4		Service .		18605	SHORE		1000	315755									/	ACCUPATION AND ADDRESS OF
1 liter amber glass BP1U 1 liter plastic unpres VG9A 40 mL cloar ascorbic JGFU 4 oz amber jar unpres 1 liter clear glass BP3U 250 mL plastic unpres DG9T 40 mL amber Na Thio JG9U 9 oz amber jar unpres 1 liter amber glass HCL BP3B 250 mL plastic NaOH VG9U 40 mL clear vial unpres WGFU 4 oz clear jar unpres WGFU 4 oz clear jar unpres WGFU 4 oz clear jar unpres WGFU 4 oz plastic jar unpres 120 mL amber glass unpres BP3S 250 mL plastic H2SO4 VG9M 40 mL clear vial McOH SP5T 120 mL plastic Na Thiosulfate										2				(47) (48)	100		18.2	整課						71.6	9 %	Vil.		76	1	9/2	18		
1 liter clear glass BP3U 250 mL plastic unpres DG9T 40 mL amber Na Thio JG9U 9 oz amber jar unpres 1 liter amber glass HCL BP3B 250 mL plastic NaOH VG9U 40 mL clear vial unpres 125 mL amber glass H2SO4 BP3N 250 mL plastic HNO3 VG9H 40 mL clear vial HCL WPFU 4 oz plastic jar unpres 120 mL amber glass unpres BP3S 250 mL plastic H2SO4 VG9M 40 mL clear vial MaOH SP6T 120 mL plastic Na Thiosulfate		** ** **			neck:	VOA,	Colife							O, Pi	enolic	s, Oth	er:			Head	space	in VO	A Vial	ls (>6n	un) : (Yes	□No j	AWA .	if yes	look i	n heads	pace c	olumn
1 liter amber glass HCL BP3B 250 mL plastic NaOH VG9U 40 mL clear vial unpres 125 mL amber glass H2SO4 BP3N 250 mL plastic HNO3 VG9H 40 mL clear vial HCL WPFU 4 oz clear jar unpres 4 oz clear jar unpres 4 oz clear jar unpres 4 oz plastic jar unpres 4 oz plastic jar unpres 4 oz plastic jar unpres 5 vG9M 40 mL clear vial MaOH SP5T 120 mL plastic Na Thiosulfate														s						. ,	- 1				_								
120 mL amber glass unpres BP3S 250 mL plastic H2SO4 VG9M 40 mL clear vial MeOH SP5T 120 mL plastic Na Thiosulfate	1 lite 125	ram mL a	ber g	lass F	ICL H2S	04			3B	250 n	nL pla	stic I	NaOH	l		VG:	u l	40 ml	_ clea	r via)	unpr	es		WGI	=U	oz o	iear j	jar un	pres			1	
	120	mL a	mber	glass	unpe	es										VG9M 40 mL clear vial MeOH SP5T 120 mL plast										te							
500 mL amber glass unpres VG9D [40 mL clear vial D] ZPLC ziploc bag GN SN	500	mL a	mber	glass	H2S	04	ł									VG	ND	40 mL	clea	r vial	DJ	-	-	ZPL GN	C z								

-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

Page 1 of _____

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15) Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020 Page 1 of 1

Sample Receipt Checklist (SRC)
Client: YOUT CIVELY Cooler Inspected by/date: WIFH/ 1/70/21 Tout WA 7007
Face Cheft OPS FedEx Other
Yes No 1. Were custody seals present on the cooler?
Yes No NA 2. If custody seals were present, were they intact and unbroken?
Chloring Strip ID: 1 100
THE THE TOTAL OF THE PROPERTY
Method: Temperature Blank Against Bottles IR Gun ID: 5 IR Gun Correction Factor: O °C Method of coolant: Wet Ice I tee Packs Dry Ice None
TOTAL
Yes No NA 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / cmail / face-to-face (circle one).
Yes No NA 4. Is the commercial courier's packing slip attached to this form?
3. Were proper custody procedures (relinquished/possing) 6.11
Ycs No 6. Were sample IDs listed on the COC?
Yes No 7. Were sample IDs listed on all sample containers?
Yes No 8. Was collection date & time listed on the COC?
Yes No 9. Was collection date & time listed on all sample containers?
Yes No 10. Did all container label information (ID, date, time) agree with the COC?
Yes No 11. Were tests to be performed listed on the COC?
Yes No 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
Yes No 13. Was adequate sample volume available?
Yes No 14. Were all samples received within 1/2 the holding time or 48 house or 1/2
The state of the s
Yes No
The stay of the VOIC VIGIS
Yes No NA 17. Were all DRO/metals/natrient samples received at a pH of < 2?
Latva 16. Were all cyanide samples received at a nH > 12 and sulfide consideration
11 Yest Not 1 -PNA1 Product 1113/15/1/Cydnige/phenol/b25 1/60X 3 (< 0 Sma/l) complex from a firm
Tostidat Chlorine?
Yes No NA 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc)
verteeny datasended from the COC into the comment section in LIMS?
and the cause marker instead on the container label? If yes, Quote #
any sample(s) medited by preserved or with headspace.)
in sample receiving with mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # Nix
Time of preservation If more than one preservative is needed, please note in the comments below.
Sample(s) were received with bubbles >6 mm in diameter.
Samples(s) \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Samples(s) were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID:
SR barcode labels applied by: MEH Date: 1/20/2 (
Comments;



444 21st Street South · La Crosse, Wisconsin · 54601

February 3, 2021

2623 Lakeshore Drive La Crosse, WI 54603

Subject: Private Well Sampling Results

2623 Lakeshore Drive, La Crosse, WI 54603

Tax Parcel # 4-1913-16 Sampling Point # 1913-16 Sample Date: 01/18/21

Dear :

We have received and reviewed the test results for the sample collected on January 18, 2021 at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt for pounds or the of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d lim 5 com <i>total</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	ende ese ined
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	10 ppt	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.1 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2623 Lakeshore Drive, La Crosse, WI 54603 Tax Parcel # 4-1913-16 Sampling Point # 1913-16 February 3, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	22 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	3.6 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	0.95 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.9 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2623 Lakeshore Drive, La Crosse, WI 54603 Tax Parcel # 4-1913-16 Sampling Point # 1913-16 February 3, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well





February 01, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL #23 & 24

Pace Project No.: 40221145

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on January 19, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com (920)469-2436

Chushpher Hyske

Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC







SAMPLE SUMMARY

Project: LACROSSE WELL #23 & 24

Pace Project No.: 40221145

Lab ID	Sample ID		Matrix	Date Collected	Date Received
40221145001	1694-16	1913-16	Water	01/18/21 14:30	01/19/21 09:00

REPORT OF LABORATORY ANALYSIS

Version 6.0 06/14/06

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Company Name:	The OS Group LLC			/	Ø20	e Ana	oh Hi	cal®			MN: (312-607-1	700 W	/I: 920-469-2436		1100	~ .	
Branch/Location:	LaCrosse WI		1 /	/	гаы		21 y LIC Dacelabs								COC	No. 402	الار	<u>45 </u>
Project Contact:	Steven Osesek		1 /											Quote #:				
Phone:	608-433-9388				CHA	AIN		F C	US	TC)DY			Mail To Contact:	Steve	en Osesek		
Project Number:			A=N	lone B=	HCL C	=H2SO4	Commence and of a profes	vation Cod O3 E=D		F=Meth	anol G=	NaOH		Mail To Company	r: The C	OS Group LLC		
Project Name: Project State:	La Crosse Well a	13724	FILTE	ERED?	iffate Solu	1 3 7	I=Sodi	ium Thiosu	Ifate	J=Other				Mail To Address	1777 4	21st St S osse, WI 54601		
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Sampled By (Sign)			1										ı	nvoice To Compar	y: The C	OS Group LLC		
PO #:	The state of the s	Regulatory Program:			Requested	$ \approx$							Ī	Invoice To Addres	444 Z	1st St S	5	
Data Package C		Mat A = Air	trix Codes W = Water] be	PFA53(LaCro	osse, WI 54601		
☐ EPA Lev	el III (billable)	B = Biota C = Charcoal	DW = Drinki GW = Grour SW = Surfac	ing Water nd Water		18								Invoice To Phone	: 608-4	133-9388		
EPA Lev	your sample	O = Oil S = Soil SI = Sludge COLL	WW = Wast WP = Wipe ECTION	te Water	Analyses	To								CLIENT COMMENTS		B COMMENT		Profile #
PACE LAB#	CLIENT FIELD ID	DATE	TIME											COMMENTS	(r	_ab Use Only	<u> </u>	
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Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302

Document Name: Sample Condition Upon Receipt (SCUR)

Document No.:

Document Revised: 26Mar2020 Author:

ENV-FRM-GBAY-0014-Rev.00

Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: The OS	Gray	Project #:	: 40221145
Courier: CS Logistics Fed Ex Speede	e UPS		. 40221140
Client Pace Other:			
Tracking #: 78274923	7296	4022114	5
Custody Seal on Cooler/Box Present: yes	no Seals inta	 ct: □ ves □ no	· · · · · · · · · · · · · · · · · · ·
Custody Seal on Samples Present: 🗀 yes 🔯		ot: ☐ yes ☐ no	
Packing Material: 🔲 Bubble Wrap 🔲 Bubb	and the state of t		
Thermometer Used SR - N/A	Type of Ice:	Blue Dry None 🔑 Sample:	s on ice, cooling process has begun
Cooler Temperature Uncorr: ROT /Corr:			Person examining contents:
Temp Blank Present: 🔲 yes 🎁 no	Biologica	I Tissue is Frozen: ☐ yes ☐ no	Date: // // // // // // // // // // // // //
Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dr	y lœ.		Labeled By Initials:
Chain of Custody Present:	ZYes □No □N	A 1.	
Chain of Custody Filled Out:	□Yes ØNo □N	A 2Proj. + Pa + FAVOU	e shone # 1-19=
Chain of Custody Relinquished:	ØYes □No □N	A 3.	
Sampler Name & Signature on COC:	ZÍYes □No □N	A 4.	
Samples Arrived within Hold Time:	ØYes □No	5.	
- VOA Samples frozen upon receipt	□Yes □No	Date/Time:	Later and the second
Short Hold Time Analysis (<72hr):	□Yes 🖬No	6.	and the control of th
Rush Turn Around Time Requested:	□Yes ☑No	7.	
Sufficient Volume:	The second secon	8.	
For Analysis: ☑Yes ☐No MS/MSD:	□Yes Ø̈́no □N	A The state of the	
Correct Containers Used:	Zes □No	9.	
-Pace Containers Used:	ØYes □No □N	Α	
-Pace IR Containers Used:	□Yes □No ☑N	Α	A Committee of the Comm
Containers Intact:	ZÍYes □No	10.	1-19-21
Filtered volume received for Dissolved tests	□Yeş∕ŪNo ØN	A 1170 15 1913-10	o Collect into Match
Sample Labels match COC: 119 21 No	Yes Mo DN	12. 001 - CUC +111-C	230" sample time
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Pace Trip Blank Lot # (if purchased):			
Client Notification/ Resolution:			tached form for additional comments
Person Contacted: Comments/ Resolution: (**Light **C) (**C)	Dat Dat	e/Time:	1-19-ZI SW
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Report of Analysis

Pace Analytical Services, LLC 1241 Bellevue Street Suite 9

Green Bay, WI 54302 Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221145 Lot Number: WA20027 Date Completed: 01/29/2021



01/29/2021 6:22 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WA20027

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary Pace Analytical Services, LLC

Lot Number: WA20027

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221145

Sample Number	Sample ID	Matrix	Date Sampled I	Date Received
001	1694 -16 1913-16	Aqueous	01/18/2021 1430	01/20/2021

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Pace Analytical Services, LLC

Lot Number: WA20027

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221145

Sampl	e Sample ID		Matrix	Parameter	Method	Result	Q	Units	Page
001	1694-16	1913-16	Aqueous	PFBS	PFAS by ID	5.3		ng/L	5
001	1694-16		Aqueous	PFOSA	PFAS by ID	1.1	J	ng/L	5
001	1694-16		Aqueous	PFPeS	PFAS by ID	0.95	J	ng/L	5
001	1694-16		Aqueous	PFHxS	PFAS by ID	2.5	J	ng/L	5
001	1694-16		Aqueous	PFBA	PFAS by ID	22		ng/L	5
001	1694-16		Aqueous	PFHxA	PFAS by ID	3.6	J	ng/L	6
001	1694-16		Aqueous	PFOA	PFAS by ID	10		ng/L	6
001	1694-16		Aqueous	PFPeA	PFAS by ID	2.9	J	ng/L	6

Aqueous PFOS

8.1

ng/L

6

PFAS by ID

001 1694-16 (9 detections)

1913-16 Randi Pueschner

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA20027-001 Matrix: Aqueous

Description: 1694-16 1913-16

Date Sampled:01/18/2021 1430

SOP SPE

Date Received: 01/20/2021

Project Name: LACROSSE WELLS 23 & 24

Run Prep Method

Project Number: 40221145

Analytical Method Dilution Analysis Date Analyst Prep Date Batch PFAS by ID SOP 01/26/2021 2110 JJG 01/24/2021 1615 80489

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.3	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1 J	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.95 J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.5 J	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	22	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.6 J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	10	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.9 J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.1	3.7	0.92	ng/L	1
Surrogate Q % Rec	covery Lir	otance nits					
_		-150					
		-150					
		-150					
13C2_PFDoA	79 25	-150					
	83 25	-150					
13C2_PFTeDA	84 25	-150					

ND = Not detected at or above the DL N = Recovery is out of criteria W = Reported on wet weight basis H = Out of holding time

LOQ = Limit of Quantitation

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

Page 10 of 22

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

1913-16

Laboratory ID: WA20027-001

Matrix: Aqueous

Description: 1694-16 Date Sampled:01/18/2021 1430

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/20/2021

Project Number: 40221145

Surrogate	Run 1 Accept Q % Recovery Lim
13C3_PFBS	83 25-
13C3_PFHxS	81 25-1
13C3-HFPO-DA	83 25-7
13C4_PFBA	88 25-7
13C4_PFHpA	88 25-7
13C5_PFHxA	80 25-7
13C5_PFPeA	89 25-7
13C6_PFDA	85 25-7
13C7_PFUdA	95 25-7
13C8_PFOA	87 25-7
13C8_PFOS	84 25-7
13C8_PFOSA	86 10-
13C9_PFNA	85 25-7
d-EtFOSA	79 10-7
d5-EtFOSAA	94 25-7
d9-EtFOSE	83 10-7
d-MeFOSA	78 10-7
d3-MeFOSAA	86 25-7
d7-MeFOSE	86 10-7

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Sample ID: WQ80489-001 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/24/2021 1615

Parameter	Result	Q Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
11CI-PF3OUdS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
8:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
6:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
10:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
4:2 FTS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
GenX	ND	1	8.0	2.0	ng/L	01/26/2021 1623
ADONA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSAA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
EtFOSE	ND	1	8.0	2.0	ng/L	01/26/2021 1623
MeFOSA	ND	1	16	4.0	ng/L	01/26/2021 1623
MeFOSAA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
MeFOSE	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFBS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHpS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFNS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFOSA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFPeS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDOS	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFHxS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFBA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFDoA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHpA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFHxDA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFHxA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFNA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFODA	ND	1	8.0	2.0	ng/L	01/26/2021 1623
PFOA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFPeA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFTeDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFTrDA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFUdA	ND	1	4.0	1.0	ng/L	01/26/2021 1623
PFOS	ND	1	4.0	1.0	ng/L	01/26/2021 1623
Surrogate	Q % Red	Acceptance Limit			Ü	
13C2_4:2FTS	99	25-150				
13C2_6:2FTS	110	25-150				
	98					
13C2_8:2FTS		25-150				
13C2_PFDoA	96	25-150				
13C2_PFHxDA	102	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ80489-001 Batch: 80489 Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 01/24/2021 1615

Surrogate	Q	% Rec	Acceptance Limit	
13C2_PFTeDA		98	25-150	
13C3_PFBS		95	25-150	
13C3_PFHxS		95	25-150	
13C3-HFPO-DA		102	25-150	
13C4_PFBA		100	25-150	
13C4_PFHpA		103	25-150	
13C5_PFHxA		95	25-150	
13C5_PFPeA		104	25-150	
13C6_PFDA		99	25-150	
13C7_PFUdA		102	25-150	
13C8_PFOA		101	25-150	
13C8_PFOS		95	25-150	
13C8_PFOSA		93	10-150	
13C9_PFNA		97	25-150	
d-EtFOSA		89	10-150	
d5-EtFOSAA		106	25-150	
d9-EtFOSE		104	10-150	
d-MeFOSA		97	10-150	
d3-MeFOSAA		101	25-150	
d7-MeFOSE		103	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria * = RSD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ80489-002 Batch: 80489 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/24/2021 1615

	Spike				0/ D	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17	1	113	50-150	01/26/2021 1633
11CI-PF3OUdS	15	16	1	109	50-150	01/26/2021 1633
8:2 FTS	15	17	1	108	50-150	01/26/2021 1633
6:2 FTS	15	18	1	116	50-150	01/26/2021 1633
10:2 FTS	15	16	1	101	50-150	01/26/2021 1633
4:2 FTS	15	16	1	107	50-150	01/26/2021 1633
GenX	32	37	1	114	50-150	01/26/2021 1633
ADONA	15	18	1	117	50-150	01/26/2021 1633
EtFOSA	16	16	1	98	50-150	01/26/2021 1633
EtFOSAA	16	17	1	103	50-150	01/26/2021 1633
EtFOSE	16	16	1	101	50-150	01/26/2021 1633
MeFOSA	16	21	1	129	50-150	01/26/2021 1633
MeFOSAA	16	19	1	118	50-150	01/26/2021 1633
MeFOSE	16	16	1	100	50-150	01/26/2021 1633
PFBS	14	15	1	104	50-150	01/26/2021 1633
PFDS	15	18	1	117	50-150	01/26/2021 1633
PFHpS	15	16	1	105	50-150	01/26/2021 1633
PFNS	15	18	1	120	50-150	01/26/2021 1633
PFOSA	16	18	1	109	50-150	01/26/2021 1633
PFPeS	15	15	1	102	50-150	01/26/2021 1633
PFDOS	15	16	1	103	50-150	01/26/2021 1633
PFHxS	15	15	1	106	50-150	01/26/2021 1633
PFBA	16	17	1	108	50-150	01/26/2021 1633
PFDA	16	18	1	111	50-150	01/26/2021 1633
PFDoA	16	17	1	109	50-150	01/26/2021 1633
PFHpA	16	17	1	107	50-150	01/26/2021 1633
PFHxDA	16	17	1	109	50-150	01/26/2021 1633
PFHxA	16	17	1	107	50-150	01/26/2021 1633
PFNA	16	17	1	108	50-150	01/26/2021 1633
PFODA	16	18	1	114	50-150	01/26/2021 1633
PFOA	16	18	1	110	50-150	01/26/2021 1633
PFPeA	16	17	1	108	50-150	01/26/2021 1633
			1			01/26/2021 1633
PFTeDA	16 16	18 18		113	50-150	
PFTrDA			1	112	50-150	01/26/2021 1633
PFUdA	16	17	1	108	50-150	01/26/2021 1633
PFOS	15	16	1	105	50-150	01/26/2021 1633
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	88	25-150				
13C2_6:2FTS	98	25-150				
13C2_8:2FTS	88	25-150				
13C2_PFDoA	94	25-150				
13C2_PFHxDA	97	25-150				
1002_1111/0/1	,,	20-100				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ80489-002

Batch: 80489

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 01/24/2021 1615

Surrogate	Q % Rec	Acceptance Limit
13C2_PFTeDA	92	25-150
13C3_PFBS	90	25-150
13C3_PFHxS	88	25-150
13C3-HFPO-DA	95	25-150
13C4_PFBA	94	25-150
13C4_PFHpA	95	25-150
13C5_PFHxA	90	25-150
13C5_PFPeA	97	25-150
13C6_PFDA	93	25-150
13C7_PFUdA	94	25-150
13C8_PFOA	95	25-150
13C8_PFOS	89	25-150
13C8_PFOSA	90	10-150
13C9_PFNA	93	25-150
d-EtFOSA	66	10-150
d5-EtFOSAA	94	25-150
d9-EtFOSE	96	10-150
d-MeFOSA	74	10-150
d3-MeFOSAA	97	25-150
d7-MeFOSE	104	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Chain of Custody and Miscellaneous Documents

2/4/2021

WA20027

LAB USE ONLY

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VG9A

DG9T

VG9U

VG9H

VG9M

VG9D

40 mL amber Na Thio

40 mL clear vial HCL

40 mL clear vial DI

40 ml. clear vial unpres

40 mL clear vial MeOH

JGBU

WGFU

WPFU

SP5T

ZPLC

GN

9 oz amber jar unpres

4 oz plastic jar unpres

120 mL plastic Na Thiosulfate

4 oz dear jar unpres

ziploc bag

Page 20 of 22 I 1 liter amber glass

11 liter clear glass

HI1 litter amber glass HCL

125 ml. amber glass H2SO4

1120 mL amber glass unpres

100 ml. amber glass unpres

500 mL amber glass H2SO4

#250 mL clear glass unpres

Page 15 of 17

BP1U

BP3U

BP3B

BP3N

BP3S

liter plastic unpres

250 mL plastic unpres

250 mL plastic NaOH

250 mL plastic HNO3

250 mL plastic H2SO4

Page 1 of 2

Pace Analytical Services, LLC 1241 Bellevus Street, Suite 9 Green Bay, WI 54302

	Document Name:	Document Revised: 26Mar2020
/	Sample Condition Upon Receipt (SCUR)	Document Nevisca: Zolilar zon
/ Face Analytical*	Document No.:	Author:
1241 Bellevue Street, Green Bay, Wi 54302	ENV-FRM-GBAY-0014-Rev.00	Pace Green Bay Quality Office
1241 Delievas Ottost, Ciccii Day, 111 2 1002		

Sample Condition Upon Receipt Form (SCUR)

Client Name:	The OS	Grace	Ŋ	Project #:	MO#:	4022114	1 5
Courier: [] CS Logistics	T Fed Ex ☐ Speeder	e TUPS	Wa	Itco	HIMBELSON!		
_	Pace Other:						
778		1296			40221145		
Tracking #: 70 Custody Seal on Cooler/E			ntact	yes 🖺 no			
Custody Seal on Samples	Present: To ves 100	_		yes no			
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	SR- N/A	Type of Ice:	1	Blue Dry None	Samples	on ice, cooling process I	has begun
Cooler Temperature	Uncerr: RDJ_/Corr:					Person examinin	SA P
Temp Blank Present:	yes Kno	Biolog	ical Ti	ssue is Frozen:	⊡ yes⊡ no	Date: //ni	itials.
Temp should be above freezin Biota Samples may be receive	ng to 8°C. ed at ≤ 0°C if shipped on Dr			÷.,		Labeled By Initials:	
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Chain of Custody Filled Or	ut:	□Yes ⊠No	□N/A	zrroi to	F-ANORC	e More	
Chain of Custody Relinqui	ished:	MYes □No	⊞N/A	3.		799	
Sampler Name & Signatur		ZÍYes □No	□N⁄A	4.			
Samples Arrived within Ho		ØYes □No	-	5.			1
- VOA Samples fro		_Yes □No		Date/Time:			
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Trip Blank Present:		□Yes □No	VINIA	13.			
Trip Blank Custody Seal:	s Present	□Yes □No	ANA	\ .		· .	
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	nted electronically in Li	Ma Dyralesa	ing th	e project the PA	l acknowledges	they have reviewed	the sample logi
PM Review is document	nțed electronically in Li	inia. Sy reidas	ang m	e brolood are th			• •

		PACE ANALYTICAL SERVICES, LLC	
1) ace Analytical	Issuing Authority: Pace ENV - WCOL	9/29/2020 Page 1 of 1
	Dar	Sample Receipt Checklist (SRC)	
	Client: Y (U)	C Executbay Cooler Inspected by/date: MEH/ 1/20/21 Lot #: WAZOUZ7	
	Means of receip	pt: Pace Client UPS FedEx Other; 1. Were custody seals present on the cooler?	
		NA 2. If custody scals were present, were they intact and unbroken?	_
	pH Strip ID:	NVA Chlorine Strip ID: NVA Tested by: NVA	_
	Original temper	rature upon receipt / Derived (Corrected) temperature upon receipt %Solid Span-Cup ID: AVA	
	1.5 / 1.3 °C	NA MA OC MA MAC MA MAC	
	Method of cool	mperature Blank Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 7 °C lant: Wet Ice Lee Packs Dry Ice None	
		13 If temperature of one pooler meneded 6.000 and Project Manager 10	-
	Yes N	NA PM was Notified by: phone / email / face-to-face (circle one).	
		NA 4. Is the commercial courier's packing slip attached to this form?	-
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		Io NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" ('/4" or 6mm in diameter) in any of the VOA vials?	
	Yes N		
	Yes N	10 West of applicable MILESTAN AND AND AND AND AND AND AND AND AND A	_
	☐ Yes ☐ N	residual chlorine?	
	☐Yes ☐N	20 W	
	Yes N		
	Sample Preserv		4
1		Were received incorrectly preserved and were adjusted accordingly	-
	in sample receiv	wing withN mL of circle one: H2SO4, HNO3, HCl, NaOH using SR #N	
	Sample(s)	were received with bubbles >6 mm in diameter.	
	Samples(s) adjusted accordi	were received with TRC > 0.5 mg/L (If #19 is ne) and were ingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Sheaiy ID: NR	1
	SR barcode labe	els applied by: MEH Date: 1/20/21	7

Comments: WAZOUZT-01/196 "The 169 4-16! ID outglarers Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2726 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2726 Del Ray Avenue, La Crosse, WI 54603

Tax parcel # 4-91-0 Sampling Point # 91-0

Sampling Date: January 21, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Sampling Results for 2726 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-91-0

Sampling Date: January 21, 2021 February 9, 2021

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ot for or the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	l limit is 20 ppt for compounds or the <i>otal</i> of all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is compo <i>otal</i> of	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended lim of these 6 com combined total	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	41 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	14 ppt	20 ppt ^{a,b}	The r any o	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a	
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.3 ppt	450,000 ppt ^a		
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.9 ppt	40 ppt ^a		
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	64 ppt	10,000 ppt ^a		
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	5.6 ppt	150),000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7 Perfluorous decanais acid (PFUdA)	Not Detected	10),000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a		
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4 Perfluoronote december acid (DECDA)	Not Detected	3	3,000 ppt ^a	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6 Descriptions 1 results as in a sid (PFDaG)	Not Detected	400),000 ppt ^a	
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Esta	ıblished ^c	

Private Well Sampling Results for 2726 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-91-0 Sampling Date: January 21, 2021

February 9, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	9.7 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2726 Del Ray Avenue, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-010

Description: 91-0

Matrix: Aqueous

Date Sampled:01/21/2021 1435

Project Name: LACROSSE WELLS 23 & 24

Analytical

Date Received: 01/26/2021

Project Number: 40221376

CAS

Batch

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date SOP SPE PFAS by ID SOP 02/01/2021 1808 JJG 01/31/2021 1422 81322

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.3 J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1 J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.9	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	64	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1 J	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	5.6	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	41	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	9.7	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	14	3.7	0.92	ng/L	1
		otance mits					
	96 25	-150					
_	100 25	-150					
13C2_8:2FTS	87 25	-150					
13C2_PFDoA	85 25	-150					
13C2_PFHxDA	84 25	-150					
13C2_PFTeDA	85 25	-150					

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

W = Reported on wet weight basis

P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Description: 91-0

Date Sampled:01/21/2021 1435

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Surrogate	Run 1 Acc Q % Recovery l	ceptance Limits
13C3_PFBS	82	25-150
13C3_PFHxS	81	25-150
13C3-HFPO-DA	92	25-150
13C4_PFBA	94	25-150
13C4_PFHpA	95	25-150
13C5_PFHxA	88	25-150
13C5_PFPeA	92	25-150
13C6_PFDA	95	25-150
13C7_PFUdA	87	25-150
13C8_PFOA	87	25-150
13C8_PFOS	75	25-150
13C8_PFOSA	93	10-150
13C9_PFNA	90	25-150
d-EtFOSA	86	10-150
d5-EtFOSAA	95	25-150
d9-EtFOSE	92	10-150
d-MeFOSA	95	10-150
d3-MeFOSAA	90	25-150
d7-MeFOSE	95	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-010

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2736 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2736 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-92-0 Sampling Point # 92-0

Sample Date: January 21, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt pounds or of all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	lim com tal	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}	recommended lim one of these 6 com combined total	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	9.9 ppt	20 ppt ^{a,b}	rec one	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.4 ppt	20 ppt ^{a,b}	The any o	

Private Well Sampling Results for 2736 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-92-0 Sampling Point # 92-0 February 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	16 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	4.9 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.5 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	4.2 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2736 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-92-0 Sampling Point # 92-0 February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-011 Matrix: Aqueous

Description: 92-0

Date Sampled:01/21/2021 1455

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021 Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1818 JJG

Prep Date

Batch 01/31/2021 1422 81322

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 7.8 1.9 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7.8 19 ng/L 1 PFAS by ID SOP ND 7.8 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.9 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.8 1.9 ng/L ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.8 19 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.8 1.9 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7.8 19 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.8 1.9 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 16 39 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.8 1.9 ng/L 1 PFAS by ID SOP ND 7.8 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.9 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 3.9 2.7 0.97 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 39 ng/L 0.97 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 39 0.97 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP 1.2 39 ng/L 0.97 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 39 0.97 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 2.0 3.9 ng/L 0.97 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 16 3.9 0.97 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.9 ng/L 0.97 1 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.9 0.97 ng/L Perfluoro-n-heptanoic acid (PFHpA) 3.9 375-85-9 PFAS by ID SOP 1.5 0.97 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 4.9 3.9 ng/L 1 0.97 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.9 na/L 1 0.97 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.8 ng/L 1.9 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 9.9 3.9 0.97 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 39 4 2 ng/L 1 0.97 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 39 0.97 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 39 ng/L 1 0.97 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 5 4 39 ng/L 1 0.97 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 100 25-150 13C2_6:2FTS 108 25-150 87 25-150 13C2_8:2FTS 13C2_PFDoA 92 25-150 93 13C2_PFHxDA 25-150 13C2 PFTeDA 89 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Description: 92-0

Date Sampled:01/21/2021 1455

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	95	25-150	
13C3_PFHxS	91	25-150	
13C3-HFPO-DA	95	25-150	
13C4_PFBA	95	25-150	
13C4_PFHpA	96	25-150	
13C5_PFHxA	94	25-150	
13C5_PFPeA	93	25-150	
13C6_PFDA	101	25-150	
13C7_PFUdA	93	25-150	
13C8_PFOA	91	25-150	
13C8_PFOS	87	25-150	
13C8_PFOSA	92	10-150	
13C9_PFNA	88	25-150	
d-EtFOSA	95	10-150	
d5-EtFOSAA	92	25-150	
d9-EtFOSE	94	10-150	
d-MeFOSA	94	10-150	
d3-MeFOSAA	93	25-150	
d7-MeFOSE	86	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-011

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2742 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2742 Del Ray Avenue, La Crosse, WI 54603

Tax parcel # 4-95-0 Sampling Point # 95-0

Sampling Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Sampling Results for 2742 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-95-0 Sampling Date: January 21, 2021 February 9, 2021

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ot for or the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pp ounds c	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	Sombounds compounds		
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	ommended limit is 2		
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	23 ppt	The recommended limit is 20 bbt a'p		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	11 ppt	20 ppt a,b	The r any <i>o</i>	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a	
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.8 ppt	450),000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.5 ppt		40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	37 ppt	10),000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	4.0 ppt	150),000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a		
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a		
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a		

Private Well Sampling Results for 2742 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-95-0 Sampling Date: January 21, 2021

February 9, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.91 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	6.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2742 Del Ray Avenue, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-014

Description: 95-0

Matrix: Aqueous

Date Sampled:01/21/2021 1445

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1850 JJG

Prep Date

Batch 01/31/2021 1422 81322

Parameter	CAS Number	Analytical Method	Result	Q LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	2.8	J 3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.5	J 3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	37	3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.91	J 3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.0	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	23	3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	6.3	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	11	3.6	0.89	ng/L	1
		otance nits					
		-150					
13C2_6:2FTS	112 25	-150					
13C2_8:2FTS	104 25	-150					
13C2_PFDoA	92 25	-150					
13C2_PFHxDA	96 25	-150					
13C2_PFTeDA	92 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

E = Quantitation of compound exceeded the calibration range DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 95-0

Date Sampled:01/21/2021 1445

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021 Project Number: 40221376

0	Run 1 A	cceptance Limits	
Surrogate			
13C3_PFBS	95	25-150	
13C3_PFHxS	92	25-150	
13C3-HFPO-DA	96	25-150	
13C4_PFBA	99	25-150	
13C4_PFHpA	95	25-150	
13C5_PFHxA	92	25-150	
13C5_PFPeA	97	25-150	
13C6_PFDA	102	25-150	
13C7_PFUdA	90	25-150	
13C8_PFOA	92	25-150	
13C8_PFOS	88	25-150	
13C8_PFOSA	98	10-150	
13C9_PFNA	89	25-150	
d-EtFOSA	100	10-150	
d5-EtFOSAA	99	25-150	
d9-EtFOSE	87	10-150	
d-MeFOSA	96	10-150	
d3-MeFOSAA	101	25-150	
d7-MeFOSE	88	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-014

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2529 First Avenue East La Crosse, WI 54603

Subject: Private Well Re-Sampling Results

2529 First Avenue East, La Crosse, WI 54603

Tax Parcel # 4-250-0 Sampling Point # 250-0

Sample Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. This was the second sample collected. The results were similar to the first sample. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	s 20 und: all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	lim com ot <i>al</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.2 ppt	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.3 ppt	20 ppt ^{a,b}	The

Private Well Re-Sampling Results for 2529 First Avenue East, La Crosse, WI 54603 Tax Parcel # 4-250-0 Sampling Point # 250-0

Sample Date: January 21, 2021

February 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	15 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	88 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	7.3 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Re-Sampling Results for 2529 First Avenue East, La Crosse, WI 54603 Tax Parcel # 4-250-0 Sampling Point # 250-0 Sample Date: January 21, 2021

February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-013 Matrix: Aqueous

Description: 250-0

Date Sampled:01/21/2021 1530

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1840 JJG

Prep Date

Batch 01/31/2021 1422 81322

11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3) 12-2-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	by ID SOP ND	7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	1 1 1 1 1 1 1 1 1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)39108-34-4PFAS1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)27619-97-2PFAS1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)120226-60-0PFAS1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)757124-72-4PFASHexafluoropropylene oxide dimer acid (GenX)13252-13-6PFAS4,8-dioxa-3H-perfluorononanoic acid (ADONA)919005-14-4PFASN-ethylperfluoro-1-octanesulfonamide (EtFOSA)4151-50-2PFASN-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)2991-50-6PFAS2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)1691-99-2PFASN-methylperfluoro-1-octanesulfonamide (MeFOSA)31506-32-8PFAS	by ID SOP ND	7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L ng/L ng/L ng/L	1 1 1 1 1 1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)27619-97-2PFAS1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)120226-60-0PFAS1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)757124-72-4PFASHexafluoropropylene oxide dimer acid (GenX)13252-13-6PFAS4,8-dioxa-3H-perfluorononanoic acid (ADONA)919005-14-4PFASN-ethylperfluoro-1-octanesulfonamide (EtFOSA)4151-50-2PFASN-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)2991-50-6PFAS2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)1691-99-2PFASN-methylperfluoro-1-octanesulfonamide (MeFOSA)31506-32-8PFAS	by ID SOP ND	7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L ng/L ng/L	1 1 1 1 1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)120226-60-0PFAS1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)757124-72-4PFASHexafluoropropylene oxide dimer acid (GenX)13252-13-6PFAS4,8-dioxa-3H-perfluorononanoic acid (ADONA)919005-14-4PFASN-ethylperfluoro-1-octanesulfonamide (EtFOSA)4151-50-2PFASN-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)2991-50-6PFAS2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)1691-99-2PFASN-methylperfluoro-1-octanesulfonamide (MeFOSA)31506-32-8PFAS	by ID SOP ND	7.2 7.2 7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L ng/L ng/L	1 1 1 1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)757124-72-4PFASHexafluoropropylene oxide dimer acid (GenX)13252-13-6PFAS4,8-dioxa-3H-perfluorononanoic acid (ADONA)919005-14-4PFASN-ethylperfluoro-1-octanesulfonamide (EtFOSA)4151-50-2PFASN-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)2991-50-6PFAS2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)1691-99-2PFASN-methylperfluoro-1-octanesulfonamide (MeFOSA)31506-32-8PFAS	by ID SOP ND	7.2 7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L ng/L	1 1 1 1
Hexafluoropropylene oxide dimer acid (GenX)13252-13-6PFAS4,8-dioxa-3H-perfluorononanoic acid (ADONA)919005-14-4PFASN-ethylperfluoro-1-octanesulfonamide (EtFOSA)4151-50-2PFASN-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)2991-50-6PFAS2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)1691-99-2PFASN-methylperfluoro-1-octanesulfonamide (MeFOSA)31506-32-8PFAS	by ID SOP ND	7.2 7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8	ng/L ng/L ng/L ng/L	1 1 1
4,8-dioxa-3H-perfluorononanoic acid (ADONA) N-ethylperfluoro-1-octanesulfonamide (EtFOSA) N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS	by ID SOP ND	7.2 7.2 7.2 7.2	1.8 1.8 1.8 1.8	ng/L ng/L ng/L	1 1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA) N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS	by ID SOP ND	7.2 7.2 7.2	1.8 1.8 1.8	ng/L ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS	by ID SOP ND by ID SOP ND by ID SOP ND by ID SOP ND	7.2 7.2	1.8 1.8	ng/L	
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS	by ID SOP ND by ID SOP ND by ID SOP ND	7.2	1.8	-	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS	by ID SOP ND by ID SOP ND			na/l	
•	by ID SOP ND	14		ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS	•		3.6	ng/L	1
	FILL COD ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 PFAS	by ID SOP ND	7.2	1.8	ng/L	1
• •	by ID SOP 8.3	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS	by ID SOP ND	3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP 7.3	3.6	0.90	ng/L	1
	by ID SOP ND	7.2	1.8	ng/L	1
,	by ID SOP 15	3.6	0.90	ng/L	1
, ,	by ID SOP 88	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	7.2	1.8	ng/L	1
,	by ID SOP ND	3.6	0.90	ng/L	1
·	by ID SOP ND	3.6	0.90	ng/L	1
` '	by ID SOP ND	7.2	1.8	ng/L	1
	by ID SOP 2.2	J 3.6	0.90	ng/L	1
· · · · ·	by ID SOP ND	3.6	0.90	ng/L	1
•	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
	by ID SOP ND	3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS	•	3.6	0.90	ng/L	1
1700 25 1 11770	7. D. J. D. G.	0.0	0.40	ng/E	
Surrogate Run 1 Acceptance Q % Recovery Limits					
13C2_4:2FTS 99 25-150					
13C2_6:2FTS 112 25-150					
13C2_8:2FTS 104 25-150					
13C2_PFDoA 92 25-150					
13C2_PFHxDA 93 25-150					
13C2_PFTeDA 93 25-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 250-0 Date Sampled:01/21/2021 1530

