



September 5, 2023

Ms. Josie Schultz  
Wisconsin Department of Natural Resources  
2984 Shawano Avenue  
Green Bay, Wisconsin 54313

**SUBJECT: STATUS UPDATE REPORT 3**  
The Solberg Co – Site 2  
1520 Brookfield Avenue  
Village of Howard, Wisconsin  
CLSE Project Number: E2305.27  
BRRTS Number: 02-05-587486 (PFAS)

Dear Ms. Schultz:

Attached is Status Update 3 for the Site Investigation Activity at The Solberg Company – Site 2, located at 1520 Brookfield Avenue in the Village of Howard, Wisconsin.

Please feel free to contact Carow Land Surveying & Environmental with any questions at (920) 731-4168.

Sincerely yours,

**CAROW LAND SURVEYING & ENVIRONMENTAL**

A handwritten signature in blue ink that reads "Brian Youngwirth".

Brian Youngwirth, P.G.  
Senior Geologist

A handwritten signature in blue ink that reads "Lynn M. Bradley".

Lynn M. Bradley  
Environmental Department Manager

c: Mr. Mitch Hubert (Perimeter Solutions)  
File



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THE SOLBERG CO – SITE 2**

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## INTRODUCTION

### General

This report presents the findings and conclusions of a groundwater sampling round performed by Carow Land Surveying & Environmental (CLSE) at the Solberg Co – Site 2, located at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin (Site) since General Engineering Company's (GEC) submittal of Status Update 2 to the Wisconsin Department of Natural Resources (WDNR) (GEC, April 1, 2023). It should be noted that CLSE was retained to perform the remainder of the site investigation activities on June 27, 2023. The activities and this report were performed under the authorization of Mr. Craig McDonnell, the Vice President of Perimeter Solutions, the responsible party (RP) for the Site release.

### Purpose

The purpose of the performed groundwater sampling round was to further evaluate the degree, extent, and stability of groundwater contaminated with per-and polyfluoroalkyl substances (PFAS) resulting from the use of these chemicals on the Site. It should be noted that Ms. Pamela Havelka-Rivard, the research and development manager for Perimeter Solutions has indicated that the Site plant still produces PFAS-containing Aqueous Film Forming Foam (AFFF) and Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF) in the plant, but is no longer performing testing on fire suppression PFAS-containing chemicals in the "testing building" at the Site, which was the ultimate source of this release. It should also be noted that according to Ms. Havelka-Rivard, perfluorooctanesulfonic acid (PFOS) is not a compound that has ever been utilized at the Site.

### Scope

The scope of the additional investigation activities included: collection of groundwater samples from 17 monitoring wells, 2 piezometers, a tank sump and an on-site pond; laboratory analysis of groundwater samples; analysis of the data; and preparation of this report. The investigation activities were structured specifically to address the presence of PFAS. The testing should not be considered an all-inclusive search for hazardous substances across the Site.

## SITE FEATURES AND BACKGROUND

### Site Features

The Site is an approximate 10-acre parcel of land (Parcel Number VH-3175) owned by Perimeter Solutions, LP. The Site is situated on the east side of Brookfield Avenue, approximately ½ mile south of County Road M (Lineville Road) within the northwest ¼ of the southeast ¼ of Section 3, Township 24 North, Range 20 East. A Site Location Map is included as Figure 1 in Appendix A.

Based on a review of aerial photographs, the Site was utilized as agricultural land from the at least the 1930s to May of 2011, and was developed with the current facility between May and October of 2011. It should be noted that suspected manure spreading occurred on the Site and surrounding properties to the north and south based on a review of a 2010 aerial photograph, and suspected manure spreading on the adjoining property to the north occurred based on a review of a 2020 aerial photograph. It is not known whether other biosolids, such as sewage sludge, were regularly applied to the agricultural land. The Site is currently developed with two buildings including an office, laboratory, and production plant located on the western portion of the Site parcel, and a fire-fighting testing building, with a small contiguous mechanical building to the east. An underground oil/water separator tank system is located just east of the mechanical building. A Current Site Plan Map is included as Figure 2, Appendix

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A. The Site obtains potable water services from the Village of Howard municipal system. Utility locations are shown within the area of the former release to the extent they have been mapped to date.

Unused gasoline and fluids generated during fire suppression testing exercises were historically collected in a drain that was piped below grade to the east of the building to a below grade oil/water separator system. The oil/water separator system is comprised of 3 underground tanks including a central 3-section oil/water tank with weirs to separate petroleum products and water, a northern product collection tank, and a southern water storage tank. The product tank was generally filled annually, and the product was routinely removed and recycled. The water tank was pumped into an on-site tank, where it was treated and shipped out for proper disposal by Perimeter Solutions.

The surface of the Site is relatively flat and is situated in a region that gently slopes to the south and east toward Green Bay (Lake Michigan), located approximately 1 mile southeast of the Site. The surface of the Site is covered primarily by grass, with asphalt and parking areas present south of the office building. An asphalt drive also extends from the parking area toward the east-northeast to the south side of the fire suppression testing building. Overgrown vegetation is present on the far eastern portion of the Site and along the northern boundary of the Site.

A stormwater detention pond is present on the southern portion of the Site, which reportedly is lined with a Type A or B liner. The pond is approximately 530 feet long and ranges from approximately 65 feet in width along the eastern end (approximately 6-foot depth) to up to 105 feet in width along the western end (approximately 8-foot depth). The pond rim is surrounded by rock rip rap. Water is supplied to the pond by surface runoff and also from a foundation drain system extending from the western building on the Site to the east and then southeast through piping and a drainage swale to the north end of the widest portion of the pond. Highwater outflow from the pond extends from the southwestern limits of the pond into an 8-inch PVC pipe that extends southwest to a drainage swale covered by overgrown grass along the south end of the Site, south of the access driveway. The water discharges from the 8-inch pipe along the eastern ditch line of Brookfield Avenue. Photographs of the pond area were included within Status Update Report 2 (GEC, April 2023).

On March 31, 2023, GEC personnel observed the pond outfall during a period of highwater. The pond outflow appeared to discharge to the eastern ditch line along Brookfield Avenue immediately south of the Site drive entrance. Surface water was observed flowing from north of the Site along the eastern ditch line where it intersected the pond outfall from the Site and flowed southward. The ditch line appeared to collect surface water runoff from several of the properties located south of the Site. The ditch line is also in close proximity to several other detention ponds associated with the other commercial properties located south of the Site. The ditch line flow was observed to cross under Lakeview Drive, located approximately 2,300 feet south of the Site drive entrance. A few hundred feet south of Lakeview Drive the ditch flow appeared to enter and intermittent creek toward the east.

The Site parcel is bordered to the north by agricultural and wooded land, to the east by wooded land and residential properties, to the south by commercial properties, and to the west by Brookfield Avenue, across which are commercial and residential properties.

There does not appear to be the potential for impacts to threatened or endangered species; sensitive species, habitat, or ecosystems; outstanding or exceptional resource waters; or sites of historical or archaeological significance with regard to the release of PFAS at the Site.

### Background

On March 18, 2019, the WDNR was notified of a spill at the Site. The spill was the result of flood water from significant rain events flooding the entire eastern portion of the Site, causing the sump pump used to remove high groundwater from the oil/water separator underground storage tank (UST) system backfill to fail. As a result, the

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oil/water separator tank system subsequently failed, filled with water, and released an estimated 100 gallons of gasoline through the top manway to the surface flood waters surrounding the UST system.

Valley Environmental Response (VER) responded to the spill, surrounded the area impacted with gasoline around the UST system with petroleum absorbent boom and pom-poms, and pumped the fluids remaining in the UST system into a frac tank. At that time the use of the compromised UST system was discontinued until repairs could be made.

As the result of the very wet spring, multiple UST or UST backfill dewatering events were conducted during the system repairs, with water collected and containerized in on-site frac tanks during each event. Final repairs to the UST system and excavation of petroleum impacted soils could not be completed until June 2019. On June 24<sup>th</sup>, 2019, the area around the UST system was dewatered into frac tanks and the final system repairs were made. In total, approximately 40,000 gallons of gasoline-impacted water were pumped into frac tanks and treated by a carbon filtration system. Groundwater samples were collected (Frac 1, 2, 3, 4, Water Tank and Sump Above Oil Tank) to dispose of the collected water at the Green Bay Metro Sewerage District.

After the final UST system repairs, VER conducted the excavation of gasoline-impacted surface soils surrounding the UST system. On June 25<sup>th</sup> through 26<sup>th</sup>, 2019, excavation of approximately 133 tons of gasoline-impacted soils were conducted by VER, with soil disposed of at Waste Management - Ridgeview Security Landfill located in Whitelaw, Wisconsin.

Under the direction of the WDNR, excavated soils were field-screened using a photoionization detector (PID) to assist in confirmation that gasoline-impacted soils were removed. Excavation depths ranged from 4 to 12 inches below ground surface (bgs) except for areas excavated to make the final water UST repair, where the excavation extended to approximately 3 feet bgs. In total, 13 soil samples were collected approximately every 30 feet along the base of the excavation. Soil samples were analyzed for petroleum volatile organic compounds (PVOCs) and naphthalene. Soil sample results did not identify residual soil exceeding Wisconsin Administrative Code (WAC) NR 720 standards. The estimated extent of the remedial excavation and confirmation soil sample locations (June, 2019) are shown on Figure 4, Appendix A.

Shallow groundwater was present at the Site at approximately 16-inches bgs. As directed by the WDNR, three test pits were created just outside the excavation limits on June 25<sup>th</sup>, 2019. Water samples were collected from the test pits (GW-1 to GW-3) and the UST excavation (GW UST) adjacent to the water tank, prior to backfill on June 26<sup>th</sup>, 2019. Water samples were analyzed for PVOCs and naphthalene. Analytical results from the groundwater samples collected from the test pits did not exceed WAC NR 140 standards. The water samples collected from the UST backfill near the water tank (GW UST), contained benzene (95 micrograms per liter (µg/L)), naphthalene (186 µg/L), toluene (1,380 µg/L), total trimethylbenzenes (1,266 µg/L) and total xylenes (3,210 µg/L), at concentrations exceeding their respective WAC NR 140 enforcement standards (ES).

As a result of the impacted water identified in the UST system backfill, the WDNR created a case for the spill, issued an RP letter, dated August 14<sup>th</sup>, 2019, and GEC was subsequently retained to perform a site investigation.

Three soil borings (B-1 to B-3) were advanced on the Site on November 19<sup>th</sup>, 2019. The borings were advanced just beyond the tank system and converted to NR 141 compliant monitoring wells designated MW-1 to MW-3, respectively. The monitoring wells were developed on November 26<sup>th</sup>, 2019. The soil boring and monitoring well locations are shown on Figure 3, Appendix A.

The surface at the soil borings consisted of 18 inches of topsoil at B-1 and B-2, and 12 inches of sand and gravel at B-3. The surface materials were generally underlain by natural soils consisting of tan or brown silty fine sand to depths of 10 feet to 12.5 feet bgs. Reddish brown silty clay soils were encountered at B-1 at depths of 8.5 to 10 feet bgs; at B-2 at depths of 1.5 feet to 2.5 feet bgs and 9 feet to 12.5 feet bgs; and B-3 at depths of 10 to 12.5 feet bgs. Brown sand was also encountered at B-2 at depths ranging from approximately 6.5 feet to 9 feet bgs.

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Soil samples for laboratory analysis were collected from B-1 to B-3 at depths ranging from 2.5 feet to 5 feet bgs. The soil samples collected did not report detectable concentrations of PVOs or naphthalene.

Groundwater samples were collected from the monitoring wells and tank sump on December 13<sup>th</sup>, 2019, March 24<sup>th</sup>, 2020, June 11<sup>th</sup>, 2020, and October 12<sup>th</sup>, 2020. The groundwater samples collected at monitoring wells MW-1 and MW-2 reported concentrations of benzene above the WAC NR 140 preventive action limit (PAL) during a few of the sampling rounds (but below its ES), and the groundwater samples collected from the sump reported benzene concentrations exceeding the WAC NR 140 ES during the initial three sampling rounds but no WAC NR 140 ES exceedances were reported in the final sampling round.

A Closure Request for the leaking underground storage tank (LUST) petroleum case was subsequently submitted to the WDNR during June of 2021. The LUST petroleum case was closed by the WDNR on July 1<sup>st</sup>, 2021 (The Solberg Co. BRRTS No. 03-05-584180). However, as part of the petroleum site investigation under WAC NR 716, emerging contaminants were evaluated at the Site. Due to the Site operations at that time, which included the testing of various fire suppression foams known to contain PFAS, groundwater samples were also collected from MW-1, MW-3, and the tank sump and analyzed by the Wisconsin State Laboratory of Hygiene in Madison, Wisconsin for the presence of PFAS during the October 12<sup>th</sup>, 2020 groundwater sampling event. The groundwater samples collected from monitoring wells MW-1 and MW-3 and the tank sump reported concentrations of several PFAS. The highest concentrations were detected at MW-3. The most notable were Perfluorohexanoic Acid (C6) (PFHxA), Perfluoropentanoic Acid (C5) (PFPeA), and 6:2 fluorotelomer sulfonate (6:2 FTSA) with concentrations of 43,900 nanograms per liter (ng/L), 48,000 ng/L, and 1,320,000 ng/L, respectively.

Therefore, an additional case was opened by the WDNR with PFAS as the contaminants of concern (The Solberg Co. – Site 2, BRRTS No. 02-05-587486).

On May 13, 2021, prior to the performance of the initial site investigation activities for the PFAS investigation, Valley Environmental Response (VER) was contracted by the Solberg Company/Perimeter Solutions to respond to and clean up impacts from a gasoline spill resulting from a line failure while transferring gasoline from an UST into the testing building. According to the Spill Report, (VER, August 18, 2021), it was estimated that approximately 300-gallons of a solution of gasoline mixed with water spilled onto the ground north and west of the concrete pad located above the gasoline UST, and ran over ground to the west, toward the Site building, and to the south around the edge of the concrete pad where it soaked into the ground surface. The tank area is surrounded by concrete bumper guards. VER dispatched to the Site on May 13, 2021, to evaluate the situation, surrounded the spill location with petroleum-absorbent booms and determined the resources that would be necessary to properly respond to the release. On May 19<sup>th</sup> through May 27<sup>th</sup>, 2021, VER mobilized staff to the Site to complete the response actions associated with the gasoline spill, which included spill containment, surface cleaning efforts and remedial excavation activities.

As indicated in the Spill Report, between May 19<sup>th</sup> and May 27<sup>th</sup>, 2021, under direction of WDNR Northeast Region Spills Coordinator, Maizie Reif, gasoline-impacted soils were assessed and excavated until there was no remaining evidence of the presence of gasoline in the soil samples, with the exception of the location just north of the UST system within the concrete bumpers at sample location SS-4, where excavation to water occurred. The majority of the shallow soils in the location of the spill were assessed by using visual and olfactory evidence, and by field screening soils utilizing a PID. Thirteen soil samples (S-1 to S-13) were collected for PID confirmation sampling. Select soil samples located to the north of the UST system, where the vast majority of the gasoline and water pooled during the spill were collected from the sidewalls and bottom of the excavation (SS-1 to SS-4). Based on the petroleum odors and PID results at SS-4, it was apparent during excavation in this location that complete excavation of impacted soils could not be completed.

The excavation limits reportedly extended north of the concrete pad located over the UST system, beyond the bumpers (approximately 20 feet north of the concrete), west to the site building (approximately 65 feet), south to the south side of the concrete pad where fuel had migrated during the spill (approximately 12 inches wide along



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the south side of the pad); and to a depth of approximately 18 inches bgs. The Estimated Limits of the Remedial Excavation and the Confirmation Soil Sampling Locations (May, 2021) are shown on Figure 4A, Appendix A.

Soil samples SS-1 to SS-4 were evaluated for laboratory analysis for the presence of PVOCs and naphthalene. The soil samples collected at SS-1 to SS-3 did not report detectable concentration of PVOCs and naphthalene. The soil sample collected at SS-4 from the bottom of the excavation, between the concrete pad and the bumpers, at the soil/water interface, identified PVOCs and naphthalene exceeding the WAC NR 720 soil to groundwater pathway and/or cancer and direct contact residual contaminant levels (RCLs). Specifically, the soil sample reported concentrations of benzene (10,800 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )), ethylbenzene (9,600  $\mu\text{g}/\text{kg}$ ), naphthalene (3,400  $\mu\text{g}/\text{kg}$ ), toluene (24,300  $\mu\text{g}/\text{kg}$ ), total trimethylbenzenes (29,100  $\mu\text{g}/\text{kg}$ ), and total xylenes (48,600  $\mu\text{g}/\text{kg}$ ).

Due to the known presence of PFAS at the Site (The Solberg Co – Site 2, WDNR BRRTS # 02-05-587486), the WDNR did not require PFAS soil sample analysis associated with this spill. A profile sample was collected for soil disposal and due to the presence of PFAS, soils were required to be disposed of as impacted with both gasoline and PFAS.

In total, approximately 94 tons of gasoline and PFAS-impacted soils, were excavated and disposed at Waste Management Columbia Ridge Landfill in Arlington, Oregon. Additionally, three cubic yard boxes of gasoline and PFAS-impacted absorbents and plastic were also disposed at Waste Management Columbia Ridge Landfill.

An additional LUST petroleum case was opened by the WDNR on August 27, 2021 (The Solberg Co- PVOc BRRTS No. 03-05-588286), and subsequent groundwater monitoring by GEC and Carow was performed for the LUST petroleum case from May 2022 through July 2023. Status Updates for the LUST case were submitted to the WDNR (GEC, September 26, 2022 and Carow, August 23, 2023).

Nine soil borings (B-4 to B-12) were advanced on the Site on May 25<sup>th</sup> and 26<sup>th</sup>, 2021 under the direction of GEC to evaluate PFAS contamination. Soil borings B-4 to B-11 were advanced beyond MW-1 to MW-3 to the north, south, east, and west of the UST area. Soil boring B-12 was advanced within a few feet of MW-3. Soil samples were collected continuously by driving a 5-foot plastic sleeve into undisturbed soils to depths of approximately 13.5 feet to 30 feet bgs. Subsequent to soil sampling, soil borings B-4 to B-11 were converted to WAC NR 141 compliant monitoring wells designated MW-4 to MW-11, respectively. Soil boring B-12 was converted to a WAC NR 141 compliant piezometer PZ-1. The monitoring wells were advanced to depths of 13.5 feet to 28 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers. Soil boring and monitoring well locations are shown on Figure 3, Appendix A.

The surface of the investigation area consisted of grass or overgrown vegetation, except for B-12, which consisted of sand and gravel. The surface materials, except for B-12, were underlain by topsoil ranging in depths from approximately 3-inches to 1.25 feet bgs. The near-surface sand and gravel at B-12 and topsoil at the remaining locations were underlain by variable natural soils primarily consisting of silt and sand mixtures in the upper to central portions of the borings to depths of approximately 5 feet bgs to 12 feet bgs. The upper sand and silt layer was generally underlain by finer-grain soils consisting of silty clay or clayey silt to boring termini ranging from 13 feet to 28.5 feet bgs. Groundwater was encountered within a few feet of the ground surface at the time of the drilling.

Monitoring wells MW-4 to MW-11 and piezometer PZ-1 were developed by GEC on May 26<sup>th</sup> and 27<sup>th</sup>, 2021. One round of groundwater samples was collected from monitoring wells MW-1 to MW-11, piezometer PZ-1, the tank sump, and the on-site pond by GEC on June 2<sup>nd</sup>, 2021 and submitted for laboratory analyses of PFAS at three independent laboratories (Wisconsin State Laboratory of Hygiene in Madison, Wisconsin (WSLH), Pace Analytical Services LLC in Green Bay, Wisconsin (Pace), and SGS – AXYS Analytical Services in Sydney, British Columbia, Canada (SGS)). The results discussed below in the “Background Section” of this report reflect those reported by the WSLH.



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Soil samples were collected for laboratory analysis from B-4 to B-12 at depths ranging from 0.25 feet to 3 feet bgs. Two or more PFAS were identified in eight of the nine soil samples submitted for laboratory analyses. Only B-4 reported no concentrations above the laboratory method detection limits. The identified compounds were Perfluoroheptanoic Acid (C7) (PFHpA), PFHxA, PFPeA, PFOS, Perfluoroburanoic Acid (C4) (PFBA), and 6:2 FTSA. The concentrations of detected PFAS ranged from 0.312F nanograms per gram (ng/g) to 15.2ng/g (PFPeA), 1.15 ng/g to 9.19 ng/g (PFHxA), 0.565 ng/g to 9.34 ng/g (PFHpA), 0.543 ng/g to 63.8 ng/g (6:2 FTSA), and 0.929 ng/g to 3.3 ng/g (PFBA). PFOS was reported in one sample (B-9) at a concentration of 0.446F ng/g. (The “F” quantifier indicates the parameter was identified above the laboratory detection limit but below the limit of quantitation. PFOS is the only PFAS compound with an established WAC NR 720 RCL (16,400 ng/g, industrial direct contact RCL, and 1,260 ng/g, non-industrial direct contact RCL). The highest total concentrations of PFAS were reported in B-12 (70.96 ng/g), and B-11 (38.38 ng/g). The results of the chemical analyses of the soil samples are summarized in Table A.2.

The groundwater samples collected from MW-1 to MW-11, the tank sump and the on-site pond reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations from the groundwater samples submitted for laboratory analysis at the SWLH were detected within the groundwater samples collected from source area monitoring well MW-3, which reported Perfluorooctanoic Acid (C8) (PFOA) (79.9 ng/L), Perfluorobutanesulfonic Acid (C4) (PFBS) (12.6 ng/L), PFHpA (926 ng/L), PFHxA (13,300 ng/L), PFBA (2,590 ng/L), PFPeA (19,700 ng/L), 4:2 fluorotelomer sulfonate (C6) (4:2 FTSA) (79.2 ng/L), and 6:2 FTSA (3,000 ng/L). The concentration of 6:2 FTSA failed the qualitative control limit at MW-3 but ranged from 243,000 ng/L to 460,000 ng/L in the sample results reported by SGS and Pace, respectively.

The groundwater sample collected from PZ-1 reported 6:2 FTSA (2.3F ng/L) in the sample analyzed by the State Laboratory of Hygiene. PFHxA (1.2J ng/L) and 6:2 FTSA (36 ng/L) were reported in the sample analyzed by Pace. The results of the chemical analyses of the groundwater samples are summarized in Table A.1 in Appendix B. GEC submitted Status Update 1 to the WDNR summarizing the site investigation activities (GEC, September 13, 2021). Since the extent of PFAS-contaminated soil and groundwater had not been defined, the report recommended the installation of additional soil borings/monitoring wells.

Seven soil borings (B-13 to B-19) were advanced on the Site and adjoining northern and southern properties on July 11, 2022 under the direction of GEC, and converted to 6 WAC NR 141 compliant monitoring wells and a piezometer. Soil borings B-13 and B-14 were advanced on the northern portion of the northern adjoining property and converted to monitoring wells MW-12 and MW-13, respectively. Soil borings B-15 and B-18 were performed on the western and eastern portions of the Site, respectively, and converted to monitoring wells MW-14 and MW-17, respectively. Soil borings B-16 and B-17 were performed on the southern adjoining property and converted to monitoring wells MW-15 and MW-16, respectively. Soil boring B-19 was performed within a few of B-19/PZ-2. After soil sample collection, the soil borings were advanced to depths of 13.5 feet to 28.5 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers, and WAC NR 141 compliant monitoring wells were installed. The sampling equipment was decontaminated with a pressure washer between sampling locations. The soil cuttings generated were placed into Wisconsin Department of Transportation (WDOT) 55-gallon drums, which have been removed from the Site and properly disposed under manifest. The soil boring and monitoring well locations are shown of Figure 3, Appendix A.

The surface at the sample locations consisted of grass or overgrown vegetation. The surface materials, except for B-17 and B-18, were underlain by topsoil ranging in depths from approximately 6-inches to 2.25 feet bgs. The near surface vegetation at B-17 was underlain by gray and black silty sand topsoil fill with varying amounts of gravel to a depth of 5 feet bgs. The surface vegetation at B-18 was underlain by grayish brown clayey silt. The fill at B-17, clayey silt at B-18, and topsoil at the remaining borings were underlain by natural soils primarily consisting of light brown, tan, tannish brown, and orangish brown silty sand to depths of approximately 7 feet to

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12.5 feet bgs. The silty sand was underlain by tannish-gray, grayish-brown, and reddish-brown silty clay and clayey silt to the termination depths of the borings from 15 feet to 28.5 feet bgs.

Monitoring wells MW-12 to MW-17 and PZ-2 were developed by GEC on July 11, 2022. One round of groundwater samples was collected by GEC personnel from monitoring wells MW-1 to MW-17, piezometers PZ-1 and PZ-2, the tank sump, and the on-site pond on July 12, 2022. The groundwater samples were collected by purging 4 well volumes from each monitoring well utilizing dedicated PFAS-free pumps and PFAS-free tubing. The pond sample was collected by dipping a sampling bottle into the pond at the surface, as requested by the WDNR. The groundwater samples were submitted for laboratory analyses of PFAS at three independent laboratories (WSLH, Pace, and SGS).

Soil samples for laboratory analysis were collected from B-13, B-14, B-17, B-18, and B-19 at depths ranging from 0.5 feet to 1-foot bgs. The collected soil samples did not report detectable concentrations of PFAS. The results of the chemical analyses of the soil samples are summarized in Table A.2.

The groundwater samples collected from Site monitoring wells MW-1 to MW-11 the tank sump, pond, and off-site monitoring wells MW-15 and MW-16 reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest total concentrations were detected within the groundwater sample collected from source area monitoring well MW-3, which reported PFOA (143 ng/L), PFBS (12.5 ng/L), PFHpA (1,870D ng/L), PFHxS (2.5F ng/L), PFHxA (19,800D ng/L), PFBA (4,480D ng/L), PFPeA (28,200D ng/L), 4:2 FTSA (125 ng/L), and 6:2 FTSA (552,000D ng/L). By comparison the detections of those compounds within off-site monitoring wells MW15 and MW-16 reported PFOA (2.3F ng/L and 3.99 ng/L), PFBS (2.46F ng/L, and 5.14 ng/L), PFHpA (19.9 ng/L and 75.9 µg/L) PFHxA (99.7 ng/L and 294 ng/L), PFBA (51.5 ng/L and 121 ng/L), PFPeA (164 ng/L and 473 ng/L), and 6:2 FTSA (70.6 ng/L and 283 ng/L). The “D” indicates that the laboratory methods required the sample to be diluted.