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

13C3_PFBS 99 25-150 13C3_PFHxS 86 25-150 13C3_HFPO-DA 98 25-150 13C4_PFBA 101 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EiFOSA 96 10-150 d5-EiFOSAA 100 25-150 d9-EIFOSE 91 10-150 d3-MeFOSA 96 25-150 d3-MeFOSA 96 25-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 98 25-150 13C4_PFBA 101 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EIFOSA 96 10-150 d5-EIFOSAA 100 25-150 d9-EIFOSE 91 10-150 d-MeFOSA 96 25-150	13C3_PFBS	99	25-150
13C4_PFBA 101 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EIFOSA 96 10-150 d5-EIFOSAA 100 25-150 d9-EIFOSE 91 10-150 d-MeFOSAA 96 25-150	13C3_PFHxS	86	25-150
13C4_PFHpA 98 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSAA 96 25-150	13C3-HFPO-DA	98	25-150
13C5_PFHxA 96 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C4_PFBA	101	25-150
13C5_PFPeA 98 25-150 13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EiFOSA 96 10-150 d5-EiFOSAA 100 25-150 d9-EiFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C4_PFHpA	98	25-150
13C6_PFDA 100 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C5_PFHxA	96	25-150
13C7_PFUdA 97 25-150 13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C5_PFPeA	98	25-150
13C8_PFOA 96 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C6_PFDA	100	25-150
13C8_PFOS 86 25-150 13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C7_PFUdA	97	25-150
13C8_PFOSA 100 10-150 13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C8_PFOA	96	25-150
13C9_PFNA 93 25-150 d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C8_PFOS	86	25-150
d-EtFOSA 96 10-150 d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C8_PFOSA	100	10-150
d5-EtFOSAA 100 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	13C9_PFNA	93	25-150
d9-EtFOSE 91 10-150 d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	d-EtFOSA	96	10-150
d-MeFOSA 105 10-150 d3-MeFOSAA 96 25-150	d5-EtFOSAA	100	25-150
d3-MeFOSAA 96 25-150	d9-EtFOSE	91	10-150
	d-MeFOSA	105	10-150
47 Ma FOCE 02 10 1FO	d3-MeFOSAA	96	25-150
07-MierOSE 93 10-150	d7-MeFOSE	93	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-013

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

1836 Aiken Road La Crosse, WI 54603

Subject: Private Well Re-Sampling Results

2529 First Avenue East, La Crosse, WI 54603

Tax Parcel # 4-250-0 Sampling Point # 250-0

Sample Date: January 21, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. This was the second sample collected. The results were similar to the first sample. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	s 20 und: all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	lim com ot <i>al</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.2 ppt	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.3 ppt	20 ppt ^{a,b}	The

Private Well Re-Sampling Results for 2529 First Avenue East, La Crosse, WI 54603 Tax Parcel # 4-250-0 Sampling Point # 250-0

> Sample Date: January 21, 2021 February 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	15 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	88 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	7.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Re-Sampling Results for 2529 First Avenue East, La Crosse, WI 54603 Tax Parcel # 4-250-0 Sampling Point # 250-0 Sample Date: January 21, 2021

February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-013 Matrix: Aqueous

Description: 250-0

Date Sampled:01/21/2021 1530

Project Name: LACROSSE WELLS 23 & 24

Analytical

Date Received: 01/26/2021

Project Number: 40221376

CAS

Run Prep Method SOP SPE

Batch

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Analytical Method Dilution Analysis Date Analyst Prep Date PFAS by ID SOP 02/01/2021 1840 JJG 01/31/2021 1422 81322

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	8.3	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	7.3	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	15	3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	88	3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.2 J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.3	3.6	0.90	ng/L	1
		otance mits					
13C2_4:2FTS	99 25	-150					
13C2_6:2FTS	112 25	-150					
13C2_8:2FTS	104 25	-150					
13C2_PFDoA	92 25	-150					
13C2_PFHxDA	93 25	-150					
13C2_PFTeDA	93 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-013 Matrix: Aqueous

Description: 250-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Date Sampled:01/21/2021 1530

Project Number: 40221376

Surrogate	Run 1 Accept Q % Recovery Lim
13C3_PFBS	99 25-1
13C3_PFHxS	86 25-1
13C3-HFPO-DA	98 25-1
13C4_PFBA	101 25-1
13C4_PFHpA	98 25-1
13C5_PFHxA	96 25-1
13C5_PFPeA	98 25-1
13C6_PFDA	100 25-1
13C7_PFUdA	97 25-1
13C8_PFOA	96 25-1
13C8_PFOS	86 25-1
13C8_PFOSA	100 10-1
13C9_PFNA	93 25-1
d-EtFOSA	96 10-1
d5-EtFOSAA	100 25-1
d9-EtFOSE	91 10-1
d-MeFOSA	105 10-1
d3-MeFOSAA	96 25-1
d7-MeFOSE	93 10-1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2554 First Avenue West La Crosse, WI 54603

Subject: Private Well Re-Sampling Results

2554 First Avenue West, La Crosse, WI 54603

Tax Parcel # 4-340-0 Sampling Point # 340-0

Sample Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. This was the second sample collected. The results were similar to the first sample. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo 7 <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.7 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.8 ppt	20 ppt ^{a,b}	The any

Private Well Re-Sampling Results for 2554 First Avenue West, La Crosse, WI 54603 Tax Parcel # 4-340-0 Sampling Point # 340-0 Sample Date: January 21, 2021

February 9, 2021

Not Detected	300 ppt ^a
5.0 ppt	450,000 ppt ^a
22 ppt	40 ppt ^a
39 ppt	10,000 ppt ^a
Not Detected	300 ppt ^a
Not Detected	500 ppt ^a
2.2 ppt	150,000 ppt ^a
Not Detected	30 ppt ^a
Not Detected	10,000 ppt ^a
Not Detected	3,000 ppt ^a
Not Detected	3,000 ppt ^a
Not Detected	400,000 ppt ^a
4.1 ppt	None Established ^c
2.1 ppt	None Established ^c
	5.0 ppt 22 ppt 39 ppt Not Detected Not Detected 2.2 ppt Not Detected Not Detected Not Detected Not Detected Not Detected And Detected Not Detected Not Detected Not Detected Not Detected Not Detected

^a Public health enforcement standard (ES) recommended by DHS.

b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Re-Sampling Results for 2554 First Avenue West, La Crosse, WI 54603 Tax Parcel # 4-340-0 Sampling Point # 340-0 Sample Date: January 21, 2021

February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-002

Description: 340-0

Matrix: Aqueous

Date Sampled:01/21/2021 1230

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1621 JJG

Prep Date

Batch 01/31/2021 1422 81322

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.0	4.3	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.1 J	4.3	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	22	4.3	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	39	4.3	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.2 J	4.3	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.7	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.7	4.3	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1 J	4.3	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.8 J	4.3	1.1	ng/L	1
		otance nits					
_		-150					
		-150					
		-150					
13C2_PFDoA	102 25	-150					
13C2_PFHxDA	100 25	-150					
13C2_PFTeDA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 340-0

Date Sampled:01/21/2021 1230

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021 Project Number: 40221376

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	99	25-150
13C3_PFHxS	95	25-150
13C3-HFPO-DA	104	25-150
13C4_PFBA	103	25-150
13C4_PFHpA	102	25-150
13C5_PFHxA	99	25-150
13C5_PFPeA	101	25-150
13C6_PFDA	107	25-150
13C7_PFUdA	102	25-150
13C8_PFOA	101	25-150
13C8_PFOS	98	25-150
13C8_PFOSA	103	10-150
13C9_PFNA	101	25-150
d-EtFOSA	93	10-150
d5-EtFOSAA	102	25-150
d9-EtFOSE	93	10-150
d-MeFOSA	107	10-150
d3-MeFOSAA	99	25-150
d7-MeFOSE	99	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-002

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2504 First Avenue West La Crosse, WI 54603

Subject: Private Well Re-Sampling Results

2504 First Avenue West, La Crosse, WI 54603

Tax Parcel # 4-346-0 Sampling Point # 346-0

Sample Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. This was the second sample collected. The results were similar to the first sample. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt compounds or 1 otal of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.7 ppt	20 ppt a,b	The

Private Well Re-Sampling Results for 2504 First Avenue West, La Crosse, WI 54603 Tax Parcel # 4-346-0

> Sampling Point # 346-0 Sample Date: January 21, 2021

February 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.3 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	1.1 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Re-Sampling Results for 2504 First Avenue West, La Crosse, WI 54603 Tax Parcel # 4-346-0 Sampling Point # 346-0 Sample Date: January 21, 2021

February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-004

Description: 346-0

Matrix: Aqueous

Date Sampled:01/21/2021 1300

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1643 JJG

Prep Date

Batch 01/31/2021 1422 81322

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 7 4 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7 4 ng/L 1 1.8 PFAS by ID SOP ND 7 4 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.4 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.4 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.4 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.4 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7 4 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.4 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7 4 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.4 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.7 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7 4 1.8 ng/L 1 PFAS by ID SOP ND 7.4 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 3.7 2.5 0.92 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3 7 ng/L 0.92 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.7 0.92 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3 7 0.92 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.92 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 1.1 3.7 0.92 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.4 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 2.8 3.7 ng/L 0.92 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 7.3 3.7 0.92 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.4 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 ng/L 0.92 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 na/L 1 0.92 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.4 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.7 3.1 0.92 ng/L 2706-90-3 Perfluoro-n-pentanoic acid (PFPeA) PFAS by ID SOP ND 3.7 ng/L 1 0.92 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.92 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3 7 0.92 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3 7 ng/L 1 0.92 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 1.7 J 3.7 ng/L 1 0.92 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 104 25-150 13C2_6:2FTS 106 25-150 106 13C2_8:2FTS 25-150 13C2_PFDoA 97 25-150 93 13C2_PFHxDA 25-150 13C2 PFTeDA 92 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Description: 346-0

Date Sampled:01/21/2021 1300 Date Received: 01/26/2021

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221376

Surrogate	Run 1 A Q % Recovery	cceptance Limits		
13C3_PFBS	99	25-150		
13C3_PFHxS	94	25-150		
13C3-HFPO-DA	97	25-150		
13C4_PFBA	100	25-150		
13C4_PFHpA	97	25-150		
13C5_PFHxA	90	25-150		
13C5_PFPeA	100	25-150		
13C6_PFDA	105	25-150		
13C7_PFUdA	96	25-150		
13C8_PFOA	93	25-150		
13C8_PFOS	94	25-150		
13C8_PFOSA	100	10-150		
13C9_PFNA	95	25-150		
d-EtFOSA	92	10-150		
d5-EtFOSAA	102	25-150		
d9-EtFOSE	89	10-150		
d-MeFOSA	93	10-150		
d3-MeFOSAA	97	25-150		
d7-MeFOSE	95	10-150		

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-004

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

Olympic Properties, LLC. P.O Box 2896 La Crosse, WI 54602

Subject: Private Well Re-Sampling Results

2557 First Avenue West, La Crosse, WI 54602

Tax parcel # 4-389-0 Sampling Point # 389--B

Sampling Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. This was a second sample from you well, and the levels were higher for some PFAS compounds. In this sample, some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Re-Sampling Results for 2557 First Avenue West, La Crosse, WI 54602 Tax Parcel # 4-389-0

Sampling Date: January 21, 2021

February 9, 2021

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt a,b of the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b} dd 02 si 9 lle	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 pbt a,b 100 05 and 000 20 ppt a,b 100 05 and 000 ppt for combined total of all 6	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	The recommended lim any <i>one</i> of these 6 com <i>combined total</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	13 ppt	20 ppt ^{a,b}	ecomn ne of tl coml
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	16 ppt	20 ppt ^{a,b}	The r any <i>o</i>
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.9 ppt	450,000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	14 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	140 ppt	10,000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10,000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt	

Tax Parcel # 4-389-0 Sampling Date: January 21, 2021

February 9, 2021

Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.1 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	7.8 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2557 First Avenue West, La Crosse, WI 54602

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Description: 389 0 A

2557 1st Ave. West

Laboratory ID: WA26025-003

Matrix: Aqueous

Date Sampled:01/21/2021 1245

Sampling Point # 389-0-B

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021 Project Number: 40221376

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch SOP SPE PFAS by ID SOP 02/01/2021 1632 JJG 01/31/2021 1422 81322

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	8.9	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	1.1 J	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	7.8	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	14	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	140	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	13	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	16	3.6	0.91	ng/L	1
		otance nits					

Surrogate	Q % Recovery Limits	
13C2_4:2FTS	102 25-150	
13C2_6:2FTS	101 25-150	
13C2_8:2FTS	104 25-150	
13C2_PFDoA	94 25-150	
13C2_PFHxDA	94 25-150	
13C2_PFTeDA	96 25-150	

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL H = Out of holding time

Client: Pace Analytical Services, LLC

Description: 389-0-A

Date Sampled:01/21/2021 1245

2557 1st Ave. West Sampling Point # 389-0-B Project Name: LACROSSE WELLS 23 & 24 Laboratory ID: WA26025-003

Matrix: Aqueous

Date Received: 01/26/2021 Project Number: 40221376

13C3_PFBS 99 25-150 13C3_PFHxS 92 25-150 13C3_HFPO-DA 96 25-150 13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EIFOSA 98 10-150 d5-EIFOSAA 102 25-150 d9-EIFOSE 86 10-150 d3-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150 d7-MeFOSE 86 10-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 96 25-150 13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EIFOSA 98 10-150 d5-EIFOSAA 102 25-150 d9-EIFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3_PFBS		
13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d5-EIFOSA 98 10-150 d5-EIFOSA 102 25-150 d9-EIFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3_PFHxS	92	25-150
13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EiFOSA 98 10-150 d5-EiFOSAA 102 25-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3-HFPO-DA	96	25-150
13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EiFOSA 98 10-150 d5-EiFOSAA 102 25-150 d9-EiFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C4_PFBA	97	25-150
13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C4_PFHpA	98	25-150
13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C5_PFHxA	94	25-150
13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C5_PFPeA	98	25-150
13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C6_PFDA	103	25-150
13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C7_PFUdA	94	25-150
13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOA	94	25-150
13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOS	90	25-150
d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOSA	96	10-150
d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C9_PFNA	89	25-150
d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	d-EtFOSA	98	10-150
d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	d5-EtFOSAA	102	25-150
d3-MeFOSAA 97 25-150	d9-EtFOSE	86	10-150
	d-MeFOSA	95	10-150
d7-MeFOSE 86 10-150	d3-MeFOSAA	97	25-150
	d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2557 First Avenue West La Crosse, WI 54602

Subject: Private Well Re-Sampling Results

2557 First Avenue West, La Crosse, WI 54602

Tax parcel # 4-389-0 Sampling Point # 389-0-B

Sampling Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. This was a second sample from you well, and the levels were higher for some PFAS compounds. In this sample, some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Re-Sampling Results for 2557 First Avenue West, La Crosse, WI 54602 Tax Parcel # 4-389-0

Sampling Date: January 21, 2021

February 9, 2021

Sample Results

Compound	Sample Result (unit)	Recomm Public H Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds <i>otal</i> of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	The recommended lim any <i>one</i> of these 6 com <i>combined total</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	13 ppt	20 ppt ^{a,b}	ecomn ne of tl coml
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	16 ppt	20 ppt ^{a,b}	The r any <i>o</i>
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.9 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	14 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	140 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Tax Parcel # 4-389-0 Sampling Date: January 21, 2021

February 9, 2021

Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.1 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	7.8 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2557 First Avenue West, La Crosse, WI 54602

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Description: 389 0 A

2557 1st Ave. West

Laboratory ID: WA26025-003

Matrix: Aqueous

Date Sampled:01/21/2021 1245

Sampling Point # 389-0-B

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021 Project Number: 40221376

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch SOP SPE PFAS by ID SOP 02/01/2021 1632 JJG 01/31/2021 1422 81322

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	8.9	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	1.1 J	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	7.8	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	14	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	140	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	13	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	16	3.6	0.91	ng/L	1
		otance nits					

Surrogate	Q % Recovery Limits	
13C2_4:2FTS	102 25-150	
13C2_6:2FTS	101 25-150	
13C2_8:2FTS	104 25-150	
13C2_PFDoA	94 25-150	
13C2_PFHxDA	94 25-150	
13C2_PFTeDA	96 25-150	

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL H = Out of holding time

Client: Pace Analytical Services, LLC

Description: 389-0-A

Date Sampled:01/21/2021 1245

2557 1st Ave. West Sampling Point # 389-0-B Project Name: LACROSSE WELLS 23 & 24 Laboratory ID: WA26025-003

Matrix: Aqueous

Date Received: 01/26/2021 Project Number: 40221376

13C3_PFBS 99 25-150 13C3_PFHxS 92 25-150 13C3_HFPO-DA 96 25-150 13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EIFOSA 98 10-150 d5-EIFOSAA 102 25-150 d9-EIFOSE 86 10-150 d3-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150 d7-MeFOSE 86 10-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 96 25-150 13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EIFOSA 98 10-150 d5-EIFOSAA 102 25-150 d9-EIFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3_PFBS		
13C4_PFBA 97 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d5-EIFOSA 98 10-150 d5-EIFOSA 102 25-150 d9-EIFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3_PFHxS	92	25-150
13C4_PFHpA 98 25-150 13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EiFOSA 98 10-150 d5-EiFOSAA 102 25-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C3-HFPO-DA	96	25-150
13C5_PFHxA 94 25-150 13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EiFOSA 98 10-150 d5-EiFOSAA 102 25-150 d9-EiFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C4_PFBA	97	25-150
13C5_PFPeA 98 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C4_PFHpA	98	25-150
13C6_PFDA 103 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C5_PFHxA	94	25-150
13C7_PFUdA 94 25-150 13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C5_PFPeA	98	25-150
13C8_PFOA 94 25-150 13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C6_PFDA	103	25-150
13C8_PFOS 90 25-150 13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C7_PFUdA	94	25-150
13C8_PFOSA 96 10-150 13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOA	94	25-150
13C9_PFNA 89 25-150 d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOS	90	25-150
d-EtFOSA 98 10-150 d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C8_PFOSA	96	10-150
d5-EtFOSAA 102 25-150 d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	13C9_PFNA	89	25-150
d9-EtFOSE 86 10-150 d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	d-EtFOSA	98	10-150
d-MeFOSA 95 10-150 d3-MeFOSAA 97 25-150	d5-EtFOSAA	102	25-150
d3-MeFOSAA 97 25-150	d9-EtFOSE	86	10-150
	d-MeFOSA	95	10-150
d7-MeFOSE 86 10-150	d3-MeFOSAA	97	25-150
	d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 9, 2021

2508 Third Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2508 Third Avenue West, La Crosse, WI 54603

Tax Parcel # 4-470-0 Sampling Point # 470-0

Sample Date: January 21, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	s 20 p unds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed lim 5 com <i>total</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ende ese (ined
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.4 ppt	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.7 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 2508 Third Avenue West, La Crosse, WI 54603 Tax Parcel # 4-470-0 Sampling Point # 470-0 February 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	34 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	2.9 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2508 Third Avenue West, La Crosse, WI 54603 Tax Parcel # 4-470-0 Sampling Point # 470-0 February 9, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA26025-012 Matrix: Aqueous

Description: 470-0

Date Sampled:01/21/2021 1515

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/01/2021 1829 JJG

Prep Date

Batch 01/31/2021 1422 81322

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	4.5	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.73	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.9 J	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.6	3.7		-	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	34	3.7	0.93	ng/L ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
• • •	307-55-1	PFAS by ID SOP	ND	3.7	0.93	-	
Perfluoro-n-dodecanoic acid (PFUnA)		•			0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.4 J	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.7	3.7	0.93	ng/L	1
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		-150					
	101 25	-150					
		-150					
		-150					
		-150					
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.552 165/1	J. 25						

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Description: 470-0

Date Sampled:01/21/2021 1515

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221376

Surrogate	Run 1 A Q % Recovery	Acceptance Limits	
13C3_PFBS	94	25-150	
13C3_PFHxS	91	25-150	
13C3-HFPO-DA	97	25-150	
13C4_PFBA	95	25-150	
13C4_PFHpA	95	25-150	
13C5_PFHxA	91	25-150	
13C5_PFPeA	97	25-150	
13C6_PFDA	94	25-150	
13C7_PFUdA	92	25-150	
13C8_PFOA	96	25-150	
13C8_PFOS	91	25-150	
13C8_PFOSA	95	10-150	
13C9_PFNA	89	25-150	
d-EtFOSA	86	10-150	
d5-EtFOSAA	100	25-150	
d9-EtFOSE	87	10-150	
d-MeFOSA	104	10-150	
d3-MeFOSAA	100	25-150	
d7-MeFOSE	93	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA26025-012

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 10, 2021

137 Usher Street La Crosse, WI 54603

Subject: Private Well Sampling Results – PFAS, VOCs and PAHs

137 Usher Street, La Crosse, WI 54603

Tax Parcel # 4-1365-0 Sampling Point # 1365-0

Sample Date: January 21, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	-lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt for pounds or the of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed lim 5 com <i>total</i>
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	2.3 ppt	20 ppt ^{a,b}	9 -
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.4 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 137 Usher Street, La Crosse, WI 54603 Tax Parcel # 4-1365-0 Sampling Point # 1365-0 February 10, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	0.88 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

In addition to the PFAS analysis, samples were collected and analyzed for volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs). No VOCs were detected in the sample. Two minor detections of acenaphthene (0.013 parts per billion) and acenapthylene (0.0053 parts per billion) were detect by the PAH analysis. There are no standards for either acenaphthene or acenapthylene. These are very low levels.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 137 Usher Street, La Crosse, WI 54603 Tax Parcel # 4-1365-0 Sampling Point # 1365-0 February 10, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	Questions about Co		<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

John C. Storlie, PG

Principal Hydrogeologist

John C. (Herry

Attachment: Lab report for your well





February 09, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on January 22, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

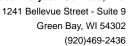
Christopher Hyska christopher.hyska@pacelabs.com (920)469-2436 Project Manager

Chuskpher Hyska

Enclosures

cc: John Storlie, The OS Group, LLC







CERTIFICATIONS

Project: LACROSSE WELL 23 & 24

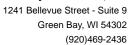
Pace Project No.: 40221377

Pace Analytical Services Green Bay

North Dakota Certification #: R-150

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064 Virginia VELAP ID: 460263

South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157 Federal Fish & Wildlife Permit #: LE51774A-0



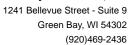


SAMPLE SUMMARY

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40221377001	1365-0	Water	01/21/21 14:15	01/22/21 09:30





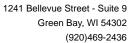
SAMPLE ANALYTE COUNT

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40221377001	1365-0	EPA 8270E by SIM	JJB	20	PASI-G
		EPA 8260	LAP	65	PASI-G

PASI-G = Pace Analytical Services - Green Bay





SUMMARY OF DETECTION

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40221377001	1365-0					
EPA 8270E by SIM EPA 8270E by SIM	Acenaphthene Acenaphthylene	0.013J 0.0053J	ug/L ug/L	0.027 0.022	01/28/21 09:28 01/28/21 09:28	



2,2-Dichloropropane

Date: 02/09/2021 07:54 AM

ANALYTICAL RESULTS

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377 Sample: 1365-0 Lab ID: 40221377001 Collected: 01/21/21 14:15 Received: 01/22/21 09:30 Matrix: Water LOQ DF Results Units LOD CAS No. **Parameters** Prepared Analyzed Qual 8270E MSSV PAH Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3510 Pace Analytical Services - Green Bay Acenaphthene 0.013J ug/L 0.027 0.0055 1 0.0053J Acenaphthylene ug/L 0.022 0.0045 1 01/27/21 08:48 01/28/21 09:28 208-96-8 Anthracene < 0.0094 ug/L 0.047 0.0094 1 01/27/21 08:48 01/28/21 09:28 120-12-7 <0.0068 Benzo(a)anthracene ug/L 0.034 0.0068 1 01/27/21 08:48 01/28/21 09:28 56-55-3 < 0.0095 ug/L 0.047 0.0095 01/27/21 08:48 01/28/21 09:28 50-32-8 Benzo(a)pyrene 1 Benzo(b)fluoranthene < 0.0052 ug/L 0.026 0.0052 01/27/21 08:48 01/28/21 09:28 205-99-2 1 Benzo(g,h,i)perylene < 0.0061 ug/L 0.031 0.0061 1 01/27/21 08:48 01/28/21 09:28 191-24-2 Benzo(k)fluoranthene < 0.0068 ug/L 0.034 0.0068 1 Chrysene < 0.012 ug/L 0.059 0.012 1 01/27/21 08:48 01/28/21 09:28 218-01-9 Dibenz(a,h)anthracene < 0.0090 ug/L 0.045 0.0090 1 01/27/21 08:48 01/28/21 09:28 53-70-3 Fluoranthene < 0.0096 ug/L 0.048 0.0096 01/27/21 08:48 01/28/21 09:28 206-44-0 1 0.0072 01/28/21 09:28 86-73-7 Fluorene < 0.0072 ug/L 0.036 1 01/27/21 08:48 0.016 Indeno(1,2,3-cd)pyrene < 0.016 ug/L 0.079 1 01/27/21 08:48 01/28/21 09:28 193-39-5 1-Methylnaphthalene < 0.0053 ug/L 0.027 0.0053 1 01/27/21 08:48 01/28/21 09:28 90-12-0 2-Methylnaphthalene <0.0044 ug/L 0.022 0.0044 1 01/27/21 08:48 01/28/21 09:28 91-57-6 <0.017 0.083 0.017 01/27/21 08:48 01/28/21 09:28 91-20-3 Naphthalene ug/L 1 < 0.012 0.012 01/27/21 08:48 01/28/21 09:28 85-01-8 Phenanthrene ug/L 0.062 1 <0.0069 0.0069 Pyrene 0.034 1 ug/L Surrogates 2-Fluorobiphenyl (S) 51 % 39-120 1 01/27/21 08:48 01/28/21 09:28 321-60-8 Terphenyl-d14 (S) 82 % 10-159 1 01/27/21 08:48 01/28/21 09:28 1718-51-0 Analytical Method: EPA 8260 8260 MSV Pace Analytical Services - Green Bay 1,1,1,2-Tetrachloroethane <0.27 ug/L 1.0 0.27 1 01/26/21 16:41 630-20-6 1.1.1-Trichloroethane <0.24 ug/L 1.0 0.24 01/26/21 16:41 71-55-6 1 1.1.2.2-Tetrachloroethane <0.28 ug/L 1.0 0.28 01/26/21 16:41 79-34-5 1 <0.55 0.55 1,1,2-Trichloroethane ug/L 5.0 01/26/21 16:41 79-00-5 1 <0.27 0.27 01/26/21 16:41 75-34-3 1,1-Dichloroethane ug/L 1.0 1 0.24 01/26/21 16:41 75-35-4 1,1-Dichloroethene <0.24 ug/L 1.0 1 1,1-Dichloropropene < 0.54 ug/L 1.8 0.54 1 01/26/21 16:41 563-58-6 1,2,3-Trichlorobenzene <2.2 ug/L 7.4 2.2 1 01/26/21 16:41 87-61-6 1,2,3-Trichloropropane < 0.59 ug/L 5.0 0.59 1 01/26/21 16:41 96-18-4 1,2,4-Trichlorobenzene < 0.95 ug/L 5.0 0.95 1 01/26/21 16:41 120-82-1 0.84 1,2,4-Trimethylbenzene < 0.84 ug/L 2.8 1 01/26/21 16:41 95-63-6 1.2-Dibromo-3-chloropropane <1.8 ug/L 5.9 1.8 1 01/26/21 16:41 96-12-8 1.2-Dibromoethane (EDB) < 0.83 ug/L 2.8 0.83 1 01/26/21 16:41 106-93-4 <0.71 2.4 0.71 95-50-1 1,2-Dichlorobenzene ug/L 1 01/26/21 16:41 <0.28 1.0 0.28 01/26/21 16:41 107-06-2 1.2-Dichloroethane ug/L 1 <0.28 1.0 0.28 1 01/26/21 16:41 78-87-5 1,2-Dichloropropane ug/L 1,3,5-Trimethylbenzene <0.87 ug/L 2.9 0.87 1 01/26/21 16:41 108-67-8 2.1 0.63 01/26/21 16:41 541-73-1 1,3-Dichlorobenzene < 0.63 ug/L 1 1,3-Dichloropropane <0.83 ug/L 2.8 0.83 1 01/26/21 16:41 142-28-9 1,4-Dichlorobenzene < 0.94 ug/L 3.1 0.94 1 01/26/21 16:41 106-46-7

REPORT OF LABORATORY ANALYSIS

2.3

7.6

<2.3

ug/L

01/26/21 16:41 594-20-7



ANALYTICAL RESULTS

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

Sample: 1365-0 Lab ID: 40221377001 Collected: 01/21/21 14:15 Received: 01/22/21 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV	Analytical	Method: EPA	A 8260						
	Pace Anal	ytical Service	es - Green Ba	y					
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		01/26/21 16:41	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		01/26/21 16:41		
Benzene	<0.25	ug/L	1.0	0.25	1		01/26/21 16:41		
Bromobenzene	<0.24	ug/L	1.0	0.24	1		01/26/21 16:41		
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		01/26/21 16:41		
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		01/26/21 16:41		
Bromoform	<4.0	ug/L	13.2	4.0	1		01/26/21 16:41		
Bromomethane	<0.97	ug/L	5.0	0.97	1		01/26/21 16:41		
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		01/26/21 16:41		
Chlorobenzene	<0.71	ug/L ug/L	2.4	0.71	1		01/26/21 16:41		
Chloroethane	<0.71 <1.3	-	5.0	1.3	1		01/26/21 16:41		
		ug/L							
Chloroform	<1.3	ug/L	5.0	1.3	1		01/26/21 16:41		
Chloromethane	<2.2	ug/L	7.3	2.2	1		01/26/21 16:41		
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		01/26/21 16:41		
Dibromomethane	<0.94	ug/L	3.1	0.94	1		01/26/21 16:41		
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		01/26/21 16:41		
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		01/26/21 16:41		
thylbenzene	<0.32	ug/L	1.1	0.32	1		01/26/21 16:41		
lexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		01/26/21 16:41		
sopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		01/26/21 16:41		
lethyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		01/26/21 16:41		
lethylene Chloride	<0.58	ug/L	5.0	0.58	1		01/26/21 16:41	75-09-2	
laphthalene	<1.2	ug/L	5.0	1.2	1		01/26/21 16:41	91-20-3	
Styrene	<3.0	ug/L	10.0	3.0	1		01/26/21 16:41	100-42-5	
etrachloroethene	<0.33	ug/L	1.1	0.33	1		01/26/21 16:41	127-18-4	
oluene	<0.27	ug/L	1.0	0.27	1		01/26/21 16:41	108-88-3	
richloroethene	<0.26	ug/L	1.0	0.26	1		01/26/21 16:41	79-01-6	
richlorofluoromethane	<0.21	ug/L	1.0	0.21	1		01/26/21 16:41	75-69-4	
'inyl chloride	<0.17	ug/L	1.0	0.17	1		01/26/21 16:41	75-01-4	
(ylene (Total)	<1.5	ug/L	3.0	1.5	1		01/26/21 16:41	1330-20-7	
is-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		01/26/21 16:41	156-59-2	
is-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		01/26/21 16:41	10061-01-5	
n&p-Xylene	<0.47	ug/L	2.0	0.47	1		01/26/21 16:41	179601-23-1	
-Butylbenzene	<0.71	ug/L	2.4	0.71	1		01/26/21 16:41	104-51-8	
-Propylbenzene	<0.81	ug/L	5.0	0.81	1		01/26/21 16:41	103-65-1	
-Xylene	<0.26	ug/L	1.0	0.26	1		01/26/21 16:41		
-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		01/26/21 16:41		
ec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		01/26/21 16:41		
ert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		01/26/21 16:41		
rans-1,2-Dichloroethene	<0.46	ug/L	1.5	0.46	1		01/26/21 16:41		
ans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		01/26/21 16:41		
Surrogates	\ 	ug/L	17.0	7.7	•		31/20/21 10.41	.0001 02 0	
-Bromofluorobenzene (S)	91	%	70-130		1		01/26/21 16:41	460-00-4	HS
Dibromofluoromethane (S)	104	%	70-130		1		01/26/21 16:41		
Foluene-d8 (S)	109	%	70-130		1		01/26/21 16:41		



Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

QC Batch: 376408 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40221377001

METHOD BLANK: 2174035 Matrix: Water

Associated Lab Samples: 40221377001

		Blank	Reporting			
Parameter	Units	Result	Limit	Analyzed	Qualifiers	
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	01/26/21 07:06		
1,1,1-Trichloroethane	ug/L	<0.24	1.0	01/26/21 07:06		
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	01/26/21 07:06		
1,1,2-Trichloroethane	ug/L	< 0.55	5.0	01/26/21 07:06		
1,1-Dichloroethane	ug/L	<0.27	1.0	01/26/21 07:06		
1,1-Dichloroethene	ug/L	<0.24	1.0	01/26/21 07:06		
1,1-Dichloropropene	ug/L	<0.54	1.8	01/26/21 07:06		
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	01/26/21 07:06		
1,2,3-Trichloropropane	ug/L	< 0.59	5.0	01/26/21 07:06		
1,2,4-Trichlorobenzene	ug/L	< 0.95	5.0	01/26/21 07:06		
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	01/26/21 07:06		
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	01/26/21 07:06		
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	01/26/21 07:06		
1,2-Dichlorobenzene	ug/L	<0.71	2.4	01/26/21 07:06		
1,2-Dichloroethane	ug/L	<0.28	1.0	01/26/21 07:06		
1,2-Dichloropropane	ug/L	<0.28	1.0	01/26/21 07:06		
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	01/26/21 07:06		
1,3-Dichlorobenzene	ug/L	< 0.63	2.1	01/26/21 07:06		
1,3-Dichloropropane	ug/L	<0.83	2.8	01/26/21 07:06		
1,4-Dichlorobenzene	ug/L	< 0.94	3.1	01/26/21 07:06		
2,2-Dichloropropane	ug/L	<2.3	7.6	01/26/21 07:06		
2-Chlorotoluene	ug/L	< 0.93	5.0	01/26/21 07:06		
4-Chlorotoluene	ug/L	< 0.76	2.5	01/26/21 07:06		
Benzene	ug/L	< 0.25	1.0	01/26/21 07:06		
Bromobenzene	ug/L	<0.24	1.0	01/26/21 07:06		
Bromochloromethane	ug/L	< 0.36	5.0	01/26/21 07:06		
Bromodichloromethane	ug/L	< 0.36	1.2	01/26/21 07:06		
Bromoform	ug/L	<4.0	13.2	01/26/21 07:06		
Bromomethane	ug/L	< 0.97	5.0	01/26/21 07:06		
Carbon tetrachloride	ug/L	<1.1	3.6	01/26/21 07:06		
Chlorobenzene	ug/L	<0.71	2.4	01/26/21 07:06		
Chloroethane	ug/L	<1.3	5.0	01/26/21 07:06		
Chloroform	ug/L	<1.3	5.0	01/26/21 07:06		
Chloromethane	ug/L	<2.2	7.3	01/26/21 07:06		
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	01/26/21 07:06		
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	01/26/21 07:06		
Dibromochloromethane	ug/L	<2.6	8.7	01/26/21 07:06		
Dibromomethane	ug/L	<0.94	3.1	01/26/21 07:06		
Dichlorodifluoromethane	ug/L	<0.50	5.0	01/26/21 07:06		
Diisopropyl ether	ug/L	<1.9	6.3	01/26/21 07:06		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

METHOD BLANK: 2174035 Matrix: Water

Associated Lab Samples: 40221377001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.32	1.1	01/26/21 07:06	
Hexachloro-1,3-butadiene	ug/L	<1.5	4.9	01/26/21 07:06	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	01/26/21 07:06	
m&p-Xylene	ug/L	< 0.47	2.0	01/26/21 07:06	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	01/26/21 07:06	
Methylene Chloride	ug/L	<0.58	5.0	01/26/21 07:06	
n-Butylbenzene	ug/L	<0.71	2.4	01/26/21 07:06	
n-Propylbenzene	ug/L	<0.81	5.0	01/26/21 07:06	
Naphthalene	ug/L	<1.2	5.0	01/26/21 07:06	
o-Xylene	ug/L	<0.26	1.0	01/26/21 07:06	
p-Isopropyltoluene	ug/L	<0.80	2.7	01/26/21 07:06	
sec-Butylbenzene	ug/L	<0.85	5.0	01/26/21 07:06	
Styrene	ug/L	<3.0	10.0	01/26/21 07:06	
tert-Butylbenzene	ug/L	< 0.30	1.0	01/26/21 07:06	
Tetrachloroethene	ug/L	< 0.33	1.1	01/26/21 07:06	
Toluene	ug/L	<0.27	1.0	01/26/21 07:06	
trans-1,2-Dichloroethene	ug/L	< 0.46	1.5	01/26/21 07:06	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	01/26/21 07:06	
Trichloroethene	ug/L	<0.26	1.0	01/26/21 07:06	
Trichlorofluoromethane	ug/L	<0.21	1.0	01/26/21 07:06	
Vinyl chloride	ug/L	< 0.17	1.0	01/26/21 07:06	
Xylene (Total)	ug/L	<1.5	3.0	01/26/21 07:06	
4-Bromofluorobenzene (S)	%	92	70-130	01/26/21 07:06	
Dibromofluoromethane (S)	%	103	70-130	01/26/21 07:06	
Toluene-d8 (S)	%	107	70-130	01/26/21 07:06	

LABORATORY CONTROL SAMPLE:	2174036					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.4	93	70-130	
1,1,1-Trichloroethane	ug/L	50	51.1	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.1	110	64-131	
1,1,2-Trichloroethane	ug/L	50	58.8	118	70-130	
1,1-Dichloroethane	ug/L	50	52.5	105	69-163	
1,1-Dichloroethene	ug/L	50	50.9	102	77-123	
1,1-Dichloropropene	ug/L	50	59.8	120	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.7	99	70-130	
1,2,3-Trichloropropane	ug/L	50	55.6	111	63-125	
1,2,4-Trichlorobenzene	ug/L	50	49.4	99	68-130	
1,2,4-Trimethylbenzene	ug/L	50	47.9	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.1	102	63-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.1	100	70-130	
1,2-Dichlorobenzene	ug/L	50	47.2	94	70-130	
1,2-Dichloroethane	ug/L	50	50.2	100	78-142	

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REPORT OF LABORATORY ANALYSIS

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Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

LABORATORY CONTROL SAMPLE:	2174036					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloropropane	ug/L		55.6	111	86-134	
1,3,5-Trimethylbenzene	ug/L	50	48.8	98	70-130	
1,3-Dichlorobenzene	ug/L	50	47.7	95	70-130	
1,3-Dichloropropane	ug/L	50	59.2	118	70-130	
1,4-Dichlorobenzene	ug/L	50	47.4	95	70-130	
2,2-Dichloropropane	ug/L	50	50.2	100	58-144	
2-Chlorotoluene	ug/L	50	51.9	104	70-130	
4-Chlorotoluene	ug/L	50	46.5	93	70-130	
Benzene	ug/L	50	56.8	114	70-130	
Bromobenzene	ug/L	50	46.6	93	70-130	
Bromochloromethane	ug/L	50	44.1	88	70-130	
Bromodichloromethane	ug/L	50	52.8	106	70-130	
Bromoform	ug/L	50	47.6	95	70-130	
Bromomethane	ug/L	50	47.1	94	39-129	
Carbon tetrachloride	ug/L	50 50	48.5	97	70-132	
Chlorobenzene	ug/L	50	51.8	104	70-132	
Chloroethane	ug/L	50	51.6 52.6	104	66-140	
Chloroform	_				75-132	
	ug/L	50	55.2	110		
Chloromethane	ug/L	50 50	42.7	85	32-143	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.8	108	70-130	
Dibromochloromethane	ug/L	50	46.5	93	70-130	
Dibromomethane	ug/L	50	53.7	107	70-130	
Dichlorodifluoromethane	ug/L	50	60.3	121	10-141	
Diisopropyl ether	ug/L	50	40.6	81	53-134	
Ethylbenzene	ug/L	50	55.1	110	80-120	
Hexachloro-1,3-butadiene	ug/L	50	53.3	107	63-132	
Isopropylbenzene (Cumene)	ug/L	50	52.3	105	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	49.5	99	61-129	
Methylene Chloride	ug/L	50	54.7	109	70-130	
n-Butylbenzene	ug/L	50	55.9	112	70-131	
n-Propylbenzene	ug/L	50	54.2	108	70-130	
Naphthalene	ug/L	50	41.2	82	69-130	
o-Xylene	ug/L	50	52.0	104	70-130	
p-Isopropyltoluene	ug/L	50	47.6	95	70-130	
sec-Butylbenzene	ug/L	50	52.9	106	70-130	
Styrene	ug/L	50	51.8	104	70-130	
tert-Butylbenzene	ug/L	50	47.6	95	70-130	
Tetrachloroethene	ug/L	50	55.6	111	70-130	
Toluene	ug/L	50	54.6	109	80-120	
trans-1,2-Dichloroethene	ug/L	50	53.0	106	70-130	
trans-1,3-Dichloropropene	ug/L	50	54.7	109	69-130	
Trichloroethene	ug/L	50	54.5	109	70-130	
Trichlorofluoromethane	ug/L	50	54.4	109	75-145	
Vinyl chloride	ug/L	50	51.4	103	51-140	
Xylene (Total)	ug/L	150	158	105	70-130	

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REPORT OF LABORATORY ANALYSIS

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Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

LABORATORY CONTROL SAMPLE: 2174036

LABORATORY CONTROL SAMPLE:	2174036	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
4-Bromofluorobenzene (S)	%			104	70-130	
Dibromofluoromethane (S)	%			99	70-130	
Toluene-d8 (S)	%			109	70-130	

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 2174		1400	2174169							
		40221426006	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
1,1,1,2-Tetrachloroethane	ug/L	<0.27	50	50	45.3	46.9	91	94	70-130	3	20	
1,1,1-Trichloroethane	ug/L	< 0.24	50	50	50.9	50.0	102	100	70-130	2	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	56.1	55.1	112	110	64-137	2	20	
1,1,2-Trichloroethane	ug/L	< 0.55	50	50	55.8	56.8	112	114	70-137	2	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	52.3	51.2	105	102	69-163	2	20	
1,1-Dichloroethene	ug/L	< 0.24	50	50	52.1	50.3	104	101	77-129	4	20	
1,1-Dichloropropene	ug/L	< 0.54	50	50	57.1	57.7	114	115	70-130	1	20	
1,2,3-Trichlorobenzene	ug/L	<2.2	50	50	52.5	51.7	105	103	70-130	2	20	
I,2,3-Trichloropropane	ug/L	< 0.59	50	50	54.1	55.3	108	111	63-125	2	20	
1,2,4-Trichlorobenzene	ug/L	< 0.95	50	50	49.6	50.3	99	101	68-130	1	20	
1,2,4-Trimethylbenzene	ug/L	< 0.84	50	50	46.9	46.8	94	94	70-130	0	20	
1,2-Dibromo-3- chloropropane	ug/L	<1.8	50	50	49.1	49.2	98	98	60-130	0	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	48.3	49.9	97	100	70-130	3	20	
,2-Dichlorobenzene	ug/L	<0.71	50	50	47.2	46.7	94	93	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	50.5	48.8	101	98	78-145	3	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	56.5	54.6	113	109	86-135	4	20	
1,3,5-Trimethylbenzene	ug/L	<0.87	50	50	48.1	48.2	96	96	70-130	0	20	
1,3-Dichlorobenzene	ug/L	< 0.63	50	50	47.8	47.5	96	95	70-130	1	20	
1,3-Dichloropropane	ug/L	<0.83	50	50	57.3	58.1	115	116	70-130	1	20	
1,4-Dichlorobenzene	ug/L	< 0.94	50	50	47.8	46.6	96	93	70-130	2	20	
2,2-Dichloropropane	ug/L	<2.3	50	50	51.2	49.9	102	100	58-144	3	20	
2-Chlorotoluene	ug/L	< 0.93	50	50	53.2	52.5	106	105	70-130	1	20	
4-Chlorotoluene	ug/L	< 0.76	50	50	46.4	47.0	93	94	70-130	1	20	
Benzene	ug/L	< 0.25	50	50	56.2	55.4	112	111	70-136	1	20	
Bromobenzene	ug/L	< 0.24	50	50	46.5	46.1	93	92	70-130	1	20	
Bromochloromethane	ug/L	< 0.36	50	50	45.8	43.6	92	87	70-130	5	20	
Bromodichloromethane	ug/L	< 0.36	50	50	54.5	52.1	109	104	70-130	4	20	
Bromoform	ug/L	<4.0	50	50	44.8	46.9	90	94	69-130	5	20	
Bromomethane	ug/L	< 0.97	50	50	50.2	48.2	100	96	39-138	4	20	
Carbon tetrachloride	ug/L	<1.1	50	50	48.8	47.6	98	95	70-142	3	20	
Chlorobenzene	ug/L	<0.71	50	50	51.1	51.1	102	102	70-130	0	20	
Chloroethane	ug/L	<1.3	50	50	53.2	51.7	106	103	61-149	3		
Chloroform	ug/L	<1.3	50	50	55.9	54.1	112	108	75-133	3		
Chloromethane	ug/L	<2.2	50	50	42.3	40.8	85	82	32-143	4		
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	52.8	51.3	106	103	70-130	3		
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	55.3	54.5	111	109	70-130	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

MATRIX SPIKE & MATRIX SP	PIKE DUPLIC	ATE: 2174		2174169								
Parameter	4 Units	0221426006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
Dibromochloromethane	ug/L	<2.6	50	50	44.8	46.0	90	92	70-130	3	20	
Dibromomethane	ug/L	< 0.94	50	50	55.2	53.9	110	108	70-130	2	20	
Dichlorodifluoromethane	ug/L	< 0.50	50	50	58.0	56.2	116	112	10-141	3	20	
Diisopropyl ether	ug/L	<1.9	50	50	39.7	40.6	79	81	53-134	2	20	
Ethylbenzene	ug/L	< 0.32	50	50	55.0	54.4	110	109	80-120	1	20	
Hexachloro-1,3-butadiene	ug/L	<1.5	50	50	55.6	55.3	111	111	63-132	0	20	
sopropylbenzene Cumene)	ug/L	<1.7	50	50	52.6	52.1	105	104	70-130	1	20	
m&p-Xylene	ug/L	< 0.47	100	100	104	104	104	104	70-130	0	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	48.6	49.7	97	99	61-136	2	20	
Methylene Chloride	ug/L	<0.58	50	50	55.7	53.9	111	108	68-137	3	20	
n-Butylbenzene	ug/L	<0.71	50	50	54.4	54.4	109	109	70-131	0	20	
n-Propylbenzene	ug/L	<0.81	50	50	54.4	53.4	109	107	70-130	2	20	
Naphthalene	ug/L	<1.2	50	50	44.4	44.6	89	89	68-135	1	20	
o-Xylene	ug/L	<0.26	50	50	51.5	51.3	103	103	70-130	0	20	
p-Isopropyltoluene	ug/L	<0.80	50	50	47.2	46.5	94	93	70-130	1	20	
sec-Butylbenzene	ug/L	<0.85	50	50	52.4	52.0	105	104	70-130	1	20	
Styrene	ug/L	<3.0	50	50	51.8	52.4	104	105	70-130	1	20	
ert-Butylbenzene	ug/L	< 0.30	50	50	48.1	47.4	96	95	70-130	1	20	
Tetrachloroethene	ug/L	0.50J	50	50	53.9	54.4	107	108	70-130	1	20	
Toluene	ug/L	<0.27	50	50	53.3	53.2	107	106	80-120	0	20	
rans-1,2-Dichloroethene	ug/L	< 0.46	50	50	53.2	52.4	106	105	70-130	2	20	
rans-1,3-Dichloropropene	ug/L	<4.4	50	50	53.2	55.6	106	111	69-130	4	20	
Trichloroethene	ug/L	1.1	50	50	56.4	55.5	111	109	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	52.4	51.9	105	104	74-157	1	20	
/inyl chloride	ug/L	<0.17	50	50	51.9	50.9	104	102	51-140	2	20	
Kylene (Total)	ug/L	<1.5	150	150	156	156	104	104	70-130	0	20	
1-Bromofluorobenzene (S)	%						104	104	70-130			
Dibromofluoromethane (S)	%						100	99	70-130			
Toluene-d8 (S)	%						107	109	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

QC Batch: 376580 Analysis Method: EPA 8270E by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270E Water PAH

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40221377001

METHOD BLANK: 2174542 Matrix: Water

Associated Lab Samples: 40221377001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	< 0.0059	0.030	01/28/21 06:59	
2-Methylnaphthalene	ug/L	< 0.0049	0.024	01/28/21 06:59	
Acenaphthene	ug/L	< 0.0061	0.030	01/28/21 06:59	
Acenaphthylene	ug/L	< 0.0050	0.025	01/28/21 06:59	
Anthracene	ug/L	< 0.010	0.052	01/28/21 06:59	
Benzo(a)anthracene	ug/L	< 0.0076	0.038	01/28/21 06:59	
Senzo(a)pyrene	ug/L	<0.011	0.053	01/28/21 06:59	
enzo(b)fluoranthene	ug/L	< 0.0057	0.029	01/28/21 06:59	
enzo(g,h,i)perylene	ug/L	<0.0068	0.034	01/28/21 06:59	
enzo(k)fluoranthene	ug/L	< 0.0076	0.038	01/28/21 06:59	
nrysene	ug/L	< 0.013	0.065	01/28/21 06:59	
benz(a,h)anthracene	ug/L	< 0.010	0.050	01/28/21 06:59	
uoranthene	ug/L	<0.011	0.053	01/28/21 06:59	
uorene	ug/L	<0.0080	0.040	01/28/21 06:59	
deno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	01/28/21 06:59	
aphthalene	ug/L	<0.018	0.092	01/28/21 06:59	
nenanthrene	ug/L	< 0.014	0.069	01/28/21 06:59	
rene	ug/L	< 0.0076	0.038	01/28/21 06:59	
Fluorobiphenyl (S)	%	62	39-120	01/28/21 06:59	
rphenyl-d14 (S)	%	100	10-159	01/28/21 06:59	

LABORATORY CONTROL SAMPLE	: 2174543					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/L		1.2	60	37-120	
2-Methylnaphthalene	ug/L	2	1.1	55	38-120	
Acenaphthene	ug/L	2	1.4	68	49-120	
Acenaphthylene	ug/L	2	1.4	68	43-85	
Anthracene	ug/L	2	1.5	76	57-110	
Benzo(a)anthracene	ug/L	2	1.8	92	47-118	
Benzo(a)pyrene	ug/L	2	1.6	82	70-120	
Benzo(b)fluoranthene	ug/L	2	1.7	87	54-97	
Benzo(g,h,i)perylene	ug/L	2	0.81	40	26-74	
Benzo(k)fluoranthene	ug/L	2	1.8	88	73-126	
Chrysene	ug/L	2	1.7	84	75-151	
Dibenz(a,h)anthracene	ug/L	2	0.71	35	13-72	
Fluoranthene	ug/L	2	1.7	83	63-120	
Fluorene	ug/L	2	1.4	70	53-120	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.5	74	51-101	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

LABORATORY CONTROL SAMPLE: 2474542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L		1.3	64	41-120	
Phenanthrene	ug/L	2	1.6	79	47-100	
Pyrene	ug/L	2	1.8	90	70-128	
2-Fluorobiphenyl (S)	%			66	39-120	
Terphenyl-d14 (S)	%			101	10-159	

MATRIX SPIKE & MATRIX S	SPIKE DUPLI	ICATE: 2174	544 MS	MSD	2174545							
		40221425001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/L	0.0065J	1.8	1.8	0.90	0.86	50	48	16-120	4	28	
2-Methylnaphthalene	ug/L	0.000014J mg/L	1.8	1.8	0.84	0.75	46	41	29-120	11	31	
Acenaphthene	ug/L	<0.000005 5 mg/L	1.8	1.8	1.0	0.92	56	51	33-120	9		
Acenaphthylene	ug/L	<0.000004 5 mg/L	1.8	1.8	1.0	0.89	56	50	21-85	12		
Anthracene	ug/L	<0.000009 4 mg/L	1.8	1.8	1.1	1.0	64	56	16-114	13		
Benzo(a)anthracene	ug/L	<0.000006 8 mg/L	1.8	1.8	1.0	0.95	58	53	10-118	9		
Benzo(a)pyrene	ug/L	<0.000009 5 mg/L	1.8	1.8	0.52	0.46	29	26	10-120	13		
Benzo(b)fluoranthene	ug/L	<0.000005 2 mg/L	1.8	1.8	0.68	0.60	38	34	10-97	12		
Benzo(g,h,i)perylene	ug/L	<0.000006 1 mg/L	1.8	1.8	0.36	0.31	20	17	10-74	16	45	
Benzo(k)fluoranthene	ug/L	<0.000006 8 mg/L	1.8	1.8	0.64	0.62	36	35	10-126	3	41	
Chrysene	ug/L	<0.000012 mg/L	1.8	1.8	1.0	0.94	56	53	10-161	7	30	
Dibenz(a,h)anthracene	ug/L	<0.000009 0 mg/L	1.8	1.8	0.36	0.31	20	18	10-72	14	50	
Fluoranthene	ug/L	<0.000009 6 mg/L	1.8	1.8	1.1	1.0	63	59	35-120	8	33	
Fluorene	ug/L	<0.000007 2 mg/L	1.8	1.8	1.0	0.94	58	53	17-120	10	33	
Indeno(1,2,3-cd)pyrene	ug/L	<0.000016 mg/L	1.8	1.8	0.36	0.31	20	17	10-101	14	41	
Naphthalene	ug/L	<0.000017 mg/L	1.8	1.8	0.97	0.89	53	49	24-120	9	30	
Phenanthrene	ug/L	<0.000012 mg/L	1.8	1.8	1.2	1.1	66	62	15-100	7	30	
Pyrene	ug/L	<0.000006 9 mg/L	1.8	1.8	1.3	1.2	70	66	14-137	7	31	
2-Fluorobiphenyl (S)	%	· 9·-					57 74	51 66	39-120			
Terphenyl-d14 (S)	%						74	66	10-159			

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QUALIFIERS

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 02/09/2021 07:54 AM

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).



Green Bay, WI 54302 (920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221377

Date: 02/09/2021 07:54 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40221377001	1365-0	EPA 3510	376580	EPA 8270E by SIM	376603
40221377001	1365-0	EPA 8260	376408		

(F	Please Print Clearly)				7						<u>UPPE</u>	R MID	<u>NEST R</u>	<u>EGION</u>		Page	of
Company Name:	The OS Group LLC			,5]						MN:	612-60	7-1700	WI: 920-469-2436		11-~	~1>-
Branch/Location:	LaCrosse WI		1,	/	Pace	? Ana	llytic	al`							COC No.	402	215
Project Contact:	Steven Osesek		1 /			ичи.р	acelabs.	com						Quote #:			
Phone:	608-433-9388			C	CHA	ΔIN	OF	- C	UST	TO	D۱	1		Mail To Contact:	Steven Os	esek	
Project Number:			A=N		HCL C			ation Coc					1	Mail To Company:	The OS Gr	oup LLC	
Project Name:	STOCKE WES	2) 22 9 -		odium Bisu				m Thiosul		Other	1101 C	-j ia Oji]	Mail To Address:	444 21st S	+9	
Project State:	WI			RED? S/NO)	Y/N	N	M	N	1						LaCrosse,		
Sampled By (Print):	STEVEN COSECEN	7	PRESE	RVATION	Pick	A	A	B						Invoice To Contact:	Steven Os	esek	
Sampled By (Sign):	1 7 37 37 37 37		(00	DE)*	Letter	,,,	/-N	12						Invoice To Company:	The OS Gr		
PO#:	1	Regulatory			sted	×								Invoice To Address:			
Data Package O		Program: Mat	rix Codes		die	2								invoice to Address.	444 21st S LaCrosse,		
(billable)	On your sample A:	= Air = Biota	W = Water DW = Drinki	ng Water	Analyses Requested	PFAS	\ \S	, ५									
EPA Leve) (Diliable) (C	= Charcoal = Oil = Soil	GW = Group SW = Surface	ce Water	lyse		PAHS	\mathcal{O}						Invoice To Phone:	608-433-93	388	
PACE LAB#	your sample Si	= Sludge COLLI	WW = Wast WP = Wipe ECTION	MATRIX	Ana	133	9	$ \rangle$						CLIENT COMMENTS		OMMENTS Jse Only)	Profile #
		1/21/21	TIME	OW			X	X						COMMENTS	(Lab (ose Omy)	
	165-0		3//5			X	\sim	$\hat{\mathbf{x}}$									
	RIP Blank	1/21/21	2:30	DW				<u> </u>									
	nd Time Requested - Prelims bject to approval/surcharge)	Reling	uished By:		Sear	<u>, </u>		e/Time:	4:00	,	Receive	d By:		Date/Time:	l	PACE Pro	oject No.
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	n Results by (complete what you wan	t):	t-eall	¥			1/22	121	<u>093</u>		کے	\mathcal{U}_{Δ}	44	/ the 122/2	1 0930	Receipt Temp = .	0 ×1 °C
Email #1: Email #2:		Relinq	uished By:				\Date	e/Time:		l	Receive	dJBý:	\ \ \	Date/Time:		Sample Re	FOL
relephone:		Relinq	uished By:				Date	e/Time:			Receive	d By:		Date/Time:		OK / Ad	
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	on HOLD are subject to ng and release of liability	Relinqu	uished By:				Date	e/Time:		l	Receive	d By:		Date/Time:		Present / No Intact / No	

Sample Preservation Receipt Form

Project # 402 21377

Pace Analytical Services, LLC 1241 Bellevue Street, Suite 90 Green Bay, WI 54302

Client Name: The OS Group All containers needing preservation have been checked and noted below: □Yes □No Initial when Date/ completed: Time: Lab Std #ID of preservation (if pH adjusted): Lab Lot# of pH paper: VOA Vials (>6mm) 동 after adjusted **Plastic Vials** Glass Jars General laOH+Zn Act laOH pH ≥12 12SO4 pH ≤2 Volume INO3 pH: (mL) WGFU WPFU VG9M VG9D JGFU JG9U AG1H BP3N VG9U VG9H ZPLC AG5U AG2S BG3U BP1U **BP3U** BP3B **BP3S** VG9A DG9T SP5T Pace SS Lab # 2.5 / 5 / 10 001 002 2.5 / 5 / 10 003 2.5 / 5 / 10 004 2.5 / 5 / 10 005 2.5 / 5 / 10 006 2.5 / 5 / 10 007 2.5 / 5 / 10 800 2.5 / 5 / 10 009 2.5 / 5 / 10 010 2.5 / 5 / 10 011 2.5 / 5 / 10 012 2.5 / 5 / 10 013 2.5 / 5 / 10 014 2.5 / 5 / 10 015 2.5 / 5 / 10 016 2.5 / 5 / 10 017 2.5 / 5 / 10 018 2.5 / 5 / 10 019 2.5 / 5 / 10 020 2.5 / 5 / 10 Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: Headspace in VOA Vials (>6mm): √yes □No □N/A *If yes look in headspace column AG1U 1 liter amber glass BP1U VG9A 40 mL clear ascorbic **JGFU** 4 oz amber jar unpres 1 liter plastic unpres BG1U 1 liter clear glass JG9U BP3U 250 mL plastic unpres DG9T 40 mL amber Na Thio 9 oz amber jar unpres AG1H 1 liter amber glass HCL VG9U 40 mL clear vial unpres WGFU 4 oz clear jar unpres BP3B 250 mL plastic NaOH 4 oz plastic jar unpres AG4S 125 mL amber glass H2SO4 **BP3N** 250 mL plastic HNO3 VG9H 40 mL clear vial HCL WPFU BP3S 250 mL plastic H2SO4 VG9M 40 mL clear vial MeOH SP5T 120 mL plastic Na Thiosulfate AG4U 120 mL amber glass unpres

VG9D

40 mL clear vial DI

ZPLC

GN

ziploc bag

AG5U 100 mL amber glass unpres

AG2S 500 mL amber glass H2SO4 BG3U 250 mL clear glass unpres

Pace Analytical *
1241 Bellevue Street, Green Bay, WI 54302

Document Name: Sample Condition Upon Receipt (SCUR)

Document No.: ENV-FRM-GBAY-0014-Rev.00

Document Revised: 26Mar2020

Author:

Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: 105 G	raup		Project #:	40221377
Courier: CS Logistics Fed Ex Spee		· · · · · · · · · · · · · · · · · · ·	alto	402213//
Client Pace Other:	ACC TOFS			
	5951		40221377	
Custody Seal on Cooler/Box Present: yes		ntact:		
Custody Seal on Samples Present: yes			☐ yes ☐ no	
Packing Material: Subble Wrap				
Thermometer Used SR - NA		A 10 (A) 10 (1)		on ice, cooling process has begun
Cooler Temperature Uncorr: Uncorr:		\cup		Person examining contents:
Temp Blank Present: yes 500	Biolog	ical T	issue is Frozen: ☐ yes ☐ no	Date: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on	Dry Ice.			Labeled By Initials:
Chain of Custody Present:	Des □no [□n/a	1	
Chain of Custody Filled Out:	∐Yes ⊠ #No [□n/a	2 19#	1/2/2/1
Chain of Custody Relinquished:	De€es □No [□n/a	3	
Sampler Name & Signature on COC:	Ð¥es □No [□n/a	4	
Samples Arrived within Hold Time:	ØYes □No	· 1	5.	
- VOA Samples frozen upon receipt	□Yes □No		Date/Time:	
Short Hold Time Analysis (<72hr):	□Yes DANo		6.	
Rush Turn Around Time Requested:	□Yes DNo		7.	
Sufficient Volume: For Analysis: ∑Yes ★ MS/MS	SD: □Yes ⊠ o I	□n/a	8. Sufficent volume received. 1/28/21 CI	OH Je Tvil Wanks. 1/22/2
Correct Containers Used:	725¥es □No		9.	
-Pace Containers Used:	∑K¥es Б≪Ko I	□n/a		
-Pace IR Containers Used:	□Yes □No I	JA		
Containers Intact:	DKes □No		10.	
Filtered volume received for Dissolved tests		J ANTA	11.	
Sample Labels match COC:		 □n/a	12.	
-Includes date/time/ID/Analysis Matrix:	W			
Trip Blank Present:	□Yes ≭ ⊠No I	□n/a	13.	
Trip Blank Custody Seals Present				
Pace Trip Blank Lot # (if purchased):		/ -		
Client Notification/ Resolution:				ached form for additional comments
Person Contacted:Comments/ Resolution:	I	Date/	Time:	
Comments/ Resolution:			l og sillet og fri fret posteret bli bligter fra det. Forfer og stil med sette silte og se skillet fra fra sette.	

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Page Page 19 of 28



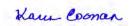
Report of Analysis

Pace Analytical Services, LLC 1241 Bellevue Street Suite 9 Green Bay, WI 54302

Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221377 Lot Number: **WA26023** Date Completed: 02/08/2021



02/08/2021 5:12 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WA26023

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary Pace Analytical Services, LLC

Lot Number: WA26023

Project Name: LACROSSE WELLS 23 & 24 Project Number: 40221377

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1365-0	Aqueous	01/21/2021 1415	01/26/2021

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Pace Analytical Services, LLC

Lot Number: WA26023

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221377

Sample	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1365-0	Aqueous	PFBS	PFAS by ID	3.5		ng/L	5
001	1365-0	Aqueous	PFOSA	PFAS by ID	2.3	J	ng/L	5
001	1365-0	Aqueous	PFPeS	PFAS by ID	0.88	J	ng/L	5
001	1365-0	Aqueous	PFHxS	PFAS by ID	2.0	J	ng/L	5
001	1365-0	Aqueous	PFBA	PFAS by ID	11		ng/L	5
001	1365-0	Aqueous	PFOS	PFAS by ID	4.4		ng/L	6

(6 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA26023-001 Matrix: Aqueous

Description: 1365-0

Date Sampled:01/21/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/26/2021

Project Number: 40221377

Run Prep Method SOP SPE Analytical Method Dilution

Prep Date

Batch

Analysis Date Analyst PFAS by ID SOP 02/02/2021 1459 MMM 01/29/2021 1406 81170

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.5	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.3 J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.88 J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0 J	3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	11	3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.4	3.5	0.88	ng/L	1
		otance nits					
	,	-150					
13C2_6:2FTS	22 25	-150					

Surrogate	Q	% Recovery	Limits
13C2_4:2FTS		136	25-150
13C2_6:2FTS		122	25-150
13C2_8:2FTS		92	25-150
13C2_PFDoA		96	25-150
13C2_PFHxDA		97	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation ND = Not detected at or above the DL

H = Out of holding time

B = Detected in the method blank N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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E = Quantitation of compound exceeded the calibration range DL = Detection Limit

P = The RPD between two GC columns exceeds 40% W = Reported on wet weight basis

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WA26023-001

Matrix: Aqueous

Description: 1365-0

Date Received: 01/26/2021

Date Sampled:01/21/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221377

13C3_PFBS 101 25-150 13C3_PFHxS 100 25-150 13C3-HFPO-DA 112 25-150 13C4_PFBA 105 25-150 13C4_PFHpA 103 25-150 13C5_PFHxA 103 25-150 13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EIFOSA 78 10-150 d5-EIFOSAA 93 25-150 d9-EIFOSE 93 10-150 d-MeFOSA 93 10-150 d7-MeFOSE 89 10-150	Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3-HFPO-DA 112 25-150 13C4_PFBA 105 25-150 13C4_PFHPA 103 25-150 13C5_PFHxA 103 25-150 13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EiFOSA 78 10-150 d5-EiFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C3_PFBS	101	25-150	
13C4_PFBA 105 25-150 13C4_PFHpA 103 25-150 13C5_PFHxA 103 25-150 13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EiFOSA 78 10-150 d5-EiFOSAA 93 25-150 d9-EiFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C3_PFHxS	100	25-150	
13C4_PFHpA 103 25-150 13C5_PFHxA 103 25-150 13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C3-HFPO-DA	112	25-150	
13C5_PFHxA 103 25-150 13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C4_PFBA	105	25-150	
13C5_PFPeA 111 25-150 13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C4_PFHpA	103	25-150	
13C6_PFDA 101 25-150 13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C5_PFHxA	103	25-150	
13C7_PFUdA 93 25-150 13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C5_PFPeA	111	25-150	
13C8_PFOA 112 25-150 13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C6_PFDA	101	25-150	
13C8_PFOS 91 25-150 13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C7_PFUdA	93	25-150	
13C8_PFOSA 89 10-150 13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C8_PFOA	112	25-150	
13C9_PFNA 106 25-150 d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C8_PFOS	91	25-150	
d-EtFOSA 78 10-150 d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C8_PFOSA	89	10-150	
d5-EtFOSAA 93 25-150 d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	13C9_PFNA	106	25-150	
d9-EtFOSE 93 10-150 d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	d-EtFOSA	78	10-150	
d-MeFOSA 93 10-150 d3-MeFOSAA 103 25-150	d5-EtFOSAA	93	25-150	
d3-MeFOSAA 103 25-150	d9-EtFOSE	93	10-150	
	d-MeFOSA	93	10-150	
d7-MeFOSE 89 10-150	d3-MeFOSAA	103	25-150	
	d7-MeFOSE	89	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and > DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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QC Summary

Sample ID: WQ81170-001 Batch: 81170 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/29/2021 1406

Parameter	Result	Q Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
11CI-PF3OUdS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
8:2 FTS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
6:2 FTS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
10:2 FTS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
4:2 FTS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
GenX	ND	1	8.0	2.0	ng/L	02/01/2021 1658
ADONA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
EtFOSA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
EtFOSAA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
EtFOSE	ND	1	8.0	2.0	ng/L	02/01/2021 1658
MeFOSA	ND	1	16	4.0	ng/L	02/01/2021 1658
MeFOSAA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
MeFOSE	ND	1	8.0	2.0	ng/L	02/01/2021 1658
PFBS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFDS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFHpS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFNS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFOSA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFPeS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFDOS	ND	1	8.0	2.0	ng/L	02/01/2021 1658
PFHxS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFBA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFDA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFDoA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFHpA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFHxDA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
PFHxA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFNA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFODA	ND	1	8.0	2.0	ng/L	02/01/2021 1658
PFOA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFPeA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFTeDA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFTrDA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFUdA	ND	1	4.0	1.0	ng/L	02/01/2021 1658
PFOS	ND	1	4.0	1.0	ng/L	02/01/2021 1658
	5				g/ =	02/01/2021 1000
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	92	25-150				
13C2_6:2FTS	98	25-150				
13C2_8:2FTS	96	25-150				
13C2_PFDoA	94	25-150				
13C2_PFHxDA	95	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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QC Data for Lot Number: WA26023

PFAS by LC/MS/MS - MB

Sample ID: WQ81170-001 Batch: 81170

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE Prep Date: 01/29/2021 1406

Acceptance Surrogate Q % Rec Limit 13C2_PFTeDA 91 25-150 13C3_PFBS 97 25-150 13C3_PFHxS 88 25-150 13C3-HFPO-DA 104 25-150 13C4 PFBA 99 25-150 13C4_PFHpA 88 25-150 13C5_PFHxA 95 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 103 25-150 13C7_PFUdA 97 25-150 13C8_PFOA 99 25-150 13C8_PFOS 88 25-150 85 13C8_PFOSA 10-150 13C9_PFNA 81 25-150 d-EtFOSA 75 10-150 25-150 d5-EtFOSAA 95 d9-EtFOSE 90 10-150 d-MeFOSA 70 10-150 d3-MeFOSAA 93 25-150

10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

d7-MeFOSE

P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

89

PFAS by LC/MS/MS - LCS

Sample ID: WQ81170-002 Batch: 81170 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/29/2021 1406

	Spike				0/ 5	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14	1	96	50-150	02/01/2021 1709
11CI-PF3OUdS	15	13	1	89	50-150	02/01/2021 1709
8:2 FTS	15	21	1	139	50-150	02/01/2021 1709
6:2 FTS	15	18	1	120	50-150	02/01/2021 1709
10:2 FTS	15	18	1	114	50-150	02/01/2021 1709
4:2 FTS	15	16	1	104	50-150	02/01/2021 1709
GenX	32	30	1	95	50-150	02/01/2021 1709
ADONA	15	15	1	102	50-150	02/01/2021 1709
EtFOSA	16	11	1	70	50-150	02/01/2021 1709
EtFOSAA	16	18	1	111	50-150	02/01/2021 1709
EtFOSE	16	15	1	95	50-150	02/01/2021 1709
MeFOSA	16	17	1	105	50-150	02/01/2021 1709
MeFOSAA	16	15	1	94	50-150	02/01/2021 1709
MeFOSE	16	16	1	102	50-150	02/01/2021 1709
PFBS	14	14	1	98	50-150	02/01/2021 1709
PFDS	15	14	1	93	50-150	02/01/2021 1709
PFHpS	15	16	1	105	50-150	02/01/2021 1709
PFNS	15	17	1	108	50-150	02/01/2021 1709
PFOSA	16	15	1	92	50-150	02/01/2021 1709
PFPeS	15	16	1	103	50-150	02/01/2021 1709
PFDOS	15	14	1	88	50-150	02/01/2021 1709
PFHxS	15	15	1	101	50-150	02/01/2021 1709
PFBA	16	16	1	97	50-150	02/01/2021 1709
PFDA	16	17	1	104	50-150	02/01/2021 1709
PFDoA	16	15	1	95	50-150	02/01/2021 1709
PFHpA	16	14	1	89	50-150	02/01/2021 1709
PFHxDA	16	15	1	95	50-150	02/01/2021 1709
PFHxA	16	16	1	99	50-150	02/01/2021 1709
PFNA	16	17	1	103	50-150	02/01/2021 1709
PFODA	16	16	1	102	50-150	02/01/2021 1709
PFOA	16	16	1	99	50-150	02/01/2021 1709
PFPeA	16	16	1	102	50-150	02/01/2021 1709
PFTeDA	16	17	1	107	50-150	02/01/2021 1709
PFTrDA	16	17	1	106	50-150	02/01/2021 1709
PFUdA	16	15	1	95	50-150	02/01/2021 1709
PFOS	15	16	1	105	50-150	02/01/2021 1709
		Acceptance	·	.00	00 .00	02/01/2021 1707
Surrogate	Q % Rec	Limit				
13C2_4:2FTS	87	25-150				
13C2_6:2FTS	91	25-150				
13C2_8:2FTS	85	25-150				
13C2_PFDoA	88	25-150				
13C2_PFHxDA	96	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ81170-002 Batch: 81170 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/29/2021 1406

Surrogate	Q	% Rec	Acceptance Limit			
13C2_PFTeDA		89	25-150			
13C3_PFBS		83	25-150			
13C3_PFHxS		86	25-150			
13C3-HFPO-DA		106	25-150			
13C4_PFBA		96	25-150			
13C4_PFHpA		95	25-150			
13C5_PFHxA		95	25-150			
13C5_PFPeA		95	25-150			
13C6_PFDA		87	25-150			
13C7_PFUdA		95	25-150			
13C8_PFOA		95	25-150			
13C8_PFOS		87	25-150			
13C8_PFOSA		88	10-150			
13C9_PFNA		79	25-150			
d-EtFOSA		88	10-150			
d5-EtFOSAA		88	25-150			
d9-EtFOSE		84	10-150			
d-MeFOSA		81	10-150			
d3-MeFOSAA		87	25-150			
d7-MeFOSE		83	10-150			

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WA26023-001MS Batch: 81170 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 01/29/2021 1406

	Sample Amount	Spike Amount	Result				% Rec	
Parameter	(ng/L)	(ng/L)	(ng/L)	Q	Dil	% Rec	Limit	Analysis Date
9CI-PF3ONS	ND	13	12		1	89	50-150	02/01/2021 1741
11CI-PF3OUdS	ND	13	12		1	91	50-150	02/01/2021 1741
8:2 FTS	ND	13	15		1	108	50-150	02/01/2021 1741
6:2 FTS	ND	13	11		1	85	50-150	02/01/2021 1741
10:2 FTS	ND	13	15		1	113	50-150	02/01/2021 1741
4:2 FTS	ND	13	13		1	97	50-150	02/01/2021 1741
GenX	ND	28	26		1	91	50-150	02/01/2021 1741
ADONA	ND	13	15		1	114	50-150	02/01/2021 1741
EtFOSA	ND	14	16		1	118	50-150	02/01/2021 1741
EtFOSAA	ND	14	13		1	96	50-150	02/01/2021 1741
EtFOSE	ND	14	14		1	103	50-150	02/01/2021 1741
MeFOSA	ND	14	9.7		1	69	50-150	02/01/2021 1741
MeFOSAA	ND	14	13		1	95	50-150	02/01/2021 1741
MeFOSE	ND	14	7.8		1	56	50-150	02/01/2021 1741
PFBS	3.5	12	15		1	96	50-150	02/01/2021 1741
PFDS	ND	13	11		1	81	50-150	02/01/2021 1741
PFHpS	ND	13	13		1	98	50-150	02/01/2021 1741
PFNS	ND	13	11		1	78	50-150	02/01/2021 1741
PFOSA	2.3	14	18		1	109	50-150	02/01/2021 1741
PFPeS	0.88	13	14		1	110	50-150	02/01/2021 1741
PFDOS	ND	14	11		1	84	50-150	02/01/2021 1741
PFHxS	2.0	13	14		1	98	50-150	02/01/2021 1741
PFBA	11	14	25		1	95	50-150	02/01/2021 1741
PFDA	ND	14	13		1	89	50-150	02/01/2021 1741
PFDoA	ND	14	16		1	112	50-150	02/01/2021 1741
PFHpA	ND	14	14		1	98	50-150	02/01/2021 1741
PFHxDA	ND	14	13		1	95	50-150	02/01/2021 1741
PFHxA	ND	14	12		1	89	50-150	02/01/2021 1741
PFNA	ND	14	12		1	88	50-150	02/01/2021 1741
PFODA	ND	14	14		1	98	50-150	02/01/2021 1741
PFOA	ND	14	14		1	99	50-150	02/01/2021 1741
PFPeA	ND	14	14		1	100	50-150	02/01/2021 1741
PFTeDA	ND	14	14		1	100	50-150	02/01/2021 1741
PFTrDA	ND	14	16		1	112	50-150	02/01/2021 1741
PFUdA	ND	14	13			95		02/01/2021 1741
					1		50-150	
PFOS	4.4	13	17		1	96	50-150	02/01/2021 1741
Surrogate	Q % Re	ec Ac	cceptance Limit					
13C2_4:2FTS	121		25-150					
13C2_6:2FTS	121		25-150					
13C2_8:2FTS	106		25-150					
13C2_PFDoA	98		25-150					
13C2_PFHxDA	106		25-150					

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ND = Not detected at or above the DL

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DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WA26023-001MS Batch: 81170

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 01/29/2021 1406

Surrogate	Q % Rec	Acceptance Limit
13C2_PFTeDA	103	25-150
13C3_PFBS	99	25-150
13C3_PFHxS	96	25-150
13C3-HFPO-DA	121	25-150
13C4_PFBA	108	25-150
13C4_PFHpA	109	25-150
13C5_PFHxA	115	25-150
13C5_PFPeA	114	25-150
13C6_PFDA	111	25-150
13C7_PFUdA	116	25-150
13C8_PFOA	114	25-150
13C8_PFOS	103	25-150
13C8_PFOSA	96	10-150
13C9_PFNA	101	25-150
d-EtFOSA	87	10-150
d5-EtFOSAA	106	25-150
d9-EtFOSE	94	10-150
d-MeFOSA	123	10-150
d3-MeFOSAA	93	25-150
d7-MeFOSE	111	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody and Miscellaneous Documents Internal Transfer Chain of Custody

Report To Subcontract for

Workorder Name: LA CROSSE WELL 23 & 24

Pace Analytical West Columbia

106 Vantage Point Drive West Columbia, SC 29172

Phone (803)791-9700

Samples Pre-Logged into eCOC.

Workorder: 40221377

Christopher Hyska Pace Analytical Green Bay

Friday, January 22, 2021 3:15:49 PM

1241 Bellevue Street

Suite 9

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Cooler Temperature on Receip **In order to maintain client cont	n												· .		000	Jane			

State Of Origin: WI

Cert. Needed: Owner Received Date:

X Yes

No

FMT-ALL-C-002rev.00 24March2009

1/22/2021

Requested Analysis

ace Analytical

2/11/2021

Page 1 of 1

Results Requested By:

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Sample Preservation Receipt Form
Project # 4022137

Pace Analytical Services, 106 Vantage Point Drive

LLC (formerly Shealy West Columbia, SC 2

y Environmental Services 29172 (803) 791-9700

Fax (803) 791-9111

www.pacelabs.com

Page 17 of 19

BG1U AG1H

AG10

Page 36 of

3U 250 mL clear glass unpres 38-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

WOA

BP1U

BP3U

BP3B

BP3N

BP3S

ceptions to preservation check:

1 liter amber glass HCL

4S 125 mL amber glass H2SO4

25 500 ml. amber glass H2SO4

120 mL amber glass unpres

100 mL amber glass unpres

(U 1 liter amber glass

IU 1 liter clear glass

Headapace in VOA Vials (>8mm) : QV6s nNo nN/A 15 yes look in headapace column 4 oz amber jar unpres **JGFU** 40 mL clear ascorbic 9 oz amber jar unpres JG9U 40 ml. amber Na Thio 4 oz clear jar unpres WGFU 40 mL clear vial unpres 4 oz plastic jar unpres WPFU 40 mL clear vial HCL 120 mL plastic Na Thiosulfate SP5T 40 mL clear vial MeOH ZPLC ziploc bag 40 mL clear vial DI

GN

Page 1 of 2

2.5 / 5 / 10 2:5/5/10 SERVICE

Page Analytical Services, LLC

1241 Bellevue Street, Suite 9

Date/

Initial when

Green Bay, WI 54302

VG9A

DG9T

VG9U

VG9H

VG9M

VG9D

Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other.