The groundwater samples collected from off-site locations MW-12, MW-13 and Site monitoring well MW-14 reported lesser concentrations of five to eight PFAS ranging from 2.05F ng/L to 6.22F ng/L (PFOA), <1.43 ng/L to 3.17F ng/L (PFOS), <2.31 ng/L to 4.58F ng/L (PFBS), <1.50 ng/L to 4.84F ng/L (PFHpA), <1.42 ng/L to 4.56F ng/L (PFHxS), 6.42F ng/L to 18.4 ng/L (PFHxA), 16.2 ng/L to 77.6 ng/L (PFBA) , 8.07F ng/L to 27.2 ng/L (PFPeA) , and <2.72 ng/L to 7.54F ng/L (6:2 FTSA) . Only PFBA (4.79F ng/L) was reported at Site monitoring well MW-17 in the State Laboratory of Hygiene analyses.

The groundwater sample collected from PZ-1 reported only 6:2 FTSA (5.24F ng/L) and the groundwater sample collected from PZ -2 reported only PFOA at a concentration of 1.68F ng/L. “F” indicates that this constituent was identified above the laboratory limit of detection but below the laboratory limit of quantitation.

The results of the chemical analyses of the groundwater samples are summarized in Table A.1 in Appendix B. It should be noted that the three laboratories generally detected the same compounds in the submitted samples. The comparison of the data from the laboratories was generally consistent with the following exceptions noted by GEC:

The groundwater samples collected from MW-3 and the pond (July 11, 2023) that were tested by Pace did not correlate with the other two laboratories, and may have been reported in error by either a labeling mistake during collection or at the laboratory. The sample labels were checked, and the samples were re-run by the lab, but similar results were reported to the initial run. Therefore, GEC believed that the results at MW-3 and the pond provided by Pace were not accurate and should not be utilized in the assessment of the July 11, 2023 data (which appears to have been corroborated by the test results from the most recent sampling round on July 24, 2023).

The reporting results for 6:2 FTSA reported by Pace at MW-1, MW-2, MW-3, MW-5, and MW-8 to MW-ranged from 2x to 5x lower than those from the other labs.

Hydraulic conductivity testing was performed by GEC within the monitoring wells MW-1 and MW-9 where variable natural soils consisting of silty clay, clayey silt, and silty fine sand were encountered. The hydraulic conductivity

### Status Update 3

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value was calculated by performing a draw down test and recording recharging water levels every half second with an Onset Data Logger with barometric pressure sensor. The information (time and drawdown) was then plotted on semi-log paper and the conductivities were calculated using the Bouwer and Rice method. The hydraulic conductivities at MW-1 and MW-9 were calculated to be  $4.48 \times 10^{-5}$  centimeters (cm)/second and  $7.65 \times 10^{-5}$  cm/second, respectively.

The site investigation activities were summarized in the Status Update 2 Report (GEC, April 1, 2023). CLSE was subsequently retained to perform the remainder of the site investigation activities on June 27, 2023. The groundwater sampling round discussed herein was subsequently performed.

## FIELD ACTIVITIES AND PROCEDURES

### Scope Summary

The performed scope of site investigation activities included the collection of groundwater samples from the 17 monitoring wells, the 2 piezometers, the tank system sump, and the on-site pond, submittal of the groundwater samples to Pace, a State of Wisconsin certified laboratory, analysis of the data, and preparation of this report. The groundwater samples were submitted for laboratory analysis for the presence of PFAS.

## GROUNDWATER MONITORING ACTIVITIES

### Groundwater Sampling

Groundwater samples were collected from monitoring wells MW-1 to MW-17, piezometers PZ-1 and PZ-2, the tank sump, and the on-site pond on July 24, 2023. The groundwater samples were submitted for laboratory analysis for the presence of PFAS. The groundwater samples were collected by purging 4 well volumes from each monitoring well utilizing dedicated PFAS-free pumps and PFAS-free tubing. The pond sample was collected by dipping a sampling bottle into the pond at the surface, as requested by the WDNR.

Samples submitted for PFAS analysis were transferred into a laboratory provided testing kits from Pace. The sample containers were immediately placed on ice and standard chain-of-custody procedures were initiated.

### Groundwater Well Elevations

Groundwater level measurements were performed at MW-1 through MW-3 on December 13<sup>th</sup>, 2019, March 24<sup>th</sup>, 2020, June 11<sup>th</sup>, 2020, October 12<sup>th</sup>, 2020, June 2<sup>nd</sup>, 2021, May 13<sup>th</sup>, 2022, and July 12<sup>th</sup>, 2022; at MW-4 through MW-11, and PZ-1 on May 26<sup>th</sup>, or 27<sup>th</sup>, 2021, June 2<sup>nd</sup>, 2021, and July 12<sup>th</sup>, 2022; and at MW-12 through MW-17 and PZ-2 on July 11<sup>th</sup>, 2022, and July 12<sup>th</sup>, 2022. Groundwater level measurements were performed at MW-1 to MW-17, PZ-1, and PZ-2 on July 24, 2023.

Groundwater fluctuations appear to be influenced by seasonal precipitation. Static groundwater levels ranged from 1.57 feet below top of casing (TOC) at MW-14 (EL. 586.43) on July 11<sup>th</sup>, 2022, to 7.73 feet below TOC at MW-13 (EL. 583.13) on July 24, 2023. Groundwater elevations have ranged from EL. 582.95 at MW-10 and MW-17 on July 24, 2023, to EL. 588.02 at MW-1 on November 26<sup>th</sup>, 2019. The water levels recorded at the Site during the July 24, 2023, groundwater sampling were the lowest recorded since the initial sampling rounds at MW-1 to MW-3 during November of 2019.

Static groundwater levels at the piezometers have ranged from 4.40 feet below TOC at PZ-1 (EL. 586.52) on June 2, 2021, to 7.43 feet below TOC at PZ-2 (EL. 583.25) on July 24, 2023. The groundwater level on 11.35 recorded at PZ-2 on July 11, 2022 is not considered to be representative of a static level. Horizontal groundwater flow within the two piezometers appears to be toward the southeast during the July 12, 2022, and July 24, 2023, sampling rounds; however, an additional piezometer would be necessary to evaluate deeper groundwater flow

### Status Update 3

The Solberg Co – Site 2  
1520 Brookfield Avenue  
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more accurately. The vertical gradient between monitoring well/piezometer MW-3/PZ-1 was slightly downward during the most recent sampling round at 0.009 and slightly upward at MW-15/PZ-2 at 0.005.

Groundwater elevation data is summarized on Table A.6 in Appendix B. Based on the groundwater elevations from all monitoring wells, the groundwater flow appears to be primarily toward the north/northeast in close proximity to the release and to a lesser extent towards the east/southeast toward the eastern/southeastern boundaries of the Site. Groundwater elevations and the flow direction are likely affected by the on-site pond and intermittent flooding that may occur. Vertical groundwater flow at PZ-1 appears to be downward, but has fluctuated between downward and upward based on two observations made at PZ-2 in July of 2022 and July of 2023. Long term monitoring of the groundwater monitoring wells would be necessary to further evaluate the groundwater elevations and flow direction. A groundwater elevation contour and flow direction map for July 24, 2023, is provided in Figure 5, Appendix A.

## FIELD AND ANALYTICAL TESTING RESULTS

### Groundwater Quality Standards

According to Wisconsin State Legislature Rule CR21-088, the drinking water standard for PFOS and PFOA are 70 ng/L individually and in total. According to Wisconsin State Legislature Rule CR21-083, the level of public health significance for PFOS in all waters except those that cannot naturally support fish is 8 ng/L. According to Wisconsin State Legislature Rule CR21-083, the level of public health significance for PFOA in waters classified as public water supplies under WAC NR 104 is 20 ng/L, and is 95 ng/L for other surface waters. It should be noted that in March 2023, the U.S. Environmental Protection Agency (EPA) announced proposed drinking water standards for six individual PFAS (PFOA, PFOS, PFNA, hexafluoropropylene oxide dimer acid (HFPO-DA), perfluorohexane sulfonic acid (PFHxS), and PFBS) with proposed non-enforceable maximum contaminant level goals (MCLG) of 0 ng/L, and enforceable MCLs of 4.0 ng/L for PFOA and PFOS, and a Hazard Index of 1.0 for the other 4 PFAS, which may affect the WDNR 140 groundwater standards in the future.

### Laboratory Groundwater Results

The groundwater samples collected from Site monitoring wells MW-1 to MW-11 the tank sump, pond, and off-site monitoring wells MW-15 and MW-16 reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations were detected within the groundwater samples collected from source area monitoring well MW-3, which reported PFOA (57.2 ng/L), PFBS (10.1 ng/L), PFHpA (1,950D ng/L), PFHxS (5.9 ng/L), PFHxA (16,900D ng/L), PFBA (3,550D ng/L), PFPeA (30,400D ng/L), 4:2 FTSA (65.6 ng/L), and 6:2 FTSA (15,800D ng/L). By comparison the detections of those compounds within off-site monitoring wells MW15 and MW-16 reported PFOA (1.1J ng/L, and 2.6 ng/L), PFOS (<0.68 ng/L to 0.79J ng/L), PFBS (3.3 ng/L to 5.5 ng/L), PFHpA (19 ng/L and 64.5 µg/L) PFHxS (< 0.53 ng/L to 0.89J ng/L), PFHxA (105 ng/L and 353D ng/L), PFBA (52.3 ng/L and 150 ng/L), PFPeA (190 ng/L and 633D ng/L), and 6:2 FTSA (45.7 ng/L and 224D ng/L). The “D” indicates that the laboratory methods required the sample to be diluted.

The groundwater samples collected from off-site locations MW-12, MW-13 and Site monitoring well MW-14 reported lesser concentrations of four to nine PFAS ranging from <1.8 ng/L to 4.8 ng/L (PFOA), <1.4 ng/L to 3.6 ng/L (PFOS), 1.9 ng/L to 5.1 ng/L (PFBS), <1.4 ng/L to 4.3 ng/L (PFHpA), <1.1 ng/L to 4.3 ng/L (PFHxS), 5.8 ng/L to 17.4 ng/L (PFHxA), 17.5 ng/L to 87.3 ng/L (PFBA), 6.6 ng/L to 25.2 ng/L (PFPeA), and <1.4 ng/L to 4.7 ng/L (6:2 FTSA). Only PFBS (1.4J ng/L) and PFBA (14.7 ng/L) were reported at Site monitoring well MW-17.

The results of the groundwater samples collected from PZ-1 reported only 6:2 FTSA (7.1J ng/L) and the groundwater results from PZ -2 did not report detectable concentrations of PFAS.

The individual and total concentrations drinking water standard of 70 ng/L for PFOS and PFOA were not exceeded at any of the test locations.



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Based on a review of the historic and current test results, increasing contaminant trends were observed at Site monitoring wells MW-9 and MW-4 (northwest/west of the source area), MW-5 and MW-7 (southeast/south of the source area). A slight increasing trend in contaminant concentrations was also observed at off-site monitoring well MW-16 (south of the source area). Stable or decreasing trends were observed at the remainder of the source area monitoring points and outlying monitoring well MW-17. Additionally, decreasing trends were observed at Site monitoring well MW-14 and off-site monitoring wells MW-12 and MW-13.

The results of the chemical analyses of the groundwater samples are summarized in Table A.1 in Appendix B. Laboratory analytical results and chain-of-custody documentation are included in Appendix C.

### CONCLUSIONS

The soil samples collected from the most recent soil borings did not report detectable concentrations of PFAS. Based on the soil testing performed to date and detection of total PFAS in the soil samples collected at B-5 to B-12 ranging from 2.28 ng/g to 70.96 ng/g, it appears that the extent of unsaturated soil contamination has been defined and that the concentrations in the source area are well below the individual Industrial and non-Industrial direct contact standards for PFBS, PFOA, and PFOS. It should be noted that the WDNR has requested the collection of a soil sample in the vicinity of B-9 to confirm the presence of PFOS in the prior test at that location. According to the Site personnel, PFOS has never been utilized at this Site. Additionally, the level detected at B-9 is well below its current standards. It also appears unlikely that PFOS would be detected within soil at a location beyond the prior spill area but not in any of the source area test locations in closer proximity to the release (i.e., B-12) where higher concentrations of PFAS were detected. Therefore, additional soil sampling does not appear to be warranted.

Relatively high concentrations of PFAS (primarily PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA) have been detected within groundwater near the source area of the release at MW-1 to MW-11, the tank sump, and the pond. The highest concentrations have been detected at MW-3. The concentrations detected within off-site monitoring wells MW-15 and MW-16, are also elevated with respect to the remaining outlying monitoring wells (MW-12, MW-13, MW-14, and MW-17).

The groundwater results at PZ-1 and PZ-2 reported only low concentrations of 6:2 FTSA (7.1J ng/L) at PZ-1 and no detectable concentrations of PFAS were reported at PZ-2 during the most recent sampling round. Since the source area piezometer (PZ-1) does not appear to have been substantially impacted, no additional piezometers are recommended at the present time, subject to the concurrence of the WDNR.

As indicated previously, based on a review of the historic and current test results, increasing contaminant trends were observed at Site monitoring wells MW-9 and MW-4 (northwest/west of the source area), MW-5 and MW-7 (southeast/south of the source area). A slight increasing trend in contaminant concentrations was also observed at off-site monitoring well MW-16 (south of the source area). Stable or decreasing trends were observed at the remaining test locations.

As indicated previously, PFAS-containing materials are no longer utilized within the testing building where the two petroleum/PFAS spills occurred. Since these materials are no longer being utilized, further degradation of the soil or groundwater appears unlikely. It is recommended that annual groundwater sampling be performed for a period of two years (2024 and 2025) to evaluate the stability of the groundwater plume and increasing contaminant trends noted at MW-4, MW-5, MW-7, MW-9, and MW-16.

### GENERAL COMMENTS

The investigative activities have been conducted in a manner consistent with that level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings, recommendations and opinions contained herein have been promulgated in accordance with generally accepted

### **Status Update 3**

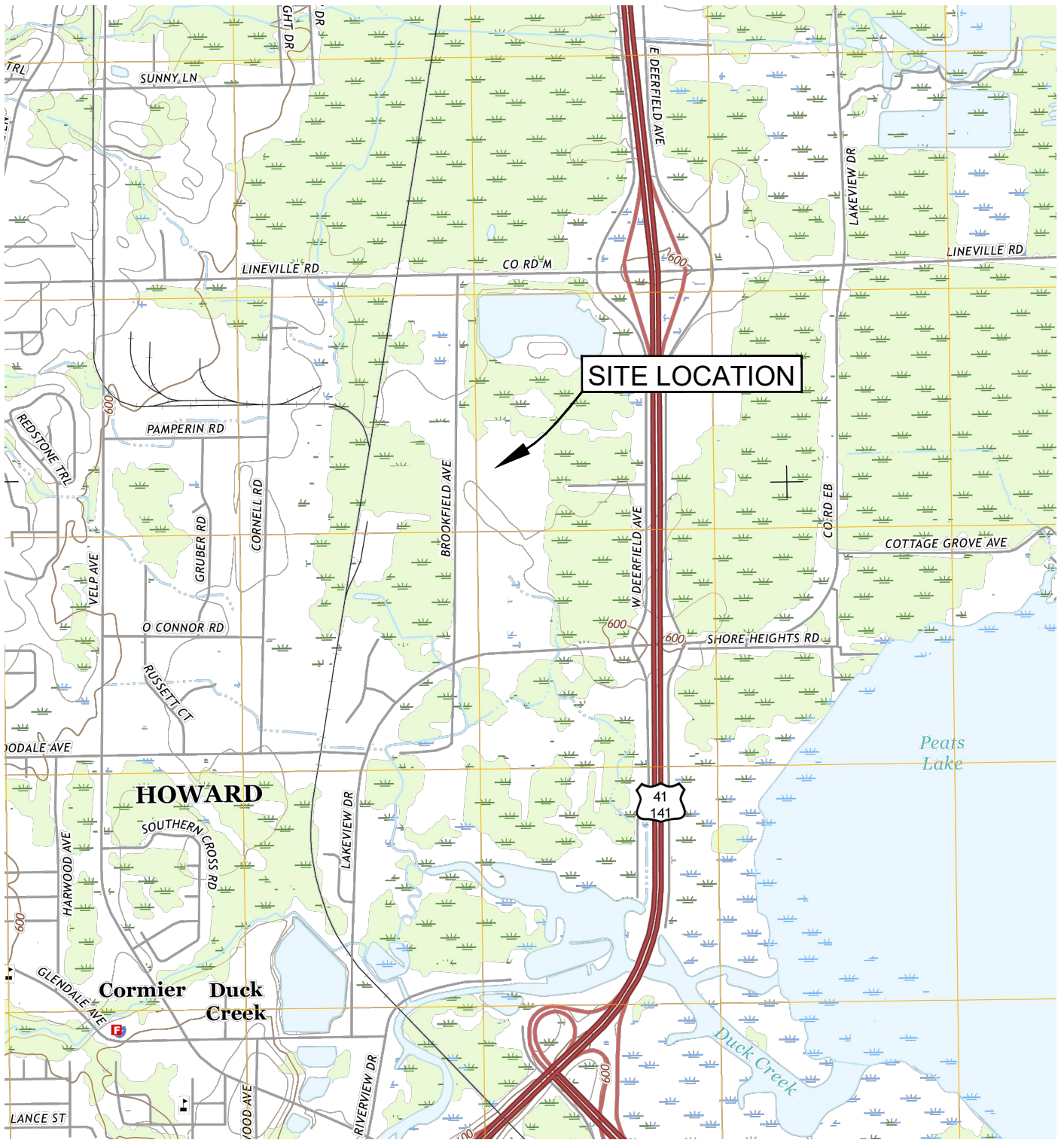
The Solberg Co – Site 2  
1520 Brookfield Avenue  
Village of Howard, Wisconsin, Wisconsin  
Page 11

practice in similar fields. No other representations expressed or implied, and no warranty or guarantee is included or intended in this report.

The conclusions presented in this report were formulated from the data obtained during the course of exploratory work on the site, which may result in a redirection of conclusions and interpretations where new information is obtained. The regulatory climate and interpretation may also influence the outcome of the environmental investigation for this site. The information contained in this report may have an effect on the value of the property and is considered confidential. Copies of this report will be submitted to others only with authorization from the client.



**APPENDIX A**  
**FIGURES**



GREEN BAY WEST QUADRANGLE  
 BROWN COUNTY WISCONSIN  
 7.5 MINUTE SERIES

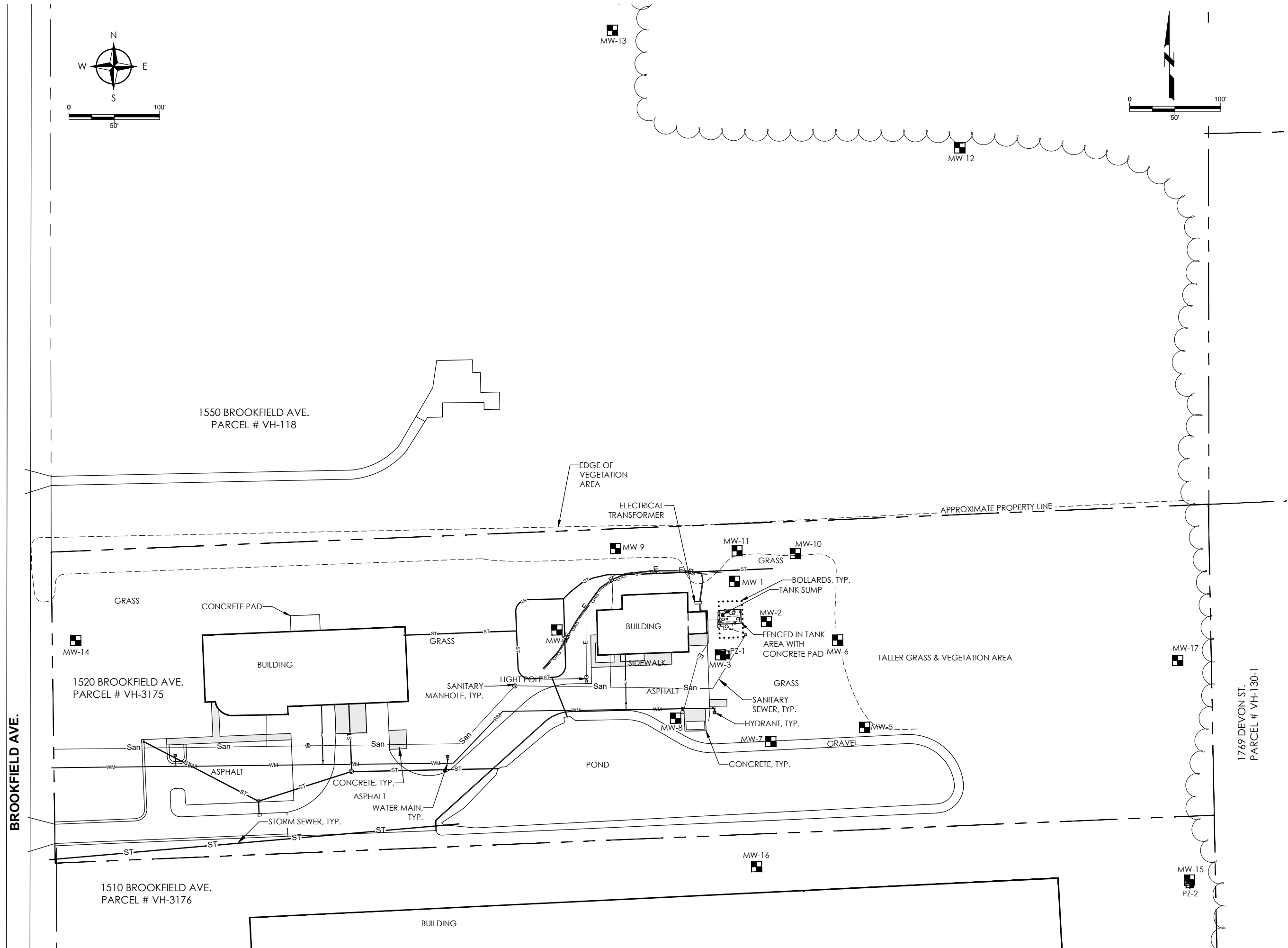
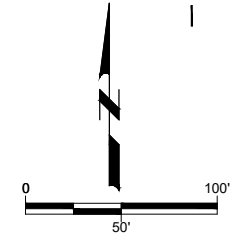
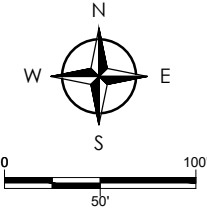
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 N5841 STATE HIGHWAY 47/55, SHAWANO, WI 54166  
 PHONE: (715) 526-3638

**SITE LOCATION MAP**  
**THE SOLBERG COMPANY-SITE 2**  
**1520 BROOKFIELD AVE.**  
**VILLAGE OF HOWARD**  
**BROWN COUNTY, WI**

DATE	AUG 2023
FILE NO.	E2305.27
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**FIGURE 1**



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 PHONE: (715) 526-3638  
 www.carse.dio

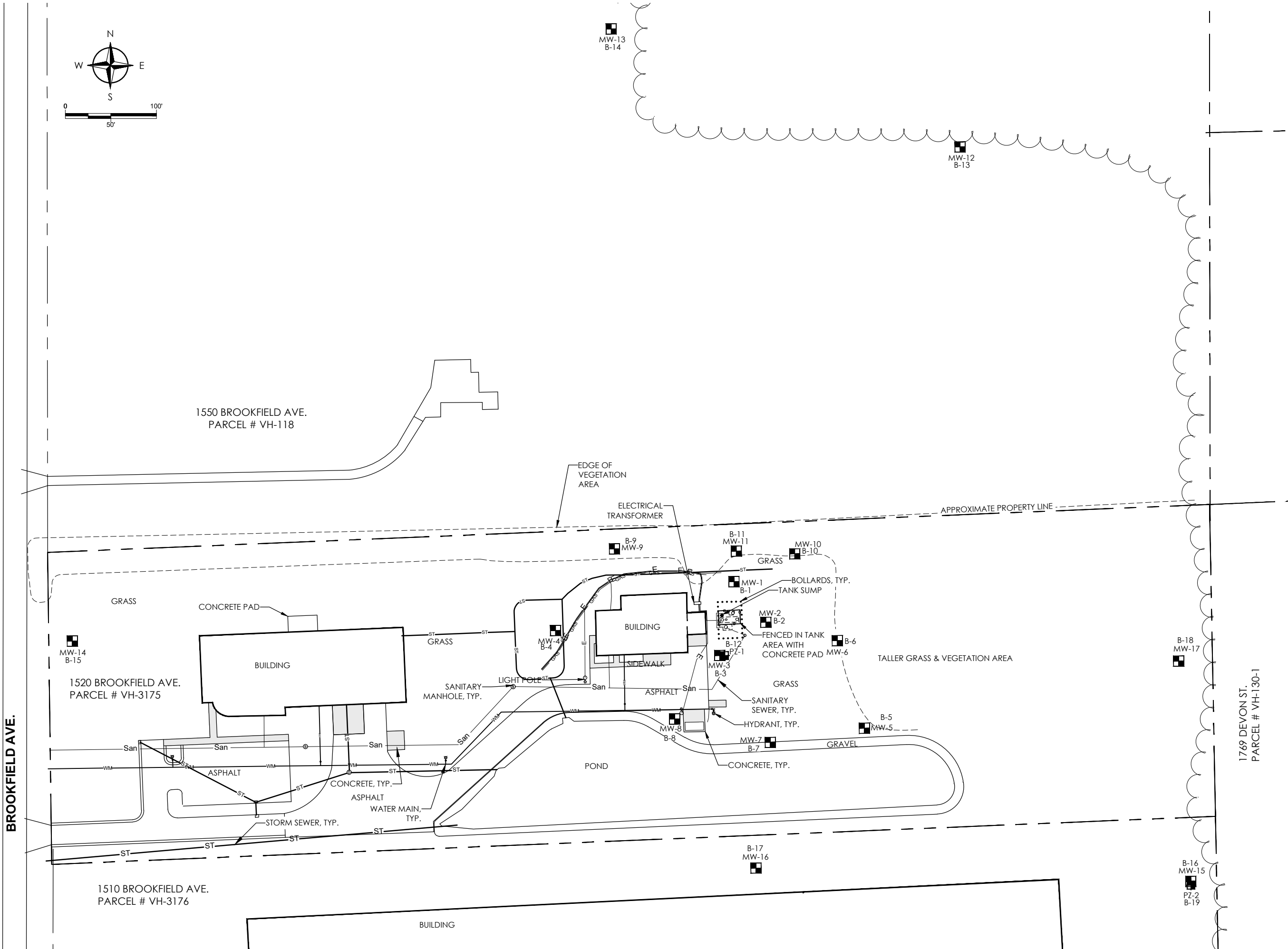
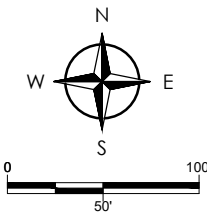
**CURREN SITE PLAN**  
**THE SOLBERG COMPANY - SITE 2**  
**1520 BROOKFIELD AVE.**  
 VILLAGE OF HOWARD  
 BROWN COUNTY, WI