1 liter plastic unpres

250 mL plastic unpres

250 mL plastic NaOH

250 mL plastic HNO3

250 mL plastic H2SO4

PACE ANALYTICAL SERVICES, LLC

5	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
Pace Analytical 1241 Believue Street, Green Bay, Wt 54302	Document No.:	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: The Os Gro	υβ		Project #:	WO#:4	0221377
Courier: 🗀 CS Logistics 🏋 Fed Ex 📙 Speede	e TUPS	Wa	ltco	11 11 11 11 11 11 11 11 11 11 11 11 11	
Client Pace Other:		-			
	151			40221377	r
Custody Seal on Cooler/Box Present: Tyes		intact:	yes To		
Custody Seal on Samples Present: 🎵 yes 🄀	-		yes [no		
Packing Material: 「XBubble Wrap IXBubb	ole Bags 🗀	None	Otner	K-Camples o	n ice, cooling process has begun
Thermometer Used SR - NY	Type of Ice:	(m)	Blue Dry None	A campies o	Person examining contents:
Cooler Temperature Uncorr: Val /Corr:	Biolo	oical Ti	ssue is Frozen:	yes no	Date: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Temp Blank Present: Tyes 500 Temp should be above freezing to 6°C.	2,010				
Blota Samples may be received at ≤ 0°C if shipped on D		Dun			Labeled By Initials:
Chain of Custody Present:	IN □No				17721
Chain of Custody Filled Out:	□Yes 5⊒No	□N/A	(-)		THE PA
Chain of Custody Relinquished:	De Ses □No				
Sampler Name & Signature on COC:	S¥es □No	∐N/A	4		
Samples Arrived within Hold Time:	Zi¥es □No	1	5.		
 VOA Samples frozen upon receipt 	□Yes □No		Date/Time:		Total Control Control
Short Hold Time Analysis (<72hr):	□Yes ÛÑo		6.		
Rush Turn Around Time Requested:	□Yes (ĀNo		7.		
Sufficient Volume:			8.		.11-
For Analysis: 🗆 Yes DANo MS/MS	D: ⊡Yes 🖽	□N/A	lab did o	not recen	<u>je tvik blanks. 1/22/2</u>
Correct Containers Used:	7259es □No		9.		7
-Pace Containers Used:	ZVes 500	□n/A			
-Pace IR Containers Used:	□Yes □No		ļ		
Containers Intact:	Ses □No		10.		
Filtered volume received for Dissolved tests	∏Yes □No	15/4E/V	11.		
	Ø □No				
Sample Labels match COC: Includes date/time/ID/Analysis Matrix:			1		
production and the second	∐Yes ⊅SIN	n □N/A	13.		
Trip Slank Present:	☐Yes ☐N				
Trip Blank Custody Seals Present Page Trip Blank Lot # (if purchased):					
Client Notification/ Resolution:					tached form for additional comments
Person Contacted:		Date	/Time:		
Comments/ Resolution:					
-		-			
PM Review is documented electronically in I	IMs. By relea	sing th	e project, the PM	l acknowledges	they have reviewed the sample log
					Page2_of_2

Pace Analytical"

Samples Receipt Checklist (SRC) (ME0018C-15) Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020 Page 1 of 1

Sample Receipt Checklist (SRC)
Client: YOLL - GIVEN BOY Cooler Inspected by Idoto MEII & United by AD COOL
Means of receipt: Pace Client UPS FedEx Other:
Yes No 1. Were custody seals present on the cooler?
Yes No NA 2. If custody seals were present, were they intact and unbroken?
pri suip ID: Chlorine Strip ID: A TA
original temperature upon receipt / Derived (Corrected) temperature was a second of the second of th
DHYDHIC DHYDHIC IMINITION
The state of the s
wet ice like Packs L Dry Ice None
Yes No
PM was Notified by: phone / email / face-to-face (circle one). Yes No NA 4. Is the commercial convict's packing ellip otto-hald with face-to-face (circle one).
75 tab commercial contriet's packing stip attached to this form?
Yes No 5. Were proper custody procedures (relinquished/received) followed? Yes No 6. Were sample IDs listed on the COC?
Yes No 7. Were sample IDs listed on all sample containers?
Yes No. 8. Was collection date & time listed on the COC?
9. Was collection date & time listed on all sample containers?
the sample containers?
Yes No 10. Did all container label information (ID, date, time) agree with the COC? 11. Were tests to be performed listed on the COC?
Yes No 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
P-X 1
The sample volume available;
The first in the f
15. Were any samples containers missing/excess (circle one) samples Not listed on COCO
Yes No No No NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (%"or 6mm in diameter) in any of the VOA vials?
Yes No NA 17. Were all DRO/metals/nutrient samples received at a pH of < 2?
Yes No NA 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
Yes No No NA 19. Were all applicable NH ₉ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/l.) samples free of
residual chlorine?
Yes No No NA 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc)
contently transcribed from the COC into the comment section in LIMS?
21. Was the quote number fisted on the container label? If yes, Quote # 2436 ?
Sample Preservation. (Must be completed for any sample(s) incorrectly preserved or with headspace.)
Sample(s)
we're received incorrectly preserved and were adjusted accordingly in sample receiving with
Time of preservation VP If more than one preservative is needed, please note in the comments below.
Semple(s)
were received with bubbles >6 mm in diameter.
adjusted accurringly in complete activities with TRC > 0.5 mg/L (If #19 is no) and were
with sodium thiosulfate (Na ₂ S ₂ O ₂) with Shealy ID:
SR barcode labels applied by: MEH Date: 1/26/21
Comments:



444 21st Street South · La Crosse, Wisconsin · 54601

February 13, 2021

2612 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2612 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-85-0 Sampling Point # 85-0

Sample Date: January 26, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.2 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 2612 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-85-0 Sampling Point # 85-0 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.6 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2612 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-85-0 Sampling Point # 85-0 February 13, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>			
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov			
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov			
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov			

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-011 Matrix: Aqueous

Description: 85-0

Date Sampled:01/26/2021 1258

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1902 JJG

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Prep Date	Batti		
02/07/2021	1657	82105	

Parameter	CAS Number	Analytical Method	Result	Q LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.2	J 3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.9	J 3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	12	3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.8	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.6	J 3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.2	3.6	0.90	ng/L	1
Surrogate Q % Re	covery Lir	otance mits					
13C2_4:2FTS		-150					
13C2_6:2FTS		-150					
13C2_8:2FTS		-150					
13C2_PFDoA		-150					
13C2_PFHxDA	96 25	-150					
13C2_PFTeDA	91 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 85-0

Date Sampled:01/26/2021 1258

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	99	25-150	
13C3_PFHxS	100	25-150	
13C3-HFPO-DA	97	25-150	
13C4_PFBA	102	25-150	
13C4_PFHpA	96	25-150	
13C5_PFHxA	96	25-150	
13C5_PFPeA	104	25-150	
13C6_PFDA	93	25-150	
13C7_PFUdA	98	25-150	
13C8_PFOA	104	25-150	
13C8_PFOS	99	25-150	
13C8_PFOSA	91	10-150	
13C9_PFNA	92	25-150	
d-EtFOSA	87	10-150	
d5-EtFOSAA	88	25-150	
d9-EtFOSE	86	10-150	
d-MeFOSA	92	10-150	
d3-MeFOSAA	96	25-150	
d7-MeFOSE	94	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-011

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 12, 2021

2744 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2744 Del Ray Avenue, La Crosse, WI 54603

Tax parcel # 4-94-0 Sampling Point # 94-0

Sampling Date: January 26, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Sampling Results for 2744 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-94-0 Sampling Date: January 26, 2021 February 12, 2021

Sample Results

Compound	Sample Result (unit)	Recomm Public H Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds <i>otal</i> of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	The recommended lim any <i>one</i> of these 6 com <i>combined total</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	30 ppt	20 ppt ^{a,b}	ecomn ne of tl coml
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	9.6 ppt	20 ppt ^{a,b}	The r any <i>o</i>
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.5 ppt	450,000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.0 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	65 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	4.3 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2744 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-94-0

Sampling Date: January 26, 2021

February 12, 2021

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	7.2 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2744 Del Ray Avenue, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-012

Description: 94-0

Matrix: Aqueous

Date Sampled:01/26/2021 1324

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1912 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.5 J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1 J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.0	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	65	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1 J	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.3	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	30	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.2	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.6	3.7	0.92	ng/L	1
Du	ın 1 Accor	otopoo					
Surrogate Q % Rec	covery Lir	otance mits					
		-150 150					
-		-150					
		-150					
		-150					
		-150					
13C2_PFTeDA	92 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 94-0

Date Sampled:01/26/2021 1324

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021 Project Number: 40221495

Surrogate	Run 1 Acc Q % Recovery	ceptance Limits
13C3_PFBS	96	25-150
13C3_PFHxS	100	25-150
13C3-HFPO-DA	98	25-150
13C4_PFBA	100	25-150
13C4_PFHpA	97	25-150
13C5_PFHxA	96	25-150
13C5_PFPeA	99	25-150
13C6_PFDA	91	25-150
13C7_PFUdA	101	25-150
13C8_PFOA	99	25-150
13C8_PFOS	91	25-150
13C8_PFOSA	92	10-150
13C9_PFNA	93	25-150
d-EtFOSA	85	10-150
d5-EtFOSAA	92	25-150
d9-EtFOSE	86	10-150
d-MeFOSA	92	10-150
d3-MeFOSAA	90	25-150
d7-MeFOSE	91	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Laboratory ID: WA28028-012

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 13, 2021

2306 Bainbridge Street La Crosse, WI 54603

Subject: Private Well Sampling Results

2306 Bainbridge Street, La Crosse, WI 54603

Tax Parcel # 4-144-0 Sampling Point # 144-0

Sample Date: January 26, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	s 20 p nunds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit i 6 compc ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2306 Bainbridge Street, La Crosse, WI 54603 Tax Parcel # 4-144-0 Sampling Point # 144-0 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.6 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2306 Bainbridge Street, La Crosse, WI 54603 Tax Parcel # 4-144-0 Sampling Point # 144-0 February 13, 2021

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	····	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-010

Description: 144-0 Matrix: Aqueous

Date Sampled:01/26/2021 1239

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1851 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result	Q LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.7	J 3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.9	J 3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.6	J 3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.8	J 3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
		otance mits					
13C2_4:2FTS	90 25	-150					
13C2_6:2FTS	87 25	-150					
13C2_8:2FTS	87 25	-150					
13C2_PFDoA	87 25	-150					
13C2_PFHxDA	90 25	-150					
13C2 PFTeDA	85 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-010 Matrix: Aqueous

Date Sampled:01/26/2021 1239

Description: 144-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021 Project Number: 40221495

Surrogate	Run 1 Ac Q % Recovery	Acceptance Limits
13C3_PFBS	86	25-150
13C3_PFHxS	95	25-150
13C3-HFPO-DA	90	25-150
13C4_PFBA	91	25-150
13C4_PFHpA	89	25-150
13C5_PFHxA	85	25-150
13C5_PFPeA	91	25-150
13C6_PFDA	84	25-150
13C7_PFUdA	89	25-150
13C8_PFOA	91	25-150
13C8_PFOS	81	25-150
13C8_PFOSA	80	10-150
13C9_PFNA	87	25-150
d-EtFOSA	80	10-150
d5-EtFOSAA	86	25-150
d9-EtFOSE	80	10-150
d-MeFOSA	76	10-150
d3-MeFOSAA	87	25-150
d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 13, 2021

2304 Bainbridge Street La Crosse, WI 54603

Subject: Private Well Sampling Results

2304 Bainbridge Street, La Crosse, WI 54603

Tax Parcel # 4-144-1 Sampling Point # 144-1

Sample Date: January 26, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	l limit is 20 ppt compounds or <i>otal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo 7 <i>total</i> of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	9 ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.6 ppt	20 ppt ^{a,b}	recommended one of these 6 c combined to
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.5 ppt	20 ppt a,b	The any o

Private Well Sampling Results for 2304 Bainbridge Street, La Crosse, WI 54603 Tax Parcel # 4-144-1 Sampling Point # 144-1 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.2 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	2.7 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	3.8 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2304 Bainbridge Street, La Crosse, WI 54603 Tax Parcel # 4-144-1 Sampling Point # 144-1 February 13, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-015

Description: 144-1

Matrix: Aqueous

Date Sampled:01/26/2021 1425

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1955 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
$\hbox{11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)}\\$	763051-92-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	9.9	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9 J	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	7.2	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1 J	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.7 J	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.6	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.8	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.5	3.6	0.91	ng/L	1
		otance nits					
_	,	-150					
		-150					
		-150					
		-150					
		-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 144-1

Date Sampled:01/26/2021 1425

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021 Project Number: 40221495

Common and a	Run 1 A	cceptance Limits	
Surrogate			
13C3_PFBS	98	25-150	
13C3_PFHxS	101	25-150	
13C3-HFPO-DA	101	25-150	
13C4_PFBA	103	25-150	
13C4_PFHpA	101	25-150	
13C5_PFHxA	96	25-150	
13C5_PFPeA	103	25-150	
13C6_PFDA	97	25-150	
13C7_PFUdA	100	25-150	
13C8_PFOA	102	25-150	
13C8_PFOS	95	25-150	
13C8_PFOSA	95	10-150	
13C9_PFNA	95	25-150	
d-EtFOSA	88	10-150	
d5-EtFOSAA	92	25-150	
d9-EtFOSE	90	10-150	
d-MeFOSA	86	10-150	
d3-MeFOSAA	93	25-150	
d7-MeFOSE	96	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-015

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 13, 2021

310 Callaway Blvd La Crosse, WI 54603

Subject: Private Well Sampling Results

310 Callaway Blvd, La Crosse, WI 54603

Tax Parcel # 4-354-0 Sampling Point # 354-0

Sample Date: January 25, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were *below* the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. PLEASE NOTE: We collected two samples from your well and sent them to two separate labs as a quality control check. These are referred to as "split" samples. The results of the two tests were similar. The results of the higher of the two are shown in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt a,b	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt for compounds or the <i>otal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt a,b	ed limit is 6 compou <i>total</i> of a
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt a,b	recommended one of these 6 c combined to
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt a,b	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.7 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 310 Callaway Blvd, La Crosse, WI 54603 Tax Parcel # 4-354-0 Sampling Point # 354-0 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.8 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. *DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.*

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 310 Callaway Blvd, La Crosse, WI 54603 Tax Parcel # 4-354-0 Sampling Point # 354-0 February 13, 2021

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well



ANALYTICAL RESULTS

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221495

HFPO-DAS (S)

Date: 02/12/2021 11:52 AM

Sample: 354-0	Lab ID:	40221495001	Collecte	ed: 01/25/2	12:17	Received: 01/	27/21 09:35 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
537.1 PFAS Compounds, Water	Analytical	Method: EPA 5	37.1 Prepa	aration Meth	od: EP	A 537.1			
	Pace Anal	ytical Services	- Ormond I	Beach					
11CI-PF3OUdS	<0.0015	ug/L	0.0019	0.0015	1	01/29/21 11:29	01/31/21 09:25	763051-92-9	
9CI-PF3ONS	<0.0011	ug/L	0.0019	0.0011	1	01/29/21 11:29	01/31/21 09:25	756426-58-1	
ADONA	< 0.00070	ug/L	0.0019	0.00070	1	01/29/21 11:29	01/31/21 09:25	919005-14-4	
HFPO-DA	< 0.0016	ug/L	0.0019	0.0016	1	01/29/21 11:29	01/31/21 09:25	13252-13-6	
NEtFOSAA	<0.00090	ug/L	0.0019	0.00090	1	01/29/21 11:29	01/31/21 09:25	2991-50-6	
NMeFOSAA	<0.0015	ug/L	0.0019	0.0015	1	01/29/21 11:29	01/31/21 09:25	2355-31-9	
Perfluorobutanesulfonic acid	< 0.00064	ug/L	0.0019	0.00064	1	01/29/21 11:29	01/31/21 09:25	375-73-5	
Perfluorodecanoic acid	< 0.0019	ug/L	0.0019	0.0019	1	01/29/21 11:29	01/31/21 09:25	335-76-2	
Perfluorohexanoic acid	< 0.0012	ug/L	0.0019	0.0012	1	01/29/21 11:29	01/31/21 09:25	307-24-4	
Perfluorododecanoic acid	< 0.0014	ug/L	0.0019	0.0014	1	01/29/21 11:29	01/31/21 09:25	307-55-1	
Perfluoroheptanoic acid	<0.00097	ug/L	0.0019	0.00097	1	01/29/21 11:29	01/31/21 09:25	375-85-9	
Perfluorohexanesulfonic acid	0.0032	ug/L	0.0019	0.00071	1	01/29/21 11:29	01/31/21 09:25	355-46-4	
Perfluorononanoic acid	< 0.0019	ug/L	0.0019	0.0019	1	01/29/21 11:29	01/31/21 09:25	375-95-1	
Perfluorooctanesulfonic acid	0.0017J	ug/L	0.0019	0.0012	1	01/29/21 11:29	01/31/21 09:25	1763-23-1	
Perfluorooctanoic acid	<0.00084	ug/L	0.0019	0.00084	1	01/29/21 11:29	01/31/21 09:25	335-67-1	
Perfluorotetradecanoic acid	<0.0018	ug/L	0.0019	0.0018	1	01/29/21 11:29	01/31/21 09:25	376-06-7	
Perfluorotridecanoic acid	< 0.0017	ug/L	0.0019	0.0017	1	01/29/21 11:29	01/31/21 09:25	72629-94-8	
Perfluoroundecanoic acid	<0.0019	ug/L	0.0019	0.0019	1	01/29/21 11:29	01/31/21 09:25	2058-94-8	
Surrogates									
13C2-PFDA (S)	106	%	70-130		1	01/29/21 11:29	01/31/21 09:25		
13C2-PFHxA (S)	106	%	70-130		1	01/29/21 11:29	01/31/21 09:25		
NEtFOSAA-d5 (S)	102	%	70-130		1	01/29/21 11:29	01/31/21 09:25		

70-130

110

%

REPORT OF LABORATORY ANALYSIS

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-001

Description: 354-0

Matrix: Aqueous

Date Sampled:01/25/2021 1217

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE

Prep Date

Batch

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Analytical Method Dilution Analysis Date Analyst PFAS by ID SOP 02/08/2021 1819 MMM 02/05/2021 1201 81968

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.2	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1 J	4.2	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7 J	4.2	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	1.8 J	4.2	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.3	2.1	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	4.2	1.0	ng/L	1
		otance nits					
13C2_4:2FTS	117 25	-150					
13C2_6:2FTS	99 25	-150					
13C2_8:2FTS	107 25	-150					
13C2_PFDoA	97 25	-150					
13C2_PFHxDA	103 25	-150					
13C2_PFTeDA	96 25	-150					

ND = Not detected at or above the DL N = Recovery is out of criteria W = Reported on wet weight basis H = Out of holding time

LOQ = Limit of Quantitation

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B = Detected in the method blank

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 354-0

Date Sampled:01/25/2021 1217

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Currogata	Run 1 A	cceptance Limits
Surrogate		
13C3_PFBS	98	25-150
13C3_PFHxS	96	25-150
13C3-HFPO-DA	111	25-150
13C4_PFBA	100	25-150
13C4_PFHpA	101	25-150
13C5_PFHxA	106	25-150
13C5_PFPeA	97	25-150
13C6_PFDA	93	25-150
13C7_PFUdA	94	25-150
13C8_PFOA	105	25-150
13C8_PFOS	93	25-150
13C8_PFOSA	97	10-150
13C9_PFNA	99	25-150
d-EtFOSA	78	10-150
d5-EtFOSAA	80	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	67	10-150
d3-MeFOSAA	113	25-150
d7-MeFOSE	98	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-001

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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February 13, 2021

300 Callaway Blvd La Crosse, WI 54603

Subject: Private Well Sampling Results

300 Callaway Blvd, La Crosse, WI 54603

Tax Parcel # 4-358-0 Sampling Point # 358-0

Sample Date: January 25, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. PLEASE NOTE: As a quality check, we collected a "duplicate" sample from your well, and it was sent to the lab without the sampling point number, (identified as Dup #10). The results were similar. The higher of the two results re presented in the table below:

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt a,b	: for or
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 ppt pounds of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt a,b	= 5 = t
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt a,b	nd Sec
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.3 ppt	20 ppt a,b	ne recommer any <i>one</i> of th the <i>comb</i>
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.6 ppt	20 ppt a,b	The an}

Private Well Sampling Results for 300 Callaway Blvd, La Crosse, WI 54603 Tax Parcel # 4-358-0 Sampling Point # 358-0 February 13, 2021

Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX)	Not Detected	300 ppt ^a
CAS # 13252-13-6	Not Detected	300 ppt
Perfluorobutanesulfonic acid (PFBS)	1.1 ppt	450,000 ppt ^a
CAS # 375-73-5	1.1 μρι	450,000 ppt
Perfluorohexanesulfonic acid (PFHxS)	2.2 nnt	40 ppt ^a
CAS # 355-46-4	3.3 ppt	40 ρρι
Perfluorobutanoic acid (PFBA)	1 0 nnt	10,000 ppt ^a
CAS # 375-22-4	1.8 ppt	10,000 μρι
Perfluorodecanoic acid (PFDA)	Not Detected	200 nnt ^a
CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA)	Not Datastad	F00 nn+ 3
CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA)	Not Datastad	150,000 ppt ^a
CAS # 307-24-4	Not Detected	130,000 μρι
Perfluorononanoic acid (PFNA)	Not Data ata d	20 nnt 3
CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA)	Not Datastad	10 000 nnt 3
CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA)	Not Data stad	2 000 nnt 3
CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	Not Bolovia	2 000 mmt 3
CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA)	Not Datasts -	400 000 55+3
CAS # 16517-11-6	Not Detected	400,000 ppt ^a
3 5 11: 1 11 (

Public health enforcement standard (ES) recommended by DHS.

DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 300 Callaway Blvd, La Crosse, WI 54603 Tax Parcel # 4-358-0 Sampling Point # 358-0 February 13, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. *DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.*

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-002

Description: 358-0

Matrix: Aqueous

Date Sampled:01/25/2021 1235

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Dava	motor			CAS	Analytical	Posult O	1.00
1	SOP SPE	PFAS by ID SOP	1	02/08/2	2021 1829 MMM	02/05/2021 120	01 81968
Run	Prep Method	Analytical Method	Dilution	Analy	sis Date Analyst	Prep Date	Batch

Parameter	Number	Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
$\hbox{11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11 CI-PF 3)}\\$	763051-92-9	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.3 J	4.3	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.6	2.1	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.6 J	4.3	1.1	ng/L	1

	Run 1 Acceptance
Surrogate	Q % Recovery Limits
13C2_4:2FTS	113 25-150
13C2_6:2FTS	110 25-150
13C2_8:2FTS	108 25-150
13C2_PFDoA	89 25-150
13C2_PFHxDA	106 25-150
13C2 PFTeDA	95 25-150

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

ND = Not detected at or above the DL H = Out of holding time

W = Reported on wet weight basis

 $J = Estimated \ result < LOQ \ and \ge DL$

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 358-0

Matrix: Aqueous

Laboratory ID: WA28028-002

Date Sampled:01/25/2021 1235

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021 Project Number: 40221495

13C3_PFBS 102 25-150 13C3_PFHxS 101 25-150 13C3_HFPO-DA 111 25-150 13C4_PFBA 105 25-150 13C4_PFHpA 108 25-150 13C5_PFPA 115 25-150 13C5_PFPA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EIFOSA 93 10-150 d5-EIFOSAA 105 25-150 d9-EIFOSE 85 10-150 d3-MeFOSA 113 25-150 d7-MeFOSA 96 10-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 111 25-150 13C4_PFBA 105 25-150 13C5_PFHxA 115 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EIFOSA 93 10-150 d5-EIFOSAA 105 25-150 d9-EIFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C3_PFBS	102	25-150
13C4_PFBA 105 25-150 13C4_PFHpA 108 25-150 13C5_PFHxA 115 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EiFOSA 93 10-150 d5-EiFOSAA 105 25-150 d9-EiFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C3_PFHxS	101	25-150
13C4_PFHpA 108 25-150 13C5_PFHxA 115 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EiFOSA 93 10-150 d5-EiFOSAA 105 25-150 d9-EiFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C3-HFPO-DA	111	25-150
13C5_PFHxA 115 25-150 13C5_PFPA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EIFOSA 93 10-150 d5-EIFOSAA 105 25-150 d9-EIFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C4_PFBA	105	25-150
13C5_PFPeA 106 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C4_PFHpA	108	25-150
13C6_PFDA 96 25-150 13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C5_PFHxA	115	25-150
13C7_PFUdA 105 25-150 13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C5_PFPeA	106	25-150
13C8_PFOA 111 25-150 13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C6_PFDA	96	25-150
13C8_PFOS 100 25-150 13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C7_PFUdA	105	25-150
13C8_PFOSA 105 10-150 13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C8_PFOA	111	25-150
13C9_PFNA 103 25-150 d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C8_PFOS	100	25-150
d-EtFOSA 93 10-150 d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C8_PFOSA	105	10-150
d5-EtFOSAA 105 25-150 d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	13C9_PFNA	103	25-150
d9-EtFOSE 85 10-150 d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	d-EtFOSA	93	10-150
d-MeFOSA 85 10-150 d3-MeFOSAA 113 25-150	d5-EtFOSAA	105	25-150
d3-MeFOSAA 113 25-150	d9-EtFOSE	85	10-150
	d-MeFOSA	85	10-150
d7-MeFOSE 96 10-150	d3-MeFOSAA	113	25-150
	d7-MeFOSE	96	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

 $J = Estimated result < LOQ and \ge DL$

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-007 Matrix: Aqueous

Description: DUP 10

Date Sampled:01/25/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1819 JJG

Prep Date

Batch 02/07/2021 1657 82105

Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 8.5 756426-58-1 2.1 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 8.5 2.1 ng/L 1 PFAS by ID SOP ND 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 8.5 ng/L 1 2.1 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 8.5 ng/L 1 2.1 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 8.5 ng/L 1 2.1 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 8.5 ng/L 1 2.1 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 8.5 2 1 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 8.5 2.1 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 8.5 2.1 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 8.5 2 1 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 8.5 2.1 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 17 4.3 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 8.5 2 1 ng/L 1 PFAS by ID SOP 8.5 2 1 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 1.1 4.3 1.1 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 43 ng/L 1.1 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 4.3 1.1 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 43 1.1 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 4.3 ng/L 1 1 1 ND Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 4.3 1.1 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 8.5 2 1 ng/L 1 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 1.6 4.3 ng/L 1 1 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 3.4 4.3 ng/L 1 1 Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 4.3 1.1 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 4.3 ng/L 1 1 4.3 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 1.1 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 8.5 ng/L 1 2 1 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 4.3 ng/L 1 1 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 4.3 ng/L 1 1 1 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 8.5 ng/L 2 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 4.3 1.3 ng/L 1.1 2706-90-3 Perfluoro-n-pentanoic acid (PFPeA) PFAS by ID SOP ND 43 ng/L 1 1.1 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 4.3 1.1 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 43 1.1 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 43 ng/L 1 1.1 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 43 ng/L 1 1.1 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 103 25-150 13C2_6:2FTS 101 25-150 108 13C2_8:2FTS 25-150 13C2_PFDoA 93 25-150 13C2_PFHxDA 102 25-150 13C2 PFTeDA 96 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Description: DUP 10

Laboratory ID: WA28028-007 Matrix: Aqueous

Date Sampled:01/25/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Surrogate	Run 1 Acceptar
	Q % Recovery Limits
13C3_PFBS	105 25-150
13C3_PFHxS	101 25-150
13C3-HFPO-DA	102 25-150
13C4_PFBA	106 25-150
13C4_PFHpA	101 25-150
13C5_PFHxA	101 25-150
13C5_PFPeA	106 25-150
13C6_PFDA	98 25-150
13C7_PFUdA	99 25-150
13C8_PFOA	108 25-150
13C8_PFOS	102 25-150
13C8_PFOSA	96 10-150
13C9_PFNA	99 25-150
d-EtFOSA	91 10-150
d5-EtFOSAA	94 25-150
d9-EtFOSE	88 10-150
d-MeFOSA	88 10-150
d3-MeFOSAA	99 25-150
d7-MeFOSE	94 10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 12, 2021

212 Callaway Blvd. La Crosse, WI 54603

Subject: Private Well Sampling Results

212 Callaway Blvd., La Crosse, WI 54603

Tax parcel # 4-359-0 Sampling Point # 359-0

Sampling Date: January 25, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Sampling Results for 212 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-359-0 Sampling Date: January 25, 2021 February 12, 2021

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ot for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds <i>otal</i> of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended limit is 2 of these 6 compoun combined total of all
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.2 ppt	20 ppt ^{a,b}	ecomn ne of t com
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.9 ppt	20 ppt a,b	The r any <i>o</i>
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.9 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	73 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.5 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	1.2 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 212 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-359-0

Sampling Date: January 25, 2021

February 12, 2021

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	6.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.6 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

212 Callaway Blvd., La Crosse, WI 54603

Charle assumanchine

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Date Sampled:01/25/2021 1251

Laboratory ID: WA28028-003

Matrix: Aqueous

Description: 359-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date E	Batch
1	SOP SPE	PFAS by ID SOP	1	02/08/2021 1840 MMM	02/05/2021 1201 8	31968

11-chloroelecsafturor 3-countedeane1-sulfonic acid (ICL PFS) 753051929 PFAS by ID SOP ND 7.5 1.9 ngl. 1	Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
H. H. 2. H. 2. H-portfluorodecane sulfonic acid (8.2 FTS)	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
11.1 H.1 H.2 H.2 H-perfluoroodical colid (c2 FTS) 12/01 PFTS 17/02 PFTS by ID SOP ND 7.5 1.9 ng/L 1	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
H. H. H. Z. H. Z. H. perfluorodoecane sulfonic acid (10.2 FTS) 120226-60-0 PFAS by ID SOP ND 7.5 1.9 ng/L 1	1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
H-H12H_2H-perfluorohexanie sulfonic acid (4.2 FTS)	1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Hasafluoropropylene oxide dimer acid (Genox)	1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
4.8 dioxa 3H perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Nothyloperfluoro-1-octanesulfonamide (EHCOSA) 4151-80-2 PFAS by ID SOP ND 7.5 1.9 ng/L 1 PAS hy ID SOP ND 3.8 0.94 ng/L 1 PAS hy ID SOP	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EFOSA)	Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Nethylperfluoro-1-octanesulfonamido-acetic acid (EFOSA) 2991-50-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 2-Nethylperfluoro-1-octanesulfonamido ethanol (EFOSE) 1691-99-2 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Nemethylperfluoro-1-octanesulfonamido ethanol (EFOSE) 2155-31-9 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Nemethylperfluoro-1-octanesulfonamido-acetic acid (McFOSA) 2355-31-9 PFAS by ID SOP ND 7.5 1.9 ng/L 1 2-Nemethylperfluoro-1-octanesulfonamido-ethanol (McFOSE) 24448-09-7 PFAS by ID SOP ND 7.5 1.9 ng/L 1 2-Nemethylperfluoro-1-octanesulfonamido-ethanol (McFOSE) 2355-31-9 PFAS by ID SOP ND 7.5 1.9 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFBS) 335-73-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFNS) 755-91-6 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFNS) 754-91-6 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDS) 754-91-6 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDS) 754-91-6 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDS) 758-91-6 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDS) 335-75-2 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDA) 375-25-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDA) 375-25-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDA) 375-25-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDA) 375-25-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 2-Nemethylperfluoro-1-octanesulfonic acid (PFDA) 375-25-	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-elftylperfluoro-1-octanesulfonamide-ethanol (EFOSE) 1691-99-2 PFAS by ID SOP ND 15 3.8 ng/L 1 N-meltylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.8 ng/L 1 N-meltylperfluoro-1-octanesulfonamide (MeFOSA) 2255-31-9 PFAS by ID SOP ND 15 3.8 ng/L 1 2-N-meltylperfluoro-1-octanesulfonamide ethanol (MeFOSE) 24448-09-7 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-1-butanesulfonic acid (PFBS) 335-77-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-heptanesulfonic acid (PFHS) 335-72-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-heptanesulfonic acid (PFHS) 6825-91-21 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-1-pertanesulfonic acid (PFPS) 755-91-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-decanoic acid (PFPS) 755-91-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-decanoic acid (PFDA) 755-91-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-heptanecacid acid (PFDA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFBA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFHA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFHA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFDA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-perfluoro-n-heptanoic acid (PFDA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-perfluoro-n-catacanoic acid (PFDA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-perfluoro-n-catacanoic acid (PFDA) 755-91-5 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-perfluoro-n-decanoic	N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 7.5 1.9 ng/L 1 2448-09-7 PFAS by ID SOP ND 7.5 1.9 ng/L 1 1 Perfluoro-1-octanesulfoniamido-ecla cid (MeFOSE) 2448-09-7 PFAS by ID SOP ND 7.5 1.9 ng/L 1 1 Perfluoro-1-butanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-nonanesulfonic acid (PFDS) 75-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-nonanesulfonic acid (PFDS) 75-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-nonanesulfonic acid (PFDS) 75-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 Perfluoro-1-pentanesulfonic acid (PFDS) 75-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFDS) 77-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFDS) 77-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFDS) 77-9 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFDA) 355-64 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-butanoic acid (PFDA) 355-64 PFAS by ID SOP ND 7.5 3.8 0.94 ng/L 1 Perfluoro-n-decanoic acid (PFDA) 335-75-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 337-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-betanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 37-95-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-pentanoi	N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSA) 2355-31-9 PRS by ID SOP ND 7.5 1.9 ng/L 1 24-N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSE) 24448-80-7 PRS by ID SOP ND 7.5 1.9 ng/L 1 ng/L 1 Perfluoro-1-decanesulfonic acid (PFBS) 335-77-3 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-decanesulfonic acid (PFBS) 335-77-3 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-decanesulfonic acid (PFBS) 375-73-5 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFPS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-1-pentanesulfonic acid (PFDS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butanesacidnonic acid (PFDS) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butanesacidnonic acid (PFDA) 375-82-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) 375-85-9 PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) PRS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-butaneic acid (PFDA) PRS by ID SOP ND 3.8 0.94 ng/L 1 Pe	2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS) 375-73.5 PFAS by ID SOP 3.9 3.8 0.94 ng/L 1	N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1	2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1	Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.9	3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1	Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 6.4 3.8 0.94 ng/L 1	Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-nectane sulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1	Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-nebusanic acid (PFHXS) 355-46-4 PFAS by ID SOP RS by ID SOP RD RS by ID SOP RS by ID	Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	6.4	3.8	0.94	ng/L	1
Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 8.5 3.8 0.94 ng/L 1	Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-dodecanoic acid (PFDA) 375-85-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFHADA) 375-85-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFHADA) 375-85-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-hexadecanoic acid (PFHADA) 375-85-9 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-nonanoic acid (PFHADA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-nonanoic acid (PFHADA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-octadecanoic acid (PFDA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-octadecanoic acid (PFDA) 375-95-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-octanoic acid (PFDA) 376-07-0 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 PERfluoro-n-tridecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 1 1 205-150 1 105-150 105-150 105-150 105-150 105-150 105-150 105-150 105-150 105-150 105-150 105-150 105-150 10	Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	73	3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-heptanoic acid (PFHAD) 375-85-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-hexandecanoic acid (PFHXA) 307-24-4 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-hexanoic acid (PFHXA) 307-24-4 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-cotanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-octanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-pertlanoic acid (PFODA) 335-67-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-pertlanoic acid (PFODA) 335-67-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-pertlanoic acid (PFDA) 336-67-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-pentanoic acid (PFDA) 336-67-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-tetradecanoic acid (PFDA) 336-67-1 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-tetradecanoic acid (PFDA) 376-09-3 PFAS by ID SOP ND 7.5 1,9 ng/L 1 Perfluoro-n-tetradecanoic acid (PFDA) 376-09-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFDA) 376-09-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFTDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFUAA) 20	Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	8.5	3.8		-	1
Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.8 0.94 ng/L 1	Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-hexanoic acid (PFHxDA) 307-24-4 PFAS by ID SOP 1.2 J 3.8 0.94 ng/L 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-octanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-octanoic acid (PFODA) 335-67-1 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-pentanoic acid (PFPAA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFPAA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUDA) 38-09-4 ng/L 1 Perfluoro-n-undecanoic acid (P	Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 1.2 J 3.8 0.94 ng/L 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-pentanoic acid (PFPA) 2706-90-3 PFAS by ID SOP 1.6 J 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFPA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-3-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFOS) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tride	Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-pentanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.2 J 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFPAA) 2706-90-3 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoroactanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 **Surrogate Q **Recovery** Limits** **Table **Limits** **Table	Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.2 J 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFPA) 2706-90-3 PFAS by ID SOP 1.6 J 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFTAA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUGA) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Surrogate Q Run 1 Acceptance Acceptance Acceptance Acceptance Acceptance Acceptance Accepta	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.2 J	3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 1.9 ng/L 1 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.2 J 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFPA) 2706-90-3 PFAS by ID SOP 1.6 J 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFTEDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-ctanesulfonic acid (PFOS) 7763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoroctanesulfonic acid (PFOS) 780-90-90-90-90-90-90-90-90-90-90-90-90-90	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 3.2 J 3.8 0.94 ng/L 1 Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 1.6 J 3.8 0.94 ng/L 1 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTeDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFOS) 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFOS) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFOS) 3.8 0.94 ng/L 1 Perfluo	Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.5		ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-tridecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoroctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 3.9 3.8 0.94 ng/L 1 Surrogate Q Recovery Limits 1 2 25-150 1 3.8 0.94 ng/L 1 1 1 1 2 1 2 1 2 1 2 2 1 2 2 1 2 2 1 2 1 2 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 3 3 3 3 <t< td=""><td>Perfluoro-n-octanoic acid (PFOA)</td><td>335-67-1</td><td>PFAS by ID SOP</td><td>3.2 J</td><td>3.8</td><td></td><td>-</td><td>1</td></t<>	Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.2 J	3.8		-	1
Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 1763-23-1 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Surrogate Q Recovery Limits Limits 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.6 J	3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 3.9 3.8 0.94 ng/L 1 Surrogate Q % Recovery Limits Limits 1 2 25-150 13C2_4:2FTS 112 25-150 25-150 13C2_8:2FTS 109 25-150 13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150	Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.8 0.94 ng/L 1 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 3.9 3.8 0.94 ng/L 1 Surrogate Q % Recovery Limits 13C2_4:2FTS 122 25-150 112 25-150 13C2_8:2FTS 13C2_8:2FTS 109 25-150 13C2_PFDoA 13C2_PFDoA 109 25-150 109 25-	Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.8		ng/L	1
Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 3.9 3.8 0.94 ng/L 1 Run 1 Acceptance Surrogate Q % Recovery Limits 13C2_4:2FTS 122 25-150 13C2_6:2FTS 112 25-150 13C2_8:2FTS 109 25-150 13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150	Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.8		-	1
Surrogate Q % Recovery Limits 13C2_4:2FTS 122 25-150 13C2_6:2FTS 112 25-150 13C2_8:2FTS 109 25-150 13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150	Perfluorooctanesulfonic acid (PFOS)	1763-23-1	•					1
13C2_6:2FTS 112 25-150 13C2_8:2FTS 109 25-150 13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150		un 1 Accep covery Lir						
13C2_8:2FTS 109 25-150 13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150	_		-150					
13C2_PFDoA 103 25-150 13C2_PFHxDA 109 25-150	13C2_6:2FTS	112 25	-150					
13C2_PFHxDA 109 25-150	13C2_8:2FTS	109 25	-150					
	13C2_PFDoA	103 25	-150					
13C2_PFTeDA 101 25-150	13C2_PFHxDA	109 25	-150					
	13C2_PFTeDA	101 25	-150					

W = Reported on wet weight basis H = Out of holding time

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-003

Matrix: Aqueous

Description: 359-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Date Sampled:01/25/2021 1251

Project Number: 40221495

Surrogate	Run 1 Acceptance Q % Recovery Limits
13C3_PFBS	105 25-150
13C3_PFHxS	109 25-150
13C3-HFPO-DA	116 25-150
13C4_PFBA	113 25-150
13C4_PFHpA	113 25-150
13C5_PFHxA	119 25-150
13C5_PFPeA	109 25-150
13C6_PFDA	113 25-150
13C7_PFUdA	100 25-150
13C8_PFOA	113 25-150
13C8_PFOS	109 25-150
13C8_PFOSA	118 10-150
13C9_PFNA	117 25-150
d-EtFOSA	94 10-150
d5-EtFOSAA	107 25-150
d9-EtFOSE	88 10-150
d-MeFOSA	92 10-150
d3-MeFOSAA	125 25-150
d7-MeFOSE	108 10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

 $J = Estimated result < LOQ and <math>\geq DL$

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 13, 2021

2522 2nd Second Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2522 2nd Second Avenue West, La Crosse, WI 54603

Tax Parcel # 4-375-0 Sampling Point # 375-0

Sample Date: January 25, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	limit is 20 ppt compounds or <i>otal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo 7 <i>total</i> of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	rec
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.5 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2522 2nd Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-375-0 Sampling Point # 375-0 February 13, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-005

Description: 375-0

Matrix: Aqueous

Date Sampled:01/25/2021 1332

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

SOP SPE

Run Prep Method

Project Number: 40221495

Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1611 JJG

Prep Date

Batch 02/07/2021 1657 82105

chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) I-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3 I, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) I, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) I, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS) I, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS) exafluoropropylene oxide dimer acid (GenX) 8-dioxa-3H-perfluorononanoic acid (ADONA) e-ethylperfluoro-1-octanesulfonamide (EtFOSA) N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	756426-58-1 763051-92-9 39108-34-4 27619-97-2 120226-60-0 757124-72-4 13252-13-6 919005-14-4 4151-50-2	PFAS by ID SOP	ND ND ND ND ND	7.1 7.1 7.1 7.1 7.1	1.8 1.8 1.8 1.8	ng/L ng/L ng/L	1
H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) H, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS) H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS) H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS) H, 2H, 2H-perfluorohexane sulfonic acid (GenX) H, 2H, 2H, 2H, 2H-perfluorohexane sulfonic acid (GenX) H, 2H, 2H, 2H, 2H, 2H, 2H, 2H, 2H, 2H, 2	39108-34-4 27619-97-2 120226-60-0 757124-72-4 13252-13-6 919005-14-4	PFAS by ID SOP PFAS by ID SOP PFAS by ID SOP PFAS by ID SOP	ND ND ND	7.1 7.1	1.8		
H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) exafluoropropylene oxide dimer acid (GenX) 8-dioxa-3H-perfluorononanoic acid (ADONA) -ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	27619-97-2 120226-60-0 757124-72-4 13252-13-6 919005-14-4	PFAS by ID SOP PFAS by ID SOP PFAS by ID SOP	ND ND	7.1		ng/L	
H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) exafluoropropylene oxide dimer acid (GenX) 8-dioxa-3H-perfluorononanoic acid (ADONA) -ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	120226-60-0 757124-72-4 13252-13-6 919005-14-4	PFAS by ID SOP PFAS by ID SOP	ND		1.8		1
H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) exafluoropropylene oxide dimer acid (GenX) 8-dioxa-3H-perfluorononanoic acid (ADONA) -ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	757124-72-4 13252-13-6 919005-14-4	PFAS by ID SOP		7.1		ng/L	1
exafluoropropylene oxide dimer acid (GenX) 8-dioxa-3H-perfluorononanoic acid (ADONA) -ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	13252-13-6 919005-14-4	•	ND		1.8	ng/L	1
8-dioxa-3H-perfluorononanoic acid (ADONA) -ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	919005-14-4	PFAS by ID SOP		7.1	1.8	ng/L	1
-ethylperfluoro-1-octanesulfonamide (EtFOSA) -ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)			ND	7.1	1.8	ng/L	1
-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
		PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.6	ng/L	1
-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
erfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
erfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.2 J	3.6	0.89	ng/L	1
erfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.5 J	3.6	0.89	ng/L	1
erfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
erfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
erfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
erfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.6	0.89	ng/L	1
		otance nits					
BC2 4:2FTS		-150					
3C2_6:2FTS		-150					
3C2_8:2FTS		-150					
BC2_PFDoA		-150					
BC2_PFHxDA		-150					
BC2_PFTeDA		-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

ND = Not detected at or above the DL

H = Out of holding time

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

N = Recovery is out of criteria

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 375-0

Date Sampled:01/25/2021 1332 Date Received: 01/28/2021

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221495

13C3_PFBS 100 25-150 13C3_PFHxS 103 25-150 13C3_HFPO-DA 104 25-150 13C4_PFBA 105 25-150 13C4_PFHpA 106 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EIFOSA 86 10-150 d5-EIFOSA 94 25-150 d6-EIFOSA 96 10-150 d-MeFOSA 98 10-150 d7-MeFOSA 98 10-150 d7-MeFOSE 92 10-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 104 25-150 13C4_PFBA 106 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EIFOSA 86 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C3_PFBS	100	25-150
13C4_PFBA 105 25-150 13C4_PFHpA 106 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 d-EIFOSA 86 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C3_PFHxS	103	25-150
13C4_PFHpA 106 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EIFOSA 86 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C3-HFPO-DA	104	25-150
13C5_PFHXA 101 25-150 13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EiFOSA 86 10-150 d5-EiFOSAA 94 25-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C4_PFBA	105	25-150
13C5_PFPeA 106 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C4_PFHpA	106	25-150
13C6_PFDA 95 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C5_PFHxA	101	25-150
13C7_PFUdA 103 25-150 13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C5_PFPeA	106	25-150
13C8_PFOA 109 25-150 13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C6_PFDA	95	25-150
13C8_PFOS 99 25-150 13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EIFOSA 86 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C7_PFUdA	103	25-150
13C8_PFOSA 94 10-150 13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C8_PFOA	109	25-150
13C9_PFNA 100 25-150 d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C8_PFOS	99	25-150
d-EtFOSA 86 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C8_PFOSA	94	10-150
d5-EtFOSAA 94 25-150 d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	13C9_PFNA	100	25-150
d9-EtFOSE 96 10-150 d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	d-EtFOSA	86	10-150
d-MeFOSA 98 10-150 d3-MeFOSAA 100 25-150	d5-EtFOSAA	94	25-150
d3-MeFOSAA 100 25-150	d9-EtFOSE	96	10-150
	d-MeFOSA	98	10-150
d7-MeFOSE 92 10-150	d3-MeFOSAA	100	25-150
	d7-MeFOSE	92	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-005

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 13, 2021

2527 2nd Second Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2527 2nd Second Avenue West, La Crosse, WI 54603

Tax Parcel # 4-381-0 Sampling Point # 381-0

Sample Date: January 25, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	l limit is 20 ppt compounds or <i>otal</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp ' <i>total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.4 ppt	20 ppt ^{a,b}	The any

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	18 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2527 2nd Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-381-0 Sampling Point # 381-0 February 13, 2021

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-004

Description: 381-0

Matrix: Aqueous

Date Sampled:01/25/2021 1317

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1851 MMM

Prep Date

Batch 02/05/2021 1201 81968

Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 7.8 1.9 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7.8 19 ng/L 1 PFAS by ID SOP ND 7.8 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.9 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.8 ng/L 1 1.9 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.8 1.9 ng/L ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.8 19 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.8 1.9 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7.8 19 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.8 1.9 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 16 39 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.8 1.9 ng/L 1 PFAS by ID SOP ND 7.8 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.9 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP ND 3.9 0.97 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 39 ng/L 0.97 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.9 0.97 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 39 0.97 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP 1.2 39 ng/L 0.97 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP ND 39 0.97 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 2.2 3.9 ng/L 0.97 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 18 3.9 0.97 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.9 ng/L 0.97 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.9 0.97 ng/L ND 3.9 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 0.97 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.8 ng/L 1 1.9 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.9 ng/L 1 0.97 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.9 na/L 1 0.97 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.8 ng/L 1.9 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.9 0.97 ng/L 2706-90-3 Perfluoro-n-pentanoic acid (PFPeA) PFAS by ID SOP ND 39 ng/L 1 0.97 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.9 0.97 ng/L Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 39 0.97 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 39 ng/L 1 0.97 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 1 4 J 39 ng/L 1 0.97 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 108 25-150 13C2_6:2FTS 93 25-150 99 25-150 13C2_8:2FTS 91 13C2_PFDoA 25-150 13C2_PFHxDA 93 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

13C2 PFTeDA

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

89

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Description: 381-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Date Sampled:01/25/2021 1317

Project Number: 40221495

13C3_PFBS 89 25-150 13C3_PFHxS 91 25-150 13C3_HFPO-DA 105 25-150 13C4_PFBA 96 25-150 13C4_PFHpA 100 25-150 13C5_PFHxA 105 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EIFOSA 88 10-150 d5-EIFOSAA 87 25-150 d9-EIFOSE 72 10-150 d-MeFOSA 89 10-150 d7-MeFOSA 107 25-150 d7-MeFOSE 79 10-150	Surrogate	Run 1 A Q % Recovery	cceptance Limits		
13C3-HFPO-DA 105 25-150 13C4_PFBA 96 25-150 13C4_PFHpA 100 25-150 13C5_PFHxA 105 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EIFOSA 88 10-150 d5-EIFOSAA 87 25-150 d9-EIFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C3_PFBS	89	25-150		
13C4_PFBA 96 25-150 13C4_PFHpA 100 25-150 13C5_PFHxA 105 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EIFOSA 88 10-150 d5-EIFOSAA 87 25-150 d9-EIFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C3_PFHxS	91	25-150		
13C4_PFHpA 100 25-150 13C5_PFHxA 105 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C3-HFPO-DA	105	25-150		
13C5_PFHXA 105 25-150 13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EIFOSA 88 10-150 d5-EIFOSAA 87 25-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C4_PFBA	96	25-150		
13C5_PFPeA 95 25-150 13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C4_PFHpA	100	25-150		
13C6_PFDA 98 25-150 13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C5_PFHxA	105	25-150		
13C7_PFUdA 87 25-150 13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C5_PFPeA	95	25-150		
13C8_PFOA 100 25-150 13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C6_PFDA	98	25-150		
13C8_PFOS 92 25-150 13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C7_PFUdA	87	25-150		
13C8_PFOSA 102 10-150 13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C8_PFOA	100	25-150		
13C9_PFNA 97 25-150 d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C8_PFOS	92	25-150		
d-EtFOSA 88 10-150 d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C8_PFOSA	102	10-150		
d5-EtFOSAA 87 25-150 d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	13C9_PFNA	97	25-150		
d9-EtFOSE 72 10-150 d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	d-EtFOSA	88	10-150		
d-MeFOSA 89 10-150 d3-MeFOSAA 107 25-150	d5-EtFOSAA	87	25-150		
d3-MeFOSAA 107 25-150	d9-EtFOSE	72	10-150		
	d-MeFOSA	89	10-150		
d7-MeFOSE 79 10-150	d3-MeFOSAA	107	25-150		
	d7-MeFOSE	79	10-150		

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-004

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 13, 2021

510 Plainview Road La Crosse, WI 54603

Subject: Private Well Sampling Results

510 Plainview Road, La Crosse, WI 54603

Tax Parcel # 4-406-2 Sampling Point # 406-2

Sample Date: January 25, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Compound	Sample Result (unit)	Recomm Public Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt a,b	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 bund all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt a,b	ed limit 6 compo <i>1 total</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt a,b	• • -
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt a,b	rec
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.9 ppt	20 ppt a,b	The any

Private Well Sampling Results for 510 Plainview Road, La Crosse, WI 54603 Tax Parcel # 4-406-2 Sampling Point # 406-2 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	1.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.4 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 510 Plainview Road, La Crosse, WI 54603 Tax Parcel # 4-406-2 Sampling Point # 406-2 February 13, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-009

Description: 406-2

Matrix: Aqueous

Date Sampled:01/25/2021 1416

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1830 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result C	Ω LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.6 J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9 J		0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.1 J		0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.9 J		0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.4 J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	1.9 J		0.92	ng/L	1
Territoriosciariosariornic acia (TTOS)	1700 20 1	11710 by 15 001	1.7 3	3.7	0.72	rig/L	•
		otance nits					
		-150					
13C2_6:2FTS	92 25	-150					
13C2_8:2FTS	99 25	-150					
13C2_PFDoA	98 25	-150					
13C2_PFHxDA	103 25	-150					
	94 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 406-2

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/25/2021 1416

Laboratory ID: WA28028-009

Matrix: Aqueous

Date Received: 01/28/2021

Project Number: 40221495

13C3_PFBS 98 25-150 13C3_PFHxS 99 25-150 13C3_HFPO-DA 101 25-150 13C4_PFBA 104 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EIFOSA 96 10-150 d5-EIFOSAA 93 25-150
13C3-HFPO-DA 101 25-150 13C4_PFBA 104 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOSA 98 25-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C4_PFBA 104 25-150 13C4_PFHpA 99 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOSA 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C4_PFHpA 99 25-150 13C5_PFHxA 96 25-150 13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C5_PFHxA 96 25-150 13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C5_PFPeA 104 25-150 13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C6_PFDA 96 25-150 13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C7_PFUdA 103 25-150 13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C8_PFOA 105 25-150 13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C8_PFOS 98 25-150 13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C8_PFOSA 92 10-150 13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
13C9_PFNA 95 25-150 d-EtFOSA 96 10-150
d-EtFOSA 96 10-150
d5-FtFOSAA 93 25-150
20 20 100
d9-EtFOSE 92 10-150
d-MeFOSA 89 10-150
d3-MeFOSAA 94 25-150
d7-MeFOSE 91 10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 12, 2021

2642 Muth Road La Crosse, WI 54603

Subject: Private Well Sampling Results

2642 Muth Road, La Crosse, WI 54603

Tax parcel # 4-408-0 Sampling Point # 408-0

Sampling Date: January 26, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Private Well Sampling Results for 2642 Muth Road, La Crosse, WI 54603 Tax Parcel # 4-408-0 Sampling Date: January 26, 2021 February 12, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds otal of all 6
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	The recommended lim any <i>one</i> of these 6 com <i>combined total</i>
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	32 ppt	20 ppt ^{a,b}	ecomn ne of tl coml
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	15 ppt	20 ppt ^{a,b} up Au D Au	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt	
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.8 ppt	450,000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.8 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	97 ppt	10,000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	3.9 ppt	150,000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10,000 ppt ^a	
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a

Private Well Sampling Results for 2642 Muth Road, La Crosse, WI 54603 Tax Parcel # 4-408-0

Sampling Date: January 26, 2021

February 12, 2021

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.3 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.97 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	7.0 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2642 Muth Road, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-013 Matrix: Aqueous

Description: 408-0

Date Sampled:01/26/2021 1350

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021 Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1923 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result	Q LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)		PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	3.8	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP		J 3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.8	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	97	3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.97	J 3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.9	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	32	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.0	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	15	3.6	0.91	ng/L	1
D	ın 1 Accor	topoo					
Surrogate Q % Re		otance mits					
13C2_4:2FTS		-150					
13C2_6:2FTS		-150					
13C2_8:2FTS		-150					
13C2_PFDoA		-150					
		-150					
13C2_PFTeDA	93 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

E = Quantitation of compound exceeded the calibration range DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 408-0

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/26/2021 1350

Laboratory ID: WA28028-013

Matrix: Aqueous

Date Received: 01/28/2021

Project Number: 40221495

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	95	25-150	
13C3_PFHxS	102	25-150	
13C3-HFPO-DA	96	25-150	
13C4_PFBA	100	25-150	
13C4_PFHpA	96	25-150	
13C5_PFHxA	93	25-150	
13C5_PFPeA	101	25-150	
13C6_PFDA	95	25-150	
13C7_PFUdA	96	25-150	
13C8_PFOA	101	25-150	
13C8_PFOS	93	25-150	
13C8_PFOSA	91	10-150	
13C9_PFNA	91	25-150	
d-EtFOSA	95	10-150	
d5-EtFOSAA	94	25-150	
d9-EtFOSE	93	10-150	
d-MeFOSA	87	10-150	
d3-MeFOSAA	94	25-150	
d7-MeFOSE	93	10-150	

LOQ = Limit of Quantitation

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ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



February 13, 2021

504 Dauphin Street La Crosse, WI 54603

Subject: Private Well Sampling Results

504 Dauphin Street, La Crosse, WI 54603

Tax Parcel # 4-412-0 Sampling Point # 412-0

Sampling Date: January 26, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ot for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pp ounds c all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit i compc <i>otal</i> of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended limit is 20 of these 6 compounds combined total of all 6
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	18 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.9 ppt	20 ppt ^{a,b}	The any o
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.9 ppt	450,	000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.7 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	50 ppt	10,	000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	4.9 ppt	150,	000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10,	000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3,	000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,	000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,	000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	0.97 ppt	None Esta	blished ^c

Private Well Sampling Results for 504 Dauphin Street, La Crosse, WI 54603 Tax Parcel # 4-412-0 February 13, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	6.7 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

504 Dauphin Street, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically online at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-014

Description: 412-0

Matrix: Aqueous

Date Sampled:01/26/2021 1404

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1934 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	2.9 J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.97 J	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.7	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	50	3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.4 J	3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.9	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	18	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	6.7	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.9	3.5	0.87	ng/L	1
		otance nits					
13C2_4:2FTS	101 25	-150					
13C2_6:2FTS	95 25	-150					
13C2_8:2FTS	103 25	-150					
13C2_PFDoA	94 25	-150					
13C2_PFHxDA	103 25	-150					
13C2_PFTeDA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 412-0

Date Sampled:01/26/2021 1404

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	100	25-150	
13C3_PFHxS	101	25-150	
13C3-HFPO-DA	98	25-150	
13C4_PFBA	104	25-150	
13C4_PFHpA	100	25-150	
13C5_PFHxA	97	25-150	
13C5_PFPeA	102	25-150	
13C6_PFDA	97	25-150	
13C7_PFUdA	96	25-150	
13C8_PFOA	101	25-150	
13C8_PFOS	97	25-150	
13C8_PFOSA	91	10-150	
13C9_PFNA	94	25-150	
d-EtFOSA	85	10-150	
d5-EtFOSAA	93	25-150	
d9-EtFOSE	96	10-150	
d-MeFOSA	96	10-150	
d3-MeFOSAA	102	25-150	
d7-MeFOSE	99	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-014

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 13, 2021

2512 3rd Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2512 3rd Avenue West, La Crosse, WI 54603

Tax Parcel # 4-471-0 Sampling Point # 471-0

Sample Date: January 25, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended one of these 6 c combined to
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.8 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2512 3rd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-471-0 Sampling Point # 471-0 February 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	8.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	74 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	0.93 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	3.9 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2512 3rd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-471-0 Sampling Point # 471-0 February 13, 2021

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	····	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WA28028-006

Description: 471-0

Matrix: Aqueous

Date Sampled:01/25/2021 1348

Project Name: LACROSSE WELLS 23 & 24

Date Received: 01/28/2021

Project Number: 40221495

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/08/2021 1622 JJG

Prep Date

Batch 02/07/2021 1657 82105

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	5.0	3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.9	3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.6	3.5	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	74	3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	0.93 J	3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.4	3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	5.8	3.5	0.89	ng/L	1
remuorooctanesunonic acia (PPOS)	1703-23-1	PFA3 by ID 30P	5.6	3.3	0.89	TIG/L	
Rui Surrogate Q % Rec		otance nits					
13C2_4:2FTS 10	01 25	-150					
13C2_6:2FTS 10	02 25	-150					
13C2_8:2FTS 10	06 25	-150					
13C2_PFDoA 8	39 25	-150					
13C2_PFHxDA 9	96 25	-150					
13C2 PFTeDA 9	25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

H = Out of holding time

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

W = Reported on wet weight basis

Client: Pace Analytical Services, LLC

Description: 471-0

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/25/2021 1348

Date Received: 01/28/2021

Project Number: 40221495

	Run 1 Ad	cceptance Limits	
Surrogate	Q % Recovery	Limits	
13C3_PFBS	97	25-150	
13C3_PFHxS	96	25-150	
13C3-HFPO-DA	100	25-150	
13C4_PFBA	101	25-150	
13C4_PFHpA	101	25-150	
13C5_PFHxA	95	25-150	
13C5_PFPeA	102	25-150	
13C6_PFDA	92	25-150	
13C7_PFUdA	97	25-150	
13C8_PFOA	106	25-150	
13C8_PFOS	93	25-150	
13C8_PFOSA	90	10-150	
13C9_PFNA	97	25-150	
d-EtFOSA	90	10-150	
d5-EtFOSAA	91	25-150	
d9-EtFOSE	87	10-150	
d-MeFOSA	87	10-150	
d3-MeFOSAA	99	25-150	
d7-MeFOSE	94	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WA28028-006

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

2618 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2618 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-86-0 Sampling Point # 86-0

Sample Date: January 31, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	nended Health I (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.6 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2618 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-86-0 Sampling Point # 86-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	10 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2618 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-86-0 Sampling Point # 86-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u> <u>Phone</u>		<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-003 Matrix: Aqueous

Description: 86-0

Analytical

Date Sampled:01/31/2021 1328

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

CAS

Run Prep Method SOP SPE Analytical Method Dilution Analysis Date Analyst PFAS by ID SOP

02/11/2021 2100 JJG

Prep Date Batch

02/10/2021 1100 82446

Parameter	Number	Method	Result C	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	2.6 J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.6 J	3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	10	3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4 J	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.6 J	3.7	0.93	ng/L	1
		otance mits					
13C2_4:2FTS	103 25	-150					

Surrogate	Q	% Recovery	Limits	
13C2_4:2FTS		103	25-150	
13C2_6:2FTS		100	25-150	
13C2_8:2FTS		97	25-150	
13C2_PFDoA		92	25-150	
13C2_PFHxDA		90	25-150	
13C2 PFTeDA		91	25-150	

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL W = Reported on wet weight basis H = Out of holding time

Client: Pace Analytical Services, LLC

Description: 86-0

Date Sampled:01/31/2021 1328

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits		
13C3_PFBS	96	25-150		
13C3_PFHxS	96	25-150		
13C3-HFPO-DA	92	25-150		
13C4_PFBA	101	25-150		
13C4_PFHpA	99	25-150		
13C5_PFHxA	94	25-150		
13C5_PFPeA	96	25-150		
13C6_PFDA	93	25-150		
13C7_PFUdA	103	25-150		
13C8_PFOA	90	25-150		
13C8_PFOS	93	25-150		
13C8_PFOSA	92	10-150		
13C9_PFNA	98	25-150		
d-EtFOSA	84	10-150		
d5-EtFOSAA	95	25-150		
d9-EtFOSE	97	10-150		
d-MeFOSA	76	10-150		
d3-MeFOSAA	100	25-150		
d7-MeFOSE	89	10-150		

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB04008-003

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

2620 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2620 Del Ray Avenue, La Crosse, WI 54603

Tax Parcel # 4-87-0 Sampling Point # 87-0

Sample Date: January 31, 2021



We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were *below* the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. PLEASE NOTE: As a quality check, we collected a "duplicate" sample from your well, and it was sent to the lab without the sampling point number, (identified as Dup #11). The results were similar. The higher of the two results are presented in the table below:

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)		
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt a,b	pt for or the	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt a,b	ed limit 6 compo total of	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	0.97 ppt	20 ppt a,b	Ψ -	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt a,b		
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.4 ppt	20 ppt a,b	The any	

Private Well Sampling Results for 2620 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-87-0 Sampling Point # 87-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.0 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.1 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2620 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-87-0 Sampling Point # 87-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. *DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.*

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-002 Matrix: Aqueous

Description: 87-0

Date Sampled:01/31/2021 1320

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/11/2021 2039 JJG

Prep Date Batch

02/10/2021 1100 82446

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	2.0 J	3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.2 J	3.9	0.98	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	6.9	3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.5 J	3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1 J	3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.4	3.9	0.98	ng/L	1
		otance mits					
_	104 25	-150					
	101 25	-150					
13C2_8:2FTS	95 25	-150					
13C2_PFDoA	92 25	-150					
13C2_PFHxDA	92 25	-150					
13C2_PFTeDA	97 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 87-0

Date Received: 02/04/2021

Date Sampled:01/31/2021 1320

Laboratory ID: WB04008-002

Matrix: Aqueous

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221794

Surrogate	Run 1 Accepta Q % Recovery Limit
13C3_PFBS	96 25-15
13C3_PFHxS	105 25-15
13C3-HFPO-DA	96 25-15
13C4_PFBA	100 25-15
13C4_PFHpA	96 25-15
13C5_PFHxA	98 25-15
13C5_PFPeA	98 25-15
13C6_PFDA	93 25-15
13C7_PFUdA	99 25-15
13C8_PFOA	96 25-15
13C8_PFOS	98 25-15
13C8_PFOSA	97 10-15
13C9_PFNA	105 25-15
d-EtFOSA	83 10-15
d5-EtFOSAA	99 25-15
d9-EtFOSE	95 10-15
d-MeFOSA	78 10-15
d3-MeFOSAA	100 25-15
d7-MeFOSE	94 10-15

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-007 Matrix: Aqueous

Description: DUP-11

Date Sampled:01/31/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/11/2021 2154 JJG

Prep Date

Batch 02/10/2021 1100 82446

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.9	J	3.8	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	0.97	J	3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP		J	3.8	0.94	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	7.0		3.8	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP		J	3.8	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.8	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	3.8		3.8	0.94	ng/L	1
						0.71	3	
Surrogate Q % Red	covery Lir	otance nits						
_		-150						
		-150						
		-150						
		-150						
		-150						
13C2_PFTeDA	89 25	-150						

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: DUP-11

Laboratory ID: WB04008-007

Matrix: Aqueous

Date Sampled:01/31/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits
13C3_PFBS	93	25-150
13C3_PFHxS	86	25-150
13C3-HFPO-DA	87	25-150
13C4_PFBA	94	25-150
13C4_PFHpA	94	25-150
13C5_PFHxA	92	25-150
13C5_PFPeA	90	25-150
13C6_PFDA	90	25-150
13C7_PFUdA	88	25-150
13C8_PFOA	92	25-150
13C8_PFOS	92	25-150
13C8_PFOSA	91	10-150
13C9_PFNA	90	25-150
d-EtFOSA	76	10-150
d5-EtFOSAA	87	25-150
d9-EtFOSE	84	10-150
d-MeFOSA	75	10-150
d3-MeFOSAA	88	25-150
d7-MeFOSE	86	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

2700 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2700 Del Ray Avenue, La Crosse, WI 54603

Tax parcel # 4-88-0 Sampling Point # 88-0

Sampling Date: January 28, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pp ounds c all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit i compc otal of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	100 ppt	20 ppt ^{a,b}	recomr nne of t com
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	30 ppt	20 ppt ^{a,b}	The any o
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.2 ppt	45	0,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	7.5ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	220 ppt	1	0,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2 Perfluoroded describe acid (PFDaA)	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1 Perfluorohexanoic acid (PFHxA)	Not Detected		500 ppt ^a
CAS # 307-24-4 Perfluorononanoic acid (PFNA)	7.1 ppt	15	0,000 ppt ^a
CAS # 375-95-1 Perfluorotetradecanoic acid (PFTeDA)	Not Detected		30 ppt ^a
CAS # 376-06-7 Perfluoroundecanoic acid (PFUdA)	Not Detected	1	0,000 ppt ^a
CAS # 2058-94-8 4,8-Dioxa-3H-perfluorononanoic acid (DONA)	Not Detected		3,000 ppt ^a
CAS # 919005-14-4 Perfluorooctadecanoic acid (PFODA)	Not Detected		3,000 ppt ^a
CAS # 16517-11-6	Not Detected	40	0,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	4.0 ppt	None Esta	blished ^c

Private Well Sampling Results for 2700 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-88-0 February 18, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	13 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2700 Del Ray Avenue, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WB02003-001

Description: 88-0

Matrix: Aqueous

Date Sampled:01/28/2021 1259

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Project Number: 40221619

Run Prep Method 1 SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/10/2021 2123 JJG

Prep Date

Batch 02/09/2021 1110 82279

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	6.2	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0 J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.0	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	7.5	3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	220	3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.2 J	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	7.1	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	100	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	13	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	30	3.7	0.93	ng/L	1
Surrogate Q % Rec		otance mits					
_		-150					
		-150					
		-150					
		-150					
		-150					
13C2_PFTeDA	90 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

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J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 88-0

Date Sampled:01/28/2021 1259

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021 Project Number: 40221619

13C3_PFBS 97 25-150 13C3_PFHxS 100 25-150 13C3_HFPO-DA 92 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EIFOSA 67 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150 d7-MeFOSE 96 10-150	Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3-HFPO-DA 92 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EIFOSA 67 10-150 d5-EIFOSAA 94 25-150 d9-EIFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C3_PFBS	97	25-150
13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EIFOSA 67 10-150 d5-EIFOSAA 94 25-150 d-MeFOSA 111 10-150 d-MeFOSA 96 25-150	13C3_PFHxS	100	25-150
13C4_PFHpA 98 25-150 13C5_PFHxA 101 25-150 13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EIFOSA 67 10-150 d5-EIFOSAA 94 25-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C3-HFPO-DA	92	25-150
13C5_PFHxA 101 25-150 13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d-MeFOSA 111 10-150 d-MeFOSAA 96 25-150	13C4_PFBA	100	25-150
13C5_PFPeA 94 25-150 13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C4_PFHpA	98	25-150
13C6_PFDA 91 25-150 13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EiFOSA 67 10-150 d5-EiFOSAA 94 25-150 d9-EiFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C5_PFHxA	101	25-150
13C7_PFUdA 94 25-150 13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C5_PFPeA	94	25-150
13C8_PFOA 99 25-150 13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C6_PFDA	91	25-150
13C8_PFOS 86 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C7_PFUdA	94	25-150
13C8_PFOSA 93 10-150 13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C8_PFOA	99	25-150
13C9_PFNA 94 25-150 d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C8_PFOS	86	25-150
d-EtFOSA 67 10-150 d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C8_PFOSA	93	10-150
d5-EtFOSAA 94 25-150 d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	13C9_PFNA	94	25-150
d9-EtFOSE 90 10-150 d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	d-EtFOSA	67	10-150
d-MeFOSA 111 10-150 d3-MeFOSAA 96 25-150	d5-EtFOSAA	94	25-150
d3-MeFOSAA 96 25-150	d9-EtFOSE	90	10-150
	d-MeFOSA	111	10-150
d7-MeFOSE 96 10-150	d3-MeFOSAA	96	25-150
	d7-MeFOSE	96	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB02003-001

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

PO Box 773

La Crosse, WI 54603

Subject: Private Well Sampling Results

304 Callaway Blvd., La Crosse, WI 54603

Tax Parcel # 4-356-0 Sampling Point # 356-0

Sample Date: January 28, 2021

Dear .:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The

Private Well Sampling Results for 304 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-356-0 Sampling Point # 356-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.4 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 304 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-356-0 Sampling Point # 356-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB02003-003 Matrix: Aqueous

Description: 356-0

Date Sampled:01/28/2021 1326

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Project Number: 40221619

Run	Prep Method
1	SOP SPE

Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/10/2021 2155 JJG

Prep Date 02/09/2021 1110 82279

Batch

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.1 J	3.4	0.86	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7 J	3.4	0.86	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.4	3.4	0.86	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
		otance mits					
_		-150					
		-150					
	110 25	-150					
13C2_PFDoA	100 25	-150					
	91 25	-150					
13C2_PFTeDA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Date Sampled:01/28/2021 1326

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Description: 356-0

Project Number: 40221619

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits		
13C3_PFBS	97	25-150		
13C3_PFHxS	102	25-150		
13C3-HFPO-DA	98	25-150		
13C4_PFBA	101	25-150		
13C4_PFHpA	101	25-150		
13C5_PFHxA	104	25-150		
13C5_PFPeA	95	25-150		
13C6_PFDA	98	25-150		
13C7_PFUdA	98	25-150		
13C8_PFOA	102	25-150		
13C8_PFOS	95	25-150		
13C8_PFOSA	97	10-150		
13C9_PFNA	94	25-150		
d-EtFOSA	82	10-150		
d5-EtFOSAA	96	25-150		
d9-EtFOSE	91	10-150		
d-MeFOSA	103	10-150		
d3-MeFOSAA	99	25-150		
d7-MeFOSE	97	10-150		

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB02003-003

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

304 Callaway Blvd La Crosse, WI 54603

Subject: Private Well Sampling Results

304 Callaway Blvd., La Crosse, WI 54603

Tax Parcel # 4-356-0 Sampling Point # 356-0

Sample Date: January 28, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	for the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	it is 20 ppt i pounds or i of all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	lim tom tal
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	rec one
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	The any

Private Well Sampling Results for 304 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-356-0 Sampling Point # 356-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a	
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.1 ppt	450,000 ppt ^a	
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.7 ppt	40 ppt ^a	
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.4 ppt	10,000 ppt ^a	
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a	
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a	
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a	
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a	
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a	
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a	
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a	
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a	

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 304 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-356-0 Sampling Point # 356-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	•••	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB02003-003

Description: 356-0 Matrix: Aqueous

Date Sampled:01/28/2021 1326

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Project Number: 40221619

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/10/2021 2155 JJG

Prep Date

Batch 02/09/2021 1110 82279

Parameter	CAS Number	Analytical Method	Result (Q LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.1	J 3.4	0.86	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7	J 3.4	0.86	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	3.4	3.4	0.86	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.4	0.86	ng/L	1
Perfluorooctanesulfonic acid (PFOS)		PFAS by ID SOP	ND	3.4	0.86	ng/L	1
					0.00		•
Surrogate Q % Red	covery Lir	otance mits					
		-150					
		-150					
	110 25	-150					
13C2_PFDoA	100 25	-150					
13C2_PFHxDA	91 25	-150					
13C2_PFTeDA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 356-0 Date Sampled:01/28/2021 1326

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Project Number: 40221619

Surrogate	Run 1 A Q % Recovery	cceptance Limits
13C3_PFBS	97	25-150
13C3_PFHxS	102	25-150
13C3-HFPO-DA	98	25-150
13C4_PFBA	101	25-150
13C4_PFHpA	101	25-150
13C5_PFHxA	104	25-150
13C5_PFPeA	95	25-150
13C6_PFDA	98	25-150
13C7_PFUdA	98	25-150
13C8_PFOA	102	25-150
13C8_PFOS	95	25-150
13C8_PFOSA	97	10-150
13C9_PFNA	94	25-150
d-EtFOSA	82	10-150
d5-EtFOSAA	96	25-150
d9-EtFOSE	91	10-150
d-MeFOSA	103	10-150
d3-MeFOSAA	99	25-150
d7-MeFOSE	97	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB02003-003

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

302 Callaway Blvd. La Crosse, WI 54603

Subject: Private Well Sampling Results

302 Callaway Blvd., La Crosse, WI 54603

Tax Parcel # 4-357-0 Sampling Point # 357-0

Sample Date: January 28, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommende Public Health Standard (unit	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended one of these 6 c combined to
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.1 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 302 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-357-0 Sampling Point # 357-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.2 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 302 Callaway Blvd., La Crosse, WI 54603 Tax Parcel # 4-357-0 Sampling Point # 357-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about.	···	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB02003-002

Description: 357-0

Matrix: Aqueous

Date Sampled:01/28/2021 1314

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/02/2021

Project Number: 40221619

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/10/2021 2144 JJG

Prep Date

Batch 02/09/2021 1110 82279

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.7 J	3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.8 J	3.5	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	6.2	3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.1 J	3.5	0.89	ng/L	1
		otance nits					
13C2_4:2FTS	101 25	-150					
13C2_6:2FTS	96 25	-150					
13C2_8:2FTS	93 25	-150					
13C2_PFDoA	96 25	-150					
13C2_PFHxDA	96 25	-150					
13C2_PFTeDA	94 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 357-0

Date Received: 02/02/2021

Date Sampled:01/28/2021 1314

Laboratory ID: WB02003-002 Matrix: Aqueous

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221619

Surrogate	Run 1 A Q % Recovery	cceptance Limits
13C3_PFBS	97	25-150
13C3_PFHxS	97	25-150
13C3-HFPO-DA	99	25-150
13C4_PFBA	100	25-150
13C4_PFHpA	97	25-150
13C5_PFHxA	99	25-150
13C5_PFPeA	97	25-150
13C6_PFDA	93	25-150
13C7_PFUdA	98	25-150
13C8_PFOA	103	25-150
13C8_PFOS	89	25-150
13C8_PFOSA	96	10-150
13C9_PFNA	96	25-150
d-EtFOSA	73	10-150
d5-EtFOSAA	95	25-150
d9-EtFOSE	85	10-150
d-MeFOSA	94	10-150
d3-MeFOSAA	95	25-150
d7-MeFOSE	97	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

2523 1st Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2523 1st Avenue West, La Crosse, WI 54603

Tax Parcel # 4-374-0 Sampling Point # 374-0

Sample Date: January 31, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	- Public He	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.2 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 2523 1st Avenue West, La Crosse, WI 54603 Tax Parcel # 4-374-0 Sampling Point # 374-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.9 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	1.6 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2523 1st Avenue West, La Crosse, WI 54603 Tax Parcel # 4-374-0 Sampling Point # 374-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-004

Description: 374-0 Matrix: Aqueous

Date Sampled:01/31/2021 1350

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/11/2021 2111 JJG

Prep Date

Batch 02/10/2021 1100 82446

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	2.2 J	4.3	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.6 J	4.3	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.0 J	4.3	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	8.9	4.3	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4 J	4.3	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.2 J	4.3	1.1	ng/L	1
Rı	ın 1 Accer	otance					
Surrogate Q % Red	covery Lir	nits					
-		-150 -150					
		-150 -150					
		-150 -150					
		-150					
		-150 -150					
13C2_PFTeDA	99 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

Description: 374-0

Date Sampled:01/31/2021 1350 Date Received:02/04/2021 Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221794