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL
- ⊕ TANK SUMP
- MW-2

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**FIGURE 2**



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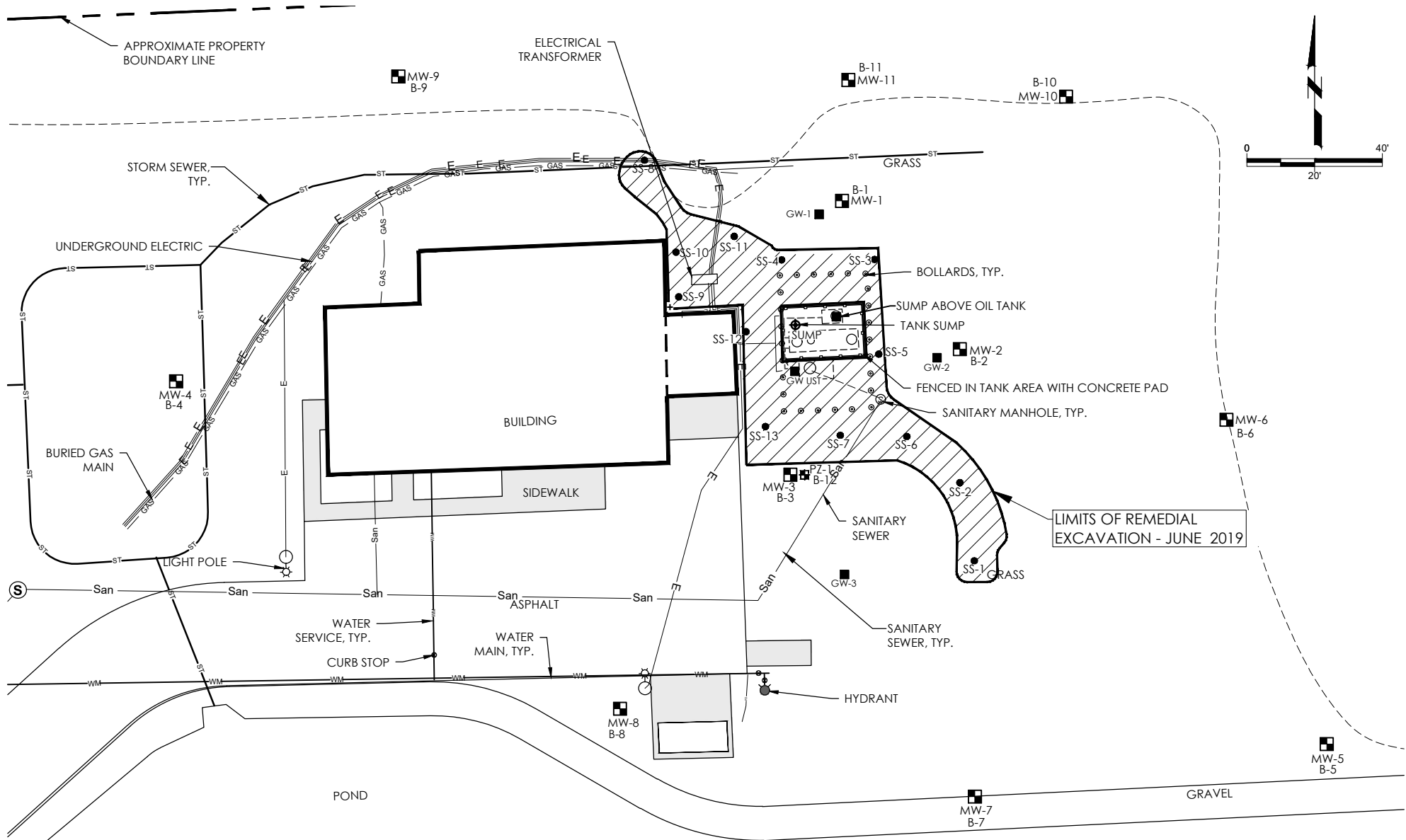
**SOIL BORING AND MONITORING WELL LOCATION MAP**  
**THE SOLBERG COMPANY - SITE 2**  
**1520 BROOKFIELD AVE.**  
 VILLAGE OF HOWARD  
 BROWN COUNTY, WI

**LEGEND**

- SOIL BORING & MONITORING WELL
- PIEZOMETER
- TANK SUMP

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**FIGURE 3**



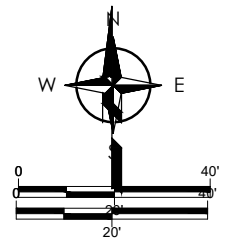
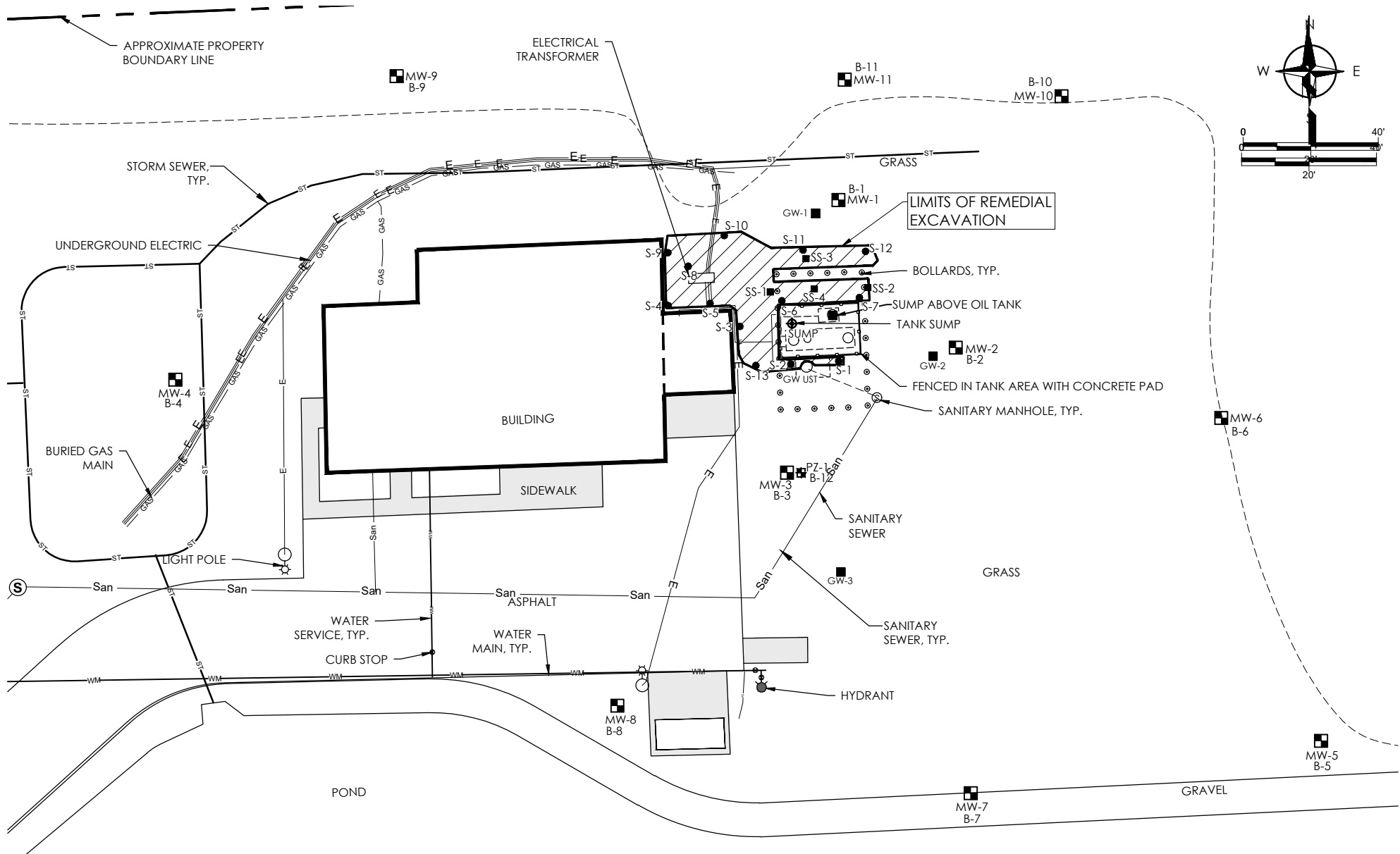
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 PHONE: (715) 526-3638

LEGEND	
MW-2 B-2	SOIL BORING & MONITORING WELL
PZ-1	PIEZOMETER
	TANK SUMP
SS-8	CONFIRMATION SOIL SAMPLE - JUNE 2019
GW-3	TEST PIT GROUNDWATER SAMPLE
- - - - -	LIMITS OF EXCAVATION - JUNE 2019

**ESTIMATED EXTENT OF REMEDIAL EXCAVATION & CONFIRMATION SOIL SAMPLE LOCATION MAP - JUNE 2019**  
**THE SOLBERG COMPANY - SITE 2**  
**1520 BROOKFIELD AVE.**  
**VILLAGE OF HOWARD**  
**BROWN COUNTY, WI**

DATE	AUG 2023
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<b>FIGURE 4</b>	





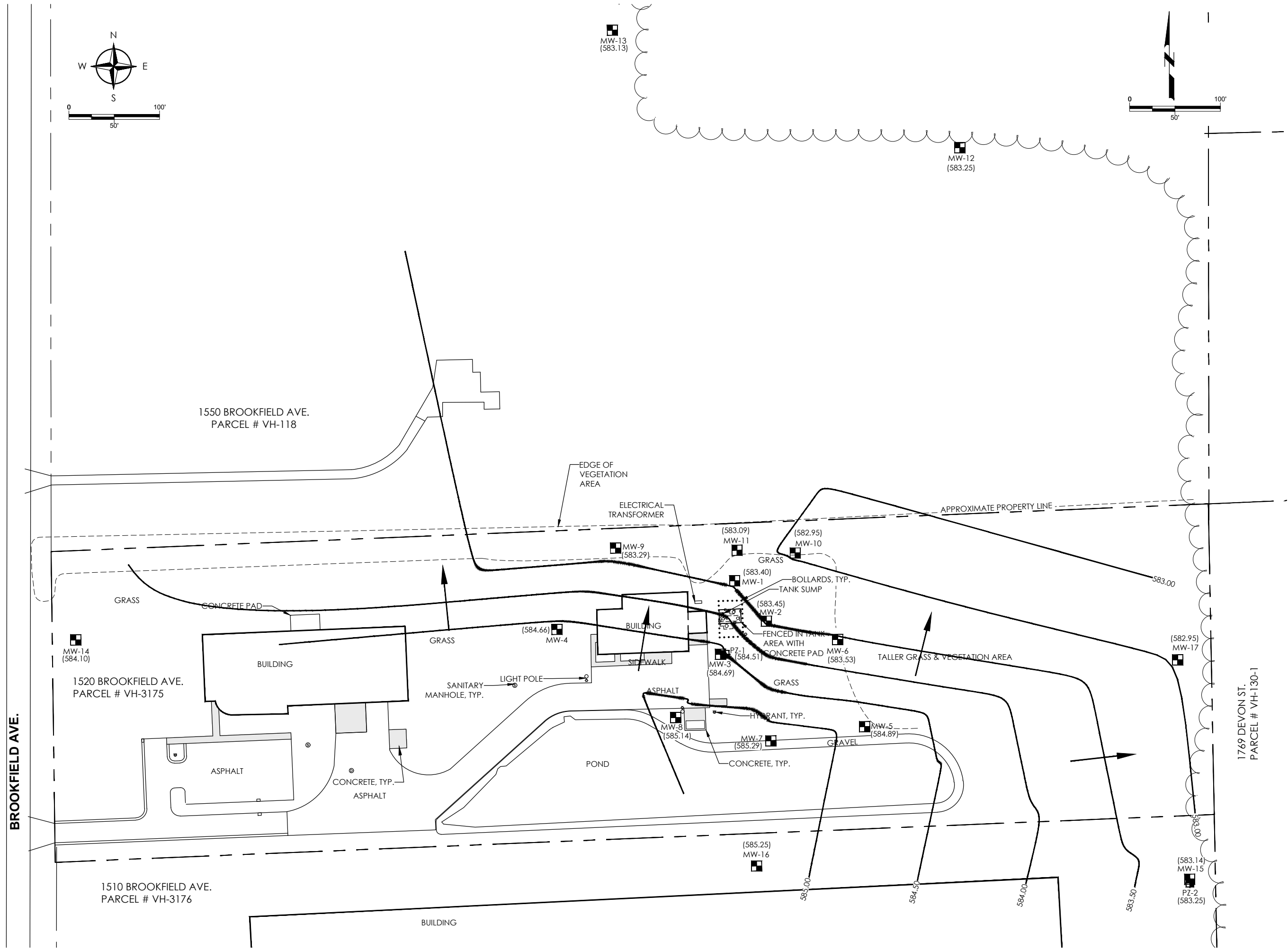
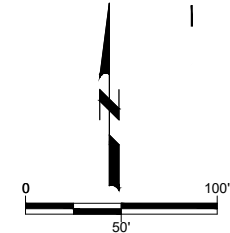
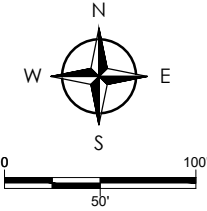
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 PHONE: (715) 526-3638

LEGEND	
MW-2 B-2	SOIL BORING & MONITORING WELL
PZ-1	PIEZOMETER
	TANK SUMP
SS-8	CONFIRMATION SOIL SAMPLE - JUNE 2019
GW-3	TEST PIT GROUNDWATER SAMPLE
- - - - -	LIMITS OF EXCAVATION - JUNE 2019

**ESTIMATED EXTENT OF REMEDIAL EXCAVATION & CONFIRMATION SOIL SAMPLE LOCATION MAP - MAY 2021**  
**THE SOLBERG COMPANY - SITE 2**  
**1520 BROOKFIELD AVE.**  
**VILLAGE OF HOWARD**  
**BROWN COUNTY, WI**

DATE	AUG 2023
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<b>FIGURE 4A</b>	





**GROUNDWATER ELEVATION CONTOUR AND FLOW DIRECTION - JULY 24, 2023**  
**THE SOLBERG COMPANY - SITE 2**  
**1520 BROOKFIELD AVE.**  
 VILLAGE OF HOWARD  
 BROWN COUNTY, WI

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL
- ⊕ TANK SUMP
- ↑ FLOW DIRECTION

DATE	AUG 2023
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**FIGURE 5**

**APPENDIX B**  
**TABLES**

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well	MW-1							
	State Lab of Hygiene			Pace Analytical			SGS	
Lab	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>								
PFOA	11.1	15.9	11.9	<79	9.5	13	17.9J	11J
PFOS	<3.36	2.11F	<1.43	<190	1J	2.5J	<6.06	<2.96
PFBS	22.8	18.5	10.4	<40	13	8.9	15.8J	11.2J
PFHpA	800	934	558	1,000	460D	710D	701	527
PFHxS	<4.06	<1.02	<1.42	<53	1.2J	2.1	<1.1	<2.96
PFNA	<4.27	1.97F	<1.48	<44	2J	2.1J	<8.06	<2.96
PFDA	<3.89	<1.65	3.15F	<50	0.85J	<1.3	<8.06	<2.96
PFDoA	<3.8	<2.81	<2.71	<45	<0.48	<1	<8.06	<2.37
PFHxA	38.80D	4.77D	4.320D	6.10D	3.100D	4.680D	3.60D	3.30D
PFTeDA	<3.51	<5.43	<1.75	<57	<0.47	<1.3	<8.06	<2.96
PFTriDA	<3.97	<2.69	<1.93	<50	<0.62	<1.3	<8.06	<2.96
PFUnA	<4.03	<2.07	<2.22	<380	<0.54	<1	<8.06	<2.96
N-EFOSA	<6.52	<3.46	<6.94	<130	<0.61	<1.2	<15.1	<8.28
N-EFOSAA	<4.24	<3.25	<2.12	<72	<0.55	<1.7	<8.06	<2.96
N-MeFOSAA	<5.31	<2.15	<2.19	<89	<0.43	<1.5	<8.06	<2.96
PFBA	NR	924	706	1,300	760D	693D	930	915
PFPeA	50,400	6,300	5,550D	8,600	4,400D	8,400D	4,940	4,930
PFPeS	<2.68	<0.926	<1.36	<57	<0.47	<1.3	<8.09	<2.97
PFHpS	5.10F	<1.23	<1.90	<48	<0.41	<1.4	<8.06	<2.96
PFNS	<4.95	<2.09	<1.82	<68	<0.44	<1.3	<8.06	<2.96
PFDS	<4.51	<2.17	<2.57	<74	<0.45	<1.4	<8.06	<2.96
PFDoS	<5.12	<9.83	<2.47	<100	<0.46	<1.3	<8.06	<2.96
PFOSA	<40.3	<9.58	<1.55	<58	<0.81	<1.5	<8.06	<2.96
N-MeFOSA	<7.96	<5.10	<10	<120	<0.51	<1.2	<8.97	<2.96
N-MeFOSE	<4.01	<4.74	<2.81	<120	<0.33	<1.1	<60.6	<29.6
N-EFOSE	<4.09	<5.37	<2.12	<91	<0.5	<1.9	<45.3	<29.6
4:2 FTSA	14	17.1	11.9	<83	12	13.4	<24.2	<11.8
6:2 FTSA	154,000	35,900	21,600D	35,000	3,700D	11,300D	25,200	16,800D
8:2 FTSA	7.44F	4.95F	9.19F	<150	11	20.7	<24.2	11.2J
10:2 FTSA	<4.29	NR	NR	NR	NR	NR	NR	NR
ADONA	<4.16	<1.12	<1.28	<46	<0.51	<2	<24.2	<11.8
GenX (HFPO-DA)	<5.22	<1.61	<1.92	<200	<0.53	<1.1	<23	<11.8
9CI-PF3ONS	<4.15	<1.58	<1.82	<46	<0.3	<1	<24.3	<11.9
11CI-PF3OUS	<3.90	<1.55	<1.49	<63	<0.43	<1.2	<24.3	<11.8

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion) D= Sample Dilution

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

- PFOA (355-67-1) Perfluorooctanoic Acid (C8)
- PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
- PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
- PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
- PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
- PFNA (375-95-1) Perfluorononanoic Acid (C9)
- PFDA (335-78-2) Perfluorodecanoic Acid (C10)
- PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
- PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
- PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
- PFTriDA (72629-94-8) Perfluorotridecanoic Acid (C13)
- PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
- N-EFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
- N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)
- PFBA (375-22-4) Perfluorobutanoic Acid (C4)
- PFPeA (2706-99-3) Perfluoropentanoic Acid (C5)
- PFPeS (2708-91-4) Perfluoropentanesulfonic Acid (C5)
- PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
- PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
- PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
- PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
- FOSA (754-91-6) Perfluorooctanesulfonamide (C8)
- N-EFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
- N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
- N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
- N-EFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
- 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
- 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
- 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
- 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
- DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)
- GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
- 9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaheptane-1-sulfonic acid (C8)
- 11CI-PF3OUS (763051-92-9) 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	MW-2						
	State Lab of Hygiene		Pace Analytical			SGS	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>							
PFOA	10.9	10.3	<37	12	11.9	6.85J	9.85J
PFOS	<1.23	<1.43	<89	0.73J	<1.4	14.3B	<2.94
PFBS	23.6	16.7	23J	15	7.7	23.2	15.9
PFHpA	793	834	1,100	610D	842D	1,000	665
PFHxS	1.59F	<1.42	<25	1.5J	1.7J	<3.10	<2.94
PFNA	<1.47	<1.48	<21	1.2J	<1.7	<3.10	<2.94
PFDA	<1.42	<1.63	<23	<0.56	<1.3	<3.10	<2.94
PFDoA	<2.42	<2.71	<21	<0.48	<1	<3.10	<2.36
PFHxA	3,820	3,050D	5,200	3,300D	4,870D	4,740	3,740
PFTeDA	<4.67	<1.75	<27	<0.47	<1.3	<3.10	<2.94
PFTDA	<2.32	<1.93	<24	<0.62	<1.3	<3.10	<2.94
PFUnA	<1.78	<2.22	<28	<0.53	<1	<3.10	<2.94
N-EiFOA	<2.97	<6.94	<60	<0.6	<1.2	<7.74	<8.24
N-EiFOAA	<2.80	<2.12	<33	<0.55	<1.7	<3.10	<2.94
N-MeFOAA	<1.84	<2.19	<42	<0.43	<1.5	<3.10	<2.94
PFBA	838	873	1,100	710D	1,050D	959	966
PFPeA	5,610	4,290D	8,000	4,600D	7,290D	6,790	5,830
PFPeS	<0.796	<1.36	<27	<0.47	<1.3	<3.11	<2.96
PFHpS	<1.05	<1.90	<22	<0.41	<1.4	<3.10	<2.94
PFNS	<1.80	<1.82	<32	<0.44	<1.2	<3.10	<2.94
PFDS	<1.86	<2.57	<35	<0.45	<1.3	<3.10	<2.94
PFDoS	<8.45	<2.47	<47	<0.46	<1.2	<3.10	<2.94
PFOSA	<8.24	<1.55	<27	<0.81	<1.5	4.81J, B	<2.94
N-MeFOA	<4.39	<10	<56	<0.51	<1.2	<3.56	<2.94
N-MeFOSE	<4.08	<2.81	<57	<0.33	<1.1	<3.1	<2.94
N-EiFOSE	<4.62	<2.12	<43	<0.49	<1.9	<23.2	<29.4
4:2 FTSA	14.8	12.7	<39	12	12	12.7J	15.8
6:2 FTSA	12,900	16,000D	16,000	3,300D	17,500D	11,800	14,700D
8:2 FTSA	<1.25	<2.62	<72	3.4	2.3J	<12.4	<10
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<0.960	<1.28	<22	<0.51	<1.9	<12.4	<11.8
GenX (HFPO-DA)	<1.38	<1.92	<93	<0.52	<1	<11.8	<11.8
9Cl-PF3ONS	<1.36	<1.82	<22	<0.3	<0.98	<12.4	<11.8
11Cl-PF3OUdS	<1.34	<1.49	<30	<0.43	<1.2	<12.4	<11.8

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)  
 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
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 N-EiFOA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
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 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneone-1-sulfonic acid (C6)  
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**TABLE A.1.  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well	MW-3								
	State Lab of Hygiene				Pace Analytical				SGS
Lab	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>									
PFOA	133	79.9	143	<1,500	1.9J	57.2	28.2	<130	
PFOS	<3.36	<1.38	<1.43	<3,700	1.7J	<1.4	<6.35	<130	
PFBS	11.6	12.6	12.5	<760	14	10.1	16.4J	<130	
PFHpA	<4650	926	1,870D	1,200J	110	1,950D	618	2,370D	
PFHxS	<4.05	<0.982	2.8F	<1,000	<0.51	5.9	<6.35	<130	
PFNA	<4.27	<1.64	<1.48	<840	0.87J	<1.6	<6.35	<130	
PFDA	<3.89	<1.59	<1.63	<960	<0.56	<1.3	<6.35	<130	
PFDoA	<3.80	<2.70	<2.71	<860	<0.48	<0.99	<6.35	<104	
PFHxA	43.900	13,300	19,800D	13,000	360D	16,900D	6,860	28,100D	
PFTeDA	<3.51	<5.22	<1.75	<1,100	<0.47	<1.2	<6.35	<130	
PFTriDA	<3.97	<2.59	<1.93	<970	<0.62	<1.3	<6.35	<130	
PFUnA	<4.03	<1.99	<2.22	<1,100	<0.54	<1	<6.35	<130	
N-EFOSA	<6.51	<3.32	<6.94	<2,500	<0.61	<1.2	<15.9	<363	
N-EFOSAA	<4.24	<3.13	<2.12	<1,400	<0.55	<1.7	<6.35	<130	
N-MeFOSAA	<5.31	<2.06	<2.19	<1,700	<0.43	<1.4	<6.35	<130	
PFBA	<19600	2,690	4,480D	3,300J	110	3,550D	1,900	7,420D	
PFPeA	48,000	19,700	28,200D	20,000	520D	30,400D	10,600	41,200D	
PFPeS	6.9	<0.890	<1.36	<1,100	<0.47	<1.2	<6.38	<130	
PFHpS	33.8	<1.18	<1.90	<910	<0.41	<1.4	<6.35	<130	
PFNS	<4.95	<2.01	<1.82	<1,300	<0.44	<1.2	<6.35	<130	
PFDS	<4.51	<2.08	<2.57	<1,400	<0.45	<1.3	<6.35	<130	
PFDoS	<5.12	<9.45	<2.47	<1,900	<0.46	<1.2	<6.35	<130	
PFOSA	<40.3	<9.21	<1.55	<1,100	<0.82	<1.5	<6.35	<130	
N-MeFOSA	<7.95	<4.90	<1.0	<2,300	<0.51	<1.1	<7.30	<130	
N-MeFOSE	<4.01	<4.56	<2.81	<2,300	<0.33	<1.1	<63.5	<1300	
N-EFOSE	<4.08	<5.17	<2.12	<1,700	<0.5	<1.8	<47.5	<1300	
4:2 FTSA	292	79.2	125	<1,600	<0.56	65.6	44.6J	<519	
6:2 FTSA	1,320,000	3000*	552,000D	460,000	530D	15,800D	243,000	586,000D	
8:2 FTSA	<4.42	<1.4	<2.62	<2,900	<0.65	<1	<25.4	<441	
10:2 FTSA	<4.29	NR	NR	NR	NR	NR	NR	NR	
ADONA	<4.16	<1.07	<1.28	<880	<0.51	<1.9	<25.4	<519	
GenX (HFPO-DA)	<5.22	<1.55	<1.92	<3,800	<0.53	<1	<24.1	<519	
9CI-PF3ONS	<4.15	<1.52	<1.82	<880	<0.3	<0.97	<25.5	<520	
11CI-PF3OUDS	<3.90	<1.49	<1.49	<1,200	<0.43	<1.1	<25.4	<520	