Surrogate	Run 1 A Q % Recovery	cceptance Limits
13C3_PFBS	102	25-150
13C3_PFHxS	100	25-150
13C3-HFPO-DA	96	25-150
13C4_PFBA	106	25-150
13C4_PFHpA	103	25-150
13C5_PFHxA	102	25-150
13C5_PFPeA	98	25-150
13C6_PFDA	99	25-150
13C7_PFUdA	101	25-150
13C8_PFOA	95	25-150
13C8_PFOS	100	25-150
13C8_PFOSA	96	10-150
13C9_PFNA	104	25-150
d-EtFOSA	100	10-150
d5-EtFOSAA	99	25-150
d9-EtFOSE	102	10-150
d-MeFOSA	75	10-150
d3-MeFOSAA	104	25-150
d7-MeFOSE	95	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and > DL

Laboratory ID: WB04008-004

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

2504 3rd Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2504 3rd Avenue West, La Crosse, WI 54603

Tax Parcel # 4-469-0 Sampling Point # 469-0

Sample Date: January 31, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	nd Sample Result (unit)		nended Health I (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp <i>total</i> of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.5 ppt	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 2504 3rd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-469-0 Sampling Point # 469-0 February 18, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for PFOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2504 3rd Avenue West, La Crosse, WI 54603 Tax Parcel # 4-469-0 Sampling Point # 469-0 February 18, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-001

Matrix: Aqueous

Description: 469-0

Date Sampled:01/31/2021 1309

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run Prep Method SOP SPE Analytical Method Dilution

Prep Date

Batch

Analysis Date Analyst PFAS by ID SOP 02/11/2021 2018 JJG 02/10/2021 1100 82446

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.9	J	3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.5	J	3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9	J	3.8	0.95	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	11		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	3.8	0.95	ng/L	1
Ru	ın 1 Accep	otance mits	2.,	-	2.0	0.70		•

	Surrogate	Q	% Recovery	Limits	
•	13C2_4:2FTS		101	25-150	
	13C2_6:2FTS		104	25-150	
	13C2_8:2FTS		88	25-150	
	13C2_PFDoA		91	25-150	
	13C2_PFHxDA		92	25-150	
	13C2_PFTeDA		97	25-150	

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

ND = Not detected at or above the DL H = Out of holding time

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 469-0

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:01/31/2021 1309

Matrix: Aqueous

Laboratory ID: WB04008-001

Date Received: 02/04/2021

Project Number: 40221794

13C3_PFBS 103 25-150 13C3_PFHxS 101 25-150 13C3_HFPO-DA 93 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 97 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EiFOSA 83 10-150 d5-EiFOSAA 95 25-150 d9-EiFOSE 91 10-150 d-MeFOSA 75 10-150 d3-MeFOSAA 102 25-150	Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3-HFPO-DA 93 25-150 13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 97 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d-MeFOSA 75 10-150	13C3_PFBS	103	25-150	
13C4_PFBA 100 25-150 13C4_PFHpA 98 25-150 13C5_PFHxA 97 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EIFOSA 83 10-150 d5-EIFOSAA 95 25-150 d9-EIFOSE 91 10-150 d-MeFOSA 75 10-150	13C3_PFHxS	101	25-150	
13C4_PFHpA 98 25-150 13C5_PFHxA 97 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C3-HFPO-DA	93	25-150	
13C5_PFHxA 97 25-150 13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EIFOSA 83 10-150 d5-EIFOSAA 95 25-150 d9-EIFOSE 91 10-150 d-MeFOSA 75 10-150	13C4_PFBA	100	25-150	
13C5_PFPeA 96 25-150 13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EIFOSA 83 10-150 d5-EIFOSAA 95 25-150 d9-EIFOSE 91 10-150 d-MeFOSA 75 10-150	13C4_PFHpA	98	25-150	
13C6_PFDA 95 25-150 13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C5_PFHxA	97	25-150	
13C7_PFUdA 99 25-150 13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C5_PFPeA	96	25-150	
13C8_PFOA 97 25-150 13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C6_PFDA	95	25-150	
13C8_PFOS 93 25-150 13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C7_PFUdA	99	25-150	
13C8_PFOSA 93 10-150 13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C8_PFOA	97	25-150	
13C9_PFNA 101 25-150 d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C8_PFOS	93	25-150	
d-EtFOSA 83 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C8_PFOSA	93	10-150	
d5-EtFOSAA 95 25-150 d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	13C9_PFNA	101	25-150	
d9-EtFOSE 91 10-150 d-MeFOSA 75 10-150	d-EtFOSA	83	10-150	
d-MeFOSA 75 10-150	d5-EtFOSAA	95	25-150	
	d9-EtFOSE	91	10-150	
d3-MeFOSAA 102 25-150	d-MeFOSA	75	10-150	
	d3-MeFOSAA	102	25-150	
d7-MeFOSE 86 10-150	d7-MeFOSE	86	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 18, 2021

3507 Lakeshore Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

3507 Lakeshore Avenue, La Crosse, WI 54603

Tax parcel # 4-1438-0 Sampling Point # 1438-0

Sampling Date: January 31, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pp ounds c all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds <i>otal</i> of all 6
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended lim of these 6 com combined total
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	25 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	15 ppt	20 ppt ^{a,b}	The r any o
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.3 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.0ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	91 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	3.2 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.3 ppt	None Esta	ıblished ^c

Private Well Sampling Results for 3507 Lakeshore Avenue, La Crosse, WI 54603 Tax Parcel # 4-1438-0 February 18, 2021

Perfluoro-n-pentanoic acid (PFPeA)	2.7 nn+	Nia a a Fatalaliala adC
CAS #2706-90-3	3.7 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>:</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Client: Pace Analytical Services, LLC

Laboratory ID: WB04008-005 Matrix: Aqueous

Description: 1438-0

Date Sampled:01/31/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/11/2021 2122 JJG

Prep Date

Batch 02/10/2021 1100 82446

CAS Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 8.0 756426-58-1 2.0 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 80 ng/L 1 2.0 PFAS by ID SOP ND 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 8.0 ng/L 1 2.0 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 8.0 ng/L 1 2.0 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 8.0 ng/L 1 2.0 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 8.0 ng/L 1 2.0 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 8.0 2.0 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 8.0 2.0 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 2.0 8.0 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 8.0 20 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 8.0 2.0 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 16 40 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 8.0 2.0 ng/L 1 PFAS by ID SOP 2.0 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 ND 8.0 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 4.3 4.0 1.0 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 40 ng/L 1.0 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 4.0 1.0 ng/L 1 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 40 1.0 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 4.0 ng/L 1 0 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 2.3 4.0 1.0 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 8.0 2.0 ng/L 1 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 5.0 4.0 ng/L 1.0 Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 91 4.0 ng/L 1.0 Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 4.0 ng/L 1.0 1 Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 4.0 ng/L 1 0 ND 4.0 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 1.0 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 8.0 ng/L 1 20 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 3.2 J 4.0 ng/L 1 1.0 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 4.0 ng/L 1 1.0 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 8.0 ng/L 2.0 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 25 4.0 ng/L 1.0 Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 3 7 4 0 ng/L 1 1.0 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 4.0 1.0 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 40 1.0 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 40 ng/L 1 1.0 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 15 40 ng/L 1 1.0 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 111 25-150 13C2_6:2FTS 99 25-150 100 25-150 13C2_8:2FTS 13C2_PFDoA 90 25-150 90 13C2_PFHxDA 25-150 13C2 PFTeDA 97 25-150

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Description: 1438-0

Date Sampled:01/31/2021 1415

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/04/2021

Project Number: 40221794

Run 1 Acceptance Surrogate % Recovery Q Limits 13C3_PFBS 25-150 99 13C3_PFHxS 25-150 13C3-HFPO-DA 98 25-150 13C4_PFBA 106 25-150 13C4_PFHpA 98 25-150 100 13C5_PFHxA 25-150 13C5_PFPeA 95 25-150 98 13C6_PFDA 25-150 13C7_PFUdA 101 25-150 13C8_PFOA 96 25-150 13C8_PFOS 92 25-150 91 13C8_PFOSA 10-150 13C9 PFNA 103 25-150 d-EtFOSA 82 10-150 d5-EtFOSAA 95 25-150 d9-EtFOSE 101 10-150 d-MeFOSA 78 10-150 d3-MeFOSAA 101 25-150 d7-MeFOSE 94 10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB04008-005

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 22, 2021

2750 Del Ray Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2750 Del Ray Avenue, La Crosse, WI 54603

Tax parcel # 4-96-0 Sampling Point # 96-0

Sampling Date: February 3, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found at levels <u>above</u> the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you <u>not</u> use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com. You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

Compound	Sample Result (unit)	Recomm Public F Standard	lealth
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 pg ounds c all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	d limit is 20 p compounds <i>otal</i> of all 6
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	ommended lim of these 6 com combined total
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	41 ppt	20 ppt ^{a,b}	The recommended limit is 20 ppt for any <i>one</i> of these 6 compounds or the <i>combined total</i> of all 6
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	14 ppt	20 ppt ^{a,b}	The r any o
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected		300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.5 ppt	450),000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.6 ppt		40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	70 ppt	10),000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected		300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected		500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	4.6 ppt	150),000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected		30 ppt ^a
Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7	Not Detected	10),000 ppt ^a
Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8	Not Detected	3	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400),000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Esta	ıblished ^c

Private Well Sampling Results for 2750 Del Ray Avenue, La Crosse, WI 54603 Tax Parcel # 4-96-0 February 22, 2021

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.95 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	7.5 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u>.</u>	<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwater Testing, Clean Up	DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2750 Del Ray Avenue, La Crosse, WI 54603

Charle assumanchine

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

Check ownership:		
Owner-Occupant		
Occupant Only		
Number of Occupants:		
Signed:	Dated:	
Printed Name:		
Phone Number: ()		

Client: Pace Analytical Services, LLC

Laboratory ID: WB06015-004

Matrix: Aqueous

Description: 96-0

Date Sampled:02/03/2021 1437

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

CAS

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/12/2021 2141 JJG

Prep Date 02/11/2021 1217 82588

Batch

Analytical Number Result O LOO DL Units Run Parameter Method 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) PFAS by ID SOP ND 756426-58-1 7.3 1.8 ng/L 1 PFAS by ID SOP 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) 763051-92-9 ND 7.3 ng/L 1 1.8 PFAS by ID SOP ND 7.3 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 ng/L 1 1.8 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) 27619-97-2 PFAS by ID SOP ND 7.3 ng/L 1 1.8 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS) 120226-60-0 PFAS by ID SOP ND 7.3 ng/L 1 1.8 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Hexafluoropropylene oxide dimer acid (GenX) 13252-13-6 PFAS by ID SOP ND 7.3 1.8 ng/L 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.3 18 ng/L 1 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) 4151-50-2 PFAS by ID SOP ND 7.3 1.8 ng/L 1 N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) 2991-50-6 PFAS by ID SOP ND 7.3 18 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) 1691-99-2 PFAS by ID SOP ND 7.3 1.8 ng/L N-methylperfluoro-1-octanesulfonamide (MeFOSA) 31506-32-8 PFAS by ID SOP ND 15 3.6 ng/L 1 N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) 2355-31-9 PFAS by ID SOP ND 7.3 1.8 ng/L 1 PFAS by ID SOP ND 7.3 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) 24448-09-7 1.8 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-5 PFAS by ID SOP 3.5 3.6 0.91 ng/L Perfluoro-1-decanesulfonic acid (PFDS) 335-77-3 PFAS by ID SOP ND 3.6 ng/L 0.91 1 Perfluoro-1-heptanesulfonic acid (PFHpS) 375-92-8 PFAS by ID SOP ND 3.6 0.91 ng/L 1 3.6 Perfluoro-1-nonanesulfonic acid (PFNS) 68259-12-1 PFAS by ID SOP ND 0.91 ng/L Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.6 ng/L 0 91 1 Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 1.4 3.6 0.91 ng/L 1 Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 4.6 3.6 0.91 ng/L Perfluoro-n-butanoic acid (PFBA) PFAS by ID SOP 375-22-4 70 3.6 0.91 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.6 0.91 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.6 0.91 ng/L 0.95 Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP 3.6 0.91 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.3 ng/L 1 1.8 Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP 4.6 3.6 ng/L 0.91 1 Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.6 na/L 1 0 91 Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.3 ng/L 1.8 Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 41 3.6 0.91 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP 7.5 3.6 ng/L 1 0.91 Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.6 0.91 ng/L 1 Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.6 0.91 ng/L 1 Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.6 ng/L 1 0.91 Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 14 3.6 ng/L 1 0.91 Run 1 Acceptance Surrogate % Recovery \bigcirc Limits 13C2_4:2FTS 93 25-150 13C2_6:2FTS 97 25-150 106 25-150 13C2_8:2FTS 13C2_PFDoA 95 25-150 13C2_PFHxDA 93 25-150

W = Reported on wet weight basis H = Out of holding time

13C2 PFTeDA

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

N = Recovery is out of criteria

93

Page 16 of 36

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

Client: Pace Analytical Services, LLC

Description: 96-0

Date Sampled:02/03/2021 1437

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021 Project Number: 40221856

Curragata	Run 1 A	Acceptance Limits
Surrogate		
13C3_PFBS	99	25-150
13C3_PFHxS	98	25-150
13C3-HFPO-DA	96	25-150
13C4_PFBA	105	25-150
13C4_PFHpA	96	25-150
13C5_PFHxA	101	25-150
13C5_PFPeA	103	25-150
13C6_PFDA	95	25-150
13C7_PFUdA	96	25-150
13C8_PFOA	104	25-150
13C8_PFOS	91	25-150
13C8_PFOSA	92	10-150
13C9_PFNA	94	25-150
d-EtFOSA	73	10-150
d5-EtFOSAA	90	25-150
d9-EtFOSE	79	10-150
d-MeFOSA	83	10-150
d3-MeFOSAA	95	25-150
d7-MeFOSE	91	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB06015-004

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)



444 21st Street South · La Crosse, Wisconsin · 54601

February 19, 2021

209 Church Drive La Crosse, WI 54603

Subject: Private Well Sampling Results

207 & 209 Church Drive, La Crosse, WI 54603

Tax Parcel # 4-282-0 Sampling Point # 282-0

Sample Date: February 3, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.0 ^{BL} ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 209 Church Drive, La Crosse, WI 54603 Tax Parcel # 4-282-0 Sampling Point # 282-0 February 19, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.3 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 209 Church Drive, La Crosse, WI 54603 Tax Parcel # 4-282-0 Sampling Point # 282-0 February 19, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	•••	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well





February 19, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221875

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com

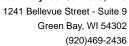
Chushpher Hyska

(920)469-2436 Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC







SAMPLE SUMMARY

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40221856006	282-0	Water	02/03/21 14:57	02/04/21 14:12

REPORT OF LABORATORY ANALYSIS

(Please Print Clearly)			UPPER MIDWEST R		Page 1 of
Company Name: The Company		_	MN: 612-607-1700	WI: 920-469-2436	40221875
Branch/Location:	Pace Ana				10231875 1856 8
Project Contact: Stane Deesek		acelabs.com		Quote #:	Pa
Phone:	☐ ' CHAIN	OF CUSTO	DY	Mail To Contact:	Steve Osesek
Project Number:	A=None B=HCL C=H2SO4	*Preservation Codes D=HNO3 E=DI Water F=Methano	İ	Mail To Company:	The Oslanoup
Project Name: LaCrosse Well 23+ 2	H=Sodium Bisulfate Solution	I=Sodium Thiosulfate J=Other		Mail To Address:	444 2159515
Project State:	FILTERED? (YES/NO)				Lacrosse, WI 54601
Sampled By (Print): Kristia Targed	PRESERVATION Pick Letter			Invoice To Contact:	Steve Sesek
Sampled By (Sign):	0			Invoice To Company:	The 105 broup
PO #: Regulato	3 S			Invoice To Address:	444 215131-3
	Matrix Codes W = Water DW = Dicklor Weter				The OS broup 444 HISTST 3 Lacrosse, W154601
(billable) CPA Level III On your sample B = Biota C = Charcoal	DW - Dilliking water			Invoice To Phone:	608-433-9388
☐ EPA Level IV ☐ NOT needed on S = Soil Si = Studge	SW = Surface Water WW = Waste Water WP = Wipe			CLIENT	LAB COMMENTS Profile #
	OLLECTION MATRIX			COMMENTS	(Lab Use Only)
001 378-0 020		1*			Dupduk per Steve O.
no2 379-0	3:04 X	1*			1) Update per Stave O.
003 1704-0	2:18	1*			, ,
And I have	X	1*			
	2:37 X	1*			
	2:57 X				
1006 383-0 1006 383-0	α.5/	14			
07 Blank 12 V		11			
					1* Samples mayed to separate CoC for
					1* Samples moved to seperate CoC for split reporting per John S. 2/4/21 CDH
	est according				40221875 PACE Project No.
	Relinquished By:) Date/Time: 020321 4:00	Received By:	Date/Time:	1400001860
(Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By:	Date/Time:	Received By: //	Date/Time	10000
Transmit Prelim Rush Results by (complete what you want):	Tea CX o	44/21 0915	VICOLUNTAL	extact sylph	Receipt Temp # C
Lilium y	Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH
Email #2: Telephone:	Relinquished By:	Date/Time:	Received By:	Date/Time:	OK / Adjusted
Fax:				D-1-75	Cooler Custody Seal Present / Not Present
Samples on HOLD are subject to Repected pricing and release of liability	Relinquished By:	Date/Time:	Received By:	Date/Time:	Intact / Not Intact Version 6.0 06/14/06

Sample Preservation Receipt Form
Project # 4020 856

All containers needing preservation have been checked and noted below: □Yes □No

Client Name:

40221875

Initial when completed:

Date/ Time:

	,
Lab Lot# of pH paper:	Lab Std #ID of preservation (if pH adjusted):

:																				, in			_		***************************************		mm) *		e≤ Hq			pə	
				Gla	iss						Plast	ic				Via	als				Ja	ars		Ge	enera		ı9<) sı	H ≤2	Act	1≥12	1 ≤2	adjust	Volume (mL)
Pace	AG10	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	врзв	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn /	NaOH pH ≥12	22 Hq EONH	pH after adjusted	(IIIE)
001		<u> </u>			_					3	1*																						2.5 / 5 / 10
002										1																							2.5 / 5 / 10
003										2																							2.5 / 5 / 10
004										b																							2.5 / 5 / 10
005										1																							2.5 / 5 / 10
006										3																							2.5 / 5 / 10
007										3	1*									-													2.5 / 5 / 10
008										0,																							2.5 / 5 / 10
009																																	2.5 / 5 / 10
010							1																										2.5 / 5 / 10
011												_																					2.5 / 5 / 10
012										٨																							2.5 / 5 / 10
013								$\frac{1}{\kappa}$	12	1																							2.5 / 5 / 10
014								1	11	Λ													_										2.5 / 5 / 10
015							V		Λ		7																						2.5 / 5 / 10
016									\vdash																			/					2.5 / 5 / 10
017													•																				2.5 / 5 / 10
018																															/	/	2.5 / 5 / 10
019						·									-																		2.5/5/10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

_Headspace in VOA Vials (>6mm) : □Yes □No 从N/A *If yes look in headspace column

		55411	A Pt Last's common	VCOA	40 mL clear ascorbic	IGEL	4 oz amber jar unpres
AG1U	1 liter amber glass	BP1U	1 liter plastic unpres				1
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio		9 oz amber jar unpres
	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
	•		•	VCOH	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4S	125 mL amber glass H2SO4		250 mL plastic HNO3	8			
AGAU	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
	-			VCOD	40 mL clear vial DI	ZPLC	ziploc bag
AG5U	100 mL amber glass unpres			VG3D	TO THE CICAL VIALUI		I
AG2S	500 mL amber glass H2SO4					· GN	

1* Update per John S - OS Group. 2/4/21 CDH

BG3U 250 mL clear glass unpres

Pace Analytical*

Document Name:

Sample Condition Upon Receipt (SCUR)

Document No.:

Author:

D 0

1241 Bellevue Street, Green Bay, WI 54302

ENV-FRM-GBAY-0014-Rev.00

Pace Green Bay Quality Office

Document Revised: 26Mar2020

Sample Condition Upon Receipt Form (SCUR)

$\Lambda_{\alpha} \cap \Lambda$			Project #:
Client Name: S Lycous			WO#: 40221875
Courier: CS Logistics TFed Ex Speede	UPS	☐ Wa	
Client Pace Other:			
Fracking #: 7833 5693 6	3327		40221875
Custody Seal on Cooler/Box Present: Tyes	no Seals i	ntact:	yes no
Custody Seal on Samples Present: 📋 yes 💆		_	yes no
Packing Material: 📋 Bubble Wrap 📋 Bubb			Other
Thermometer Used SR - NA	Type of Ice:	(We)	Blue Dry None Samples on ice, cooling process has begun Person examining contents:
Cooler Temperature Uncorr: 10 T/Corr:			2/21/21 nA1
Temp Blank Present: 🔟 yes 🚩 no	Biolog	şıcal II	issue is Frozen: yes no Date: //initials: //
Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dr	y Ice.		Labeled By Initials:
Chain of Custody Present:	MYes □No	□n/A	1.
Chain of Custody Filled Out:	□Yes ២No	□n/a	2 proj# +State pg#/phone/noanalyses 241/2
Chain of Custody Relinquished:	∭ es □No	□n/a	3. 0
Sampler Name & Signature on COC:	Dres □No	□n/a	4.
Samples Arrived within Hold Time:	D Yes □No		5.
- VOA Samples frozen upon receipt	□Yes □No		Date/Time:
Short Hold Time Analysis (<72hr):	□Yes □ No		6.
Rush Turn Around Time Requested:	□Yes 🖽No		7.
Sufficient Volume:			8.
For Analysis: ᡚy€s □no MS/MS□	D: □Yes □No	□n/a	
Correct Containers Used:	ØYes □No		9.
-Pace Containers Used:	Yes (RN)	□n/a	
-Pace IR Containers Used:	☐Yes ☐No	ΦN/A	
Containers Intact:	ŬYes □No		10.
Filtered volume received for Dissolved tests	□Yes □No	Ľ N/A	11.
Sample Labels match COC:	Dres □No		
-Includes date/time/ID/Analysis Matrix:	1.)	٠.	·
Trip Blank Present:	☐Yes ☐No	D N/A	13.
Trip Blank Custody Seals Present	□Yes □No		X
Pace Trip Blank Lot # (if purchased):			•
Client Notification/ Resolution:		_	If checked, see attached form for additional comments
Person Contacted:	·	_ Date	/Time:
Comments/ Resolution:			



Report of Analysis

Pace Analytical Services, LLC 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875 Lot Number: WB06013 Date Completed: 02/19/2021

Kary Coman

02/19/2021 9:41 AM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB06013

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank for prep batch 82290 contained analytes: 6:2FTS, PFBS, PFHxA greater than the acceptance criteria. The associated sample WB06013-001 did not contain detections for these target analytes; therefore, re-extraction and/or re-analysis of sample was not performed for these analytes. The data has been reported from Run 1.

Sample WB06013-001 was re-extracted and re-analyzed due to QC failures in the Method Blank and Laboratory Control Sample (LCS) for the analytes PFOS and PFHxS. PFOS and PFHxS will be reported from Run 2.

The method blank associated with prep batch 82993 contained PFOS greater than method criteria. The following sample was affected: WB06013-001. The data has been reported from Run 2.

Sample Summary Pace Analytical Services, LLC

Lot Number: WB06013

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875

001 282-0	Aqueous	02/03/2021 1457	02/06/2021

Detection Summary

Pace Analytical Services, LLC

Lot Number: WB06013

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875

Sample	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	282-0	Aqueous	PFOSA	PFAS by ID	2.1	J	ng/L	5
001	282-0	Aqueous	PFHxS	PFAS by ID	1.7	J	ng/L	6
001	282-0	Aqueous	PFBA	PFAS by ID	1.3	J	ng/L	6
001	282-0	Aqueous	PFOS	PFAS by ID	4.0	BJ	ng/L	6

(4 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WB06013-001

Description: 282-0

Date Received: 02/06/2021

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:02/03/2021 1457

Matrix: Aqueous

Project Number: 40221875

1 SOP SPE

Prep Date Batch

Run Prep Method Analytical Method Dilution Analysis Date Analyst PFAS by ID SOP 02/11/2021 0357 JJG 02/09/2021 1126 82290 2 SOP SPE PFAS by ID SOP 1 02/17/2021 1855 MMM 02/16/2021 1049 82993

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
$\hbox{11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)}\\$	763051-92-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.1 J	4.3	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7 J	4.3	1.1	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	1.3 J	4.3	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.0 B	J 4.3	1.1	ng/L	2

Surrogate	Q	Run 1 A % Recovery	Acceptance Limits	Q	Run 2 A % Recovery	cceptance Limits
13C2_4:2FTS		101	25-150		98	25-150
13C2_6:2FTS		90	25-150		110	25-150
13C2_8:2FTS		85	25-150		104	25-150
13C2_PFDoA		90	25-150		99	25-150
13C2_PFHxDA		82	25-150		102	25-150

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL W = Reported on wet weight basis H = Out of holding time

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WB06013-001 Description: 282-0 Matrix: Aqueous

Date Sampled:02/03/2021 1457

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221875

Surrogate	Run 1 A Q % Recovery	Acceptance Limits Q	Run 2 A % Recovery	cceptance Limits	
13C2_PFTeDA	84	25-150	100	25-150	
13C3_PFBS	100	25-150	106	25-150	
13C3_PFHxS	88	25-150	105	25-150	
13C3-HFPO-DA	93	25-150	106	25-150	
13C4_PFBA	100	25-150	108	25-150	
13C4_PFHpA	95	25-150	111	25-150	
13C5_PFHxA	93	25-150	106	25-150	
13C5_PFPeA	101	25-150	106	25-150	
13C6_PFDA	88	25-150	105	25-150	
13C7_PFUdA	85	25-150	108	25-150	
13C8_PFOA	93	25-150	112	25-150	
13C8_PFOS	83	25-150	100	25-150	
13C8_PFOSA	83	10-150	101	10-150	
13C9_PFNA	88	25-150	104	25-150	
d-EtFOSA	68	10-150	75	10-150	
d5-EtFOSAA	86	25-150	101	25-150	
d9-EtFOSE	72	10-150	97	10-150	
d-MeFOSA	72	10-150	80	10-150	
d3-MeFOSAA	90	25-150	104	25-150	
d7-MeFOSE	79	10-150	91	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

DL = Detection Limit

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Sample ID: WQ82290-001 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/09/2021 1126

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
8:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
6:2 FTS	120		1	8.0	2.0	ng/L	02/10/2021 1439
10:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
4:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
GenX	ND		1	8.0	2.0	ng/L	02/10/2021 1439
ADONA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSAA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSE	ND		1	8.0	2.0	ng/L	02/10/2021 1439
MeFOSA	ND		1	16	4.0	ng/L	02/10/2021 1439
MeFOSAA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
MeFOSE	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFBS	2.9	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFDS	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHpS	2.0	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFNS	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFOSA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFPeS	1.8	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFDOS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFBA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFDoA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHpA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHxDA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFHxA	2.2	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFNA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFODA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFOA	2.2	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFPeA	1.0	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFTeDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFTrDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFUdA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
Surrogate	Q % F	?ec	Acceptance Limit				
13C2_4:2FTS	87	,	25-150				
13C2_6:2FTS	82	2	25-150				
13C2_8:2FTS	84		25-150				
13C2_PFDoA	83		25-150				
13C2_PFHxDA	70		25-150				
13C2_PFTeDA	78		25-150				
13C3_PFBS	75)	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ82290-001 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/09/2021 1126

Surrogate	Q % Rec	Acceptance Limit
13C3_PFHxS	78	25-150
13C3-HFPO-DA	84	25-150
13C4_PFBA	85	25-150
13C4_PFHpA	86	25-150
13C5_PFHxA	90	25-150
13C5_PFPeA	81	25-150
13C6_PFDA	83	25-150
13C7_PFUdA	77	25-150
13C8_PFOA	86	25-150
13C8_PFOS	66	25-150
13C8_PFOSA	80	10-150
13C9_PFNA	79	25-150
d-EtFOSA	60	10-150
d5-EtFOSAA	80	25-150
d9-EtFOSE	78	10-150
d-MeFOSA	71	10-150
d3-MeFOSAA	78	25-150
d7-MeFOSE	88	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Sample ID: WQ82290-002 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/09/2021 1126

	Spike	Describ			% Rec	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	16	14	1	89	50-150	02/10/2021 1449
11CI-PF3OUdS	16	16	1	95	50-150	02/10/2021 1449
8:2 FTS	17	18	1	109	50-150	02/10/2021 1449
6:2 FTS	16	19	1	113	50-150	02/10/2021 1449
10:2 FTS	17	14	1	83	50-150	02/10/2021 1449
4:2 FTS	16	16	1	96	50-150	02/10/2021 1449
GenX	35	35	1	101	50-150	02/10/2021 1449
ADONA	16	17	1	106	50-150	02/10/2021 1449
EtFOSA	17	19	1	112	50-150	02/10/2021 1449
EtFOSAA	17	16	1	90	50-150	02/10/2021 1449
EtFOSE	17	18	1	106	50-150	02/10/2021 1449
MeFOSA	17	19	1	111	50-150	02/10/2021 1449
MeFOSAA	17	19	1	107	50-150	02/10/2021 1449
MeFOSE	17	19	1	109	50-150	02/10/2021 1449
PFBS	15	15	1	99	50-150	02/10/2021 1449
PFDS	17	14	1	83	50-150	02/10/2021 1449
PFHpS	17	19	1	114	50-150	02/10/2021 1449
PFNS	17	17	1	102	50-150	02/10/2021 1449
PFOSA	17	19	1	110	50-150	02/10/2021 1449
PFPeS	16	17	1	103	50-150	02/10/2021 1449
PFDOS	17	13	1	76	50-150	02/10/2021 1449
PFBA	17	17	1	99	50-150	02/10/2021 1449
PFDA	17	17	1	96	50-150	02/10/2021 1449
PFDoA	17	17	1	97	50-150	02/10/2021 1449
PFHpA	17	17	1	100	50-150	02/10/2021 1449
PFHxDA	17	16	1	94	50-150	02/10/2021 1449
PFHxA	17	18	1	104	50-150	02/10/2021 1449
PFNA	17	17	1	97	50-150	02/10/2021 1449
PFODA	17	15	1	84	50-150	02/10/2021 1449
PFOA	17	17	1	97	50-150	02/10/2021 1449
PFPeA	17	17	1	99	50-150	02/10/2021 1449
PFTeDA	17	17	1	96	50-150	02/10/2021 1449
PFTrDA	17	19	1	106	50-150	02/10/2021 1449
PFUdA	17	17	1	97	50-150	02/10/2021 1449
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	84	25-150				
13C2_6:2FTS	78	25-150				
13C2_8:2FTS	90	25-150				
13C2_PFDoA	79	25-150				
13C2_PFHxDA	74	25-150				
13C2_PFTeDA	78	25-150				
13C3_PFBS	77	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ82290-002 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/09/2021 1126

Surrogate	Q % Rec	Acceptance Limit
13C3_PFHxS	75	25-150
13C3-HFPO-DA	81	25-150
13C4_PFBA	83	25-150
13C4_PFHpA	85	25-150
13C5_PFHxA	84	25-150
13C5_PFPeA	80	25-150
13C6_PFDA	79	25-150
13C7_PFUdA	83	25-150
13C8_PFOA	85	25-150
13C8_PFOS	70	25-150
13C8_PFOSA	72	10-150
13C9_PFNA	78	25-150
d-EtFOSA	64	10-150
d5-EtFOSAA	78	25-150
d9-EtFOSE	76	10-150
d-MeFOSA	74	10-150
d3-MeFOSAA	81	25-150
d7-MeFOSE	79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ82993-001

Batch: 82993

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/16/2021 1049

Parameter	Result Q Dil		LOQ	DL	Units	Analysis Date
PFHxS	ND	1	4.0	1.0	ng/L	02/17/2021 1659
PFOS	21	1	4.0	1.0	ng/L	02/17/2021 1659
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	87	25-150				
13C2_6:2FTS	102	25-150				
13C2_8:2FTS	99	25-150				
13C2_PFDoA	94	25-150				
13C2_PFHxDA	100	25-150				
13C2_PFTeDA	96	25-150				
13C3_PFBS	99	25-150				
13C3_PFHxS	106	25-150				
13C3-HFPO-DA	103	25-150				
13C4_PFBA	101	25-150				
13C4_PFHpA	108	25-150				
13C5_PFHxA	102	25-150				
13C5_PFPeA	101	25-150				
13C6_PFDA	100	25-150				
13C7_PFUdA	99	25-150				
13C8_PFOA	105	25-150				
13C8_PFOS	95	25-150				
13C8_PFOSA	98	10-150				
13C9_PFNA	95	25-150				
d-EtFOSA	83	10-150				
d5-EtFOSAA	94	25-150				
d9-EtFOSE	95	10-150				
d-MeFOSA	78	10-150				
d3-MeFOSAA	95	25-150				
d7-MeFOSE	93	10-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

DL N = Recovery is out of criteria

DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

 $J = Estimated result < LOQ and <math>\geq DL$ * = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Data for Lot Number: WB06013

PFAS by LC/MS/MS - LCS

Sample ID: WQ82993-002 Batch: 82993 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/16/2021 1049

Parameter	Spike Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
PFHxS	15	15	1	106	50-150	02/17/2021 1709
PFOS	15	21	1	141	50-150	02/17/2021 1709
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	92	25-150				
13C2_6:2FTS	85	25-150				
13C2_8:2FTS	94	25-150				
13C2_PFDoA	92	25-150				
13C2_PFHxDA	97	25-150				
13C2_PFTeDA	92	25-150				
13C3_PFBS	93	25-150				
13C3_PFHxS	93	25-150				
13C3-HFPO-DA	98	25-150				
13C4_PFBA	96	25-150				
13C4_PFHpA	100	25-150				
13C5_PFHxA	94	25-150				
13C5_PFPeA	96	25-150				
13C6_PFDA	90	25-150				
13C7_PFUdA	98	25-150				
13C8_PFOA	98	25-150				
13C8_PFOS	94	25-150				
13C8_PFOSA	87	10-150				
13C9_PFNA	94	25-150				
d-EtFOSA	76	10-150				
d5-EtFOSAA	89	25-150				
d9-EtFOSE	87	10-150				
d-MeFOSA	68	10-150				
d3-MeFOSAA	94	25-150				
d7-MeFOSE	85	10-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Chain of Custody and Miscellaneous Documents

Internal Transfer Ch	nain of	Custod	у —									_				-	ø		o Analytical'
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Christopher Hysika Pace Analytical West Columbia Pace Analytical Green Bay 106 Vantage Point Drive 1241 Believue Street West Columbia, SC 29172 Suite 9 Phone (803)791-9700 Green Bay, WI 54302 Phone (920)469-2436									SG PFAS by ID							1		B06	l Managar
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Company Name: The CS brays		<i>F.</i> /			MN: 612-807-1700	WI: 920-469-2435	40221875
Branch/Location: .			nalytical "				10221004
Project Contact: Steam Desch		y-m	* percentua com			Quote #:	
Phone:		CHAIL	N OF CU	STO	DY	Mail To Contact:	Steve Osesek
Project Number:	A=No:	ne 8=HCL C=H28C	*Preservation Codes 4 D=HNG8 E=DI Wat	er F=Mother	of G-NaCH	Mail To Company:	The Osloroup
Project Name: LaCyrosex Will 23+	71-300	dum Bisulfate Solution	(=Sedium Taicaulfalo	J=Otter		Mail To Address:	444 2151515
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PACE LAB's CLIENT FIELD ID -	WW ~ Wuste	MYTREE C				CLIENT COMMENTS	LAB COMMENTS P:ofile \$ (Lab Use Only)
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NO2 379-0	1 12:04	X	- 1*				2/4/2021 CA
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Rush Yumaround Time Requested - Prelims	Rolling to Legislative	1- AT) navimes	4:00	reasived By:	Date/11=a:	PACE Project No.
(Rush TAT subject to approval/surcharge) Date Needed:	Full acuts had 8 year		2 03-053\		Roccived By: 11	Dreg/Tjengi.	
Transmit Pretin Hush Results by (complete what you want):	T. F.	sea ex .	24121 09	1/5	/ Vicalletthe	4 tace 2/4/2	109/5 Recoipt Temp 3 11 _ °C
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Code-acceptance							· ORIGINAL

PACE ANALYTICAL

Clie	Sample Preservation Receipt Form See Analytical Service 1241 Believue Streat, Green Bay, WI Project # 0 0 5 5 5 5 6 All containers needing preservation have been checked and noted below: bYes nNo WA 10221875 Initial when completed: Time:														Street, Suite 9																		
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Exce	plions	to pr	eserv	etion o	check:	VűA	, Coli	form,	TOC,	TOX,	TOH,	O&G	WI D	RO, P	loned	_							OA VI				_				III IIOES	opon.	I
AG1L			_	-					10		er pla		-						nL cle										unpre				
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AG5L									_	,						V	39D	40 r	nL cla	ar via	al Di			Z	PLC	Zipk	ю ра	9,					

GN

F-GB-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

1" Update per John S - OS Group. 2/4/21 CDH

AG2S 500 mL amber glass H2SO4

BG3U 250 mL clear glass unpres

9		tent Name:	Documen	t Revised: 26Mar2020	
Pace Analytical*		Upon Receipt (SCUR) ment No.:		Author:	
1241 Fellevue Street, Green Bay, WI 54302		BAY-0014-Rev.00	Pace Gro	en Bay Quality Office	
Sample C	Condition Upor	ı Receipt Form (S	CUR		
An ()		Project #:	7	, .	
Client Name: 5 2400	D	M	0#∶∠	10221875	1
Courier: 🔀 CS Logistics 🚺 Fed Ex 🔝 Speede	E ∏UPS ⊡W				
Client Page Other					
Tracking #: <u>국용35 원년95 영</u>	<u>3927)</u>	40	221875		,
Custody Scal on Cooler/Box Present: 📋 yes 🍴	no Scals Intact	□ yes □ no ∟			
Custody Seal on Samples Present: 👸 yes 🛱		☐ yes ☐ no			
Packing Material: Subble Wrap Subble Thermometer Used SR - NA	Type of Ice: We	Blue Dry None 177	Samples o	n joe, cooling process has beg	un
Cooler Temperature Uncorn CO Corn	We river (10)	2.55 21, 1.51		Person examining contr	
Temp Blank Present: S ves Eno	Biological 1	liseue is Frozen: 🔯 ye	os 🔯 ne	Oate: 1/31 Initials:	704
Temp should be above freezing to 6°C.					\sim
Biota Samples may be received at ≤ 0°C if shipped on O		1.		Labeled By Initials:	
Chain of Custody Present:	Mes □No □N/A		44 . 1	han a village	111244
Chain of Custody Filled Out:		2 proj#\$State	1534 (A)	une moonalyses.	4112
Chain of Custody Retinquished:	□Nes □No □N/A				
Sampler Name & Signature on COC:	Bres □No □N/A	4.	- · · · · ·		
Samples Arrived within Hold Time:	Dives □NA	5.		,	
- VCA Samples frozen upon receipt	□Yes □No	Date/Tjme:			
Short Hold Time Analysis (<72hr):	□Yes Khio	6.			
Rush Turn Around Time Requested:	Dyee 19No	7.			
Sufficient Volume:	ar .	8.			- 1
For Analysis: @yés □no MS/MSI	D: □Yés ŒKw □N/				
Correct Containers Used:	EYes DNo	9.			.]
-Pace Containers Used:	DATES (SA) DINI	A)			
-Pace IR Containers Used:	□Yes □No UN	x	-		
Containers Intact:	Ľaves □No	10.			
Filtered volume received for Dissolved tests	□Yes □No □M	Á 11.		'	
Sample Labels match COC:	itores □No □Ni			-1	,
-Includes date/time/ID/Analysis Matrix	L. I				
Trip Blank Present:	□Yes □Nc CM	A 13.			
Trip Blank Custody Seals Present	□Yes □No Ĉ±K				
Page Trip Blank Lot# (if purchased):					
Client Notification/ Resolution:				achéd form for additional comm	nents 🔲
Person Contacted:		e/Time:			
Comments/ Resolution:					
		7-0-0-0			
			+		
PM Review is documented electronically in E	Min Duneticale of C	is product for DM color	ouladass	they have reviewed the es	ımnle logi:
PM Review is documented electronically in E	лыз. Бу генеазинд п	ne projeca, the FW ackin	Owendes		F
				Page 0	_ of

	Samples Receipt Checklist (SRC) (ME0018C-15)	MARK DISTRIBUTION
e Analyticat"	Issuing Authority: Pace ENV - WCOL	HALL THE STATE OF
\circ	Sample Receipt Checklist (SRC)	WB06013
lient Vace	Cooler Inspected by/date: KBS/2612 Lot #	: KLC2
leans of receipt; Pac	e Client UPS FedEx Other:	
Yes No	Were custody seals present on the cooler?	
Yes No No	2. If custody seals were present, were they intact and unbroken?	
H Strip ID: Y\C	Chlorine Strip ID: Tested by:	no-Cup ID: \(\sigma \sigma \)
57/37 °C 176	receipt / Derived (Corrected) temperature upon receipt %Solid Sna °C	
lethod: Temperature P	lank Against Bottles IR Gun ID: 5 IR Gun Correction	Factor: 0 °C
tethod of coolant:	Vet Ice Dice Packs Dry Ice None	
Yes No MA	Vet Ice Like Packs Libry Ice Li None 3. If temperature of any cooler exceeded 6.0°C, was Project Manager PM was Nortified by phone / email / face-to-face (circle one).	Notified?
	The was received by parame , charter the war to	
Yes No NA	 Is the commercial courier's packing slip attached to this form? Were proper custody procedures (relinquished/received) followed? 	
	Were sample IDs listed on the COC?	
Yes No	7. Were sample IDs listed on all sample containers?	
1Yes □No	8. Was collection date & time listed on the COC?	
	9. Was collection date & time listed on all sample containers?	
7Yes □No	10. Did all container label information (ID, date, time) agree with the	COC?
Yes No	11. Were tests to be performed fisted on the COC?	
	12. Did all samples arrive in the proper containers for each test and/or	in good condition
Yes No	(unbroken, lids on, etc.)?	
Yes No	13. Was adequate sample volume available?	
Yes No	14. Were all samples received within ½ the holding time or 48 hours,	Whichever comes first?
☐ Yes ☑ No	15. Were any samples containers missing/excess (circle one) samples 16. For VOA and RSK-175 samples, were bubbles present>"pea-size	Not fisted on CoC:
□Yes □No ☑ÑA	in any of the VOA vials?	(74 Of Olimi in Galancier)
	17. Were all DRO/metals/nutrient samples received at a pH of < 2?	
Yes No NA	18. Were all evanide samples received at a pH > 12 and sulfide samp.	les received at a pH > 9?
	The Warr all applicable NW /TVN/comide/phenol/625 1/608.3 (≤ 0.5	mg/L) samples free of
☐ Yes ☐ No ☐ NA	residual chlorine?	
Yes No NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD (lesignations, etc)
Yes No NA	correctly transcribed from the COC into the comment section in LIM	S?
Yes No	21. Was the quote number listed on the container label? If yes, Quote	
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with her	adspace.)
Sample(s)	- VISS JUN were received incorrectly preserved an	d were adjusted accordingly
in sample receiving with	mil. of circle one: H2SO4, HNO3, HCl, NaOH using SR # 1	<u>C</u>
Time of preservation	. If more than one preservative is needed, please note in the c	omments below.
Sample(s)		bles >6 mm in diameter.
Samples(s)	were received with TRC > 0.5 mg/L	(If #19 is no) and were
adjusted accordingly in sa	ample receiving with sodium thiosulfate (Na2S2O3) with Shealy ID: 1	10-
SR barcode l'abels applica	1525	
Six dialorde laneis abbito		
Comments:	<u> </u>	
Comments.		