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections D=Sample Dilution

B=Analyte detected in the field blank \* = QC Limit Failed

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

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- PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
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- PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
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- PFDA (335-76-2) Perfluorodecanoic Acid (C10)
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GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	MW-4						
	State Lab of Hygiene		Pace Analytical			SGS	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>							
PFOA	2.78F	1.23F	2.9J	5	4.4	2.73	3.54
PFOS	<1.18	<1.43	<1.8	0.74J	0.93J	0.753J, B	0.519J
PFBS	549	580	600	170	<4.9D	580	262
PFHpA	19.2	50.5	20	14	135	22	16.3
PFHxS	<0.837	<1.42	<0.51	2	0.59J	<0.369	1.2J
PFNA	<1.40	<1.48	0.46J	<0.72	<0.80	0.539J	<0.372
PFDA	<1.35	<1.63	<0.48	<0.55	<0.62	<0.369	<0.372
PFDoA	<2.31	<2.71	<0.43	<0.47	<0.49	<0.369	<0.297
PFHxA	58	118	60	51	2,370D	49.7	55.3
PFTeDA	<4.45	<1.75	<0.55	<0.47	<0.61	<0.369	<0.372
PFTrDA	<2.21	<1.93	<0.48	<0.61	<0.63	<0.369	<0.372
PFUnA	<1.70	<2.22	<0.57	<0.33	<0.49	<0.369	<0.372
N-EiFOSA	<2.83	<6.94	<1.2	<0.59	<0.58	<0.922	<1.04
N-EiFOSAA	<2.66	<2.12	<0.89	<0.54	<0.83	<0.369	<0.372
N-MeFOSAA	<1.76	<2.19	<0.85	<0.42	<0.7	<0.369	<0.372
PFBA	54.5F	101	74	51	534D	65.3	62.8
PFPeA	118	250	140	100	3,860D	120	131
PFPeS	<0.759	<1.36	<0.54	<0.46	<0.61	<0.370	<0.374
PFHpS	<1	<1.90	<0.46	<0.4	<0.68	<0.369	<0.372
PFNS	<1.71	<1.82	<0.65	<0.44	<0.59	<0.369	<0.372
PFDS	<1.78	<2.57	<0.71	<0.44	<0.65	<0.369	<0.372
PFDoS	<8.06	<2.47	<0.96	<0.45	<0.60	<0.369	<0.372
PFOSA	<7.85	<1.55	<0.56	<0.8	<0.73	<0.369	<0.372
N-MeFOA	<4.18	<10	<1.2	<0.5	<0.56	<0.424	<0.372
N-MeFOSE	<3.88	<2.81	<1.2	<0.32	<0.53	<3.69	<3.72
N-EiFOSE	<4.4	<2.12	<0.87	<0.49	<0.9	<2.76	<3.72
4:2 FTSA	3.17F	<1.90	3.6J	1.6J	3.4	2.41J	<1.49
6:2 FTSA	63.5	522	42	79	4,710D	49.1B	104
8:2 FTSA	<1.19	<2.62	<1.5	<0.64	0.56J	<1.47	<1.26
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<0.915	<1.28	<0.44	<0.5	<0.93	<1.47	<1.49
GenX (HFPO-DA)	<1.32	<1.92	<1.9	<0.52	<0.5	<1.40	<1.49
9Cl-PF3ONS	<1.29	<1.82	<0.44	<0.3	<0.48	<1.48	<1.49
11Cl-PF3OUdS	<1.27	<1.49	<0.61	<0.43	<0.56	<1.48	<1.49

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank D=Sample Dilution

FU = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EiFOSA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EiFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaonane-1-sulfonic acid (C6)

11Cl-PF3OUdS (763051-92-9) 11-chlorooctadecafluoro-3-oxaundecane-1-sulfonic acid (C10)



**TABLE A.1.  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well	State Lab of Hygiene		MW-5			SGS	
	Lab	State Lab of Hygiene	Pace Analytical			SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>							
PFOA	2.44F	5.98F	11J	7.1J.D	6.5	8.55J	6.19J
PFOS	<1.32	<1.43	<18	<5.4D	1J	122B	<3
PFBS	4.76F	14.1	12J	30D	14.4	12.6J	13.9
PFHpA	216	644	490	410D	490D	463	401
PFHxS	<0.942	<1.42	<5	<5D	0.58J	3.81 J.B	<3.02
PFNA	<1.58	<1.48	<4.2	<7.3D	<0.82	<3.18	<3
PFDA	<1.52	<1.63	<4.7	<5.6D	<0.63	<3.18	<3
PFDoA	<2.59	<2.71	<4.3	<4.8D	<0.5	<3.18	<2.4
PFHxA	734	1,580D	1,600	1,300D	2,390D	1,470	1,550
PFTeDA	<5.01	<1.75	<5.4	<4.7D	<0.62	<3.18	<3
PFTriDA	<2.48	<1.93	<4.8	<6.2D	<0.64	<3.18	<3
PFUnA	<1.91	<2.22	<5.7	<5.4D	<0.5	<3.18	<3
N-EiFOA	<3.19	<6.94	<12	36D	<0.59	<7.95	<8.41
N-EiFOAA	<3	<2.12	<6.8	<5.5D	<0.84	<3.18	<3
N-MeFOAA	<1.98	<2.19	<8.4	<4.3D	<0.72	<3.18	<3
PFBA	108	403	310	360D	552D	324	389
PFPeA	1,280	2,410D	2,500	1,900D	4,160D	2,460	2,750
PFPeS	<0.854	<1.36	<5.4	<4.7D	<0.62	<3.2	<3
PFHpS	<1.13	<1.90	<4.5	<4.1D	<0.69	<3.18	<3
PFNS	<1.93	<1.82	<6.4	<4.4D	<0.61	<3.18	<3
PFDS	<2	<2.57	<7	<4.5D	<0.66	<3.18	<3
PFDoS	<9.07	<2.47	<9.4	<4.6D	<0.61	<3.18	<3
PFOSA	<8.83	<1.55	<5.5	<8.1D	0.82J	5.87 J.B	<3
N-MeFOA	<4.71	<10	<11	<5.1D	<0.57	<3.66	<3
N-MeFOSE	<4.37	<2.81	<12	<3.3D	<0.54	<3.18	<30
N-EiFOSE	<4.96	<2.12	<8.6	<4.9D	<0.92	<23.8	<30
4:2 FTSA	<2.23	<1.90	<7.9	<5.5D	2.7	<12.7	<12
6:2 FTSA	1,500	2,890D	2,100	1,600D	2,410D	2,750	2,700
8:2 FTSA	<1.34	<2.62	<14	<6.5D	<0.52	<12.7	<10.2
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<1.03	<1.28	<4.4	<5.1D	<0.95	<12.7	<12
GenX (HFPO-DA)	<1.48	<1.92	<19	<5.2D	<0.51	<12.1	<12
9Cl-PF3ONS	<1.45	<1.82	<4.4	<3D	<0.49	<12.8	<12
11Cl-PF3OUdS	<1.43	<1.49	<6	<4.3D	<0.57	<12.7	<12

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation  
 PFOA (355-67-1) Perfluorooctanoic Acid (C8)  
 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (375-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
 PFHxA (307-24-4) Perfluorohexanoic Acid (C6)  
 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTriDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
 PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)  
 N-EiFOA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)  
 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)  
 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)  
 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)  
 DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)  
 GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)  
 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaheptanoic acid (C6)  
 11Cl-PF3OUdS (763051-92-9) 11-chlorooctadecafluoro-3-oxaundecanoic acid (C10)

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	MW-6						
	State Lab of Hygiene		Pace Analytical			SGS	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>							
PFOA	3.48F	6.06F	<37	8.7J.D	8.4	9.51	5.63J
PFOS	<1.21	<1.43	<90	<5.5D	1.7J	2.59 J.B	<2.97
PFBS	14.1	20.4	27J	38D	18.7	24	14.4
PFHpA	658	1,060	1,000	760D	355D	1,050	544
PFHxS	<0.861	<1.42	<25	<5.1D	0.9J	1.98 J.B	<2.97
PFNA	<1.44	<1.48	<21	<7.4D	<0.8	<1.59	<2.97
PFDA	<1.39	<1.63	<24	<5.7D	<0.62	<1.59	<2.97
PFDoA	<2.37	<2.71	<21	<4.9D	<0.49	<1.59	<2.38
PFHxA	2,200	3,180D	3,800	3,400D	1,560D	3,500	2,470
PFTeDA	<4.58	<1.75	<27	<4.8D	<0.61	<1.59	<2.97
PFTDA	<2.27	<1.93	<24	<6.2D	<0.63	<1.59	<2.97
PFUnA	<1.74	<2.22	<28	<5.4D	<0.49	<1.59	<2.97
N-EFOSA	<2.92	<6.94	<61	<6.1D	<0.58	<1.59	<8.32
N-EFOSAA	<2.74	<2.12	<34	<5.6D	<0.83	<1.59	<2.97
N-MeFOSAA	<1.81	<2.19	<42	<4.4D	<0.70	<1.59	<2.97
PFBA	455	729	820	650D	289D	697	587
PFPeA	3,490	4,710D	6,600	5,700D	3,090D	5,440	4,260
PFPeS	<0.781	<1.36	<27	<4.8D	<0.61	<1.6	<2.99
PFHpS	<1.03	<1.90	<22	<4.1D	<0.68	<1.59	<2.97
PFNS	<1.76	<1.82	<32	<4.5D	<0.59	<1.59	<2.97
PFDS	<1.83	<2.57	<35	<4.5D	<0.65	<1.59	<2.97
PFDoS	<8.29	<2.47	<47	<4.6D	<0.6	<1.59	<2.97
PFOSA	<8.08	<1.55	<27	<8.2D	<0.73	4.2 J.B	<2.97
N-MeFOA	<4.30	<10	<56	<5.1D	<0.56	<1.83	<2.97
N-MeFOSE	<4	<2.81	<58	<3.3D	<0.53	<15.9	<29.7
N-EFOSE	<4.53	<2.12	<43	<5D	<0.90	<11.9	<29.7
4:2 FTSA	<2.04	<1.90	<39	<5.6D	2.8	<6.36	<11.9
6:2 FTSA	1,450	1,720D	3,000	1,400D	993D	3,120	1,030
8:2 FTSA	<1.23	<2.62	<72	<6.6D	<0.51	<6.36	<10.1
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<0.942	<1.28	<22	<5.2D	<0.93	<6.36	<11.9
GenX (HFPO-DA)	<1.36	<1.92	<93	<5.3D	<0.50	<6.04	<11.9
9Cl-PF3ONS	<1.33	<1.48	<22	<3.1D	<0.48	<6.37	<11.9
11Cl-PF3OUdS	<1.31	<1.49	<30	<4.4D	<0.56	<6.36	<11.9

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation  
 PFOA (355-67-1) Perfluorooctanoic Acid (C8)  
 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
 PFHxA (307-24-4) Perfluorohexanoic Acid (C6)  
 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
 PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)  
 N-EFOSA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOSA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
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**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-7							
	State Lab of Hygiene		Pace Analytical			SGS		
	Lab	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>								
PFOA	2.99F	5.38F	5.4J	4.6	6	4.83	5.01J	
PFOS	1.73F	6.07F	<9.6	3.8	4.9	2.68 J.B	5.62J	
PFBS	8.93	9.44F	8.3J	10	10	11.1	7.71J	
PFHpA	207	157	190	130	159	193	126	
PFHxS	<0.718	<1.42	<2.6	0.57J	<1.1	1.31 J.B	<2.99	
PFNA	<1.2	2.44F	2.9J	1.7J	2.7J	1.78J	3.32J	
PFDA	<1.16	<1.63	<2.5	<0.56	<1.3	<0.736	<2.99	
PFDoA	<1.98	<2.71	<2.3	<0.48	<1	<0.736	<2.39	
PFHxA	808	641	860	600D	706D	785	550	
PFTeDA	<3.82	<1.75	<2.9	<0.47	<1.3	<0.736	<2.99	
PFTrDA	<1.89	<1.93	<2.5	<0.62	<1.3	<0.736	<2.99	
PFUnA	<1.45	<2.22	<3	<0.54	<1	<0.736	<2.99	
N-EiFOA	<2.43	<6.94	<6.5	<0.60	<1.2	<1.84	<8.37	
N-EiFOAA	<2.29	<2.12	<3.6	<0.55	<1.7	<0.736	<2.99	
N-MeFOAA	<1.51	<2.19	<4.5	<0.43	<1.5	<0.736	<2.99	
PFBA	174	183	210	160	226	208	167	
PFPeA	1,340	1,010	1,500	860D	1,250D	1,410	931	
PFPeS	<0.651	<1.36	<2.8	<0.47	<1.3	<0.74	<3	
PFHpS	<0.862	<1.90	<2.4	<0.41	<1.4	<0.736	<2.99	
PFNS	<1.47	<1.82	<3.4	<0.44	<1.3	<0.736	<2.99	
PFDS	<1.52	<2.57	<3.7	<0.45	<1.4	<0.736	<2.99	
PFDoS	<6.91	<2.47	<5	<0.46	<1.3	<0.736	<2.99	
PFOSA	<6.73	<1.55	<2.9	<0.81	<1.5	<0.736	<2.99	
N-MeFOA	<3.59	<10	<6	<0.51	<1.2	<0.847	<2.99	
N-MeFOSE	<3.33	<2.81	<6.2	<0.33	<1.1	<7.36	<29.9	
N-EiFOSE	<3.78	<2.12	<4.6	<0.49	<1.9	<5.51	<29.9	
4:2 FTSA	<1.70	<1.90	<4.2	1.1J	<1	<2.94	<12	
6:2 FTSA	623	800	750	550D	1,110D	696	1,010	
8:2 FTSA	<1.02	<2.62	<7.7	<0.65	<1.1	<2.94	<10.2	
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR	
ADONA	<0.785	<1.28	<2.3	<0.51	<2	<2.94	<12	
GenX (HFPO-DA)	<1.13	<1.92	<9.9	<0.53	<1.1	<2.80	<12	
9Cl-PF3ONS	<1.11	<1.82	<2.3	<0.3	<1	<2.95	<12	
11Cl-PF3OUdS	<1.09	<1.49	<3.2	<0.43	<1.2	<2.95	<12	

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 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
 PFHxA (307-24-4) Perfluorohexanoic Acid (C6)  
 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
 PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)  
 N-EiFOA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)  
 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)  
 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)  
 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)  
 DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)  
 GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)  
 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaonane-1-sulfonic acid (C6)  
 11Cl-PF3OUdS (763051-92-9) 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well	MW-8							
	State Lab of Hygiene		Pace Analytical			SGS		
	Lab	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>								
PFOA	20.7	14.7	<150	24D	29.1	21.4J	16.9	
PFOS	<1.15	<1.43	<370	<5.5D	5.4	24.9 B	<2.95	
PFBS	4.84F	6.18F	<77	24D	5.9	<6.11	6.06J	
PFHpA	1.56D	1.820D	2,100	3,400D	2,340D	1,860	1,840	
PFHxS	9.63	6.45F	<100	11 J.D	8.7	7.97 J.B	6.69J	
PFNA	1.40F	<1.48	<86	<7.5D	7.1	<6.11	2.96 R,J	
PFDA	<1.32	<1.63	<98	<5.7D	<0.62	<6.11	<2.95	
PFDoA	<2.25	<2.71	<88	<4.9D	<0.49	<6.11	<2.36	
PFHxA	5,390	5,350D	7,000	8,600D	5,500D	4,360	6580D	
PFTeDA	<4.34	<1.75	<110	<4.8D	<0.61	<6.11	<2.95	
PFTriDA	<2.15	<1.93	<98	<6.3D	<0.63	<6.11	<2.95	
PFUnA	<1.65	<2.22	<120	<5.5D	<0.49	<6.11	<2.95	
N-EiFOA	<2.77	<6.94	<250	<6.1D	<0.58	<15.3	<8.27	
N-EiFOAA	<2.60	<2.12	<140	<5.6D	<0.83	<6.11	<2.95	
N-MeFOAA	<1.72	<2.19	<170	<4.4D	<0.70	<6.11	<2.95	
PFBA	1,350F	2,120	2,300	2,800D	1,820D	1,130	2,600	
PFPeA	13,500	12,300D	19,000	17,000D	15,500D	8,510	17,500D	
PFPeS	1,08F	<1.36	<110	<4.8D	0.7J	<6.14	<2.97	
PFHpS	<0.98D	<1.90	<93	<4.1D	<0.68	<6.11	<2.95	
PFNS	<1.67	<1.82	<130	<4.5D	<0.59	<6.11	<2.95	
PFDS	<1.73	<2.57	<140	<4.5D	<0.65	<6.11	<2.95	
PFDoS	<7.86	<2.47	<190	<4.6D	<0.60	<6.11	<2.95	
PFOSA	<7.66	<1.55	<110	<8.3D	<0.73	7.81 J.B	<2.95	
N-MeFOA	<4.08	<10	<230	<5.2D	<0.56	<7.02	<2.95	
N-MeFOSE	<3.79	<2.81	<240	<3.3D	<0.53	<6.11	<2.95	
N-EiFOSE	<4.30	<2.12	<180	<5D	<0.90	<45.7	<29.5	
4:2 FTSA	10.7	12	<160	13 J.D	9.5	24.4	11.9J	
6:2 FTSA	33,600	17,800D	34,000	3,600D	5,040D	25,400	20,800D	
8:2 FTSA	<1.16	<2.62	<300	<6.6D	<0.51	<24.4	<10	
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR	
ADONA	<0.893	<1.28	<90	<5.2D	<0.93	<24.4	<11.8	
GenX (HFPO-DA)	<1.29	<1.92	<390	<5.3D	<0.50	<23.2	<11.8	
9Cl-PF3ONS	<1.26	<1.82	<90	<3.1D	<0.48	<24.5	<11.8	
11Cl-PF3OUdS	<1.24	<1.49	<120	<4.4D	<0.56	<24.5	<11.8	

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=Analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation  
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 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
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 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTriDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
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 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
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 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
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 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
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 11Cl-PF3OUdS (763051-92-9) 11-chloroicosadecafluoro-3-oxadecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-9							
	State Lab of Hygiene		Pace Analytical			SGS		
	Lab	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>								
PFOA	5.41F	10.8	<15	15 J.D	31.5	5.65J	8.85J	
PFOS	<1.19	1.98F	<35	<5.5D	5.7	<3.05	<2.99	
PFBS	22.8	19.3	27J	42D	28	11.3J	17.4	
PFHpA	547	1,200	760	880D	2,080D	386	738	
PFHxS	<0.849	2.42F	<9.7	5.2 J.D	13.2	<3.05	<2.99	
PFNA	<1.42	<1.48	<8.1	<7.4D	<1.7	<3.05	<2.99	
PFDA	<1.37	<1.63	<9.2	<5.6D	<1.3	<3.05	<2.99	
PFDoA	<2.34	<2.71	<8.3	<4.8D	<1	<3.05	<2.99	
PFHxA	4,060	8,560D	3,100	8,500D	26,700D	1,360	8,460D	
PFTeDA	<4.51	<1.75	<11	<4.8D	<1.3	<3.05	<2.99	
PFTrDA	<2.24	<1.93	<9.3	<6.2D	<1.3	<3.05	<2.99	
PFUnA	<1.72	<2.22	<11	<5.4D	<1	<3.05	<2.99	
N-EiFOSA	<2.97	<6.94	<24	<6.1D	<1.2	<7.62	<8.36	
N-EiFOSAA	<2.70	<2.12	<13	<5.5D	<1.7	<3.05	<2.99	
N-MeFOSAA	<1.78	<2.19	<16	<4.3D	<1.5	<3.05	<2.99	
PFBA	450	1,670	590	1,300D	3,190D	222	1,540	
PFPeA	6,900	7,010D	5,700	6,800D	14,900D	1,940	7,040	
PFPeS	<0.770	<1.36	<10	<4.7D	1.3J	<3.06	<3	
PFHpS	6.70F	<1.90	<8.8	<4.1D	<1.4	<3.05	<2.99	
PFNS	<1.74	<1.82	<13	<4.5D	<1.2	<3.05	<2.99	
PFDS	<1.80	<2.57	<14	<4.5D	<1.4	<3.05	<2.99	
PFDoS	<8.17	<2.47	<18	<4.6D	<1.2	<3.05	<2.99	
PFOSA	<7.96	<1.55	<11	<8.2D	<1.5	4.68 J.B	<2.99	
N-MeFOSA	<4.24	<10	<22	<5.1D	<1.2	<3.51	<2.99	
N-MeFOSE	<3.94	<2.81	<23	<3.3D	<1.1	<30.5	<29.9	
N-EiFOSE	<4.47	<2.12	<17	<5D	<1.9	<22.8	<29.9	
4:2 FTSA	6.02F	227	<15	220D	147	<12.2	170	
6:2 FTSA	7.590	14,200D	6,100	3,300D	14,700D	3,770	13,200	
8:2 FTSA	<1.21	<2.62	<28	<6.5D	<1.1	<12.2	<10.2	
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR	
ADONA	<0.928	<1.28	<8.5	<5.1D	<1.9	<12.2	<11.9	
GenX (HFPO-DA)	<1.34	<1.92	<37	<5.3D	<1	<11.6	<11.9	
9Cl-PF3ONS	<1.31	<1.82	<8.5	<3D	<0.99	<12.2	<12	
11Cl-PF3OUdS	<1.29	<1.49	<12	<4.4D	<1.2	<12.2	<12	

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=Analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation  
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 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
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 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
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 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOSA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
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**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	State Lab of Hygiene		MW-10 Pace Analytical			SGS		
	Sampling Date		6/2/2021		7/12/2022		7/24/2023	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>								
PFOA	14	15.3	<38	18 J.D	9.2	9.92J	12.2J	
PFOS	<1.27	<1.43	<91	<5.6D	<0.67	16.4B	<6.16	
PFBS	64.3	40.8	44J	54D	28.7	25.8	34.7	
PFHpA	1,200	1,360D	1,500	1,000D	907D	1,050	1,270	
PFHxS	1.70F	<1.42	<25	<5.2D	0.82J	<3.15	<6.16	
PFNA	2.00F	<1.48	<21	<7.5D	<0.80	<3.15	<6.16	
PFDA	<1.46	<1.63	<24	<5.7D	<0.61	<3.15	<6.16	
PFDoA	<2.49	<2.71	<22	<4.9D	<0.48	<3.15	<4.92	
PFHxA	7,590	6,470D	8,700	6,200D	5,630D	3,940	6,320	
PFTeDA	<4.80	<1.75	<27	<4.8D	<0.60	<3.15	<6.16	
PFTrDA	<2.38	<1.93	<24	<6.3D	<0.63	<3.15	<6.16	
PFUnA	<1.83	<2.22	<29	<5.5D	<0.49	<3.15	<6.16	
N-EiFOA	<3.06	<6.94	<62	<6.2D	<0.58	<7.88	<17.2	
N-EiFOAA	<2.88	<2.12	<34	<5.6D	<0.82	<3.15	<6.16	
N-MeFOAA	<1.90	<2.19	<43	<4.4D	<0.70	<3.15	<6.16	
PFBA	918F	1,260	1,500	1,100D	1,010D	485	1,290	
PFPeA	13,300	9,110D	15,000	9,500D	10,900D	5,140	11,200	
PFPeS	0.947F	<1.36	<27	<4.8D	<0.61	<3.17	<6.19	
PFHpS	<1.08	<1.90	<23	<4.2D	<0.67	<3.15	<6.16	
PFNS	<1.85	<1.82	<32	<4.5D	<0.59	<3.15	<6.16	
PFDS	<1.92	<2.57	<35	<4.6D	<0.65	<3.15	<6.16	
PFDoS	<8.70	<2.47	<48	<4.7D	<0.60	<3.15	<6.16	
PFOSA	<8.48	<1.55	<28	<8.3D	<0.72	5.43 J.B	<6.16	
N-MeFOA	<4.51	<1.0	<57	<5.2	<0.56	<3.62	<6.16	
N-MeFOSE	<4.19	<2.81	<59	<3.3D	<0.53	<3.15	<6.16	
N-EiFOSE	<4.76	<2.12	<43	<5D	<0.90	<23.6	<61.6	
4:2 FTSA	13.8	12.4	<40	15 J.D	5.2	<12.6	<24.6	
6:2 FTSA	12,900	8,280D	11,000	3,300D	2,310D	9,860	9,790	
8:2 FTSA	<1.29	<2.62	<73	<6.6D	<0.51	<12.6	<20.9	
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR	
ADONA	<0.988	<1.28	<22	<5.2D	<0.93	<12.6	<24.6	
GenX (HFPO-DA)	<1.42	<1.92	<95	<5.4D	<0.50	<12	<24.6	
9Cl-PF3ONS	<1.39	<1.82	<22	<3.1D	<0.47	<12.6	<24.7	
11Cl-PF3OUdS	<1.38	<1.49	<30	<4.4D	<0.56	<12.6	<24.7	

ng/L = nanograms per liter (parts per trillion)  
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 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)  
 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)  
 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)  
 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)  
 DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)  
 GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)  
 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaheptanoic acid (C6)  
 11Cl-PF3OUdS (763051-92-9) 11-chlorooctadecafluoro-3-oxaundecanoic acid (C10)

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	State Lab of Hygiene		MW-11 Pace Analytical			SGS	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/12/2022	6/2/2021	7/12/2022
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/12/2022	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (mg/L)</b>							
PFOA	13	15.3	<38	18 J.D	12.4	13.7	10.3J
PFOS	1.58F	1.86F	<91	<5.4D	1.1J	<3.14	<2.98
PFBS	34	19.3	39J	46D	30.4	21.2	23.8
PFHpA	946	837	910	730D	306D	583	691
PFHxS	1.38F	<1.42	<25	<5D	1J	<3.14	<2.98
PFNA	1.79F	2.01F	<21	<7.3	1.6J	<3.14	<2.98
PFDA	<1.47	<1.63	<24	<5.6D	<0.6	<3.14	<2.98
PFDoA	<2.50	<2.71	<22	<4.8D	<0.47	<3.14	<2.98
PFHxA	4,180	3,430D	5,800	4,200D	2,330D	3,350	4,550
PFTeDA	<4.82	<1.75	<27	<4.7D	<0.59	<3.14	<2.98
PFTrDA	<2.39	<1.93	<24	<6.1D	<0.61	<3.14	<2.98
PFUnA	<1.84	<2.22	<29	<5.3D	<0.48	<3.14	<2.98
N-EiFOA	<3.07	<6.94	<62	<6D	<0.56	<7.84	<8.34
N-EiFOAA	<2.89	<2.12	<34	<5.5D	<0.80	<3.14	<2.98
N-MeFOAA	<1.91	<2.19	<43	<4.3D	<0.68	<3.14	<2.98
PFBA	839	900	1,200	930D	333D	583	1,040
PFPeA	6,050	5,210D	9,500	7,700D	4,970D	4,500	7,660
PFPeS	<0.823	<1.36	<27	<4.7D	<0.59	<3.15	<2.99
PFHpS	<1.09	<1.90	<23	<4.1D	<0.66	<3.14	<2.98
PFNS	<1.86	<1.82	<32	<4.4D	<0.58	<3.14	<2.98
PFDS	<1.93	<2.57	<35	<4.4D	<0.63	<3.14	<2.98
PFDoS	<8.73	<2.47	<48	<4.5D	<0.58	<3.14	<2.98
PFOSA	<8.51	<1.55	<28	<8.1D	<0.70	3.77J, B	<2.98
N-MeFOA	<4.53	<10	<57	<5D	<0.54	<3.61	<2.98
N-MeFOSE	<4.21	<2.81	<59	<3.2D	<0.51	<3.14	<2.98
N-EiFOSE	<4.77	<2.12	<43	<4.9D	<0.87	<23.5	<29.8
4:2 FTSA	12.2	12	<40	12D	7.8	<12.5	12
6:2 FTSA	25,100	18,500D	19,000	3,500D	2,730D	20,100	18,200D
8:2 FTSA	1.59F	3.15F	<73	<6.4D	1.6J	<12.5	<10.1
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<0.992	<1.28	<22	<5.1D	<0.90	<12.5	<11.9
GenX (HFPO-DA)	<1.43	<1.92	<95	<5.2D	<0.48	<11.9	<11.9
9Cl-PF3ONS	<1.40	<1.82	<22	<3D	<0.46	<12.6	<11.9
11Cl-PF3OUdS	<1.38	<1.49	<30	<4.3D	<0.55	<12.6	<11.9

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections  
 B=Analyte detected in the field blank D=Sample Dilution  
 FU = result is between laboratory limit of detection and laboratory limit of quantitation  
 PFOA (355-67-1) Perfluorooctanoic Acid (C8)  
 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
 PFHxA (307-24-4) Perfluorohexanoic Acid (C6)  
 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
 PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)  
 N-EiFOA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluoronanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOA (754-91-6) Perfluorooctanesulfonamide (C8)  
 N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)  
 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)  
 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)  
 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)  
 DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)  
 GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)  
 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaheptanoic acid (C6)  
 11Cl-PF3OUdS (763051-92-9) 11-chlorooctadecafluoro-3-oxaundecanoic acid (C10)



**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-12			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	<b>6.22F</b>	<b>5.5</b>	<b>4.1J</b>	<b>4.97J</b>
PFOS	<1.43	<0.55	<1.4	<2.92
PFBS	<b>4.58F</b>	<b>8.3</b>	<b>5.1</b>	<b>6.76J</b>
PFHpA	<b>4.84F</b>	<b>6.7</b>	<b>3.9J</b>	<b>5.2J</b>
PFHxS	<1.42	<b>1.6J</b>	<1.1	<2.92
PFNA	<1.48	<0.74	<1.7	<2.92
PFDA	<1.63	<0.57	<1.3	<2.92
PFDoA	<2.71	<0.49	<1	<2.33
PFHxA	<b>12.3</b>	<b>17</b>	<b>11.6</b>	<b>16.1</b>
PFTeDA	<1.75	<0.48	<1.3	<2.92
PFTrDA	<1.93	<0.63	<1.3	<2.92
PFUnA	<2.22	<0.54	<1	<2.92
N-EtFOSA	<6.94	<0.61	<1.2	<8.16
N-EtFOSAA	<2.12	<0.56	<1.7	<2.92
N-MeFOSAA	<2.19	<0.44	<1.5	<2.92
PFBA	<b>77.6</b>	<b>140</b>	<b>87.3</b>	<b>148</b>
PFPeA	<b>13.4</b>	<b>21</b>	<b>12</b>	<b>20.5J</b>
PFPeS	<1.36	<b>1.2J</b>	<1.3	<2.93
PFHpS	<1.90	<0.41	<1.4	<2.92
PFNS	<1.82	<0.45	<1.2	<2.92
PFDS	<2.57	<0.45	<1.4	<2.92
PFDoS	<2.47	<0.46	<1.2	<2.92
PFOSA	<1.55	<0.82	<1.5	<2.92
N-MeFOSA	<10	<0.51	<1.2	<2.92
N-MeFOSE	<2.81	<0.33	<1.1	<29.2
N-EtFOSE	<2.12	<0.5	<1.9	<29.2
4:2 FTSA	<1.90	<0.56	<0.98	<11.7
6:2 FTSA	<2.72	<0.65	<1.4	<10.5
8:2 FTSA	<2.62	<0.66	<1.1	<9.91
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.52	<1.9	<11.7
GenX (HFPO-DA)	<1.92	<0.53	<1	<11.7
9CI-PF3ONS	<1.82	<0.31	<0.99	<11.7
11CI-PF3OUdS	<1.49	<0.44	<1.2	<11.7

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-13			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	<b>2.05F</b>	<b>2J</b>	<1.8	<b>1.78</b>
PFOS	<1.43	<0.54	<1.4	<0.375
PFBS	<b>3.73F</b>	<b>4.6B</b>	<b>3.1J</b>	<b>4.25</b>
PFHpA	<1.50	<b>1.7J</b>	<1.4	<b>1.21J</b>
PFHxS	<1.42	<b>0.53J</b>	<1.1	<b>0.533J</b>
PFNA	<1.48	<0.73	<1.7	<0.375
PFDA	<1.63	<0.56	<1.3	<0.375
PFDoA	<2.71	<0.48	<1	<0.300
PFHxA	<b>6.42F</b>	<b>7.6</b>	<b>5.8</b>	<b>6.18</b>
PFTeDA	<1.75	<0.47	<1.3	<0.375
PFTrDA	<1.93	<0.61	<1.3	<0.375
PFUnA	<2.22	<0.53	<1	<0.375
N-EtFOSA	<6.94	<0.6	<1.2	<1.05
N-EtFOSAA	<2.12	<0.55	<1.7	<0.375
N-MeFOSAA	<2.19	<0.5	<1.5	<0.375
PFBA	<b>53.4</b>	<b>61</b>	<b>50</b>	<b>61.3</b>
PFPeA	<b>8.07F</b>	<b>9.9</b>	<b>6.6</b>	<b>8.81</b>
PFPeS	<1.36	<0.47	<1.3	<b>0.523J</b>
PFHpS	<1.90	<0.41	<1.4	<0.375
PFNS	<1.82	<0.44	<1.2	<0.375
PFDS	<2.57	<0.44	<1.3	<0.375
PFDoS	<2.47	<0.45	<1.2	<0.375
PFOSA	<1.55	<0.81	<1.5	<0.375
N-MeFOSA	<10	<0.43	<1.2	<0.375
N-MeFOSE	<2.81	<0.32	<1.1	<3.75
N-EtFOSE	<2.12	<0.49	<1.9	<3.75
4:2 FTSA	<1.90	<0.55	<0.97	<1.5
6:2 FTSA	<2.72	<0.64	<1.4	<1.35
8:2 FTSA	<2.62	<0.65	<1.1	<1.27
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.51	<1.9	<1.5
GenX (HFPO-DA)	<1.92	<0.52	<1	<1.5
9CI-PF3ONS	<1.82	<0.3	<0.98	<1.5
11CI-PF3OUdS	<1.49	<0.43	<1.2	<1.5

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

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10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-14			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	5.77F	14	4.8	9.65J
PFOS	3.17F	14	3.6	9.69J
PFBS	<2.31	5.0B	1.9	3.64J
PFHpA	4.57F	15	4.3	7.28J
PFHxS	4.56F	11	4.3	7.63J
PFNA	<1.48	1.3J	<0.79	<2.95
PFDA	<1.63	<0.57	<0.61	<2.95
PFDoA	<2.71	<0.49	<0.48	<2.36
PFHxA	18.4	40	17.4	24
PFTeDA	<1.75	<0.48	<0.60	<2.95
PFTrDA	<1.93	<0.63	<0.62	<2.95
PFUnA	<2.22	<0.54	<0.49	<2.95
N-EtFOSA	<6.94	<0.61	<0.57	<8.25
N-EtFOSAA	<2.12	<0.56	<0.82	<2.95
N-MeFOSAA	<2.19	<0.44	<0.69	<2.95
PFBA	16.2	35	17.5	31.7J
PFPeA	27.2	63	25.2	38.4
PFPeS	<1.36	0.79J	<0.60	<2.96
PFHpS	<1.90	<0.41	<0.67	<2.95
PFNS	<1.82	<0.45	<0.59	<2.95
PFDS	<2.57	<0.45	<0.64	<2.95
PFDoS	<2.47	<0.46	<0.59	<2.95
PFOSA	<1.55	<0.82	<0.72	<2.95
N-MeFOSA	<10	<0.52	<0.55	<2.95
N-MeFOSE	<2.81	<0.33	<0.52	<29.5
N-EtFOSE	<2.12	<0.50	<0.89	<29.5
4:2 FTSA	<1.90	<0.56	<0.47	<11.8
6:2 FTSA	7.54F	23	4.7	13.1J
8:2 FTSA	<2.62	<0.66	<0.50	<10
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.52	<0.92	<11.8
GenX (HFPO-DA)	<1.92	<0.53	<0.49	<11.8
9CI-PF3ONS	<1.82	<0.31	<0.47	<11.8
11CI-PF3OUdS	<1.49	<0.44	<0.56	<11.8

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-15			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	2.3F	3.3	1.1J	<3.01
PFOS	<1.43	<0.54	<0.68	<3.01
PFBS	2.46F	5.2B	3.3	4.15J
PFHpA	19.9	18	19	13.9
PFHxS	<1.42	3.9	0.89J	3.15J
PFNA	<1.48	<0.73	<0.81	<3.01
PFDA	<1.63	<0.56	<0.62	<3.01
PFDoA	<2.71	<0.48	<0.49	<2.41
PFHxA	99.7	110	105	87.9
PFTeDA	<1.75	<0.47	<0.61	<3.01
PFTrDA	<1.93	<0.62	<0.63	<3.01
PFUnA	<2.22	<0.54	<0.49	<3.01
N-EtFOSA	<6.94	<0.6	<0.58	<8.42
N-EtFOSAA	<2.12	<0.55	<0.83	<3.01
N-MeFOSAA	<2.19	<0.43	<0.70	<3.01
PFBA	51.5	94	52.3	85.9
PFPeA	164	180	190	169
PFPeS	<1.36	1.2J	<0.61	<3.02
PFHpS	<1.9	<0.41	<0.68	<3.01
PFNS	<1.82	<0.44	<0.60	<3.01
PFDS	<2.57	<0.45	<0.65	<3.01
PFDoS	<2.47	<0.46	<0.60	<3.01
PFOSA	<1.55	<0.81	<0.73	<3.01
N-MeFOSA	<10	<0.51	<0.56	<3.01
N-MeFOSE	<2.81	<0.33	<0.53	<30.1
N-EtFOSE	<2.12	<0.49	<0.90	<30.1
4:2 FTSA	<1.90	<0.55	<0.47	<12
6:2 FTSA	70.6	57	45.7	51.1
8:2 FTSA	<2.62	<0.65	<0.51	<10.2
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.51	<0.93	<12
GenX (HFPO-DA)	<1.92	<0.52	<0.50	<12
9CI-PF3ONS	<1.82	<0.3	<0.48	<12.1
11CI-PF3OUdS	<1.49	<0.43	<0.56	<12

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-16			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	3.99F	5.6	2.6	4.01
PFOS	<1.43	1.4J	0.79J	1.17J
PFBS	5.14F	6.6B	5.5	5.4
PFHpA	75.9	80	64.5	65.1
PFHxS	<1.42	0.59J	<0.53	0.464J
PFNA	<1.48	1.2J	<0.79	0.779J
PFDA	<1.63	<0.59	<0.60	<0.373
PFDoA	<2.71	<0.51	<0.48	<0.298
PFHxA	294	290D	353D	276
PFTeDA	<1.75	<0.66	<0.60	<0.373
PFTrDA	<1.93	<0.50	<0.62	<0.373
PFUnA	<2.22	<0.57	<0.48	<0.373
N-EtFOSA	<6.94	<0.64	<0.57	<1.04
N-EtFOSAA	<2.12	<0.58	<0.81	<0.373
N-MeFOSAA	<2.19	<0.46	<0.69	<0.373
PFBA	121	120	150	144
PFPeA	473	500D	633D	524
PFPeS	<1.36	<0.50	<0.6	<0.374
PFHpS	<1.90	<0.43	<0.66	<0.373
PFNS	<1.82	<0.47	<0.58	<0.373
PFDS	<2.57	<0.47	<0.64	<0.373
PFDoS	<2.47	<0.48	<0.59	<0.373
FOSA	<1.55	<0.86	<0.71	<0.373
N-MeFOSA	<10	<0.54	<0.55	<0.373
N-MeFOSE	<2.81	<0.35	<0.52	<0.373
N-EtFOSE	<2.12	<0.52	<0.88	<0.373
4:2 FTSA	<1.90	1.2J	0.66J	<1.49
6:2 FTSA	283	310D	224D	292
8:2 FTSA	<2.62	<0.69	<0.50	<1.27
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.54	<0.91	<1.49
GenX (HFPO-DA)	<1.92	<0.56	<0.49	<1.49
9CI-PF3ONS	<1.82	<0.32	<0.47	<1.49
11CI-PF3OUdS	<1.49	<0.46	<0.55	<1.49

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank      D=Sample Dilution

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.**  
**GROUNDWATER ANALYTICAL RESULTS**  
**THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Monitoring Well	MW-17			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	<1.08	<b>0.68J</b>	<1.8	<2.99
PFOS	<1.43	<0.54	<1.4	<2.99
PFBS	<2.31	<b>1.8B</b>	<b>1.4J</b>	<2.99
PFHpA	<1.5	<0.55	<1.4	<2.99
PFHxS	<1.42	<0.5	<1.1	<2.99
PFNA	<1.48	<0.73	<1.6	<2.99
PFDA	<1.63	<0.56	<1.3	<2.99
PFDoA	<2.71	<0.48	<1	<2.99
PFHxA	<2.04	<b>0.6J</b>	<1.9	<2.99
PFTeDA	<1.75	<0.47	<1.2	<2.99
PFTrDA	<1.93	<0.62	<1.3	<2.99
PFUnA	<2.22	<0.54	<1	<2.99
N-EtFOSA	<6.94	<0.60	<1.2	<8.36
N-EtFOSAA	<2.12	<0.55	<1.7	<2.99
N-MeFOSAA	<2.19	<0.43	<1.4	<2.99
PFBA	<b>4.79F</b>	<b>11</b>	<b>14.7</b>	<11.9
PFPeA	<1.50	<b>0.82J</b>	<1.7	<5.97
PFPeS	<1.36	<0.47	<1.2	<3
PFHpS	<1.90	<0.41	<1.4	<2.99
PFNS	<1.82	<0.44	<1.2	<2.99
PFDS	<2.57	<0.45	<1.3	<2.99
PFDoS	<2.47	<0.46	<1.2	<2.99
FOSA	<1.55	<0.81	<1.5	<2.99
N-MeFOSA	<10	<0.51	<1.1	<2.99
N-MeFOSE	<2.81	<0.33	<1.1	<29.9
N-EtFOSE	<2.12	<0.49	<1.8	<29.9
4:2 FTSA	<1.90	<0.55	<0.97	<11.9
6:2 FTSA	<2.72	<0.64	<1.4	<10.8
8:2 FTSA	<2.62	<0.65	<1	<10.2
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.51	<1.9	<11.9
GenX (HFPO-DA)	<1.92	<0.52	<1	<11.9
9CI-PF3ONS	<1.82	<0.3	<0.98	<12
11CI-PF3OUdS	<1.49	<0.43	<1.2	<12

ng/L = nanograms per liter (parts per trillion)

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**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

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PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

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10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well Lab	State Lab of Hygiene		PZ-1			SGS	
	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>							
PFOA	<2.03	<1.08	<1.1	<0.65	<4.5	<0.887	<3.39
PFOS	<1.36	<1.43	<2.7	<b>0.73J</b>	<3.5	<0.887	<3.39
PFBS	<1.62	<2.31	<0.55	<0.53	<2.6	<0.887	<3.39
PFHpA	<1.08	<1.50	<0.59	<0.61	<3.6	<0.887	<3.39
PFHxS	<0.969	<1.42	<0.73	<0.57	<2.8	<0.887	<3.39
PFNA	<1.62	<1.48	<0.61	<0.82	<4.2	<0.887	<3.39
PFDA	<1.57	<1.63	<0.7	<0.63	<3.2	<0.887	<3.39
PFDoA	<2.67	<2.71	<0.63	<0.54	<2.5	<0.887	<3.16
PFHxA	<1.40	<2.04	<b>1.2J</b>	<b>0.72J</b>	<4.8	<0.887	<3.39
PFTeDA	<5.15	<1.75	<0.8	<0.53	<3.2	<0.887	NQ
PFTrDA	<2.556	<1.93	<0.7	<0.69	<3.3	<0.887	NQ
PFUnA	<1.96	<2.22	<0.83	<0.60	<2.6	<0.887	<3.39
N-EiFOA	<3.28	<6.94	<1.8	<0.68	<3	<2.22	NQ
N-EiFOAA	<3.09	<2.12	<1	<0.62	<4.3	<0.887	<3.39
N-MeFOAA	<2.04	<2.19	<1.2	<0.48	<3.7	<0.887	<3.39
PFBA	<29.1	<3.46	<0.8	<0.49	<2.6	<3.55	<13.5
PFPeA	<2.5	<1.5	<0.72	<b>0.49J</b>	<4.3	<1.77	<6.77
PFPeS	<0.879	<1.36	<0.79	<0.53	<3.2	<0.891	<3.40
PFHpS	<1.16	<1.90	<0.66	<0.46	<3.5	<0.887	<3.39
PFNS	<1.98	<1.82	<0.95	<0.5	<3.1	<0.887	<3.39
PFDS	<2.06	<2.57	<1	<0.5	<3.4	<0.887	<3.39
PFDoS	<9.33	<3.98	<1.4	<0.51	<3.1	<0.887	<3.39
PFOSA	<9.09	<1.55	<0.82	<0.91	<3.8	<0.887	<3.39
N-MeFOA	<4.84	<10	<1.7	<0.57	<2.9	<1.02	NQ
N-MeFOSE	NR	<2.81	<1.7	<0.37	<2.7	<8.87	<33.9
N-EiFOSE	NR	<2.12	<1.3	<0.55	<4.7	<6.63	<33.9
4:2 FTSA	<2.3	<1.90	<1.2	<0.62	<2.5	<3.55	<13.5
6:2 FTSA	<b>2.3F</b>	<b>5.24F</b>	<b>36</b>	<b>11</b>	<b>7.1J</b>	<3.20	<12.2
8:2 FTSA	<1.38	<2.62	<2.1	<0.73	<2.7	<3.55	<11.5
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR
ADONA	<1.06	<1.28	<0.64	<0.57	<4.8	<3.55	<13.5
GenX (HFPO-DA)	<1.53	<1.92	<2.8	<0.59	<2.6	<3.37	<13.5
9Cl-PF3ONS	<1.50	<1.82	<0.64	<0.34	<2.5	<3.55	<13.6
11Cl-PF3OUdS	<1.48	<1.49	<0.88	<0.49	<2.9	<3.55	<13.6

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

D=Sample Dilution

F, J:= result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EiFOA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecane sulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecane sulfonic Acid (C12)

FOA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EiFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EiFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (C8)

11Cl-PF3OUdS (763051-92-9) 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1.  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT E2305.27**

Monitoring Well	PZ-2			
Lab	State Lab of Hygiene	Pace Analytical		SGS
Sampling Date	7/12/2022	7/12/2022	7/24/2023	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>				
PFOA	<b>1.68F</b>	<0.62	<1.9	<4.26
PFOS	<1.43	<0.58	<1.5	<4.26
PFBS	<2.31	<0.50	<1.1	<4.26
PFHpA	<1.50	<0.59	<1.5	<4.26
PFHxS	<1.42	<0.54	<1.2	<4.26
PFNA	<1.48	<0.79	<1.7	<4.26
PFDA	<1.63	<0.60	<1.3	<4.26
PFDoA	<2.71	<0.52	<1.1	<3.41
PFHxA	<2.04	<0.47	<2	<4.26
PFTeDA	<1.75	<0.51	<1.3	<22.3
PFTrDA	<1.93	<0.66	<1.4	<4.26
PFUnA	<2.22	<0.58	<1.1	<4.26
N-EtFOSA	<6.94	<0.65	<1.3	NR
N-EtFOSAA	<2.12	<0.59	<1.8	<4.26
N-MeFOSAA	<2.19	<0.46	<1.5	<4.26
PFBA	<3.46	<b>0.60J</b>	<1.1	<17
PFPeA	<1.5	<0.47	<1.8	<8.52
PFPeS	<1.36	<0.51	<1.3	<4.28
PFHpS	<1.90	<0.44	<1.5	<4.26
PFNS	<1.82	<0.48	<1.3	<4.26
PFDS	<2.57	<0.48	<1.4	<4.26
PFDoS	<3.98	<0.49	<1.3	<4.26
PFOSA	<1.55	<0.87	<1.6	<4.26
N-MeFOSA	<10	<0.55	<1.2	<5.65
N-MeFOSE	<2.81	<0.35	<1.1	<42.6
N-EtFOSE	<2.12	<0.53	<2	<42.6
4:2 FTSA	<1.90	<0.60	<1	<17
6:2 FTSA	<2.72	<0.69	<1.5	<15.4
8:2 FTSA	<2.62	<0.70	<1.1	<14.5
10:2 FTSA	NR	NR	NR	NR
ADONA	<1.28	<0.55	<2	<17
GenX (HFPO-DA)	<1.92	<0.56	<1.1	<17
9CI-PF3ONS	<1.82	<0.33	<1	<17.1
11CI-PF3OUdS	<1.49	<0.47	<1.2	<17.1

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

PFOA (355-67-1) Perfluorooctanoic Acid (C8)

PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)

PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)

PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)

PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)

PFNA (375-95-1) Perfluorononanoic Acid (C9)

PFDA (335-76-2) Perfluorodecanoic Acid (C10)

PFDoA (307-55-1) Perfluorododecanoic Acid (C12)

PFHxA (307-24-4) Perfluorohexanoic Acid (C6)

PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)

PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)

PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA (375-22-4) Perfluorobutanoic Acid (C4)

PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)

PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)

PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)

PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)

PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)

PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)

FOSA (754-91-6) Perfluorooctanesulfonamide (C8)

N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)

N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)

N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)

N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)

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8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)

DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)

GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)

9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11CI-PF3OUdS (763051-92-9) 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (C10)



**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
CLSE PROJECT # E2305.27**

Monitoring Well	SUMP							
	State Lab of Hygiene			Pace Analytical			SGS	
Lab	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>								
PFOA	7.47F	27	1.35F	53J	1.3J	9.7	26.9	0.821J
PFOS	<3.40	<1.26	<1.43	<93	0.71J	0.99J	4.19 J.B	4.98
PFBS	6.65F	7.47F	<2.31	<19	1.3J	0.89J	<3	<0.372
PFHpA	434	757	21.5	960	27	263D	1,090	<0.372
PFHxS	<4.10	<0.896	<1.42	<26	<0.48	<0.52	<3	<0.372
PFNA	<4.32	4.17F	<1.48	<22	1.3J	2.7	4.77J	<0.372
PFDA	<3.93	<1.45	<1.63	<24	1J	0.80J	<3	<0.372
PFDoA	<3.84	<2.47	<2.71	<22	<0.46	<0.47	<3	<0.297
PFHxA	7.040	3.070	79.7	4,200	73	1,090D	4,290	<0.372
PFTeDA	<3.55	<4.77	<1.75	<28	<0.45	<0.59	<3	<0.372
PFTrDA	<4.01	<2.36	<1.93	<25	<0.59	<0.61	<3	<0.372
PFUnA	<4.07	<1.82	<2.22	<29	<0.51	<0.48	<3	<0.372
N-EFOSA	<6.59	<3.04	<6.94	<63	<0.58	<0.56	<7.49	<1.04
N-EFOSAA	<4.29	<2.85	<2.12	<35	<0.53	<0.80	<3	<0.372
N-MeFOSAA	<4.05	<1.89	<2.19	<43	<0.41	<0.68	<3	<0.372
PFBA	NR	809	26.4	910	33	261D	990	<1.49
PFPeA	7.480	3,900	119	5,900	110	1,740D	5,810	<0.743
PFPeS	<2.72	<0.813	<1.36	<28	<0.45	<0.59	<3.01	<0.373
PFHpS	5.3F	<1.08	<1.90	<23	<0.39	<0.66	<3	<0.372
PFNS	<5	<1.84	<1.82	<33	<0.42	<0.58	<3	<0.372
PFDS	<4.56	<1.90	<2.57	<36	<0.43	<0.63	<3	<0.372
PFDoS	<5.18	<8.63	<2.47	<49	<0.44	<0.58	<3	<0.372
PFOSA	<40.7	<8.41	<1.55	<29	<0.78	<0.70	3.83J	0.960J
N-MeFOSA	<8.05	<4.48	<1.0	<59	<0.49	<0.54	<3.45	<0.372
N-MeFOSE	<4.05	<4.16	<2.81	<60	<0.31	<0.51	<30	<0.372
N-EFOSE	<4.13	<4.72	<2.12	<44	<0.47	<0.87	<22.4	<0.372
4:2 FTSA	14.7	3.52F	<1.90	<41	<0.53	1.9	<12	<1.49
6:2 FTSA	47,800	11,700	232	9,000	270D	3,420D	11,000	<1.34
8:2 FTSA	6.54F	12	<2.62	<75	1.6J	9.2	13.1 J.B	<1.26
10:2 FTSA	<4.34	NR	NR	NR	NR	NR	NR	NR
ADONA	<4.21	<0.980	<1.28	<23	<0.49	<0.90	<12	<1.49
GenX (HFPO-DA)	<5.28	<1.41	<1.92	<97	<0.5	<0.48	<11.4	<1.49
9CI-PF3ONS	<4.20	<1.38	<1.82	<22	<0.29	<0.46	<12	<1.49
11CI-PF3OUS	<3.94	<1.36	<1.49	<31	<0.42	<0.55	<12	<1.49