444 21st Street South · La Crosse, Wisconsin · 54601

February 19, 2021

207 Church Drive La Crosse, WI 54603

Subject: Private Well Sampling Results

207 & 209 Church Drive, La Crosse, WI 54603

Tax Parcel # 4-282-0 Sampling Point # 282-0

Sample Date: February 3, 2021

Dear :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ppt for s or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.1 ppt	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.0 ^{BL} ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 209 Church Drive, La Crosse, WI 54603 Tax Parcel # 4-282-0 Sampling Point # 282-0 February 19, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.3 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 209 Church Drive, La Crosse, WI 54603 Tax Parcel # 4-282-0 Sampling Point # 282-0 February 19, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well





February 19, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221875

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com

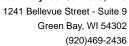
Chushpher Hyska

(920)469-2436 Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC







SAMPLE SUMMARY

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40221856006	282-0	Water	02/03/21 14:57	02/04/21 14:12

REPORT OF LABORATORY ANALYSIS

(Please Print Clearly)		· ·	UPPER MIDWEST R		Page 1 of
Company Name: The Company		_	MN: 612-607-1700	WI: 920-469-2436	40221875
Branch/Location:	Pace Ana				10231875 1856 8
Project Contact: Change Deesek		ocelabs.com		Quote #:	Pa
Phone:	T CHAIN	OF CUSTO	DY	Mail To Contact:	Steve Osesek
Project Number:		Preservation Codes D=HNO3 E=DI Water F=Methano		Mail To Company:	The Oslanoup
Project Name: LaCyrosse Well 23+ 24	H=Sodium Bisulfate Solution	I=Sodium Thiosulfate J=Other	i	Mail To Address:	444 2159515
Project State:	FILTERED? (YES/NO)				Lacrosse, WI 54601
Sampled By (Print): Kristip Taged	PRESERVATION (CODE)* Pick Latter			Invoice To Contact:	Steve (Sesex
Sampled By (Sign):				Invoice To Company:	The 155 broup
PO #: Regulatory Program:	36			Invoice To Address:	444 715131-3
	latrix Codes W = Water Office Political Worter				The OS broup 444 HISTST 3 Lacrosse, W154601
(billable) EPA Level III On your sample B = Biota C = Charcoal	Idatrix Codes W = Water DW = Drinking Water GW = Ground Water SW = Surface Water WW = Waste Water WP = Wipe			Invoice To Phone:	608-433-9388
EPA Level IV NOT needed on S = Soil	SW = Surface Water WW = Waste Water WP = Wipe			CLIENT	LAB COMMENTS Profile #
	DLLECTION			COMMENTS	(Lab Use Only)
001 378-0 000		1* .			Dundelle our Steve O.
100 379-0 I	3:04 X	1*			1) Update per Stave O.
10010	2.18	1*			1
003 /704-0	X	1*			
004 Dup 13	3:37 X	1*			
005 96-0					
006 383-0					
-007 Blank 12 V		1*			
				<u> </u>	1* Samples moved to seperate CoC for
					split reporting per John S. 2/4/21 CDH
					40221875
Rush Turnaround Time Requested - Prelims Re	elinquished By:	Date/Time:	Received By:	Date/Time:	PACE Project No.
(Rush TAT subject to approval/surcharge)	of inte Lycel	Date/Time: 02-03-21 4:00	1		141222(8 <i>7</i> 0
	elinquished By:	14121 1915	Received By: //	blor 1 2/1/2	109/5 Receipt Town 2 155 °C
Transmit Prelim Rush Results by (complete what you want):	elinquished By:	Date/Time:	Received By:	Date/Time:	Receipt remp y V
Email #1: Re Email #2:				-	Sample Receipt pH OK / Adjusted
	elinquished By:	Date/Time:	Received By:	Date/Time:	Cooler Custorix Seal
Fax:		. Date/Time:	Received By:	Date/Time:	Present / Not Present
Samples on HOLD are subject to special pricing and release of liability	elinquished By:	, Dato Timo.			Intact / Not Intact Version 6.0 06/14/06

Sample Preservation Receipt Form
Project # 4020 856

All containers needing preservation have been checked and noted below: □Yes □No

Client Name:

40221875

Initial when completed:

Date/ Time:

	,
Lab Lot# of pH paper:	Lab Std #ID of preservation (if pH adjusted):

:							-													, in			_		***************************************		mm) *		e≤ Hq			pə	
				Gla	iss						Plast	ic				Via	als				Ja	ars		Ge	enera		ı9<) sı	H ≤2	Act	1≥12	1 ≤2	adjust	Volume (mL)
Pace	AG10	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	врзв	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn /	NaOH pH ≥12	HNO3 pH s2	pH after adjusted	(IIIE)
001		<u> </u>			_					3	1*																						2.5 / 5 / 10
002										1																							2.5 / 5 / 10
003										2																							2.5 / 5 / 10
004										b																							2.5 / 5 / 10
005										1																							2.5 / 5 / 10
006										3																							2.5 / 5 / 10
007										3	1*									-													2.5 / 5 / 10
008						-				0,																							2.5 / 5 / 10
009																																	2.5 / 5 / 10
010							1																										2.5 / 5 / 10
011												_																					2.5 / 5 / 10
012										٨																							2.5 / 5 / 10
013								$\frac{1}{\kappa}$	12	1																							2.5 / 5 / 10
014								1	11	Λ													_										2.5 / 5 / 10
015							V		Λ	10	7																						2.5 / 5 / 10
016									+																			/					2.5 / 5 / 10
017													•																				2.5 / 5 / 10
018																															/	/	2.5 / 5 / 10
019						·									-																		2.5/5/10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

_Headspace in VOA Vials (>6mm) : □Yes □No 从N/A *If yes look in headspace column

		55411	A Pt Last's common	VCOA	40 mL clear ascorbic	IGELL	4 oz amber jar unpres
AG1U	1 liter amber glass	BP1U	1 liter plastic unpres		The state of the s		1
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio		9 oz amber jar unpres
	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
	~		•	VCOH	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4S	125 mL amber glass H2SO4		250 mL plastic HNO3	ı			
AGAU	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
	- .			VCOD	40 mL clear vial DI	ZPLC	ziploc bag
AG5U	100 mL amber glass unpres			VG3D	TO THE CICAL VIALUE		I
AG2S	500 mL amber glass H2SO4					GN	

1* Update per John S - OS Group. 2/4/21 CDH

BG3U 250 mL clear glass unpres

Pace Analytical*

Document Name:

Sample Condition Upon Receipt (SCUR)

Document No.:

Author:

D 0

1241 Bellevue Street, Green Bay, WI 54302

ENV-FRM-GBAY-0014-Rev.00

Pace Green Bay Quality Office

Document Revised: 26Mar2020

Sample Condition Upon Receipt Form (SCUR)

$\Lambda_{\alpha} \cap \Lambda$			Project #:
Client Name: S Lycous			WO#: 40221875
Courier: CS Logistics TFed Ex Speede	UPS	☐ Wa	
Client Pace Other:			
Fracking #: 7833 5693 6	3327		40221875
Custody Seal on Cooler/Box Present: Tyes	no Seals i	ntact:	yes no
Custody Seal on Samples Present: 📋 yes 💆		_	yes no
Packing Material: 📋 Bubble Wrap 📋 Bubb			Other
Thermometer Used SR - NA	Type of Ice:	(We)	Blue Dry None Samples on ice, cooling process has begun Person examining contents:
Cooler Temperature Uncorr: 10 T/Corr:			2/21/21 nA1
Temp Blank Present: 🔟 yes 🚩 no	Biolog	şıcal II	issue is Frozen: yes no Date: //initials: //
Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dr	y Ice.		Labeled By Initials:
Chain of Custody Present:	MYes □No	□n/A	1.
Chain of Custody Filled Out:	□Yes ២No	□n/a	2 proj# +State pg#/phone/noanalyses 241/2
Chain of Custody Relinquished:	∭ es □No	□n/a	3. 0
Sampler Name & Signature on COC:	Dres □No	□n/a	4.
Samples Arrived within Hold Time:	D Yes □No		5.
- VOA Samples frozen upon receipt	□Yes □No		Date/Time:
Short Hold Time Analysis (<72hr):	□Yes □ No		6.
Rush Turn Around Time Requested:	□Yes 🖽No		7.
Sufficient Volume:			8.
For Analysis: ᡚy€s □no MS/MS□	D: □Yes □No	□n/a	
Correct Containers Used:	ØYes □No		9.
-Pace Containers Used:	Yes (RN)	□n/a	
-Pace IR Containers Used:	☐Yes ☐No	ΦN/A	
Containers Intact:	ŬYes □No		10.
Filtered volume received for Dissolved tests	□Yes □No	Ľ N/A	11.
Sample Labels match COC:	Dres □No		
-Includes date/time/ID/Analysis Matrix:	1.)	٠.	·
Trip Blank Present:	☐Yes ☐No	D N/A	13.
Trip Blank Custody Seals Present	□Yes □No		X
Pace Trip Blank Lot # (if purchased):			•
Client Notification/ Resolution:		_	If checked, see attached form for additional comments
Person Contacted:	·	_ Date	/Time:
Comments/ Resolution:			



Report of Analysis

Pace Analytical Services, LLC 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875 Lot Number: WB06013 Date Completed: 02/19/2021

Kary Coman

02/19/2021 9:41 AM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB06013

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank for prep batch 82290 contained analytes: 6:2FTS, PFBS, PFHxA greater than the acceptance criteria. The associated sample WB06013-001 did not contain detections for these target analytes; therefore, re-extraction and/or re-analysis of sample was not performed for these analytes. The data has been reported from Run 1.

Sample WB06013-001 was re-extracted and re-analyzed due to QC failures in the Method Blank and Laboratory Control Sample (LCS) for the analytes PFOS and PFHxS. PFOS and PFHxS will be reported from Run 2.

The method blank associated with prep batch 82993 contained PFOS greater than method criteria. The following sample was affected: WB06013-001. The data has been reported from Run 2.

Sample Summary Pace Analytical Services, LLC

Lot Number: WB06013

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875

001 282-0 Aqueous 02/03/2021 1457 02/06/2021	Sample Number	Sample ID	Matrix	Date Sampled	Date Received
	001	282-0	Aqueous	02/03/2021 1457	

Detection Summary

Pace Analytical Services, LLC

Lot Number: WB06013

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221875

Sample	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	282-0	Aqueous	PFOSA	PFAS by ID	2.1	J	ng/L	5
001	282-0	Aqueous	PFHxS	PFAS by ID	1.7	J	ng/L	6
001	282-0	Aqueous	PFBA	PFAS by ID	1.3	J	ng/L	6
001	282-0	Aqueous	PFOS	PFAS by ID	4.0	BJ	ng/L	6

(4 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WB06013-001

Description: 282-0

Date Received: 02/06/2021

Project Name: LACROSSE WELLS 23 & 24

Date Sampled:02/03/2021 1457

Matrix: Aqueous

Project Number: 40221875

1 SOP SPE

Prep Date Batch

Run Prep Method Analytical Method Dilution Analysis Date Analyst PFAS by ID SOP 02/11/2021 0357 JJG 02/09/2021 1126 82290 2 SOP SPE PFAS by ID SOP 1 02/17/2021 1855 MMM 02/16/2021 1049 82993

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Rur
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
$\hbox{11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)}\\$	763051-92-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.1 J	4.3	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.7 J	4.3	1.1	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	1.3 J	4.3	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.6	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.3	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.0 BJ	4.3	1.1	ng/L	2

Surrogate	Q	Run 1 A % Recovery	Acceptance Limits	Q	Run 2 A % Recovery	cceptance Limits
13C2_4:2FTS		101	25-150		98	25-150
13C2_6:2FTS		90	25-150		110	25-150
13C2_8:2FTS		85	25-150		104	25-150
13C2_PFDoA		90	25-150		99	25-150
13C2_PFHxDA		82	25-150		102	25-150

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

ND = Not detected at or above the DL W = Reported on wet weight basis H = Out of holding time

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WB06013-001 Description: 282-0 Matrix: Aqueous

Date Sampled:02/03/2021 1457

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221875

Surrogate	Run 1 A Q % Recovery	Acceptance Limits Q	Run 2 Ao % Recovery	cceptance Limits	
13C2_PFTeDA	84	25-150	100	25-150	
13C3_PFBS	100	25-150	106	25-150	
13C3_PFHxS	88	25-150	105	25-150	
13C3-HFPO-DA	93	25-150	106	25-150	
13C4_PFBA	100	25-150	108	25-150	
13C4_PFHpA	95	25-150	111	25-150	
13C5_PFHxA	93	25-150	106	25-150	
13C5_PFPeA	101	25-150	106	25-150	
13C6_PFDA	88	25-150	105	25-150	
13C7_PFUdA	85	25-150	108	25-150	
13C8_PFOA	93	25-150	112	25-150	
13C8_PFOS	83	25-150	100	25-150	
13C8_PFOSA	83	10-150	101	10-150	
13C9_PFNA	88	25-150	104	25-150	
d-EtFOSA	68	10-150	75	10-150	
d5-EtFOSAA	86	25-150	101	25-150	
d9-EtFOSE	72	10-150	97	10-150	
d-MeFOSA	72	10-150	80	10-150	
d3-MeFOSAA	90	25-150	104	25-150	
d7-MeFOSE	79	10-150	91	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

DL = Detection Limit

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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QC Summary

Sample ID: WQ82290-001 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/09/2021 1126

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
8:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
6:2 FTS	120		1	8.0	2.0	ng/L	02/10/2021 1439
10:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
4:2 FTS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
GenX	ND		1	8.0	2.0	ng/L	02/10/2021 1439
ADONA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSAA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
EtFOSE	ND		1	8.0	2.0	ng/L	02/10/2021 1439
MeFOSA	ND		1	16	4.0	ng/L	02/10/2021 1439
MeFOSAA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
MeFOSE	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFBS	2.9	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFDS	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHpS	2.0	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFNS	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFOSA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFPeS	1.8	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFDOS	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFBA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFDoA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHpA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFHxDA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFHxA	2.2	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFNA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFODA	ND		1	8.0	2.0	ng/L	02/10/2021 1439
PFOA	2.2	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFPeA	1.0	J	1	4.0	1.0	ng/L	02/10/2021 1439
PFTeDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFTrDA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
PFUdA	ND		1	4.0	1.0	ng/L	02/10/2021 1439
Surrogate	Q % R	ec	Acceptance Limit				
13C2_4:2FTS	87		25-150				
13C2_6:2FTS	82		25-150				
13C2_8:2FTS	84		25-150				
13C2_PFDoA	83		25-150				
13C2_PFHxDA	70		25-150				
13C2_PFTeDA	78		25-150				
13C3_PFBS	75		25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ82290-001 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/09/2021 1126

Surrogate	Q % Rec	Acceptance Limit	
13C3_PFHxS	78	25-150	
13C3-HFPO-DA	84	25-150	
13C4_PFBA	85	25-150	
13C4_PFHpA	86	25-150	
13C5_PFHxA	90	25-150	
13C5_PFPeA	81	25-150	
13C6_PFDA	83	25-150	
13C7_PFUdA	77	25-150	
13C8_PFOA	86	25-150	
13C8_PFOS	66	25-150	
13C8_PFOSA	80	10-150	
13C9_PFNA	79	25-150	
d-EtFOSA	60	10-150	
d5-EtFOSAA	80	25-150	
d9-EtFOSE	78	10-150	
d-MeFOSA	71	10-150	
d3-MeFOSAA	78	25-150	
d7-MeFOSE	88	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Sample ID: WQ82290-002 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/09/2021 1126

	Spike	Describ			% Rec	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	16	14	1	89	50-150	02/10/2021 1449
11CI-PF3OUdS	16	16	1	95	50-150	02/10/2021 1449
8:2 FTS	17	18	1	109	50-150	02/10/2021 1449
6:2 FTS	16	19	1	113	50-150	02/10/2021 1449
10:2 FTS	17	14	1	83	50-150	02/10/2021 1449
4:2 FTS	16	16	1	96	50-150	02/10/2021 1449
GenX	35	35	1	101	50-150	02/10/2021 1449
ADONA	16	17	1	106	50-150	02/10/2021 1449
EtFOSA	17	19	1	112	50-150	02/10/2021 1449
EtFOSAA	17	16	1	90	50-150	02/10/2021 1449
EtFOSE	17	18	1	106	50-150	02/10/2021 1449
MeFOSA	17	19	1	111	50-150	02/10/2021 1449
MeFOSAA	17	19	1	107	50-150	02/10/2021 1449
MeFOSE	17	19	1	109	50-150	02/10/2021 1449
PFBS	15	15	1	99	50-150	02/10/2021 1449
PFDS	17	14	1	83	50-150	02/10/2021 1449
PFHpS	17	19	1	114	50-150	02/10/2021 1449
PFNS	17	17	1	102	50-150	02/10/2021 1449
PFOSA	17	19	1	110	50-150	02/10/2021 1449
PFPeS	16	17	1	103	50-150	02/10/2021 1449
PFDOS	17	13	1	76	50-150	02/10/2021 1449
PFBA	17	17	1	99	50-150	02/10/2021 1449
PFDA	17	17	1	96	50-150	02/10/2021 1449
PFDoA	17	17	1	97	50-150	02/10/2021 1449
PFHpA	17	17	1	100	50-150	02/10/2021 1449
PFHxDA	17	16	1	94	50-150	02/10/2021 1449
PFHxA	17	18	1	104	50-150	02/10/2021 1449
PFNA	17	17	1	97	50-150	02/10/2021 1449
PFODA	17	15	1	84	50-150	02/10/2021 1449
PFOA	17	17	1	97	50-150	02/10/2021 1449
PFPeA	17	17	1	99	50-150	02/10/2021 1449
PFTeDA	17	17	1	96	50-150	02/10/2021 1449
PFTrDA	17	19	1	106	50-150	02/10/2021 1449
PFUdA	17	17	1	97	50-150	02/10/2021 1449
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	84	25-150				
13C2_6:2FTS	78	25-150				
13C2_8:2FTS	90	25-150				
13C2_PFDoA	79	25-150				
13C2_PFHxDA	74	25-150				
13C2_PFTeDA	78	25-150				
13C3_PFBS	77	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ82290-002 Batch: 82290 Analytical Method: PFAS by ID SOP Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/09/2021 1126

Surrogate	Q % Rec	Acceptance Limit
13C3_PFHxS	75	25-150
13C3-HFPO-DA	81	25-150
13C4_PFBA	83	25-150
13C4_PFHpA	85	25-150
13C5_PFHxA	84	25-150
13C5_PFPeA	80	25-150
13C6_PFDA	79	25-150
13C7_PFUdA	83	25-150
13C8_PFOA	85	25-150
13C8_PFOS	70	25-150
13C8_PFOSA	72	10-150
13C9_PFNA	78	25-150
d-EtFOSA	64	10-150
d5-EtFOSAA	78	25-150
d9-EtFOSE	76	10-150
d-MeFOSA	74	10-150
d3-MeFOSAA	81	25-150
d7-MeFOSE	79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ82993-001

Batch: 82993

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/16/2021 1049

Parameter	Result	Q Dil	LOQ	DL	Units	Analysis Date
PFHxS	ND	1	4.0	1.0	ng/L	02/17/2021 1659
PFOS	21	1	4.0	1.0	ng/L	02/17/2021 1659
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	87	25-150				
13C2_6:2FTS	102	25-150				
13C2_8:2FTS	99	25-150				
13C2_PFDoA	94	25-150				
13C2_PFHxDA	100	25-150				
13C2_PFTeDA	96	25-150				
13C3_PFBS	99	25-150				
13C3_PFHxS	106	25-150				
13C3-HFPO-DA	103	25-150				
13C4_PFBA	101	25-150				
13C4_PFHpA	108	25-150				
13C5_PFHxA	102	25-150				
13C5_PFPeA	101	25-150				
13C6_PFDA	100	25-150				
13C7_PFUdA	99	25-150				
13C8_PFOA	105	25-150				
13C8_PFOS	95	25-150				
13C8_PFOSA	98	10-150				
13C9_PFNA	95	25-150				
d-EtFOSA	83	10-150				
d5-EtFOSAA	94	25-150				
d9-EtFOSE	95	10-150				
d-MeFOSA	78	10-150				
d3-MeFOSAA	95	25-150				
d7-MeFOSE	93	10-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

DL N = Recovery is out of criteria

DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

 $J = Estimated result < LOQ and <math>\geq DL$ * = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Data for Lot Number: WB06013

PFAS by LC/MS/MS - LCS

Sample ID: WQ82993-002 Batch: 82993 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/16/2021 1049

Parameter	Spike Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
PFHxS	15	15	1	106	50-150	02/17/2021 1709
PFOS	15	21	1	141	50-150	02/17/2021 1709
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	92	25-150				
13C2_6:2FTS	85	25-150				
13C2_8:2FTS	94	25-150				
13C2_PFDoA	92	25-150				
13C2_PFHxDA	97	25-150				
13C2_PFTeDA	92	25-150				
13C3_PFBS	93	25-150				
13C3_PFHxS	93	25-150				
13C3-HFPO-DA	98	25-150				
13C4_PFBA	96	25-150				
13C4_PFHpA	100	25-150				
13C5_PFHxA	94	25-150				
13C5_PFPeA	96	25-150				
13C6_PFDA	90	25-150				
13C7_PFUdA	98	25-150				
13C8_PFOA	98	25-150				
13C8_PFOS	94	25-150				
13C8_PFOSA	87	10-150				
13C9_PFNA	94	25-150				
d-EtFOSA	76	10-150				
d5-EtFOSAA	89	25-150				
d9-EtFOSE	87	10-150				
d-MeFOSA	68	10-150				
d3-MeFOSAA	94	25-150				
d7-MeFOSE	85	10-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody and Miscellaneous Documents

Friday, February 05, 2021 8:24:54 AM

Internal Transfer Samples Pre-Logged inf Workorder: 40221875	to eCCC. Workorder Na	ame: LACROS	SE WELL 238			Ce Ov	rt. Ne vner	eede Rece	ived	X Yes	2/4/	No 2021		Requ	ueste	nd By	9 Analytical www.pacelebs.com r: 2/17/2021
Christopher Hysika Pace Analytical Green Bay 1241 Believue Streat Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace A 106 Va West (knalytical West Intage Point Dr Columbia, SC 2 (803)791-9700	Columbia ive 19172	Prýsi	ryos (Solntal	hers.	NI 36 PFAS by ID						WB	060) 13
15em Sample (5) 1 282-0 2 3	Sample Typs PS	Collect Date Time. 2/3/2021 14:57	Leb10	Mater Water	poussouth 2				X								LAB USE ONLY
Transfers Released Bs 7	1 MWL	Date/Time	Received E	y	7		D)ate/Ti	me	IR77	- MDL r	eporting			150		
Cooler Temperature on Re ***In-order to maintain client- This chain of custody is co	ceipt 3.74 confidentiality	°C Cus	tody Seal N	ng site, s	ampled.	s_nam	te an	d, sigu		(Y) may i	or N notbe	provide	ed on			_	Ŷ)or N

CO1se(97Jun2003)

(Please Print Clearly)					UPPER MIDWEST		Page f of
Company Name: The CS brays		<i>F.</i> /			MN: 612-807-1700	WI: 920-469-2435	40221875
Branch/Location: .			nalytical "				10221004
Project Contact: Steam Desch		y-m	* percentua com			Quote #:	
Phone:		CHAIL	N OF CU	STO	DY	Mail To Contact:	Steve Osesek
Project Number:	A=No:	ne 8=HCL C=H28C	*Preservation Codes 4 D=HNG8 E=DI Wat	er F=Mother	of G-NaCH	Mail To Company:	The Osloroup
Project Name: LaCyrosex Will 23+	71-300	dum Bisulfate Solution	(=Sedium Taicaulfalo	J=Otter		Mail To Address:	444 2151515
Project State:	FILTER		Л			7	Lactrosse, WI 54601
Sampled By (Print): Kristic Taiped	PRESERY (000	VATRON PIERS A	- -	-		Invoice To Contact:	Steve (Besex
Sampled By (Sign):	2	1880 C				Invoice To Company:	The 65 brown
	lletory grown:		9			Invojce To Address:	The 05 broug
Data Package Options MS/MSD	Matrix Codes	30000 100				20.00	Lacrossi, W154601
EPA Level III (billable) C = Civ	a 6W = Denkin recel GW = Ground SW = 3 afters	Weter Water				invoice To Phone:	608433-9388
PACE LAB's CLIENT FIELD ID -	WW ~ Wuste	MYTREE C				CLIENT COMMENTS	LAB COMMENTS P:ofile \$ (Lab Use Only)
001 378-0	203/45	DW X	- 1° .				Dupdrik per Store U.
NO2 379-0	1 12:04	X	- 1*				2/4/2021 CA
003 701-0	2:18	X					1
004 Dap 13-	1	X	. 1.				
005 96-0	2:37	X	- 1*			1	
006 283-0	2:57	X					
	/ 0.57		_ 1>				
07 Blank 13- 1	-					 	
		200					1* Samples moved to seperate CoC for split reporting per John 8, 2/4/21 CDH
		10.00					April reporting par joint at 14/21 CE11
						<u> </u>	
	1	200					
							40221875
Rush Yumaround Time Requested - Prelims	Rolling to Legislative	1- AT) northwes カン・03-21	4:00	reasived By:	Date/11=a:	PACE Project No.
(Rush TAT subject to approval/surcharge) Date Needed:	Furtinguished Byg		2 03-053\		Roccived By: 11	Dreg/Tjengi.	
Transmit Pretin Hush Results by (complete what you want):	T. F.	sea ex .	24121 09	1/5	/ Vicalletthe	4 tace 3/4/2	109/5 Recoipt Temp 3 11 _ °C
Email#1:	Reinquished By:		Date/Time:		Received By:	Deta⊓ime	Sample Receipt pH
Email#2:	Ontomished 9:-		Date/Time:		Received By:	Oute/Times	QK / Adjusted
Telephone:	Stellinguished By:		water title.				Cooler Custody Seal
Samples or HOLD are subject to apecial pricing and release of liability	Reloguished Dyt		. Dale/Time:		Received By:	(hete/Teno:	Present / Net Present Intact / Not Intact
Code-acceptance							· ORIGINAL

PACE ANALYTICAL

Clie	Sample Preservation Receipt Form Seen Bay, WI 54302 Client Name: Project # 40221875 Project # 40221875 Project # 40221875 Initial when completed: Time:																																
	Allo	ontai	ners n	eedin:	g pres	ervatio	on har	ve bee	an che		and n Lot# o			oYes	π N o	A A	Lat		0221. MD of		rvation	ı (if et	l adjus	sted):					Initial compl			Date/ Time:	
		_					_			Lab	LODF 0	e pro-	iapes.					000				, (10 px	_				Ê.		62.H				
				Gla	355						Plast	ic				Via	als				Ja	ırs		Ge	nera	l	Vials (>6mm)	25	łaOH+Zn Act pH≥9	2	Ø	offer adjusted	Volume
	٦	5	I	60	_		ິທ	_	_		00	z	ω	∢	ь	5	工	2	Q	_	5	Ξ	5	H	O,		Vials	12304 pH s2	7-7-	NeOH pH 212	4NO3 pH S2	Per a	(mL)
Pace Lab#	AG10	BG10	AG1H	AG4S	AG4U	AGSU	AGZS	BG3U	BP1U	врзи	ВРЗІ	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	S	VOA	HZSC	ģe Z	NeO	오	표	
001	3.	<u> </u>	-	٩	-	4	-	ш		3	15				Ī	_		1	_	_													2.5/5/10
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003	estate.	10,000	270-139	-644900	0190-031	794000	- PERSON	- Contract 100	9.31.247L	2	0.4,000	Ç-1.11/2	2,000	. ,	197.35		1														- C	1 or (1200) 7	2.5 / 5 / 10
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019 020	150000	H9273	7835	4850	2003	2016	188.20	9:000TB	2562	76730	(E) 576	9425	H35	State	AD.		新疆	387	100 PM	354	1345	Sign.	1988	經驗	最極	200	77.00 84.00 96.00 94.00 94.00 94.00 94.00 94.00 94.00 94.00 94.00 94.00 94.00		羅筋		100		2,57,57,10
\$750000000	明常	推设的	安全官	o track	SPANIS	2000	经统制	超極性	et salu	(FISCHER)	Martino a	e ante	No sale	2202	~1950a	\$5.76m	F-98-34	[Sec. 15]	T. Sandrie	Jan Barre	il olasi area	2.10	20.00	4- 7-6		-14.0	-No	View	elface	e look	in hear	ispace o	column
Exce	plions	to pr	eserv	etion o	check:	VűA	, Coli	form,	TOC,	TOX,	TOH,	O&G	WI D	RO, P	loned	_							OA VI				_				III IIOES	opon.	I
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AG1H AG45						SO4			3N		ար ե ար ե						39H		nL cle					Ŵ	PFU	4 oz	plaŝ	tic jar	unpre	es			1
									38								39M		nl_ cla			ЭН			P5T				Na T	hiosu	fate		
				mber glass unpres BP3S 250 mL plastic H2SO4 mber glass unpres					V	39D	D 40 mL clear vial DI ZPLC z						Zipk	oc bag															

GN

F-GB-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

1" Update per John S - OS Group. 2/4/21 CDH

AG2S 500 mL amber glass H2SO4

BG3U 250 mL clear glass unpres

9		tent Name:	Documen	t Revised: 26Mar2020	
Pace Analytical*		Upon Receipt (SCUR) ment No.:		Author:	
1241 Fellevue Street, Green Bay, WI 54302		BAY-0014-Rev.00	Pace Gro	en Bay Quality Office	
Sample C	Condition Upor	ı Receipt Form (S	CUR		
An ()		Project #:	7	, .	
Client Name: 5 2400	D	M	0#∶∠	10221875	1
Courier: 🔀 CS Logistics 🚺 Fed Ex 🔀 Speede	E ∏UPS ⊡W				
Client Page Other					
Tracking #: <u>국용35 원년95 영</u>	<u>3927)</u>	40	221875		,
Custody Scal on Cooler/Box Present: 📋 yes 🍴	no Scals Intact	□ yes □ no ∟			
Custody Seal on Samples Present: 👸 yes 🛱		☐ yes ☐ no			
Packing Material: Subble Wrap Subble Thermometer Used SR - NA	Type of Ice: We	Blue Dry None 177	Samples o	n joe, cooling process has beg	un
Cooler Temperature Uncorn CO Corn	We river (10)	2.55 21, 1.51		Person examining contr	
Temp Blank Present: S ves Eno	Biological 1	liseue is Frozen: 🔯 ye	os 🔯 ne	Oate: 1/31 Initials:	704
Temp should be above freezing to 6°C.					\sim
Biota Samples may be received at ≤ 0°C if shipped on O		1.		Labeled By Initials:	
Chain of Custody Present:	Mes □No □N/A		44 . 1	han a village	111244
Chain of Custody Filled Out:		2 proj#\$State	1534 (D)	une moonalyses.	4112
Chain of Custody Retinquished:	OHES □No □N/A				
Sampler Name & Signature on COC:	Bres □No □N/A	4.	- · · · · ·		
Samples Arrived within Hold Time:	Dives □NA	5.		,	
- VCA Samples frozen upon receipt	□Yes □No	Date/Tjme:			
Short Hold Time Analysis (<72hr):	□Yes Khio	6.			
Rush Turn Around Time Requested:	Dyee 19No	7.			
Sufficient Volume:	ar .	8.			- 1
For Analysis: @yés □no MS/MSI	D: □Yés ŒKw □N/				
Correct Containers Used:	EYes DNo	9.			.]
-Pace Containers Used:	DATES (SA) DINI	A)			
-Pace IR Containers Used:	□Yes □No UN	x	-		
Containers Intact:	Ľaves □No	10.			
Filtered volume received for Dissolved tests	□Yes □No □M	Á 11.		'	
Sample Labels match COC:	itores □No □Ni			-	,
-Includes date/time/ID/Analysis Matrix	L. I				
Trip Blank Present:	□Yes □Nc CM	A 13.			
Trip Blank Custody Seals Present	□Yes □No Ĉ±K				
Page Trip Blank Lot# (if purchased):					
Client Notification/ Resolution:				achéd form for additional comm	nents 🔲
Person Contacted:		e/Time:			
Comments/ Resolution:					
		7-0-0-0			
			+		
PM Review is documented electronically in E	Min Duneticale of C	is product for DM color	ouladass	they have reviewed the es	ımnle logi:
PM Review is documented electronically in E	лыз. Бу генеазинд п	ne projeca, the FW ackin	Owendes		F
				Page 0	_ of

	Samples Receipt Checklist (SRC) (ME0018C-15)	MARK DISTRIBUTION
e Analyticat"	Issuing Authority: Pace ENV - WCOL	HALL THE STATE OF
\circ	Sample Receipt Checklist (SRC)	WB06013
lient Vace	Cooler Inspected by/date: KBS/2612 Lot #	: KLC2
leans of receipt; Pac	e Client UPS FedEx Other:	
Yes No	Were custody seals present on the cooler?	
Yes No No	2. If custody seals were present, were they intact and unbroken?	
H Strip ID: Y\C	Chlorine Strip ID: Tested by:	no-Cup ID: \(\sigma \sigma \)
57/37 °C 176	receipt / Derived (Corrected) temperature upon receipt %Solid Sna °C	
lethod: Temperature P	lank Against Bottles IR Gun ID: 5 IR Gun Correction	Factor: 0 °C
tethod of coolant:	Vet Ice Dice Packs Dry Ice None	
Yes No MA	Vet Ice Like Packs Libry Ice Li None 3. If temperature of any cooler exceeded 6.0°C, was Project Manager PM was Nortified by phone / email / face-to-face (circle one).	Notified?
	The was received by parame , charter the war to	
Yes No NA	 Is the commercial courier's packing slip attached to this form? Were proper custody procedures (relinquished/received) followed? 	
	Were sample IDs listed on the COC?	
Yes No	7. Were sample IDs listed on all sample containers?	
1Yes □No	8. Was collection date & time listed on the COC?	
	9. Was collection date & time listed on all sample containers?	
7Yes □No	10. Did all container label information (ID, date, time) agree with the	COC?
Yes No	11. Were tests to be performed fisted on the COC?	
	12. Did all samples arrive in the proper containers for each test and/or	in good condition
Yes No	(unbroken, lids on, etc.)?	
Yes No	13. Was adequate sample volume available?	
Yes No	14. Were all samples received within ½ the holding time or 48 hours,	Whichever comes first?
☐ Yes ☑ No	15. Were any samples containers missing/excess (circle one) samples 16. For VOA and RSK-175 samples, were bubbles present>"pea-size	Not fisted on CoC:
□Yes □No ☑ÑA	in any of the VOA vials?	(74 Of Olimi in Galancier)
	17. Were all DRO/metals/nutrient samples received at a pH of < 2?	
Yes No NA	18. Were all evanide samples received at a pH > 12 and sulfide samp.	les received at a pH > 9?
	The Warr all applicable NW /TVN/comide/phenol/625 1/608.3 (≤ 0.5	mg/L) samples free of
☐ Yes ☐ No ☐ NA	residual chlorine?	
Yes No NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD (lesignations, etc)
Yes No NA	correctly transcribed from the COC into the comment section in LIM	S?
Yes No	21. Was the quote number listed on the container label? If yes, Quote	
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with her	adspace.)
Sample(s)	- VISS JUN were received incorrectly preserved an	d were adjusted accordingly
in sample receiving with	mil. of circle one: H2SO4, HNO3, HCl, NaOH using SR # 1	<u>C</u>
Time of preservation	. If more than one preservative is needed, please note in the c	omments below.
Sample(s)		bles >6 mm in diameter.
Samples(s)	were received with TRC > 0.5 mg/L	(If #19 is no) and were
adjusted accordingly in sa	ample receiving with sodium thiosulfate (Na2S2O3) with Shealy ID: 1	10-
SR barcode l'abels applica	1525	
Six dialorde laneis abbito		
Comments:	<u> </u>	
Comments.		