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

B=Analyte detected in the field blank

D=Sample Dilution

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

- PFOA (355-67-1) Perfluorooctanoic Acid (C8)
- PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
- PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
- PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
- PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
- PFNA (375-95-1) Perfluorononanoic Acid (C9)
- PFDA (335-76-2) Perfluorododecanoic Acid (C12)
- PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
- PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
- PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
- PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
- PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
- N-EFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
- N-MeFOSAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)
- PFBA (375-22-4) Perfluoroburanoic Acid (C4)
- PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
- PFPeS (2708-91-4) Perfluoropentanesulfonic Acid (C5)
- PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
- PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
- PFDS (335-77-3) Perfluorododecanesulfonic Acid (C12)
- PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
- FOSA (754-91-6) Perfluorooctanesulfonamide (C8)
- N-EFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
- N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
- N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
- N-EFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
- 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
- 6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
- 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
- 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
- DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)
- GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
- 9CI-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (C8)
- 11CI-PF3OUS (763051-92-9) 11-chloroheptadecafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.1  
GROUNDWATER ANALYTICAL RESULTS  
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN  
GEC PROJECT # 2-0919-397B**

Monitoring Well	POND							
	State Lab of Hygiene		Pace Analytical			SGS		
	Lab	State Lab of Hygiene		Pace Analytical			SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	7/24/2023	6/2/2021	7/12/2022	
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)</b>								
PFOA	2.75F	3.79F	4.7J	83	<8.5D	4.18	<0.375	
PFOS	1.84F	<1.43	<8.8	1.9	<6.6D	28.8 B	<0.375	
PFBS	13.8	11.3	12J	14	8.7JD	15.8	<0.375	
PFHpA	187	117	190	2,600D	132D	191	<0.375	
PFHxS	<0.897	<1.42	<2.4	4	<5.2D	5.01 B	<0.375	
PFNA	<1.5	1.63F	<2	1.6J	<7.8D	1.21J	<0.375	
PFDA	<1.45	1.86F	<2.3	<0.55	<6D	<0.370	<0.375	
PFDoA	<2.47	<2.71	<2.1	<0.47	<4.7D	<0.370	<0.300	
PFHxA	634	338	640	17,000 I,D	361D	494	<0.375	
PFTeDA	<4.77	<1.75	<2.6	<0.46	<5.9D	0.409J	<0.375	
PFTrDA	<2.37	<1.93	<2.3	<0.61	<6.1D	<0.370	<0.375	
PFUnA	<1.82	<2.22	<2.8	<0.53	<4.8D	<0.370	<0.375	
N-EiFOA	<3.04	<6.94	<6	<0.59	<5.6D	<0.925	<1.05	
N-EiFOAA	<2.96	<2.12	<3.3	<0.54	<8D	<0.370	<0.375	
N-MeFOAA	<1.98	<2.19	<4.1	<0.42	<6.8D	<0.370	<0.375	
PFBA	147	112	180	5,600D	160D	197	<1.5	
PFPeA	888	486	980	35,000D	674D	850	<0.750	
PFPeS	<0.813	<1.36	<2.6	<0.46	<5.9D	0.501J	<0.377	
PFHpS	<1.08	<1.90	<2.2	<0.4	<6.6D	<0.370	<0.375	
PFNS	<1.84	<1.82	<3.1	<0.44	<5.8D	<0.370	<0.375	
PFDS	<1.90	<2.57	<3.4	<0.44	<6.3D	<0.370	<0.375	
PFDoS	<8.63	<2.47	<4.6	<0.45	<5.8D	<0.370	<0.375	
PFOSA	<8.41	<1.55	<2.7	<0.8	<7.1D	<0.370	0.627J	
N-MeFOA	<4.48	<10	<5.6	<0.5	<5.4D	<0.425	<0.375	
N-MeFOSE	<4.16	<2.81	<5.7	<0.32	<5.1D	<3.70	<3.75	
N-EiFOSE	<4.72	<2.12	<4.2	<0.48	<8.7D	<2.77	<3.75	
4:2 FTSA	<2.13	<1.90	<3.9	99	<4.6D	<1.48	<1.5	
6:2 FTSA	574	248	470	4,200D	388D	418	<1.35	
8:2 FTSA	<1.28	<2.62	<7.1	<0.64	<5D	<1.48	<1.28	
10:2 FTSA	NR	NR	NR	NR	NR	NR	NR	
ADONA	<0.981	<1.28	<2.1	<0.5	<9D	<1.48	<1.50	
GenX (HFPO-DA)	<1.41	<1.92	<9.2	0.64J	<4.9D	<1.41	<1.50	
9Cl-PF3ONS	<1.38	<1.82	<2.1	<0.3	<4.6D	<1.48	<1.50	
11Cl-PF3OUdS	<1.37	<1.49	<2.9	<0.43	<5.5D	<1.48	<1.50	

ng/L = nanograms per liter (parts per trillion)  
 < = compound below laboratory detection limit  
 Bold indicates laboratory detections    *italic* indicates standard exceedance  
 B=Analyte detected in the field blank    D=Sample Dilution  
 F/J = result is between laboratory limit of detection and laboratory limit of quantitation  
 PFOA (355-67-1) Perfluorooctanoic Acid (C8)  
 PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)  
 PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)  
 PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)  
 PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)  
 PFNA (375-95-1) Perfluorononanoic Acid (C9)  
 PFDA (335-76-2) Perfluorodecanoic Acid (C10)  
 PFDoA (307-55-1) Perfluorododecanoic Acid (C12)  
 PFHxA (307-24-4) Perfluorohexanoic Acid (C6)  
 PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)  
 PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)  
 PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)  
 N-EiFOAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)  
 N-MeFOAA (2355-31-9) N-methylperfluorooctanesulfonamidoacetic Acid (C11)  
 PFBA (375-22-4) Perfluorobutanoic Acid (C4)  
 PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)  
 PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)  
 PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)  
 PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)  
 PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)  
 PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)  
 FOSA (754-91-8) Perfluorooctanesulfonamide (C8)  
 N-EFOA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)  
 N-MeFOA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)  
 N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)  
 N-EiFOSE (1691-89-2) N-ethylperfluorooctanesulfonamidoethanol (C12)  
 4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)  
 6:2 FTSA (27619-07-2) 6:2 fluorotelomer sulfonate (C8)  
 8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)  
 10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)  
 DONA (919005-14-4) 4,8-Dioxo-3H-perfluorononanoic acid (C7)  
 GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)  
 9Cl-PF3ONS (756426-58-1) 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (C8)  
 11Cl-PF3OUdS (763051-92-9) 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (C10)

**TABLE A.2.**  
**SOIL ANALYTICAL RESULTS TABLE**  
**THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Boring	Industrial Direct	Non-Industrial Direct	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12
			1-1.5 (U/S)	0.5-1 (U)	2.5-3 (S)	0.5-1 (U/S)	0.5-1 (U)	0.25-1 (U)	0.5-1 (U)	0.5-1 (U)	2-2.5 (U/S)
Depth	Contact RCL	Contact RCL	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021
Sampling Date	Contact RCL	Contact RCL	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/q UNITS)</b>											
PFPeA	NE	NE	<0.366	1.13	0.312F	3.82	6.53	3.29	2.66	15.2	1.96
PFBS	16,400,000	1,260,000	<0.288	<0.263	<0.236	<0.285	<0.265	<0.279	<0.295	<0.363	<0.299
4:2 FTSA	NE	NE	<0.266	<0.243	<0.217	<0.263	<0.244	<0.257	<0.273	<0.335	<0.276
PFHxA	NE	NE	<0.363	1.15	<0.296	2.28	3.3	3.8	3.29	9.19	3.97
PFPeS	NE	NE	<0.311	<0.284	<0.254	<0.307	<0.285	<0.300	<0.318	<0.392	<0.322
PFHpA	NE	NE	<0.343	0.565F	<0.280	0.639F	1.25	1.85	2.59	9.34	1.23
HFPO-DA (GenX)	NE	NE	<0.267	<0.244	<0.218	<0.264	<0.245	<0.258	<0.274	<0.337	<0.277
PFHxS	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
DONA	NE	NE	<0.320	<0.293	<0.262	<0.316	<0.294	<0.310	<0.328	<0.404	<0.332
6:2 FTSA	NE	NE	<0.336	0.543F	0.766F	2.01	33.8	<0.325	0.654F	1.35	63.8
PFOA	16,400	1,260	<0.339	<0.310	<0.277	<0.335	<0.312	<0.328	<0.348	<0.428	<0.352
PFHpS	NE	NE	<0.368	<0.336	<0.3	<0.363	<0.338	<0.356	<0.377	<0.464	<0.382
PFOS	16,400	1,260	<0.363	<0.331	<0.296	<0.358	<0.333	0.446F	<0.371	<0.457	<0.376
PFNA	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
9Cl-PF3ONS	NE	NE	<0.343	<0.313	<0.280	<0.338	<0.315	<0.331	<0.351	<0.432	<0.355
8:2 FTSA	NE	NE	<0.421	<0.385	<0.344	<0.415	<0.387	<0.407	<0.431	<0.530	<0.437
PFDA	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
PFNS	NE	NE	<0.306	<0.280	<0.250	<0.302	<0.281	<0.296	<0.314	<0.386	<0.318
N-MeFOSAA	NE	NE	<0.481	<0.440	<0.393	<0.475	<0.442	<0.466	<0.493	<0.607	<0.499
N-EtFOSAA	NE	NE	<0.303	<0.277	<0.248	<0.299	<0.279	<0.293	<0.311	<0.382	<0.315
FOSA	NE	NE	<0.347	<0.317	<0.283	<0.342	<0.319	<0.335	<0.355	<0.437	<0.360
PFUnA	NE	NE	<0.289	<0.264	<0.236	<0.286	<0.266	<0.280	<0.297	<0.365	<0.300
PFDS	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
11Cl-PF3OUdS	NE	NE	<0.328	<0.299	<0.268	<0.323	<0.301	<0.317	<0.336	<0.413	<0.340
PFDoA	NE	NE	<0.405	<0.370	<0.331	<0.400	<0.372	<0.392	<0.415	<0.510	<0.420
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.387	<0.354	<0.316	<0.382	<0.356	<0.374	<0.396	<0.488	<0.402
PFTeDA	NE	NE	<0.365	<0.333	<0.298	<0.360	<0.335	<0.353	<0.374	<0.460	<0.378
N-MeFOSA	NE	NE	<0.394	<0.360	<0.322	<0.389	<0.362	<0.382	<0.404	<0.497	<0.409
N-MeFOSE	NE	NE	<0.468	<0.427	<0.382	<0.461	<0.430	<0.452	<0.479	<0.589	<0.485
N-EtFOSA	NE	NE	<0.252	<0.231	<0.206	<0.249	<0.232	<0.244	<0.259	<0.318	<0.262
N-EtFOSE	NE	NE	<0.378	<0.345	<0.308	<0.372	<0.347	<0.365	<0.387	<0.476	<0.392
PFTeDA	NE	NE	<0.367	<0.335	<0.300	<0.362	<0.337	<0.355	<0.376	<0.476	<0.381
PFHxDA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.616	<0.563	<0.503	<0.608	0.929F	<0.596	<0.631	3.30F	<0.639

NE - Standard Not Established NR-Not Reported

ng/g - parts per billion

< = compound below laboratory detection limit

F=Result Is Between Limit of Detection and Limit of Quantitation

Soil Samples Collected by General Engineering Company

- PFOS = Perfluorooctanesulfonic Acid (C8)
- PFBS = Perfluorobutanesulfonic Acid (C4)
- PFHxA = Perfluoroheptanoic Acid (C7)
- PFHxS = Perfluorohexanesulfonic Acid (C6)
- PFNA = Perfluorononanoic Acid (C9)
- PFDA = Perfluorodecanoic Acid (C10)
- PFDoA = Perfluorododecanoic Acid (C12)
- PFHxA = Perfluoroheptanoic Acid (C6)
- PFTeDA = Perfluorotetradecanoic Acid (C14)
- PFTrDA = Perfluorotridecanoic Acid (C13)
- PFUnA = Perfluoroundecanoic Acid (C11)
- NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
- NMeFOSAA = N-methylperfluorooctanesulfonamidoacetic Acid (C11)
- PFBA = Perfluorobutanoic Acid (C4)
- PFPeA = Perfluoropentanoic Acid (C5)
- PFHxDA = Perfluoro-n-hexadecanoic Acid (C16)
- PFODA = Perfluoro-n-octadecanoic Acid (C18)
- PFPeS = Perfluoropentanesulfonic Acid (C5)
- PFHpS = Perfluoroheptanesulfonic Acid (C7)
- PFNS = Perfluorononanesulfonic Acid (C9)
- PFDS = Perfluorodecanesulfonic Acid (C10)
- PFDoS = Perfluorododecanesulfonic Acid (C12)
- FOSA = Perfluorooctanesulfonamide (C8)
- NEtFOSA = N-ethylperfluorooctanesulfonamide (C10)
- NMeFOSA = N-methylperfluorooctanesulfonamide (C9)
- NMeFOSE = N-methylperfluorooctanesulfonamidoethanol (C11)
- NEtFOSE = N-ethylperfluorooctanesulfonamidoethanol (C12)
- 4:2 FTSA = 4:2 fluorotelomer sulfonate (C6)
- 6:2 FTSA = 6:2 fluorotelomer sulfonate (C8)
- 8:2 FTSA = 8:2 fluorotelomer sulfonate (C10)
- 10:2 FTSA = 10:2 fluorotelomer sulfonate (C12)
- DONA = 4,8-Dioxo-3H-perfluorononanoic acid (C7)
- HFPO-DA (GenX) = Hexafluoropropylene oxide dimer acid (C6)
- 9Cl-PF3ONS = 9-chlorohexadecafluoro-3-oxaheptanoic acid (C8)
- 11Cl-PF3OUdS = 11-chloroicosadecafluoro-3-oxaundecanoic acid (C10)

**TABLE A.2.**  
**SOIL ANALYTICAL RESULTS TABLE**  
**THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**  
**CLSE PROJECT # E2305.27**

Boring	Industrial	Non-Industrial	B-13	B-14	B-17	B-18	B-19
			1 (U)	0.5 (U)	1 (U)	0.5 (U)	0.5 (U)
Depth (Feet)	Direct Contact	Direct Contact	7/11/2022	7/11/2022	7/11/2022	7/11/2022	7/11/2022
Sampling Date	RCL	RCL					
<b>PERFLUOROALKYL &amp; POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/g UNITS)</b>							
PFPeA	NE	NE	<0.368	<0.405	<0.325	<0.402	<0.361
PFBS	16,400,000	1,260,000	<0.290	<0.319	<0.256	<0.317	<0.285
4:2 FTSA	NE	NE	<0.268	<0.294	<0.236	<0.292	<0.263
PFHxA	NE	NE	<0.365	<0.401	<0.322	<0.398	<0.358
PFPeS	NE	NE	<0.313	<0.344	<0.276	<0.341	<0.307
PFHpA	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338
HFPO-DA (GenX)	NE	NE	<0.269	<0.295	<0.237	<0.294	<0.264
PFHxS	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341
DONA	NE	NE	<0.322	<0.354	<0.284	<0.352	<0.316
6:2 FTSA	NE	NE	<0.338	<0.372	<0.298	<0.369	<0.332
PFOA	16,400	1,260	<0.341	<0.375	<0.301	<0.373	<0.335
PFHpS	NE	NE	<0.370	<0.407	<0.327	<0.404	<0.363
PFOS	16,400	1,260	<0.365	<0.401	<0.322	<0.398	<0.358
PFNA	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304
9Cl-PF3ONS	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338
8:2 FTSA	NE	NE	<0.424	<0.466	<0.374	<0.463	<0.416
PFDA	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341
PFNS	NE	NE	<0.308	<0.339	<0.272	<0.337	<0.303
N-MeFOSAA	NE	NE	<0.484	<0.532	<0.427	<0.529	<0.475
N-EtFOSAA	NE	NE	<0.305	<0.335	<0.269	<0.333	<0.299
FOSA	NE	NE	<0.349	<0.383	<0.308	<0.381	<0.342
PFUnA	NE	NE	<0.291	<0.320	<0.257	<0.318	<0.286
PFDS	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304
11Cl-PF3OUdS	NE	NE	<0.330	<0.362	<0.291	<0.360	<0.323
PFDoA	NE	NE	<0.408	<0.448	<0.360	<0.445	<0.400
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.390	<0.428	<0.344	<0.425	<0.382
PFTDA	NE	NE	<0.367	<0.403	<0.324	<0.401	<0.360
N-MeFOSA	NE	NE	<0.397	<0.436	<0.350	<0.433	<0.389
N-MeFOSE	NE	NE	<0.471	<0.517	<0.415	<0.514	<0.462
N-EtFOSA	NE	NE	<0.254	<0.279	<0.224	<0.277	<0.249
N-EtFOSE	NE	NE	<0.380	<0.417	<0.335	<0.415	<0.373
PFTeDA	NE	NE	<0.369	<0.406	<0.326	<0.403	<0.362
PFHxDA	NE	NE	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.620	<0.681	<0.547	<0.677	<0.608

NE - Standard Not Established NR-Not Reported

ng/g - parts per billion U=Unsaturated S=Saturated

< = compound below laboratory detection limit

**Bold** indicates laboratory detections

F=Result Is Between Limit of Detection and Limit of Quantitation

Soil Samples Collected by General Engineering Company

PFOA = Perfluorooctanoic Acid (C8)

PFOS = Perfluorooctanesulfonic Acid (C8)

PFBS = Perfluorobutanesulfonic Acid (C4)

PFHpA = Perfluoroheptanoic Acid (C7)

PFHxS = Perfluorohexanesulfonic Acid (C6)

PFNA = Perfluorononanoic Acid (C9)

PFDA = Perfluorodecanoic Acid (C10)

PFDoA = Perfluorododecanoic Acid (C12)

PFHxA = Perfluorohexanoic Acid (C6)

PFTeDA = Perfluorotetradecanoic Acid (C14)

PFTrDA = Perfluorotridecanoic Acid (C13)

PFUnA = Perfluoroundecanoic Acid (C11)

NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic Acid (C12)

NMeFOSAA = N-methylperfluorooctanesulfonamidoacetic Acid (C11)

PFBA = Perfluoroburanoic Acid (C4)

PFPeA = Perfluoropentanoic Acid (C5)

PFHxDA = Perfluoro-n-hexadecanoic Acid (C16)

PFODA = Perfluoro-n-octadecanoic Acid (C18)

PFPeS = Perfluoropentanesulfonic Acid (C5)

PFHpS = Perfluoroheptanesulfonic Acid (C7)

PFNS = Perfluorononanesulfonic Acid (C9)

PFDS = Perfluorodecanesulfonic Acid (C10)

PFDoS = Perfluorododecanesulfonic Acid (C12)

FOSA = Perfluorooctanesulfonamide (C8)

NEtFOSA = N-ethylperfluorooctanesulfonamide (C10)

NMeFOSA = N-methylperfluorooctanesulfonamide (C9)

NMeFOSE = N-methylperfluorooctanesulfonamidoethanol (C11)

NEtFOSE = N-ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTSA = 4:2 fluorotelomer sulfonate (C6)

6:2 FTSA = 6:2 fluorotelomer sulfonate (C8)

8:2 FTSA = 8:2 fluorotelomer sulfonate (C10)

10:2 FTSA = 10:2 fluorotelomer sulfonate (C12)

DONA = 4,8-Dioxa-3H-perfluorononanoic acid (C7)

HFPO-DA (GenX) = Hexafluoropropylene oxide dimer acid (C6)

9Cl-PF3ONS = 9-chlorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)

11Cl-PF3OUdS = 11-chloroeicosafuoro-3oxaundecane-1-sulfonic acid (C10)

**TABLE A.6  
WATER LEVEL ELEVATIONS  
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE  
CLSE PROJECT NO. E2305.27**

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
MW-1	590.63	588.80	585.58	11/26/2019	2.61	588.02
				12/13/2019	2.70	587.93
			575.58	3/24/2020	2.65	587.98
				6/11/2020	2.68	587.95
				10/12/2020	6.48	584.15
				6/2/2021	4.12	586.51
				5/13/2022	4.55	586.08
				7/12/2022	5.12	585.51
				7/24/2023	7.23	583.40
MW-2	590.84	588.96	585.79	11/26/2019	3.01	587.83
				12/13/2019	3.03	587.81
			575.79	3/24/2020	3.00	587.84
				6/11/2020	3.06	587.78
				10/12/2020	6.69	584.15
				6/2/2021	3.85	586.99
				5/13/2022	4.85	585.99
				7/12/2022	5.24	585.60
				7/24/2023	7.39	583.45
MW-3	590.88	588.95	585.83	11/26/2019	3.01	587.87
				12/13/2019	3.03	587.85
			575.83	3/24/2020	3.00	587.88
				6/11/2020	3.06	587.82
				10/12/2020	6.69	584.19
				6/2/2021	3.98	586.90
				5/13/2022	4.35	586.53
				7/12/2022	4.41	586.47
				7/24/2023	6.19	584.69
MW-4	589.93	587.62	583.27	5/26/2021	3.65	586.28
				6/2/2021	3.12	586.81
			573.27	7/12/2022	3.66	586.27
				7/24/2023	5.27	584.66
MW-5	589.78	588.06	585.48	5/26/2021	2.94	586.84
				6/2/2021	2.65	587.13
			575.48	7/12/2022	3.10	586.68
				7/24/2023	4.89	584.89
MW-6	589.9	588.09	583.13	5/26/2021	3.12	586.78
				6/2/2021	2.32	587.58
			573.13	7/12/2022	3.19	586.71
				7/24/2023	6.37	583.53
MW-7	589.61	587.31	584.68	5/26/2021	2.95	586.66
				6/2/2021	2.85	586.76
			574.68	7/12/2022	3.09	586.52
				7/24/2023	4.32	585.29
MW-8	590.27	588.4	585.33	5/26/2021	4.06	586.21
				6/2/2021	3.49	586.78
			575.33	7/12/2022	3.79	586.48
				7/24/2023	5.13	585.14
MW-9	590.2	588.02	585.33	5/26/2021	5.01	585.19
				6/2/2021	4.08	586.12
			575.33	7/12/2022	4.91	585.29
				7/24/2023	6.91	583.29
MW-10	590.41	588.3	585.37	5/27/2021	5.69	584.72
				6/2/2021	3.84	586.57
			575.37	7/12/2022	4.73	585.68
				7/24/2023	7.46	582.95
MW-11	590.46	588.4	585.47	5/27/2021	5.30	585.16
				6/2/2021	4.21	586.25
			575.47	5/13/2022	4.55	585.91
				7/12/2022	5.06	585.40
			7/24/2023	7.37	583.09	

Elevations are referenced to Mean Sea Level (MSL).  
ft = feet

**TABLE A.6  
WATER LEVEL ELEVATIONS  
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE  
CLSE PROJECT NO. E2305.27**

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
<b>MW-12</b>	<b>590.74</b>	<b>588.37</b>	<b>585.22</b>	7/11/2022	4.40	586.34
				7/12/2022	4.56	586.18
			7/24/2023	7.49	583.25	
			<b>575.22</b>			
<b>MW-13</b>	<b>590.86</b>	<b>588.32</b>	<b>585.19</b>	7/11/2022	5.26	585.60
				7/12/2022	5.34	585.52
			7/24/2023	7.73	583.13	
			<b>575.19</b>			
<b>MW-14</b>	<b>588</b>	<b>588.43</b>	<b>586.73</b>	7/11/2022	1.57	586.43
				7/12/2022	1.69	586.31
			7/24/2023	3.90	584.10	
			<b>576.73</b>			
<b>MW-15</b>	<b>587.73</b>	<b>588.24</b>	<b>584.8</b>	7/11/2022	1.88	585.85
				7/12/2022	2.00	585.73
			7/24/2023	4.59	583.14	
			<b>574.8</b>			
<b>MW-16</b>	<b>591.63</b>	<b>589.46</b>	<b>586.03</b>	7/11/2022	7.85	583.78
				7/12/2022	5.09	586.54
			7/24/2023	6.38	585.25	
			<b>576.03</b>			
<b>MW-17</b>	<b>590.52</b>	<b>589.46</b>	<b>584.74</b>	7/11/2022	3.50	587.02
				7/12/2022	3.74	586.78
			7/24/2023	7.57	582.95	
			<b>574.74</b>			
<b>PZ-1</b>	<b>590.92</b>	<b>588.56</b>	<b>566.47</b>	5/27/2021	5.39	585.53
				6/2/2021	4.40	586.52
			7/12/2022	4.55	586.37	
			7/24/2023	6.41	584.51	
<b>561.47</b>						
<b>PZ-2</b>	<b>590.68</b>	<b>588.32</b>	<b>565.05</b>	7/11/2022	11.35	579.33
				7/12/2022	4.98	585.70
			7/24/2023	7.43	583.25	
			<b>560.05</b>			

Elevations are referenced to Mean Sea Level (MSL).

ft = feet

**APPENDIX C**  
**GROUNDWATER ANALYTICAL RESULTS AND**  
**CHAIN-OF-CUSTODY DOCUMENTATION**



August 24, 2023

Brian Youngwirth  
Carow Land Surveying & Environmental  
615 North Lynndale Drive  
Appleton, WI 54914

RE: Project: SOLBERG PFAS  
Pace Project No.: 40265595

Dear Brian Youngwirth:

Enclosed are the analytical results for sample(s) received by the laboratory on July 24, 2023. 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 - Minneapolis

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

Sincerely,

Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: SOLBERG PFAS

Pace Project No.: 40265595

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### Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8 Tribal Water Systems+Wyoming DW

Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

GMP+ Certification #: GMP050884

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification (A2LA) #: R-036

North Dakota Certification (MN) #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: SOLBERG PFAS

Pace Project No.: 40265595

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40265595001	MW-1	Water	07/24/23 13:22	07/24/23 15:05
40265595002	MW-2	Water	07/24/23 13:05	07/24/23 15:05
40265595003	MW-3	Water	07/24/23 13:47	07/24/23 15:05
40265595004	MW-4	Water	07/24/23 10:51	07/24/23 15:05
40265595005	MW-5	Water	07/24/23 10:41	07/24/23 15:05
40265595006	MW-6	Water	07/24/23 12:06	07/24/23 15:05
40265595007	MW-7	Water	07/24/23 10:52	07/24/23 15:05
40265595008	MW-8	Water	07/24/23 13:32	07/24/23 15:05
40265595009	MW-9	Water	07/24/23 12:36	07/24/23 15:05
40265595010	MW-10	Water	07/24/23 12:13	07/24/23 15:05
40265595011	MW-11	Water	07/24/23 12:23	07/24/23 15:05
40265595012	MW-12	Water	07/24/23 09:06	07/24/23 15:05
40265595013	MW-13	Water	07/24/23 09:12	07/24/23 15:05
40265595014	MW-14	Water	07/24/23 10:28	07/24/23 15:05
40265595015	MW-15	Water	07/24/23 09:55	07/24/23 15:05
40265595016	MW-16	Water	07/24/23 11:11	07/24/23 15:05
40265595017	MW-17	Water	07/24/23 09:37	07/24/23 15:05
40265595018	PZ-1	Water	07/24/23 14:30	07/24/23 15:05
40265595019	PZ-2	Water	07/24/23 14:26	07/24/23 15:05
40265595020	SUMP	Water	07/24/23 14:52	07/24/23 15:05
40265595021	POND	Water	07/24/23 13:57	07/24/23 15:05
40265595022	TRIP BLANK	Water	07/24/23 13:59	07/24/23 15:05
40265595023	FIELD BLANK 1	Water	07/24/23 09:00	07/24/23 15:05
40265595024	FIELD BLANK 2	Water	07/24/23 13:45	07/24/23 15:05