444 21st Street South · La Crosse, Wisconsin · 54601

February 22, 2021

3114 Howry Avenue La Crosse, WI 54603

Subject: Private Well Sampling Results

2511 Second Avenue West, La Crosse, WI 54603

Tax Parcel # 4-378-0 Sampling Point # 378-0

Sample Date: February 3, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)			
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	ipt for or the		
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds all 6		
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo <i>total</i> of		
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended one of these 6 c combined to		
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.2 ppt	20 ppt ^{a,b}			
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	The any o		

Private Well Sampling Results for 2511 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-378-0 Sampling Point # 378-0 February 22, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	35 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	1.1 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

^d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2511 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-378-0 Sampling Point # 378-0 February 22, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB06015-001

Description: 378-0

Matrix: Aqueous

Date Sampled:02/03/2021 1315

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/12/2021 2058 JJG

Prep Date

Batch 02/11/2021 1217 82588

Parameter	CAS Number	Analytical Method	Result	Q I	_OQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.6	J	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.5	J	3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	35		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.2	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	3.6	0.90	ng/L	1
	ın 1 Accep covery Lir	otance nits						
-		-150						
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	98 25	-150 -150 -150						

W = Reported on wet weight basis H = Out of holding time

13C2_PFTeDA

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

N = Recovery is out of criteria

96

Page 10 of 36

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

2 ' '' 070 0

Laboratory ID: WB06015-001

Matrix: Aqueous

Description: 378-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Date Sampled:02/03/2021 1315

Project Number: 40221856

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits
13C3_PFBS	101	25-150
13C3_PFHxS	98	25-150
13C3-HFPO-DA	97	25-150
13C4_PFBA	106	25-150
13C4_PFHpA	102	25-150
13C5_PFHxA	107	25-150
13C5_PFPeA	105	25-150
13C6_PFDA	102	25-150
13C7_PFUdA	100	25-150
13C8_PFOA	109	25-150
13C8_PFOS	95	25-150
13C8_PFOSA	98	10-150
13C9_PFNA	103	25-150
d-EtFOSA	83	10-150
d5-EtFOSAA	96	25-150
d9-EtFOSE	95	10-150
d-MeFOSA	81	10-150
d3-MeFOSAA	98	25-150
d7-MeFOSE	93	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



444 21st Street South · La Crosse, Wisconsin · 54601

February 22, 2021

2511 Second Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2511 Second Avenue West, La Crosse, WI 54603

Tax Parcel # 4-378-0 Sampling Point # 378-0

Sample Date: February 3, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	opt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 comp ' <i>total</i> of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	9 ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.2 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	The any

Private Well Sampling Results for 2511 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-378-0 Sampling Point # 378-0 February 22, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	35 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	1.1 ppt	None Established ^c

Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for PFOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2511 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-378-0 Sampling Point # 378-0 February 22, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	<u></u>	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB06015-001

Description: 378-0

Matrix: Aqueous

Date Sampled:02/03/2021 1315

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/12/2021 2058 JJG

Prep Date

Batch 02/11/2021 1217 82588

Parameter	CAS Number	Analytical Method	Result	Q I	_OQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.6	J	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.5	J	3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	35		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.2	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	3.6	0.90	ng/L	1
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_		-150						
		450						
		-150						
	98 25	-150 -150 -150						

W = Reported on wet weight basis H = Out of holding time

13C2_PFTeDA

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

N = Recovery is out of criteria

96

Page 10 of 36

25-150

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

2 ' '' 070 0

Laboratory ID: WB06015-001

Matrix: Aqueous

Description: 378-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Date Sampled:02/03/2021 1315

Project Number: 40221856

Surrogate	Run 1 Ao Q % Recovery	cceptance Limits
13C3_PFBS	101	25-150
13C3_PFHxS	98	25-150
13C3-HFPO-DA	97	25-150
13C4_PFBA	106	25-150
13C4_PFHpA	102	25-150
13C5_PFHxA	107	25-150
13C5_PFPeA	105	25-150
13C6_PFDA	102	25-150
13C7_PFUdA	100	25-150
13C8_PFOA	109	25-150
13C8_PFOS	95	25-150
13C8_PFOSA	98	10-150
13C9_PFNA	103	25-150
d-EtFOSA	83	10-150
d5-EtFOSAA	96	25-150
d9-EtFOSE	95	10-150
d-MeFOSA	81	10-150
d3-MeFOSAA	98	25-150
d7-MeFOSE	93	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 22, 2021

2515 Second Avenue West La Crosse, WI 54603

Subject: Private Well Sampling Results

2515 Second Avenue West, La Crosse, WI 54603

Tax Parcel # 4-379-0 Sampling Point # 379-0

Sample Date: February 3, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below. **PLEASE NOTE:** As a quality check, we collected a "duplicate" sample from your well, and it was sent to the lab without the sampling point number, (identified as Dup #11). The results were similar. The higher of the two results are presented in the table below:

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	recommended one of these 6 c combined to
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.5 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 2515 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-379-0 Sampling Point # 379-0 February 22, 2021

Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS)	1.5 ppt	450,000 ppt ^a
CAS # 375-73-5		, , ,
Perfluorohexanesulfonic acid (PFHxS)	3.5 ppt	40 ppt ^a
CAS # 355-46-4	3.5 ppt	10 ppc
Perfluorobutanoic acid (PFBA)	16 nnt	10 000 nn+ ^a
CAS # 375-22-4	16 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA)	Nat Datastad	200 1 3
CAS # 335-76-2	Not Detected	300 ppt ^a
Perfluorododecanoic acid (PFDoA)	Nat Datastast	F001 3
CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA)	Nat Datastad	150 000 mm± 3
CAS # 307-24-4	Not Detected	150,000 ppt ^a
Perfluorononanoic acid (PFNA)	Nat Datastad	20 mm± 3
CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA)	Not Datastad	10 000 nnt a
CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA)	Nat Datastad	2 000 mm+ 3
CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	Nat Data at a d	2 000 3
CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA)	Nat Data at a d	400,000 15 15 4
CAS # 16517-11-6	Not Detected	400,000 ppt ^a

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

^e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 2515 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-379-0 Sampling Point # 379-0 February 22, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. *DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.*

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about		<u>Contact</u>	<u>Phone</u>	E-mail Address
Soil & Groundwate Testing, Clean Up	^r DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well

Client: Pace Analytical Services, LLC

Laboratory ID: WB06015-002

Description: 379-0

Matrix: Aqueous

Date Sampled:02/03/2021 1404

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/12/2021 2119 JJG

Prep Date 02/11/2021 1217 82588

Batch

Parameter	CAS Number	Analytical Method	Result Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.5 J	3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.5 J	3.9	0.98	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	16	3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	7.8	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.3 J	3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	3.9			1
Perfluorooctanesulfonic acid (PFOS)		,		3.9	0.98	ng/L	1
Perhadi doctanesanonic acia (PPOS)	1703-23-1	PFAS by ID SOP	5.5	3.9	0.98	ng/L	ı
Surrogate Q % Re	covery Lir	otance nits					
-		-150					
_		-150					
_		-150					
13C2_PFDoA	93 25	-150					
13C2_PFHxDA	98 25	-150					
13C2_PFTeDA	97 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

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B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

J = Estimated result < LOQ and \geq DL

E = Quantitation of compound exceeded the calibration range DL = Detection Limit

P = The RPD between two GC columns exceeds 40%

Client: Pace Analytical Services, LLC

Description: 379-0

Date Sampled:02/03/2021 1404

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021 Project Number: 40221856

Currogata	Run 1 A	cceptance Limits	
Surrogate			
13C3_PFBS	101	25-150	
13C3_PFHxS	100	25-150	
13C3-HFPO-DA	97	25-150	
13C4_PFBA	107	25-150	
13C4_PFHpA	102	25-150	
13C5_PFHxA	105	25-150	
13C5_PFPeA	102	25-150	
13C6_PFDA	101	25-150	
13C7_PFUdA	100	25-150	
13C8_PFOA	110	25-150	
13C8_PFOS	87	25-150	
13C8_PFOSA	103	10-150	
13C9_PFNA	96	25-150	
d-EtFOSA	86	10-150	
d5-EtFOSAA	94	25-150	
d9-EtFOSE	95	10-150	
d-MeFOSA	88	10-150	
d3-MeFOSAA	99	25-150	
d7-MeFOSE	89	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB06015-002

Matrix: Aqueous

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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Client: Pace Analytical Services, LLC

Laboratory ID: WB06015-003 Matrix: Aqueous

Description: DUP-12

Date Sampled:02/03/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

Run Prep Method SOP SPE Analytical Method Dilution PFAS by ID SOP

Analysis Date Analyst 02/12/2021 2130 JJG

Prep Date 02/11/2021 1217 82588

Batch

Parameter	CAS Number	Analytical Method	Result (2 LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3)	763051-92-9	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND	17	4.2	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.4	J 4.2	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.5	J 4.2	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	16	4.2	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND	8.4	2.1	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.0	J 4.2	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	4.2	1.1	ng/L	1
Surrogate Q % Rec		otance nits					
		-150					
		-150					
		-150					
13C2_PFDoA	97 25	-150					
	96 25	-150					
13C2_PFTeDA	95 25	-150					

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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B = Detected in the method blank

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P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

Client: Pace Analytical Services, LLC

ace Analytical Sci vices, L

Laboratory ID: WB06015-003

Matrix: Aqueous

Description: DUP-12
Date Sampled:02/03/2021

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221856

Surrogate	Run 1 A Q % Recovery	cceptance Limits	
13C3_PFBS	104	25-150	
13C3_PFHxS	104	25-150	
13C3-HFPO-DA	100	25-150	
13C4_PFBA	109	25-150	
13C4_PFHpA	102	25-150	
13C5_PFHxA	105	25-150	
13C5_PFPeA	104	25-150	
13C6_PFDA	103	25-150	
13C7_PFUdA	96	25-150	
13C8_PFOA	105	25-150	
13C8_PFOS	86	25-150	
13C8_PFOSA	103	10-150	
13C9_PFNA	105	25-150	
d-EtFOSA	82	10-150	
d5-EtFOSAA	97	25-150	
d9-EtFOSE	98	10-150	
d-MeFOSA	88	10-150	
d3-MeFOSAA	95	25-150	
d7-MeFOSE	94	10-150	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

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ND = Not detected at or above the DL H = Out of holding time N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

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Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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444 21st Street South · La Crosse, Wisconsin · 54601

February 20, 2021

3049 Edgewater Lane La Crosse, WI 54603

Subject: Private Well Sampling Results

3049 Edgewater Lane, La Crosse, WI 54603

Tax Parcel # 4-1704-0 Sampling Point # 1704-0

Sample Date: February 3, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in *your* well are called the "Sample Result" in the table below.

Sample Results

Compound	Sample Result (unit)	Recomn Public I Standard	Health
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	pt for or the
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	is 20 p ounds f all 6
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	ed limit 6 compo total of
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	Ψ ~
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.4 ppt	20 ppt ^{a,b}	The

Private Well Sampling Results for 3049 Edgewater Lane, La Crosse, WI 54603 Tax Parcel # 4-1704-0 Sampling Point # 1704-0 February 20, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	9.4 ppt	10,000 ppt ^a
Perfluorodecanoic acid (PFDA) CAS # 335-76-2	0.95 ppt	300 ppt ^a
Perfluorododecanoic acid (PFDoA) CAS # 307-55-1	Not Detected	500 ppt ^a
Perfluorohexanoic acid (PFHxA) CAS # 307-24-4	1.2 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.3 ppt	None Established ^c

^a Public health enforcement standard (ES) recommended by DHS.

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for PFOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

^c A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

Private Well Sampling Results for 3049 Edgewater Lane, La Crosse, WI 54603 Tax Parcel # 4-1704-0 Sampling Point # 1704-0 February 20, 2021

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

Questions about	•••	Contact	<u>Phone</u>	<u>E-mail Address</u>
Soil & Groundwate Testing, Clean Up	er DNR	David Rozeboom	715-215-2078	David.Rozeboom@wisconsin.gov
Drinking Water or Private wells	DNR	Kyle Burton	920-360-2112	kyle.burton@wisconsin.gov
Health Concerns	DHS	Curtis Hedman	608-266-6677	Curtis.Hedman@dhs.wisconsin.gov

On behalf of The City of La Crosse *The OS Group, LLC*

Attachment: Lab report for your well





February 19, 2021

Steve Osesek The OS Group, LLC N6746 McCurdy Road Holmen, WI 54636

RE: Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221874

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska christopher.hyska@pacelabs.com (920)469-2436

Chushpher Hyske

Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC





Green Bay, WI 54302 (920)469-2436

SAMPLE SUMMARY

Project: LACROSSE WELL 23 & 24

Pace Project No.: 40221874

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40221856003	1704-0	Water	02/03/21 14:18	02/04/21 14:12

REPORT OF LABORATORY ANALYSIS

(Please Print Clearly)	UPPER MIDWEST REGION	Page 1 of
Company Name: The Company	MN: 612-607-1700 WI: 920-469-2436	40221874
Branch/Location:	Pace Analytical*	$\frac{40221874}{10231856}$
Project Contact: Steam Teach	www.pacelabs.com Quote #:	Ра
Phone:	CHAIN OF CUSTODY Mail To Contact:	Steve Osesek
Project Number:	*Preservation Codes Mail To Company:	The Oslamoup
	A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other Mail To Address:	444 2151515
HOUSE Wat 33.0.	FILTERED? (YES/NO) Y/N V	Lacrosse, WI 54601
Project State:	PRESERVATION Pick A Invoice To Contact:	Steve Gesek
Sampled By (Print): Kristie Weed	(CODE)* Lavoice To Company	The 105 broup
Sampled By (Sign): Regulatory		444 215131-3
PO#: Program:		1 24 2 12 1/3/201
(billable) A = Air	rix Codes W = Water W = Printing Water W = Water	Lacrossi, W154601
EPA Level III (billable) C = Charcoal	DW - Dilliking Water Javanian To Dhanna	608-433-9388
EPA Level IV NOT needed on your sample SI = Soil SI = Sludge	DW = Drinking Water GW = Ground Water SW = Surface Water WP = Wipe Invoice To Phone: CLIENT CLIENT	LAB COMMENTS Profile #
	TIME MATRIX COMMENTS	(Lab Use Only)
001 378-0 0202	1-45 DW X 1*	Dupduk per Stave O.
102 379-0	3:04 \ X 1*	2/4/2021 CM
003 1704-0	2:18	,
004 Dup 12	X 1*	
005 96-0	2:37 X 1*	
-006 282-0	2:57 X 1*	
07 Plank 12	X 1*	
OCT DESIRED		
		1* Samples moved to seperate CoC for
		split reporting per John S. 2/4/21 CDH
		40221874
	Course of By: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time:	PACE Project No.
(Rush TAT subject to approval/surcharge) Date Needed:	quished By: // / Date/Time! Recaived By: // / Date/Time!	100000
Transmit Prelim Rush Results by (complete what you want):	FLOCEX 24121 0915 VVicallettack face 2/4/24	Receipt Temp # C
Email #1: Reli	equished By: Date/Time: Received By: Date/Time:	Sample Receipt pH
Email #2: Telephone: Reli	equished By: Date/Time: Received By: Date/Time:	OK / Adjusted
Fax:		Cooler Custorly Seal Present / Not Present
Samples on HOLD are subject to	equished By: Date/Time: Received By: Date/Time:	Intact / Not Intact Version 6.0 06/14/06

All containers needing preservation have been checked and noted below: □Yes □No

Lab Lot# of pH paper:

40221874

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/ Time:

	_										LOUI C																*		8				
				Gla	iss						Plast	ic			***************************************	Via	als			2 manuary common	Ja	ars		Ge	enera	ı	Vials (>6mm) *	5 2	Act pH ≥		Ci	usted	Volume
Pace Lab#	AG1U	BG1U	АС1Н	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	врзв	BP3N	BP3S	VG9A	DG9T	VG9U	М еэн	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials	H2SO4 pH ≤2	NaOH+Zn /	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	(mL)
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Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm) : □Yes □No 从N/A *If yes look in headspace column

AG1U 1 liter amber glass	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic		4 oz amber jar unpres
BG1U 1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H 1 liter amber glass HCl	•	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
• •		•	•	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4S 125 mL amber glass H	2504 BP3N	250 mL plastic HNO3	•			
AG4U 120 mL amber glass u	npres BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U 100 mL amber glass up			1 VG9D	40 mL clear vial DI	ZPLC	ziploc bag
	· ·				GN	
AG2S 500 mL amber glass H	2SO4				GN	

1* Update per John S - OS Group. 2/4/21 CDH

BG3U 250 mL clear glass unpres

Pace Analytical*	
1241 Bellevue Street, Green Bay, WI 543	02

Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: 26Mar2020 Author:

Document No.:

ENV-FRM-GBAY-0014-Rev.00

Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Custody Seal on Cooler/Box Present: yes no Custody Seal on Samples Present: yes no Packing Material: Bubble Wrap Bubble Bathermometer Used SR - N/A Type Cooler Temperature Uncorr: OT/Corr: Temp Blank Present: yes no Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dry Ice. Chain of Custody Present: OT/Corr: Chain of Custody Filled Out: OY Chain of Custody Relinquished: OY Sampler Name & Signature on COC: OY Samples Arrived within Hold Time: OY Short Hold Time Analysis (<72hr): OY Rush Turn Around Time Requested: OY Sufficient Volume: OY For Analysis: OY Sufficient Volume: OY For Analysis: OY MS/MSD: OY	Seals ags C e of Ice: Biolo es □No es □No	intact: intact: None We	40221874 Tyes no Tyes no Other Blue Dry None Person examining contents: Date: Labeled By Initials: 1. 2. Proj# State pa# share no
Client Pace Other: Tracking #:	Seals Seals Seals ags Biolo es □No es □No es □No es □No	intact: intact: None Wei gical T	40221874 Tyes no Other Blue Dry None Person examining contents: Date: Labeled By Initials: 1. 2. proj # *State pa# phone moanalyses 2412 3. 4.
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<u>*</u>	Yes □No		10.
O THOUTON THE OUT	Yes □No		/1
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-Includes date/time/ID/Analysis Matrix:	.)	. .	
	/ Yes □No	DKI/A	13
	Yes □No		
Pace Trip Blank Lot # (if purchased):	.00 1111	. —.,,,,	
Client Notification/ Resolution: Person Contacted: Comments/ Resolution:		Date	If checked, see attached form for additional comments /Time:



Report of Analysis

Pace Analytical Services, LLC 1241 Bellevue Street

Suite 9 Green Bay, WI 54302 Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221874 Lot Number: **WB06014**

Date Completed:02/18/2021



02/18/2021 6:54 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB06014

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary Pace Analytical Services, LLC

Lot Number: WB06014

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221874

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1704-0	Aqueous	02/03/2021 1418	02/06/2021

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Pace Analytical Services, LLC

Lot Number: WB06014

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40221874

Sample	e Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1704-0	Aqueous	PFBS	PFAS by ID	1.5	J	ng/L	5
001	1704-0	Aqueous	PFBA	PFAS by ID	9.4		ng/L	5
001	1704-0	Aqueous	PFDA	PFAS by ID	0.95	J	ng/L	6
001	1704-0	Aqueous	PFHpA	PFAS by ID	1.0	J	ng/L	6
001	1704-0	Aqueous	PFHxA	PFAS by ID	1.2	J	ng/L	6
001	1704-0	Aqueous	PFOA	PFAS by ID	4.3		ng/L	6
001	1704-0	Aqueous	PFPeA	PFAS by ID	1.3	J	ng/L	6
001	1704-0	Aqueous	PFOS	PFAS by ID	5.4		ng/L	6

(8 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WB06014-001 Matrix: Aqueous

DL

Units

Run

Description: 1704-0

Date Sampled:02/03/2021 1418

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021

Project Number: 40221874

Batch

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date SOP SPE PFAS by ID SOP 02/12/2021 2037 JJG 02/11/2021 1217 82588 CAS Analytical Number Result Q LOQ Parameter Method PFAS by ID SOP 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) 756426-58-1 ND 7.1

	. d. d					_		00	
_	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	${\it 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic\ acid\ (11Cl-PF3)}$	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
	N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.5	J	3.5	0.88	ng/L	1
	Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	9.4		3.5	0.88	ng/L	1
	Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	0.95	J	3.5	0.88	ng/L	1
	Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.0	J	3.5	0.88	ng/L	1
	Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
	Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.3		3.5	0.88	ng/L	1
	Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.3	J	3.5	0.88	ng/L	1
	Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
	Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.4		3.5	0.88	ng/L	1

_	Surrogate	Q	Run 1 A % Recovery	cceptance Limits
	13C2_4:2FTS		115	25-150
	13C2_6:2FTS		96	25-150
	13C2_8:2FTS		92	25-150
	13C2_PFDoA		81	25-150
	13C2_PFHxDA		63	25-150
	13C2_PFTeDA		71	25-150

LOQ = Limit of Quantitation

B = Detected in the method blank N = Recovery is out of criteria

ND = Not detected at or above the DL H = Out of holding time

W = Reported on wet weight basis

J = Estimated result < LOQ and \geq DL

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

E = Quantitation of compound exceeded the calibration range DL = Detection Limit P = The RPD between two GC columns exceeds 40%

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Matrix: Aqueous

Date Sampled:02/03/2021 1418

Description: 1704-0

Project Name: LACROSSE WELLS 23 & 24

Date Received: 02/06/2021 Project Number: 40221874

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
13C3_PFBS	87	25-150
13C3_PFHxS	83	25-150
13C3-HFPO-DA	86	25-150
13C4_PFBA	93	25-150
13C4_PFHpA	93	25-150
13C5_PFHxA	96	25-150
13C5_PFPeA	94	25-150
13C6_PFDA	87	25-150
13C7_PFUdA	89	25-150
13C8_PFOA	95	25-150
13C8_PFOS	72	25-150
13C8_PFOSA	88	10-150
13C9_PFNA	91	25-150
d-EtFOSA	81	10-150
d5-EtFOSAA	84	25-150
d9-EtFOSE	73	10-150
d-MeFOSA	73	10-150
d3-MeFOSAA	88	25-150
d7-MeFOSE	83	10-150

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL H = Out of holding time

N = Recovery is out of criteria W = Reported on wet weight basis P = The RPD between two GC columns exceeds 40%

J = Estimated result < LOQ and \geq DL

Laboratory ID: WB06014-001

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Sample ID: WQ82588-001 Batch: 82588

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/11/2021 1217

Parameter	Result	Q Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
11CI-PF3OUdS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
8:2 FTS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
6:2 FTS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
10:2 FTS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
4:2 FTS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
GenX	ND	1	8.0	2.0	ng/L	02/12/2021 1331
ADONA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
EtFOSA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
EtFOSAA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
EtFOSE	ND	1	8.0	2.0	ng/L	02/12/2021 1331
MeFOSA	ND	1	16	4.0	ng/L	02/12/2021 1331
MeFOSAA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
MeFOSE	ND	1	8.0	2.0	ng/L	02/12/2021 1331
PFBS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFDS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFHpS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFNS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFOSA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFPeS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFDOS	ND	1	8.0	2.0	ng/L	02/12/2021 1331
PFHxS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFBA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFDA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFDoA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFHpA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFHxDA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
PFHxA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFNA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFODA	ND	1	8.0	2.0	ng/L	02/12/2021 1331
PFOA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFPeA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFTeDA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFTrDA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFUdA	ND	1	4.0	1.0	ng/L	02/12/2021 1331
PFOS	ND	1	4.0	1.0	ng/L	02/12/2021 1331
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	105	25-150				
13C2_6:2FTS	114	25-150				
13C2_8:2FTS	100	25-150				
13C2_PFDoA	109	25-150				
13C2_PFHxDA	111	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MB

Sample ID: WQ82588-001 Batch: 82588

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/11/2021 1217

Surrogate	Q S	% Rec	Acceptance Limit	
13C2_PFTeDA		111	25-150	
13C3_PFBS		106	25-150	
13C3_PFHxS		112	25-150	
13C3-HFPO-DA		105	25-150	
13C4_PFBA		114	25-150	
13C4_PFHpA		109	25-150	
13C5_PFHxA		117	25-150	
13C5_PFPeA		113	25-150	
13C6_PFDA		107	25-150	
13C7_PFUdA		110	25-150	
13C8_PFOA		116	25-150	
13C8_PFOS		98	25-150	
13C8_PFOSA		104	10-150	
13C9_PFNA		117	25-150	
d-EtFOSA		85	10-150	
d5-EtFOSAA		104	25-150	
d9-EtFOSE		106	10-150	
d-MeFOSA		86	10-150	
d3-MeFOSAA		105	25-150	
d7-MeFOSE		98	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ82588-002 Batch: 82588 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/11/2021 1217

	Spike				0/ 5	
Parameter	Amount (ng/L)	Result (ng/L) Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	14	14	1	97	50-150	02/12/2021 1342
11CI-PF3OUdS	14	14	1	98	50-150	02/12/2021 1342
8:2 FTS	15	17	1	115	50-150	02/12/2021 1342
6:2 FTS	14	12	1	85	50-150	02/12/2021 1342
10:2 FTS	15	16	1	107	50-150	02/12/2021 1342
4:2 FTS	14	16	1	111	50-150	02/12/2021 1342
GenX	30	32	1	107	50-150	02/12/2021 1342
ADONA	14	15	1	106	50-150	02/12/2021 1342
EtFOSA	15	19	1	125	50-150	02/12/2021 1342
EtFOSAA	15	14	1	94	50-150	02/12/2021 1342
EtFOSE	15	18	1	120	50-150	02/12/2021 1342
MeFOSA	15	14	1	91	50-150	02/12/2021 1342
MeFOSAA	15	14	1	95	50-150	02/12/2021 1342
MeFOSE	15	16	1	104	50-150	02/12/2021 1342
PFBS	13	14	1	104	50-150	02/12/2021 1342
PFDS	13 15	16	1	102	50-150	02/12/2021 1342
PFHpS	14	16	1	109	50-150	02/12/2021 1342
PFNS	15	14	1	94	50-150	02/12/2021 1342
PFOSA	15	16	1	108	50-150	02/12/2021 1342
PFPeS	14	15		108	50-150	
			1			02/12/2021 1342
PFDOS	15	13	1	86	50-150	02/12/2021 1342
PFHxS	14	14	1	104	50-150	02/12/2021 1342
PFBA	15 15	15	1 1	100	50-150	02/12/2021 1342
PFDA		15		101	50-150	02/12/2021 1342
PFDoA	15	16	1	104	50-150	02/12/2021 1342
PFHpA	15	15	1	100	50-150	02/12/2021 1342
PFHxDA	15	15	1	101	50-150	02/12/2021 1342
PFHxA	15	15	1	102	50-150	02/12/2021 1342
PFNA	15	16	1	103	50-150	02/12/2021 1342
PFODA	15	14	1	93	50-150	02/12/2021 1342
PFOA	15	16	1	106	50-150	02/12/2021 1342
PFPeA	15	16	1	104	50-150	02/12/2021 1342
PFTeDA	15	15	1	101	50-150	02/12/2021 1342
PFTrDA	15	17	1	111	50-150	02/12/2021 1342
PFUdA	15	15	1	98	50-150	02/12/2021 1342
PFOS	14	14	1	102	50-150	02/12/2021 1342
Surrogate	Q % Rec	Acceptance Limit				
13C2_4:2FTS	106	25-150				
13C2_6:2FTS	121	25-150				
13C2_8:2FTS	115	25-150				
13C2_PFDoA	110	25-150				
13C2_PFHxDA	105	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - LCS

Sample ID: WQ82588-002 Batch: 82588

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/11/2021 1217

Surrogate	Q % Red	Acceptance Limit	
13C2_PFTeDA	104	25-150	
13C3_PFBS	104	25-150	
13C3_PFHxS	105	25-150	
13C3-HFPO-DA	104	25-150	
13C4_PFBA	108	25-150	
13C4_PFHpA	109	25-150	
13C5_PFHxA	109	25-150	
13C5_PFPeA	108	25-150	
13C6_PFDA	105	25-150	
13C7_PFUdA	107	25-150	
13C8_PFOA	109	25-150	
13C8_PFOS	97	25-150	
13C8_PFOSA	99	10-150	
13C9_PFNA	109	25-150	
d-EtFOSA	76	10-150	
d5-EtFOSAA	102	25-150	
d9-EtFOSE	102	10-150	
d-MeFOSA	90	10-150	
d3-MeFOSAA	103	25-150	
d7-MeFOSE	105	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Sample ID: WB06014-001MS Batch: 82588 Analytical Method: PFAS by ID SOP Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 02/11/2021 1217

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	ND	14	12		1	86	50-150	02/12/2021 2047
11CI-PF3OUdS	ND	14	8.5		1	61	50-150	02/12/2021 2047
8:2 FTS	ND	14	12		1	84	50-150	02/12/2021 2047
6:2 FTS	ND	14	13		1	90	50-150	02/12/2021 2047
10:2 FTS	ND	14	9.8		1	68	50-150	02/12/2021 2047
4:2 FTS	ND	14	11		1	82	50-150	02/12/2021 2047
GenX	ND	30	27		1	92	50-150	02/12/2021 2047
ADONA	ND	14	14		1	100	50-150	02/12/2021 2047
EtFOSA	ND	15	14		1	92	50-150	02/12/2021 2047
EtFOSAA	ND	15	15		1	98	50-150	02/12/2021 2047
EtFOSE	ND	15	15		1	102	50-150	02/12/2021 2047
MeFOSA	ND	15	12		1	82	50-150	02/12/2021 2047
MeFOSAA	ND	15	14		1	95	50-150	02/12/2021 2047
MeFOSE	ND	15	14		1	96	50-150	02/12/2021 2047
PFBS	1.5	13	13		1	88	50-150	02/12/2021 2047
PFDS	ND	14	10		1	71	50-150	02/12/2021 2047
PFHpS	ND	14	12		1	88	50-150	02/12/2021 2047
PFNS	ND	14	11		1	76	50-150	02/12/2021 2047
PFOSA	ND	15	15		1	98	50-150	02/12/2021 2047
PFPeS	ND	14	14		1	100	50-150	02/12/2021 2047
PFDOS	ND	14	7.3		1	51	50-150	02/12/2021 2047
PFHxS	ND	13	12		1	89	50-150	02/12/2021 2047
PFBA	9.4	15	22		1	85	50-150	02/12/2021 2047
PFDA	0.95	15	15		1	104	50-150	02/12/2021 2047
PFDoA	ND	15	13		1	85	50-150	02/12/2021 2047
PFHpA	1.0	15	14		1	87	50-150	02/12/2021 2047
PFHxDA	ND	15	14		1	92	50-150	02/12/2021 2047
PFHxA	1.2	15	14		1	88	50-150	02/12/2021 2047
PFNA	ND	15	14		1	93	50-150	02/12/2021 2047
PFODA	ND	15	11		1	74	50-150	02/12/2021 2047
PFOA	4.3	15	17		1	82	50-150	02/12/2021 2047
PFPeA	1.3	15	14		1	87	50-150	02/12/2021 2047
PFTeDA	ND	15	13		1	89	50-150	02/12/2021 2047
PFTrDA	ND	15	15		1	100	50-150	02/12/2021 2047
PFUdA	ND	15	14		1	92	50-150	02/12/2021 2047
PFOS	5.4	14	21		1	112	50-150	02/12/2021 2047
Surrogate	Q % Re	Ad	cceptance Limit		·		00 .00	02, 12, 202 1 20 17
13C2_4:2FTS	122		25-150					
13C2_6:2FTS	100		25-150					
13C2_8:2FTS	104		25-150					
13C2_PFDoA	84		25-150					
13C2_PFHxDA	67		25-150					

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

PFAS by LC/MS/MS - MS

Sample ID: WB06014-001MS Batch: 82588

Analytical Method: PFAS by ID SOP

Matrix: Aqueous Prep Method: SOP SPE

Prep Date: 02/11/2021 1217

Surrogate	Q	% Rec	Acceptance Limit	
13C2_PFTeDA		78	25-150	
13C3_PFBS		89	25-150	
13C3_PFHxS		86	25-150	
13C3-HFPO-DA		93	25-150	
13C4_PFBA		100	25-150	
13C4_PFHpA		97	25-150	
13C5_PFHxA		104	25-150	
13C5_PFPeA		99	25-150	
13C6_PFDA		90	25-150	
13C7_PFUdA		90	25-150	
13C8_PFOA		97	25-150	
13C8_PFOS		70	25-150	
13C8_PFOSA		93	10-150	
13C9_PFNA		97	25-150	
d-EtFOSA		77	10-150	
d5-EtFOSAA		83	25-150	
d9-EtFOSE		76	10-150	
d-MeFOSA		87	10-150	
d3-MeFOSAA		90	25-150	
d7-MeFOSE		83	10-150	

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Chain of Custody and Miscellaneous Documents

Internal Transfer C	hain of Custod	ly ———			— <i>5</i> 7
Samples Pre-Logged into e	COC.		State Of Origin: V		Pace Analytical
Workorder: 40221874 Work	rkorder Name: LACROS	SE WELL 23&24	Cert. Needed: 2	Yes No. No. 2/4/2021	Results Requested By: 2/25/2021
Report Tu	Sobcontrac		en Company St. 1904		d Analysis
Christopher Hyska Pace Analytical Green Bay 1241 Bellovue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436	106 Vs West (Analytical West Columbia antage Point Drive Columbia, SC 29172 (803)791-9700	eserved Coursinsta		VVB06014
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Branch/Location:	Pace Analytical*		9	0221856
Project Contact: Steve Dessel.			Quote #:	
Phono:	CHAIN OF CUST	ODY	Mail To Contact:	Steve Osesck
Project Number;	**Preservation Codes AmNone 6-HCL CHI2504 DHNO3 (#-08Water Ph	ofhanol G-NaOH	Mail To Company:	The Ostanout
Project Name: LaCrosse INLI 23+ 24	H=Sedicm Bisulfale Solution H=Sedium Thiosulfate J=C	har	Mell To Address:	144 2151515
Project State:	FILTERED? (YBS/NO)			Lectosse, WI 54601
Sampled By (Print); Kristie Tuced	PRESERVATION STREET		Invoice To Contact:	Stevle (sesex
Sampled By (Sign): Truthe Turker	2		Invoice To Company:	he his bramp
PO#: Regulator Programs			Invoice To Address:	444 245131-3
ALMALE-1	Natrix Codes Walter Diversity Visign States		!	Hicrossi, WIS4601
EPA Level III (billable) C = Charcool	GW = Ground Wither		Invoice To Phone:	608-433-9388
EPA Level (V NOT needed on S - Set your sample St = Sudge	SW - Sisting Water WW - Whole Water WIF - Whole ULLEGISON MATRIX		CLIENT	LAB COMMENTS Profile #
PACE LAB*# CLIENT FIELD ID DATE	TIME MATRIX		COMMENTS	(Lab Use Only)
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PACE ANAL

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F-GB-C-046-Rev.03 (11Feb2020) Sample Preservation Receipt Form

	T	Оосип	nent Name: .	- In	ant Davined: 2614-2006
Pace Analytical*	Sample Con	dition	Upon Receipt (SCU	R) Docum	ment Revised: 26Mar2020
	T)		ment No.:		Author:
1241 Bellevus Street, Green Bay, WI 5430.	2 ENV-FF	(M)-GE	BAY-0014-Rev.00	Pace	Green Bay Quality Office
Sample	Condition l	Jpon	Receipt Form	(SCUR)	
llent Name: AS Man	^		Project#;	LIO#	:40221874
ourier: CS Logistics (1) Fed Ex Speed	57 LIDO	P** 185	olton	MOH	40221014
☐ Client ☐ Pace Other:	ee Filoha	ID ws	atteo	mani	MITTER CONTRACTOR
2022 6165	2325			492218	(2)
racking #:(Y) /))(Y) / ustody Seal on Cooler/Box Present: [] yes	fiz no Seals i	intect	Tives Tino	40222	i
ustody Seal on Samples Present: [7] yes			☐ yes ☐ no		
acking Material: 🔝 Bubble Wrap 🛅 Bub					
hermometer Used SR - XI/A	Type of Ice:	(w)	Blue Dry None	[[_8ample	es on ico, cooling process has begun
poler Temperature Uncom COT/Corr.		_			Person examining contents:
emp Blank Present: 🔯 yes 🌃 no	Biolog	jica! Ti	issue is Frozen: 🍱	yes 🖸 no	Date: // /Initials; // Ot
emp should be above freezing to 6°C. lots Skinples may be received at ≤ 0°C if shipped on £	Ory Ice.				Labeled By Initials:
hain of Custody Present;	IS√es □No				(
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hain of Custody Relinquished:	Coves ONo	□N/A	3. 1 ()	10	,
ampter Name & Signature on COC:	Πυν'es ⊑Nα	□MA	4.		
samples Arrived within Hold Time:	Dxes □No		Ē,		
- VOA Samples frozen upon receipt	∐Yes □No	-	Date/Time:		
Short Hold Time Analysis (<72hr):	□Yes Drie		6.		
Nush Turn Around Time Requested:	□Yes Ėko		7.		
Sufficient Volume:		\neg	в.		
	D: Elves Elve	□N/A		-	
Correct Containers Used:	Des One	ALTONOOT.	9.		
11/11	126.185	□n/a			
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-Pace IR Containers Used:	□Yes □No	diviv			
Containers Intact:	i⊒res □No		10.	-	
iltered valume received for Dissolved tests	□Yes ÜNo				
Sample Labels match COC:	iDefes ⊡No	□N/A	12.		·
-Includes date/fime/ID/Analysis Matrix:					
Trip Blank Present:	□Yes □No		ž		
Frip Blank Custody Seals Present	□YG₽ □NO	Ŭ\NA.			
Pace Trip Blank Lot # (if purchased):			L	- decid	Maria de la compania del compania de la compania del la compania del compania de la compania de la compania de la compania del compania
Client Notification/ Resolution: Person Contacted:		Date/	∬inne: Time:	eaked, \$62	attachéd form for additional comments
Comments/ Resolution:		~			
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Yes No No No 2. If custody sculs were present, were they intact and unbroken?		The same of the sa		KLG2	
Alstrip ID: Chlorine Strip ID: Chlorine Strip ID: Testad by: AC- Digital guprenture upon receipt / Derived (Corrected) temperature upon receipt / %850lid Snap-Cup ID: \[\frac{1}{2} \] \] \[\frac{1}{2} \] \[
Designal temperature upon receipt / Derived (Corrected) temperature upon receipt Solid Snap-Cup ID: Correction Factor: Correctio		2. If custody seals were present		?	
Method Temperature Bijank Against Bottles R Gun ID:		-			
Method of coolant:			emperature upon receipt %Se	olid Snap-Cup ID:/\C	
Method of coolant:					
Yes				rection Factor: 0°C	
PM was Notified by: phone / email / face-to-face (circle one) Yes	Aethod of coolant:				
Yes	TYES TING TANA				
Yes		PM was Notified by: phone			
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Yes No 7. Were sample IDs listed on all sample containers?				kowed?	
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SR barcode labels applied by: UBS Date: 26/11			were received with TRC > 0.5	mig/L (If #19 is no) and were	1
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