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### SAMPLE ANALYTE COUNT

Project: SOLBERG PFAS

Pace Project No.: 40265595

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40265595001	MW-1	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595002	MW-2	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595003	MW-3	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595004	MW-4	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595005	MW-5	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595006	MW-6	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595007	MW-7	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595008	MW-8	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595009	MW-9	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595010	MW-10	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595011	MW-11	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595012	MW-12	ENV-SOP-MIN4-0178	MM4	57	PASI-M
40265595013	MW-13	ENV-SOP-MIN4-0178	MM4	57	PASI-M
40265595014	MW-14	ENV-SOP-MIN4-0178	MM4	57	PASI-M
40265595015	MW-15	ENV-SOP-MIN4-0178	MM4	57	PASI-M
40265595016	MW-16	ENV-SOP-MIN4-0178	MM4, NBH	57	PASI-M
40265595017	MW-17	ENV-SOP-MIN4-0178	MM4	57	PASI-M
40265595018	PZ-1	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595019	PZ-2	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595020	SUMP	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595021	POND	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595022	TRIP BLANK	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595023	FIELD BLANK 1	ENV-SOP-MIN4-0178	NBH	57	PASI-M
40265595024	FIELD BLANK 2	ENV-SOP-MIN4-0178	NBH	57	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-1 Lab ID: 40265595001 Collected: 07/24/23 13:22 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 16:44	763051-92-9	N2
4:2 FTS	13.4	ng/L	4.0	0.99	1	08/11/23 10:22	08/17/23 16:44	757124-72-4	N2
6:2 FTS	11300	ng/L	405	144	100	08/11/23 10:22	08/18/23 11:18	27619-97-2	N2
8:2 FTS	20.7	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 16:44	39108-34-4	N2
9CI-PF3ONS	<1.0	ng/L	4.0	1.0	1	08/11/23 10:22	08/17/23 16:44	756426-58-1	N2
ADONA	<2.0	ng/L	4.0	2.0	1	08/11/23 10:22	08/17/23 16:44	919005-14-4	N2
HFPO-DA	<1.1	ng/L	4.3	1.1	1	08/11/23 10:22	08/17/23 16:44	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.3	1.7	1	08/11/23 10:22	08/17/23 16:44	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.3	1.2	1	08/11/23 10:22	08/17/23 16:44	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.3	1.9	1	08/11/23 10:22	08/17/23 16:44	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.3	1.5	1	08/11/23 10:22	08/17/23 16:44	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.3	1.2	1	08/11/23 10:22	08/17/23 16:44	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.3	1.1	1	08/11/23 10:22	08/17/23 16:44	24448-09-7	N2
Perfluorobutanesulfonic acid	8.9	ng/L	3.8	1.0	1	08/11/23 10:22	08/17/23 16:44	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 16:44	335-76-2	N2
Perfluorohexanoic acid	4680	ng/L	427	194	100	08/11/23 10:22	08/18/23 11:18	307-24-4	N2
PFBA	693	ng/L	427	106	100	08/11/23 10:22	08/18/23 11:18	375-22-4	L1,N2
PFDS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 16:44	335-77-3	N2
PFDoS	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 16:44	79780-39-5	N2
PFHpS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 16:44	375-92-8	N2
PFNS	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 16:44	68259-12-1	N2
PFOSA	<1.5	ng/L	4.3	1.5	1	08/11/23 10:22	08/17/23 16:44	754-91-6	N2
PFPeA	8400	ng/L	427	175	100	08/11/23 10:22	08/18/23 11:18	2706-90-3	N2
PFPeS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 16:44	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.3	1.0	1	08/11/23 10:22	08/17/23 16:44	307-55-1	N2
Perfluoroheptanoic acid	710	ng/L	427	147	100	08/11/23 10:22	08/18/23 11:18	375-85-9	N2
Perfluorohexanesulfonic acid	<1.1	ng/L	3.9	1.1	1	08/11/23 10:22	08/17/23 16:44	355-46-4	N2
Perfluorononanoic acid	2.1J	ng/L	4.3	1.7	1	08/11/23 10:22	08/17/23 16:44	375-95-1	N2
Perfluorooctanesulfonic acid	2.5J	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 16:44	1763-23-1	N2
Perfluorooctanoic acid	13.0	ng/L	4.3	1.8	1	08/11/23 10:22	08/17/23 16:44	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 16:44	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 16:44	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.3	1.0	1	08/11/23 10:22	08/17/23 16:44	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	18	%	25-150		1	08/11/23 10:22	08/17/23 16:44	375-22-4	S0
13C5-PFPeA (S)	36	%	25-150		1	08/11/23 10:22	08/17/23 16:44	2706-90-3	
13C3-PFBS (S)	88	%	25-150		1	08/11/23 10:22	08/17/23 16:44	375-73-5	
13C24:2FTS (S)	225	%	25-150		1	08/11/23 10:22	08/17/23 16:44		S0
13C3HFPO-DA (S)	56	%	25-150		1	08/11/23 10:22	08/17/23 16:44		
13C4-PFHpA (S)	116	%	25-150		1	08/11/23 10:22	08/17/23 16:44	375-85-9	
13C3-PFHxS (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 16:44	355-46-4	
13C26:2FTS (S)	282	%	25-150		1	08/11/23 10:22	08/17/23 16:44		S0
13C8-PFOA (S)	63	%	25-150		1	08/11/23 10:22	08/17/23 16:44	335-67-1	
13C8-PFOS (S)	119	%	25-150		1	08/11/23 10:22	08/17/23 16:44	1763-23-1	
13C9-PFNA (S)	135	%	25-150		1	08/11/23 10:22	08/17/23 16:44	375-95-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-1 Lab ID: 40265595001 Collected: 07/24/23 13:22 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	-----	-----	----	----------	----------	---------	------

WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	135	%	25-150		1	08/11/23 10:22	08/17/23 16:44	335-76-2	
13C28:2FTS (S)	335	%	25-150		1	08/11/23 10:22	08/17/23 16:44		S0
d3-MeFOSAA (S)	124	%	25-150		1	08/11/23 10:22	08/17/23 16:44	2355-31-9	
13C7-PFUdA (S)	149	%	25-150		1	08/11/23 10:22	08/17/23 16:44	2058-94-8	
13C8-PFOSA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 16:44	754-91-6	
d5-EtFOSAA (S)	142	%	25-150		1	08/11/23 10:22	08/17/23 16:44	2991-50-6	
13C2-PFDoA (S)	136	%	25-150		1	08/11/23 10:22	08/17/23 16:44		
d3-NMeFOSA (S)	81	%	10-150		1	08/11/23 10:22	08/17/23 16:44	31506-32-8	
d7-NMeFOSE (S)	93	%	10-150		1	08/11/23 10:22	08/17/23 16:44	24448-09-7	
13C2-PFTA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 16:44		
d9-NEtFOSE (S)	86	%	10-150		1	08/11/23 10:22	08/17/23 16:44	1691-99-2	
d5-NEtFOSA (S)	84	%	10-150		1	08/11/23 10:22	08/17/23 16:44	4151-50-2	
13C5-PFHxA (S)	76	%	25-150		1	08/11/23 10:22	08/17/23 16:44	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-2 Lab ID: 40265595002 Collected: 07/24/23 13:05 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	3.9	1.2	1	08/11/23 10:22	08/17/23 16:51	763051-92-9	N2
4:2 FTS	12.0	ng/L	3.9	0.97	1	08/11/23 10:22	08/17/23 16:51	757124-72-4	N2
6:2 FTS	17500	ng/L	397	141	100	08/11/23 10:22	08/18/23 11:26	27619-97-2	N2
8:2 FTS	2.3J	ng/L	4.0	1.1	1	08/11/23 10:22	08/17/23 16:51	39108-34-4	N2
9CI-PF3ONS	<0.98	ng/L	3.9	0.98	1	08/11/23 10:22	08/17/23 16:51	756426-58-1	N2
ADONA	<1.9	ng/L	4.0	1.9	1	08/11/23 10:22	08/17/23 16:51	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 16:51	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 16:51	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 16:51	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 16:51	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 16:51	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 16:51	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 16:51	24448-09-7	N2
Perfluorobutanesulfonic acid	7.7	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 16:51	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 16:51	335-76-2	N2
Perfluorohexanoic acid	4870	ng/L	418	190	100	08/11/23 10:22	08/18/23 11:26	307-24-4	N2
PFBA	1050	ng/L	418	104	100	08/11/23 10:22	08/18/23 11:26	375-22-4	L1,N2
PFDS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 16:51	335-77-3	N2
PFDoS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 16:51	79780-39-5	N2
PFHpS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 16:51	375-92-8	N2
PFNS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 16:51	68259-12-1	N2
PFOSA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 16:51	754-91-6	N2
PFPeA	7290	ng/L	418	172	100	08/11/23 10:22	08/18/23 11:26	2706-90-3	N2
PFPeS	<1.3	ng/L	3.9	1.3	1	08/11/23 10:22	08/17/23 16:51	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 16:51	307-55-1	N2
Perfluoroheptanoic acid	842	ng/L	418	144	100	08/11/23 10:22	08/18/23 11:26	375-85-9	N2
Perfluorohexanesulfonic acid	1.7J	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 16:51	355-46-4	N2
Perfluorononanoic acid	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 16:51	375-95-1	N2
Perfluorooctanesulfonic acid	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 16:51	1763-23-1	N2
Perfluorooctanoic acid	11.9	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 16:51	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 16:51	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 16:51	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 16:51	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	27	%	25-150		1	08/11/23 10:22	08/17/23 16:51	375-22-4	
13C5-PFPeA (S)	34	%	25-150		1	08/11/23 10:22	08/17/23 16:51	2706-90-3	
13C3-PFBS (S)	103	%	25-150		1	08/11/23 10:22	08/17/23 16:51	375-73-5	
13C24:2FTS (S)	200	%	25-150		1	08/11/23 10:22	08/17/23 16:51		S0
13C3HFPO-DA (S)	87	%	25-150		1	08/11/23 10:22	08/17/23 16:51		
13C4-PFHpA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 16:51	375-85-9	
13C3-PFHxS (S)	133	%	25-150		1	08/11/23 10:22	08/17/23 16:51	355-46-4	
13C26:2FTS (S)	196	%	25-150		1	08/11/23 10:22	08/17/23 16:51		S0
13C8-PFOA (S)	74	%	25-150		1	08/11/23 10:22	08/17/23 16:51	335-67-1	
13C8-PFOS (S)	133	%	25-150		1	08/11/23 10:22	08/17/23 16:51	1763-23-1	
13C9-PFNA (S)	148	%	25-150		1	08/11/23 10:22	08/17/23 16:51	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-2 Lab ID: 40265595002 Collected: 07/24/23 13:05 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW** Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	147	%	25-150		1	08/11/23 10:22	08/17/23 16:51	335-76-2	
13C28:2FTS (S)	230	%	25-150		1	08/11/23 10:22	08/17/23 16:51		S0
d3-MeFOSAA (S)	115	%	25-150		1	08/11/23 10:22	08/17/23 16:51	2355-31-9	
13C7-PFUdA (S)	145	%	25-150		1	08/11/23 10:22	08/17/23 16:51	2058-94-8	
13C8-PFOSA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 16:51	754-91-6	
d5-EtFOSAA (S)	121	%	25-150		1	08/11/23 10:22	08/17/23 16:51	2991-50-6	
13C2-PFDoA (S)	132	%	25-150		1	08/11/23 10:22	08/17/23 16:51		
d3-NMeFOSA (S)	6	%	10-150		1	08/11/23 10:22	08/17/23 16:51	31506-32-8	S0
d7-NMeFOSE (S)	63	%	10-150		1	08/11/23 10:22	08/17/23 16:51	24448-09-7	
13C2-PFTA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 16:51		
d9-NEtFOSE (S)	49	%	10-150		1	08/11/23 10:22	08/17/23 16:51	1691-99-2	
d5-NEtFOSA (S)	7	%	10-150		1	08/11/23 10:22	08/17/23 16:51	4151-50-2	S0
13C5-PFHxA (S)	75	%	25-150		1	08/11/23 10:22	08/17/23 16:51	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-3 Lab ID: 40265595003 Collected: 07/24/23 13:47 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.1	ng/L	3.9	1.1	1	08/11/23 10:22	08/17/23 16:59	763051-92-9	N2
4:2 FTS	65.6	ng/L	3.9	0.96	1	08/11/23 10:22	08/17/23 16:59	757124-72-4	N2
6:2 FTS	15800	ng/L	392	139	100	08/11/23 10:22	08/18/23 11:33	27619-97-2	N2
8:2 FTS	<1.0	ng/L	4.0	1.0	1	08/11/23 10:22	08/17/23 16:59	39108-34-4	N2
9CI-PF3ONS	<0.97	ng/L	3.8	0.97	1	08/11/23 10:22	08/17/23 16:59	756426-58-1	N2
ADONA	<1.9	ng/L	3.9	1.9	1	08/11/23 10:22	08/17/23 16:59	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.1	1.0	1	08/11/23 10:22	08/17/23 16:59	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.1	1.7	1	08/11/23 10:22	08/17/23 16:59	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 16:59	4151-50-2	N2
NEtFOSE	<1.8	ng/L	4.1	1.8	1	08/11/23 10:22	08/17/23 16:59	1691-99-2	N2
NMeFOSAA	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 16:59	2355-31-9	N2
NMeFOSA	<1.1	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 16:59	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 16:59	24448-09-7	N2
Perfluorobutanesulfonic acid	10.1	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 16:59	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 16:59	335-76-2	N2
Perfluorohexanoic acid	16900	ng/L	413	188	100	08/11/23 10:22	08/18/23 11:33	307-24-4	N2
PFBA	3550	ng/L	413	103	100	08/11/23 10:22	08/18/23 11:33	375-22-4	L1,N2
PFDS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 16:59	335-77-3	N2
PFDoS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 16:59	79780-39-5	N2
PFHpS	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 16:59	375-92-8	N2
PFNS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 16:59	68259-12-1	N2
PFOSA	<1.5	ng/L	4.1	1.5	1	08/11/23 10:22	08/17/23 16:59	754-91-6	N2
PFPeA	30400	ng/L	413	169	100	08/11/23 10:22	08/18/23 11:33	2706-90-3	N2
PFPeS	<1.2	ng/L	3.9	1.2	1	08/11/23 10:22	08/17/23 16:59	2706-91-4	N2
Perfluorododecanoic acid	<0.99	ng/L	4.1	0.99	1	08/11/23 10:22	08/17/23 16:59	307-55-1	N2
Perfluoroheptanoic acid	1950	ng/L	413	142	100	08/11/23 10:22	08/18/23 11:33	375-85-9	N2
Perfluorohexanesulfonic acid	5.9	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 16:59	355-46-4	N2
Perfluorononanoic acid	<1.6	ng/L	4.1	1.6	1	08/11/23 10:22	08/17/23 16:59	375-95-1	N2
Perfluorooctanesulfonic acid	<1.4	ng/L	3.8	1.4	1	08/11/23 10:22	08/17/23 16:59	1763-23-1	N2
Perfluorooctanoic acid	57.2	ng/L	4.1	1.8	1	08/11/23 10:22	08/17/23 16:59	335-67-1	N2
Perfluorotetradecanoic acid	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 16:59	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 16:59	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.1	1.0	1	08/11/23 10:22	08/17/23 16:59	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	19	%	25-150		1	08/11/23 10:22	08/17/23 16:59	375-22-4	S0
13C5-PFPeA (S)	21	%	25-150		1	08/11/23 10:22	08/17/23 16:59	2706-90-3	S0
13C3-PFBS (S)	87	%	25-150		1	08/11/23 10:22	08/17/23 16:59	375-73-5	
13C24:2FTS (S)	90	%	25-150		1	08/11/23 10:22	08/17/23 16:59		
13C3HFPO-DA (S)	76	%	25-150		1	08/11/23 10:22	08/17/23 16:59		
13C4-PFHpA (S)	91	%	25-150		1	08/11/23 10:22	08/17/23 16:59	375-85-9	
13C3-PFHxS (S)	93	%	25-150		1	08/11/23 10:22	08/17/23 16:59	355-46-4	
13C26:2FTS (S)	176	%	25-150		1	08/11/23 10:22	08/17/23 16:59		S0
13C8-PFOA (S)	8	%	25-150		1	08/11/23 10:22	08/17/23 16:59	335-67-1	S0
13C8-PFOS (S)	106	%	25-150		1	08/11/23 10:22	08/17/23 16:59	1763-23-1	
13C9-PFNA (S)	112	%	25-150		1	08/11/23 10:22	08/17/23 16:59	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-3 Lab ID: 40265595003 Collected: 07/24/23 13:47 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 16:59	335-76-2	
13C28:2FTS (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 16:59		
d3-MeFOSAA (S)	91	%	25-150		1	08/11/23 10:22	08/17/23 16:59	2355-31-9	
13C7-PFUdA (S)	119	%	25-150		1	08/11/23 10:22	08/17/23 16:59	2058-94-8	
13C8-PFOSA (S)	84	%	25-150		1	08/11/23 10:22	08/17/23 16:59	754-91-6	
d5-EtFOSAA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 16:59	2991-50-6	
13C2-PFDoA (S)	112	%	25-150		1	08/11/23 10:22	08/17/23 16:59		
d3-NMeFOSA (S)	57	%	10-150		1	08/11/23 10:22	08/17/23 16:59	31506-32-8	
d7-NMeFOSE (S)	84	%	10-150		1	08/11/23 10:22	08/17/23 16:59	24448-09-7	
13C2-PFTA (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 16:59		
d9-NEtFOSE (S)	81	%	10-150		1	08/11/23 10:22	08/17/23 16:59	1691-99-2	
d5-NEtFOSA (S)	59	%	10-150		1	08/11/23 10:22	08/17/23 16:59	4151-50-2	
13C5-PFHxA (S)	49	%	25-150		1	08/11/23 10:22	08/17/23 16:59	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-4 Lab ID: 40265595004 Collected: 07/24/23 10:51 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 17:06	763051-92-9	N2
4:2 FTS	3.4	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 17:06	757124-72-4	N2
6:2 FTS	4710	ng/L	193	68.4	100	08/11/23 10:22	08/18/23 11:40	27619-97-2	N2
8:2 FTS	0.56J	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 17:06	39108-34-4	N2
9CI-PF3ONS	<0.48	ng/L	1.9	0.48	1	08/11/23 10:22	08/17/23 17:06	756426-58-1	N2
ADONA	<0.93	ng/L	1.9	0.93	1	08/11/23 10:22	08/17/23 17:06	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 17:06	13252-13-6	N2
NEtFOSAA	<0.83	ng/L	2.0	0.83	1	08/11/23 10:22	08/17/23 17:06	2991-50-6	N2
NEtFOSA	<0.58	ng/L	2.0	0.58	1	08/11/23 10:22	08/17/23 17:06	4151-50-2	N2
NEtFOSE	<0.90	ng/L	2.0	0.90	1	08/11/23 10:22	08/17/23 17:06	1691-99-2	N2
NMeFOSAA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 17:06	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 17:06	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/11/23 10:22	08/17/23 17:06	24448-09-7	N2
Perfluorobutanesulfonic acid	<4.9	ng/L	17.9	4.9	10	08/11/23 10:22	08/18/23 12:38	375-73-5	N2
Perfluorodecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 17:06	335-76-2	N2
Perfluorohexanoic acid	2370	ng/L	203	92.2	100	08/11/23 10:22	08/18/23 11:40	307-24-4	N2
PFBA	534	ng/L	20.3	5.0	10	08/11/23 10:22	08/18/23 12:38	375-22-4	L1,N2
PFDS	<0.65	ng/L	2.0	0.65	1	08/11/23 10:22	08/17/23 17:06	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 17:06	79780-39-5	N2
PFHpS	<0.68	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 17:06	375-92-8	N2
PFNS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 17:06	68259-12-1	N2
PFOSA	<0.73	ng/L	2.0	0.73	1	08/11/23 10:22	08/17/23 17:06	754-91-6	N2
PFPeA	3860	ng/L	203	83.2	100	08/11/23 10:22	08/18/23 11:40	2706-90-3	N2
PFPeS	<0.61	ng/L	1.9	0.61	1	08/11/23 10:22	08/17/23 17:06	2706-91-4	N2
Perfluorododecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:06	307-55-1	N2
Perfluoroheptanoic acid	135	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 17:06	375-85-9	N2
Perfluorohexanesulfonic acid	0.59J	ng/L	1.8	0.54	1	08/11/23 10:22	08/17/23 17:06	355-46-4	N2
Perfluorononanoic acid	<0.80	ng/L	2.0	0.80	1	08/11/23 10:22	08/17/23 17:06	375-95-1	N2
Perfluorooctanesulfonic acid	0.93J	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 17:06	1763-23-1	N2
Perfluorooctanoic acid	4.4	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 17:06	335-67-1	N2
Perfluorotetradecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:06	376-06-7	N2
Perfluorotridecanoic acid	<0.63	ng/L	2.0	0.63	1	08/11/23 10:22	08/17/23 17:06	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:06	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	11	%	25-150		1	08/11/23 10:22	08/17/23 17:06	375-22-4	S0
13C5-PFPeA (S)	41	%	25-150		1	08/11/23 10:22	08/17/23 17:06	2706-90-3	
13C3-PFBS (S)	63	%	25-150		1	08/11/23 10:22	08/17/23 17:06	375-73-5	
13C24:2FTS (S)	236	%	25-150		1	08/11/23 10:22	08/17/23 17:06		S0
13C3HFPO-DA (S)	59	%	25-150		1	08/11/23 10:22	08/17/23 17:06		
13C4-PFHpA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 17:06	375-85-9	
13C3-PFHxS (S)	103	%	25-150		1	08/11/23 10:22	08/17/23 17:06	355-46-4	
13C26:2FTS (S)	247	%	25-150		1	08/11/23 10:22	08/17/23 17:06		S0
13C8-PFOA (S)	101	%	25-150		1	08/11/23 10:22	08/17/23 17:06	335-67-1	
13C8-PFOS (S)	119	%	25-150		1	08/11/23 10:22	08/17/23 17:06	1763-23-1	
13C9-PFNA (S)	134	%	25-150		1	08/11/23 10:22	08/17/23 17:06	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-4 Lab ID: 40265595004 Collected: 07/24/23 10:51 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	130	%	25-150		1	08/11/23 10:22	08/17/23 17:06	335-76-2	
13C28:2FTS (S)	277	%	25-150		1	08/11/23 10:22	08/17/23 17:06		S0
d3-MeFOSAA (S)	109	%	25-150		1	08/11/23 10:22	08/17/23 17:06	2355-31-9	
13C7-PFUdA (S)	130	%	25-150		1	08/11/23 10:22	08/17/23 17:06	2058-94-8	
13C8-PFOSA (S)	94	%	25-150		1	08/11/23 10:22	08/17/23 17:06	754-91-6	
d5-EtFOSAA (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 17:06	2991-50-6	
13C2-PFDoA (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 17:06		
d3-NMeFOSA (S)	53	%	10-150		1	08/11/23 10:22	08/17/23 17:06	31506-32-8	
d7-NMeFOSE (S)	77	%	10-150		1	08/11/23 10:22	08/17/23 17:06	24448-09-7	
13C2-PFTA (S)	111	%	25-150		1	08/11/23 10:22	08/17/23 17:06		
d9-NEtFOSE (S)	70	%	10-150		1	08/11/23 10:22	08/17/23 17:06	1691-99-2	
d5-NEtFOSA (S)	52	%	10-150		1	08/11/23 10:22	08/17/23 17:06	4151-50-2	
13C5-PFHxA (S)	81	%	25-150		1	08/11/23 10:22	08/17/23 17:06	307-24-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-5 Lab ID: 40265595005 Collected: 07/24/23 10:41 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.57	ng/L	1.9	0.57	1	08/11/23 10:22	08/17/23 17:13	763051-92-9	N2
4:2 FTS	2.7	ng/L	1.9	0.48	1	08/11/23 10:22	08/17/23 17:13	757124-72-4	N2
6:2 FTS	2410	ng/L	196	69.8	100	08/11/23 10:22	08/18/23 11:47	27619-97-2	N2
8:2 FTS	<0.52	ng/L	2.0	0.52	1	08/11/23 10:22	08/17/23 17:13	39108-34-4	N2
9CI-PF3ONS	<0.49	ng/L	1.9	0.49	1	08/11/23 10:22	08/17/23 17:13	756426-58-1	N2
ADONA	<0.95	ng/L	2.0	0.95	1	08/11/23 10:22	08/17/23 17:13	919005-14-4	N2
HFPO-DA	<0.51	ng/L	2.1	0.51	1	08/11/23 10:22	08/17/23 17:13	13252-13-6	N2
NEtFOSAA	<0.84	ng/L	2.1	0.84	1	08/11/23 10:22	08/17/23 17:13	2991-50-6	N2
NEtFOSA	<0.59	ng/L	2.1	0.59	1	08/11/23 10:22	08/17/23 17:13	4151-50-2	N2
NEtFOSE	<0.92	ng/L	2.1	0.92	1	08/11/23 10:22	08/17/23 17:13	1691-99-2	N2
NMeFOSAA	<0.72	ng/L	2.1	0.72	1	08/11/23 10:22	08/17/23 17:13	2355-31-9	N2
NMeFOSA	<0.57	ng/L	2.1	0.57	1	08/11/23 10:22	08/17/23 17:13	31506-32-8	N2
NMeFOSE	<0.54	ng/L	2.1	0.54	1	08/11/23 10:22	08/17/23 17:13	24448-09-7	N2
Perfluorobutanesulfonic acid	14.4	ng/L	1.8	0.50	1	08/11/23 10:22	08/17/23 17:13	375-73-5	N2
Perfluorodecanoic acid	<0.63	ng/L	2.1	0.63	1	08/11/23 10:22	08/17/23 17:13	335-76-2	N2
Perfluorohexanoic acid	2390	ng/L	207	94.1	100	08/11/23 10:22	08/18/23 11:47	307-24-4	N2
PFBA	552	ng/L	207	51.5	100	08/11/23 10:22	08/18/23 11:47	375-22-4	L1,N2
PFDS	<0.66	ng/L	2.0	0.66	1	08/11/23 10:22	08/17/23 17:13	335-77-3	N2
PFDoS	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:13	79780-39-5	N2
PFHpS	<0.69	ng/L	2.0	0.69	1	08/11/23 10:22	08/17/23 17:13	375-92-8	N2
PFNS	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:13	68259-12-1	N2
PFOSA	0.82J	ng/L	2.1	0.74	1	08/11/23 10:22	08/17/23 17:13	754-91-6	N2
PFPeA	4160	ng/L	207	84.9	100	08/11/23 10:22	08/18/23 11:47	2706-90-3	N2
PFPeS	<0.62	ng/L	1.9	0.62	1	08/11/23 10:22	08/17/23 17:13	2706-91-4	N2
Perfluorododecanoic acid	<0.50	ng/L	2.1	0.50	1	08/11/23 10:22	08/17/23 17:13	307-55-1	N2
Perfluoroheptanoic acid	490	ng/L	207	71.2	100	08/11/23 10:22	08/18/23 11:47	375-85-9	N2
Perfluorohexanesulfonic acid	0.58J	ng/L	1.9	0.55	1	08/11/23 10:22	08/17/23 17:13	355-46-4	N2
Perfluorononanoic acid	<0.82	ng/L	2.1	0.82	1	08/11/23 10:22	08/17/23 17:13	375-95-1	N2
Perfluorooctanesulfonic acid	1.0J	ng/L	1.9	0.69	1	08/11/23 10:22	08/17/23 17:13	1763-23-1	N2
Perfluorooctanoic acid	6.5	ng/L	2.1	0.89	1	08/11/23 10:22	08/17/23 17:13	335-67-1	N2
Perfluorotetradecanoic acid	<0.62	ng/L	2.1	0.62	1	08/11/23 10:22	08/17/23 17:13	376-06-7	N2
Perfluorotridecanoic acid	<0.64	ng/L	2.1	0.64	1	08/11/23 10:22	08/17/23 17:13	72629-94-8	N2
Perfluoroundecanoic acid	<0.50	ng/L	2.1	0.50	1	08/11/23 10:22	08/17/23 17:13	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	5	%	25-150		1	08/11/23 10:22	08/17/23 17:13	375-22-4	S0
13C5-PFPeA (S)	20	%	25-150		1	08/11/23 10:22	08/17/23 17:13	2706-90-3	S0
13C3-PFBS (S)	75	%	25-150		1	08/11/23 10:22	08/17/23 17:13	375-73-5	
13C24:2FTS (S)	225	%	25-150		1	08/11/23 10:22	08/17/23 17:13		S0
13C3HFPO-DA (S)	62	%	25-150		1	08/11/23 10:22	08/17/23 17:13		
13C4-PFHpA (S)	94	%	25-150		1	08/11/23 10:22	08/17/23 17:13	375-85-9	
13C3-PFHxS (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 17:13	355-46-4	
13C26:2FTS (S)	193	%	25-150		1	08/11/23 10:22	08/17/23 17:13		S0
13C8-PFOA (S)	95	%	25-150		1	08/11/23 10:22	08/17/23 17:13	335-67-1	
13C8-PFOS (S)	129	%	25-150		1	08/11/23 10:22	08/17/23 17:13	1763-23-1	
13C9-PFNA (S)	140	%	25-150		1	08/11/23 10:22	08/17/23 17:13	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-5 Lab ID: 40265595005 Collected: 07/24/23 10:41 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Surrogates</b>									
13C6-PFDA (S)	141	%	25-150		1	08/11/23 10:22	08/17/23 17:13	335-76-2	
13C28:2FTS (S)	284	%	25-150		1	08/11/23 10:22	08/17/23 17:13		S0
d3-MeFOSAA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 17:13	2355-31-9	
13C7-PFUdA (S)	140	%	25-150		1	08/11/23 10:22	08/17/23 17:13	2058-94-8	
13C8-PFOSA (S)	82	%	25-150		1	08/11/23 10:22	08/17/23 17:13	754-91-6	
d5-EtFOSAA (S)	130	%	25-150		1	08/11/23 10:22	08/17/23 17:13	2991-50-6	
13C2-PFDoA (S)	127	%	25-150		1	08/11/23 10:22	08/17/23 17:13		
d3-NMeFOSA (S)	3	%	10-150		1	08/11/23 10:22	08/17/23 17:13	31506-32-8	S0
d7-NMeFOSE (S)	35	%	10-150		1	08/11/23 10:22	08/17/23 17:13	24448-09-7	
13C2-PFTA (S)	101	%	25-150		1	08/11/23 10:22	08/17/23 17:13		
d9-NEtFOSE (S)	29	%	10-150		1	08/11/23 10:22	08/17/23 17:13	1691-99-2	
d5-NEtFOSA (S)	4	%	10-150		1	08/11/23 10:22	08/17/23 17:13	4151-50-2	S0
13C5-PFHxA (S)	57	%	25-150		1	08/11/23 10:22	08/17/23 17:13	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-6 Lab ID: 40265595006 Collected: 07/24/23 12:06 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 17:20	763051-92-9	N2
4:2 FTS	2.8	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 17:20	757124-72-4	N2
6:2 FTS	993	ng/L	193	68.4	100	08/11/23 10:22	08/18/23 11:55	27619-97-2	N2
8:2 FTS	<0.51	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 17:20	39108-34-4	N2
9CI-PF3ONS	<0.48	ng/L	1.9	0.48	1	08/11/23 10:22	08/17/23 17:20	756426-58-1	N2
ADONA	<0.93	ng/L	1.9	0.93	1	08/11/23 10:22	08/17/23 17:20	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 17:20	13252-13-6	N2
NEtFOSAA	<0.83	ng/L	2.0	0.83	1	08/11/23 10:22	08/17/23 17:20	2991-50-6	N2
NEtFOSA	<0.58	ng/L	2.0	0.58	1	08/11/23 10:22	08/17/23 17:20	4151-50-2	N2
NEtFOSE	<0.90	ng/L	2.0	0.90	1	08/11/23 10:22	08/17/23 17:20	1691-99-2	N2
NMeFOSAA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 17:20	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 17:20	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/11/23 10:22	08/17/23 17:20	24448-09-7	N2
Perfluorobutanesulfonic acid	18.7	ng/L	1.8	0.49	1	08/11/23 10:22	08/17/23 17:20	375-73-5	N2
Perfluorodecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 17:20	335-76-2	N2
Perfluorohexanoic acid	1560	ng/L	203	92.2	100	08/11/23 10:22	08/18/23 11:55	307-24-4	N2
PFBA	289	ng/L	203	50.5	100	08/11/23 10:22	08/18/23 11:55	375-22-4	L1,N2
PFDS	<0.65	ng/L	2.0	0.65	1	08/11/23 10:22	08/17/23 17:20	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 17:20	79780-39-5	N2
PFHpS	<0.68	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 17:20	375-92-8	N2
PFNS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 17:20	68259-12-1	N2
PFOSA	<0.73	ng/L	2.0	0.73	1	08/11/23 10:22	08/17/23 17:20	754-91-6	N2
PFPeA	3090	ng/L	203	83.2	100	08/11/23 10:22	08/18/23 11:55	2706-90-3	N2
PFPeS	<0.61	ng/L	1.9	0.61	1	08/11/23 10:22	08/17/23 17:20	2706-91-4	N2
Perfluorododecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:20	307-55-1	N2
Perfluoroheptanoic acid	355	ng/L	203	69.8	100	08/11/23 10:22	08/18/23 11:55	375-85-9	N2
Perfluorohexanesulfonic acid	0.90J	ng/L	1.8	0.54	1	08/11/23 10:22	08/17/23 17:20	355-46-4	N2
Perfluorononanoic acid	<0.80	ng/L	2.0	0.80	1	08/11/23 10:22	08/17/23 17:20	375-95-1	N2
Perfluorooctanesulfonic acid	1.7J	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 17:20	1763-23-1	N2
Perfluorooctanoic acid	8.4	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 17:20	335-67-1	N2
Perfluorotetradecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:20	376-06-7	N2
Perfluorotridecanoic acid	<0.63	ng/L	2.0	0.63	1	08/11/23 10:22	08/17/23 17:20	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:20	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	6	%	25-150		1	08/11/23 10:22	08/17/23 17:20	375-22-4	S0
13C5-PFPeA (S)	23	%	25-150		1	08/11/23 10:22	08/17/23 17:20	2706-90-3	S0
13C3-PFBS (S)	66	%	25-150		1	08/11/23 10:22	08/17/23 17:20	375-73-5	
13C24:2FTS (S)	133	%	25-150		1	08/11/23 10:22	08/17/23 17:20		
13C3HFPO-DA (S)	58	%	25-150		1	08/11/23 10:22	08/17/23 17:20		
13C4-PFHpA (S)	87	%	25-150		1	08/11/23 10:22	08/17/23 17:20	375-85-9	
13C3-PFHxS (S)	96	%	25-150		1	08/11/23 10:22	08/17/23 17:20	355-46-4	
13C26:2FTS (S)	186	%	25-150		1	08/11/23 10:22	08/17/23 17:20		S0
13C8-PFOA (S)	100	%	25-150		1	08/11/23 10:22	08/17/23 17:20	335-67-1	
13C8-PFOS (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 17:20	1763-23-1	
13C9-PFNA (S)	123	%	25-150		1	08/11/23 10:22	08/17/23 17:20	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-6 Lab ID: 40265595006 Collected: 07/24/23 12:06 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW** Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	121	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	335-76-2	
13C28:2FTS (S)	212	%.	25-150		1	08/11/23 10:22	08/17/23 17:20		S0
d3-MeFOSAA (S)	91	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	2355-31-9	
13C7-PFUdA (S)	107	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	2058-94-8	
13C8-PFOSA (S)	74	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	754-91-6	
d5-EtFOSAA (S)	93	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	2991-50-6	
13C2-PFDoA (S)	91	%.	25-150		1	08/11/23 10:22	08/17/23 17:20		
d3-NMeFOSA (S)	53	%.	10-150		1	08/11/23 10:22	08/17/23 17:20	31506-32-8	
d7-NMeFOSE (S)	62	%.	10-150		1	08/11/23 10:22	08/17/23 17:20	24448-09-7	
13C2-PFTA (S)	80	%.	25-150		1	08/11/23 10:22	08/17/23 17:20		
d9-NEtFOSE (S)	60	%.	10-150		1	08/11/23 10:22	08/17/23 17:20	1691-99-2	
d5-NEtFOSA (S)	53	%.	10-150		1	08/11/23 10:22	08/17/23 17:20	4151-50-2	
13C5-PFHxA (S)	56	%.	25-150		1	08/11/23 10:22	08/17/23 17:20	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-7 Lab ID: 40265595007 Collected: 07/24/23 10:52 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 17:28	763051-92-9	N2
4:2 FTS	<1.0	ng/L	4.0	1.0	1	08/11/23 10:22	08/17/23 17:28	757124-72-4	N2
6:2 FTS	1110	ng/L	40.6	14.4	10	08/11/23 10:22	08/18/23 12:45	27619-97-2	N2
8:2 FTS	<1.1	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 17:28	39108-34-4	N2
9CI-PF3ONS	<1.0	ng/L	4.0	1.0	1	08/11/23 10:22	08/17/23 17:28	756426-58-1	N2
ADONA	<2.0	ng/L	4.0	2.0	1	08/11/23 10:22	08/17/23 17:28	919005-14-4	N2
HFPO-DA	<1.1	ng/L	4.3	1.1	1	08/11/23 10:22	08/17/23 17:28	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.3	1.7	1	08/11/23 10:22	08/17/23 17:28	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.3	1.2	1	08/11/23 10:22	08/17/23 17:28	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.3	1.9	1	08/11/23 10:22	08/17/23 17:28	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.3	1.5	1	08/11/23 10:22	08/17/23 17:28	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.3	1.2	1	08/11/23 10:22	08/17/23 17:28	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.3	1.1	1	08/11/23 10:22	08/17/23 17:28	24448-09-7	N2
Perfluorobutanesulfonic acid	10	ng/L	3.8	1.0	1	08/11/23 10:22	08/17/23 17:28	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 17:28	335-76-2	N2
Perfluorohexanoic acid	706	ng/L	42.7	19.4	10	08/11/23 10:22	08/18/23 12:45	307-24-4	N2
PFBA	226	ng/L	4.3	1.1	1	08/11/23 10:22	08/17/23 17:28	375-22-4	L1,N2
PFDS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 17:28	335-77-3	N2
PFDoS	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 17:28	79780-39-5	N2
PFHpS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 17:28	375-92-8	N2
PFNS	<1.3	ng/L	4.1	1.3	1	08/11/23 10:22	08/17/23 17:28	68259-12-1	N2
PFOSA	<1.5	ng/L	4.3	1.5	1	08/11/23 10:22	08/17/23 17:28	754-91-6	N2
PFPeA	1250	ng/L	42.7	17.5	10	08/11/23 10:22	08/18/23 12:45	2706-90-3	N2
PFPeS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 17:28	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.3	1.0	1	08/11/23 10:22	08/17/23 17:28	307-55-1	N2
Perfluoroheptanoic acid	159	ng/L	4.3	1.5	1	08/11/23 10:22	08/17/23 17:28	375-85-9	N2
Perfluorohexanesulfonic acid	<1.1	ng/L	3.9	1.1	1	08/11/23 10:22	08/17/23 17:28	355-46-4	N2
Perfluorononanoic acid	2.7J	ng/L	4.3	1.7	1	08/11/23 10:22	08/17/23 17:28	375-95-1	N2
Perfluorooctanesulfonic acid	4.9	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 17:28	1763-23-1	N2
Perfluorooctanoic acid	6.0	ng/L	4.3	1.8	1	08/11/23 10:22	08/17/23 17:28	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 17:28	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.3	1.3	1	08/11/23 10:22	08/17/23 17:28	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.3	1.0	1	08/11/23 10:22	08/17/23 17:28	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	8	%	25-150		1	08/11/23 10:22	08/17/23 17:28	375-22-4	S0
13C5-PFPeA (S)	44	%	25-150		1	08/11/23 10:22	08/17/23 17:28	2706-90-3	
13C3-PFBS (S)	76	%	25-150		1	08/11/23 10:22	08/17/23 17:28	375-73-5	
13C24:2FTS (S)	296	%	25-150		1	08/11/23 10:22	08/17/23 17:28		S0
13C3HFPO-DA (S)	60	%	25-150		1	08/11/23 10:22	08/17/23 17:28		
13C4-PFHpA (S)	114	%	25-150		1	08/11/23 10:22	08/17/23 17:28	375-85-9	
13C3-PFHxS (S)	114	%	25-150		1	08/11/23 10:22	08/17/23 17:28	355-46-4	
13C26:2FTS (S)	340	%	25-150		1	08/11/23 10:22	08/17/23 17:28		S0
13C8-PFOA (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 17:28	335-67-1	
13C8-PFOS (S)	131	%	25-150		1	08/11/23 10:22	08/17/23 17:28	1763-23-1	
13C9-PFNA (S)	145	%	25-150		1	08/11/23 10:22	08/17/23 17:28	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-7 Lab ID: 40265595007 Collected: 07/24/23 10:52 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW** Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	150	%	25-150		1	08/11/23 10:22	08/17/23 17:28	335-76-2	
13C28:2FTS (S)	371	%	25-150		1	08/11/23 10:22	08/17/23 17:28		S0
d3-MeFOSAA (S)	124	%	25-150		1	08/11/23 10:22	08/17/23 17:28	2355-31-9	
13C7-PFUdA (S)	147	%	25-150		1	08/11/23 10:22	08/17/23 17:28	2058-94-8	
13C8-PFOSA (S)	101	%	25-150		1	08/11/23 10:22	08/17/23 17:28	754-91-6	
d5-EtFOSAA (S)	138	%	25-150		1	08/11/23 10:22	08/17/23 17:28	2991-50-6	
13C2-PFDoA (S)	136	%	25-150		1	08/11/23 10:22	08/17/23 17:28		
d3-NMeFOSA (S)	76	%	10-150		1	08/11/23 10:22	08/17/23 17:28	31506-32-8	
d7-NMeFOSE (S)	98	%	10-150		1	08/11/23 10:22	08/17/23 17:28	24448-09-7	
13C2-PFTA (S)	121	%	25-150		1	08/11/23 10:22	08/17/23 17:28		
d9-NEtFOSE (S)	84	%	10-150		1	08/11/23 10:22	08/17/23 17:28	1691-99-2	
d5-NEtFOSA (S)	74	%	10-150		1	08/11/23 10:22	08/17/23 17:28	4151-50-2	
13C5-PFHxA (S)	88	%	25-150		1	08/11/23 10:22	08/17/23 17:28	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-8 Lab ID: 40265595008 Collected: 07/24/23 13:32 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 17:35	763051-92-9	N2
4:2 FTS	9.5	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 17:35	757124-72-4	N2
6:2 FTS	5040	ng/L	192	68.3	100	08/11/23 10:22	08/18/23 12:02	27619-97-2	N2
8:2 FTS	<0.51	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 17:35	39108-34-4	N2
9CI-PF3ONS	<0.48	ng/L	1.9	0.48	1	08/11/23 10:22	08/17/23 17:35	756426-58-1	N2
ADONA	<0.93	ng/L	1.9	0.93	1	08/11/23 10:22	08/17/23 17:35	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 17:35	13252-13-6	N2
NEtFOSAA	<0.83	ng/L	2.0	0.83	1	08/11/23 10:22	08/17/23 17:35	2991-50-6	N2
NEtFOSA	<0.58	ng/L	2.0	0.58	1	08/11/23 10:22	08/17/23 17:35	4151-50-2	N2
NEtFOSE	<0.90	ng/L	2.0	0.90	1	08/11/23 10:22	08/17/23 17:35	1691-99-2	N2
NMeFOSAA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 17:35	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 17:35	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/11/23 10:22	08/17/23 17:35	24448-09-7	N2
Perfluorobutanesulfonic acid	5.9	ng/L	1.8	0.49	1	08/11/23 10:22	08/17/23 17:35	375-73-5	N2
Perfluorodecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 17:35	335-76-2	N2
Perfluorohexanoic acid	5500	ng/L	202	92.1	100	08/11/23 10:22	08/18/23 12:02	307-24-4	N2
PFBA	1820	ng/L	202	50.4	100	08/11/23 10:22	08/18/23 12:02	375-22-4	L1,N2
PFDS	<0.65	ng/L	2.0	0.65	1	08/11/23 10:22	08/17/23 17:35	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 17:35	79780-39-5	N2
PFHpS	<0.68	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 17:35	375-92-8	N2
PFNS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 17:35	68259-12-1	N2
PFOSA	<0.73	ng/L	2.0	0.73	1	08/11/23 10:22	08/17/23 17:35	754-91-6	N2
PFPeA	15500	ng/L	202	83.1	100	08/11/23 10:22	08/18/23 12:02	2706-90-3	N2
PFPeS	0.70J	ng/L	1.9	0.61	1	08/11/23 10:22	08/17/23 17:35	2706-91-4	N2
Perfluorododecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:35	307-55-1	N2
Perfluoroheptanoic acid	2340	ng/L	202	69.7	100	08/11/23 10:22	08/18/23 12:02	375-85-9	N2
Perfluorohexanesulfonic acid	8.7	ng/L	1.8	0.54	1	08/11/23 10:22	08/17/23 17:35	355-46-4	N2
Perfluorononanoic acid	7.1	ng/L	2.0	0.80	1	08/11/23 10:22	08/17/23 17:35	375-95-1	N2
Perfluorooctanesulfonic acid	5.4	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 17:35	1763-23-1	N2
Perfluorooctanoic acid	29.1	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 17:35	335-67-1	N2
Perfluorotetradecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:35	376-06-7	N2
Perfluorotridecanoic acid	<0.63	ng/L	2.0	0.63	1	08/11/23 10:22	08/17/23 17:35	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:35	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	9	%	25-150		1	08/11/23 10:22	08/17/23 17:35	375-22-4	S0
13C5-PFPeA (S)	12	%	25-150		1	08/11/23 10:22	08/17/23 17:35	2706-90-3	S0
13C3-PFBS (S)	80	%	25-150		1	08/11/23 10:22	08/17/23 17:35	375-73-5	
13C24:2FTS (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 17:35		
13C3HFPO-DA (S)	69	%	25-150		1	08/11/23 10:22	08/17/23 17:35		
13C4-PFHpA (S)	59	%	25-150		1	08/11/23 10:22	08/17/23 17:35	375-85-9	
13C3-PFHxS (S)	100	%	25-150		1	08/11/23 10:22	08/17/23 17:35	355-46-4	
13C26:2FTS (S)	236	%	25-150		1	08/11/23 10:22	08/17/23 17:35		S0
13C8-PFOA (S)	47	%	25-150		1	08/11/23 10:22	08/17/23 17:35	335-67-1	
13C8-PFOS (S)	125	%	25-150		1	08/11/23 10:22	08/17/23 17:35	1763-23-1	
13C9-PFNA (S)	140	%	25-150		1	08/11/23 10:22	08/17/23 17:35	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-8 Lab ID: 40265595008 Collected: 07/24/23 13:32 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	140	%	25-150		1	08/11/23 10:22	08/17/23 17:35	335-76-2	
13C28:2FTS (S)	304	%	25-150		1	08/11/23 10:22	08/17/23 17:35		S0
d3-MeFOSAA (S)	113	%	25-150		1	08/11/23 10:22	08/17/23 17:35	2355-31-9	
13C7-PFUdA (S)	136	%	25-150		1	08/11/23 10:22	08/17/23 17:35	2058-94-8	
13C8-PFOSA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 17:35	754-91-6	
d5-EtFOSAA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 17:35	2991-50-6	
13C2-PFDoA (S)	119	%	25-150		1	08/11/23 10:22	08/17/23 17:35		
d3-NMeFOSA (S)	75	%	10-150		1	08/11/23 10:22	08/17/23 17:35	31506-32-8	
d7-NMeFOSE (S)	85	%	10-150		1	08/11/23 10:22	08/17/23 17:35	24448-09-7	
13C2-PFTA (S)	99	%	25-150		1	08/11/23 10:22	08/17/23 17:35		
d9-NEtFOSE (S)	79	%	10-150		1	08/11/23 10:22	08/17/23 17:35	1691-99-2	
d5-NEtFOSA (S)	77	%	10-150		1	08/11/23 10:22	08/17/23 17:35	4151-50-2	
13C5-PFHxA (S)	41	%	25-150		1	08/11/23 10:22	08/17/23 17:35	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-9 Lab ID: 40265595009 Collected: 07/24/23 12:36 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 17:42	763051-92-9	N2
4:2 FTS	147	ng/L	3.9	0.98	1	08/11/23 10:22	08/17/23 17:42	757124-72-4	N2
6:2 FTS	14700	ng/L	401	142	100	08/11/23 10:22	08/18/23 12:09	27619-97-2	N2
8:2 FTS	<1.1	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 17:42	39108-34-4	N2
9CI-PF3ONS	<0.99	ng/L	3.9	0.99	1	08/11/23 10:22	08/17/23 17:42	756426-58-1	N2
ADONA	<1.9	ng/L	4.0	1.9	1	08/11/23 10:22	08/17/23 17:42	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 17:42	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 17:42	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 17:42	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 17:42	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 17:42	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 17:42	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 17:42	24448-09-7	N2
Perfluorobutanesulfonic acid	28.0	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 17:42	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 17:42	335-76-2	N2
Perfluorohexanoic acid	26700	ng/L	422	192	100	08/11/23 10:22	08/18/23 12:09	307-24-4	N2
PFBA	3190	ng/L	422	105	100	08/11/23 10:22	08/18/23 12:09	375-22-4	L1,N2
PFDS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 17:42	335-77-3	N2
PFDoS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 17:42	79780-39-5	N2
PFHpS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 17:42	375-92-8	N2
PFNS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 17:42	68259-12-1	N2
PFOSA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 17:42	754-91-6	N2
PFPeA	14900	ng/L	422	173	100	08/11/23 10:22	08/18/23 12:09	2706-90-3	N2
PFPeS	1.3J	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 17:42	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 17:42	307-55-1	N2
Perfluoroheptanoic acid	2080	ng/L	422	145	100	08/11/23 10:22	08/18/23 12:09	375-85-9	N2
Perfluorohexanesulfonic acid	13.2	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 17:42	355-46-4	N2
Perfluorononanoic acid	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 17:42	375-95-1	N2
Perfluorooctanesulfonic acid	5.7	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 17:42	1763-23-1	N2
Perfluorooctanoic acid	31.5	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 17:42	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 17:42	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 17:42	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 17:42	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	12	%	25-150		1	08/11/23 10:22	08/17/23 17:42	375-22-4	S0
13C5-PFPeA (S)	28	%	25-150		1	08/11/23 10:22	08/17/23 17:42	2706-90-3	
13C3-PFBS (S)	72	%	25-150		1	08/11/23 10:22	08/17/23 17:42	375-73-5	
13C24:2FTS (S)	343	%	25-150		1	08/11/23 10:22	08/17/23 17:42		S0
13C3HFPO-DA (S)	51	%	25-150		1	08/11/23 10:22	08/17/23 17:42		
13C4-PFHpA (S)	76	%	25-150		1	08/11/23 10:22	08/17/23 17:42	375-85-9	
13C3-PFHxS (S)	130	%	25-150		1	08/11/23 10:22	08/17/23 17:42	355-46-4	
13C26:2FTS (S)	300	%	25-150		1	08/11/23 10:22	08/17/23 17:42		S0
13C8-PFOA (S)	27	%	25-150		1	08/11/23 10:22	08/17/23 17:42	335-67-1	
13C8-PFOS (S)	92	%	25-150		1	08/11/23 10:22	08/17/23 17:42	1763-23-1	
13C9-PFNA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 17:42	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-9 Lab ID: 40265595009 Collected: 07/24/23 12:36 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	128	%	25-150		1	08/11/23 10:22	08/17/23 17:42	335-76-2	
13C28:2FTS (S)	388	%	25-150		1	08/11/23 10:22	08/17/23 17:42		S0
d3-MeFOSAA (S)	106	%	25-150		1	08/11/23 10:22	08/17/23 17:42	2355-31-9	
13C7-PFUdA (S)	135	%	25-150		1	08/11/23 10:22	08/17/23 17:42	2058-94-8	
13C8-PFOSA (S)	84	%	25-150		1	08/11/23 10:22	08/17/23 17:42	754-91-6	
d5-EtFOSAA (S)	116	%	25-150		1	08/11/23 10:22	08/17/23 17:42	2991-50-6	
13C2-PFDoA (S)	119	%	25-150		1	08/11/23 10:22	08/17/23 17:42		
d3-NMeFOSA (S)	71	%	10-150		1	08/11/23 10:22	08/17/23 17:42	31506-32-8	
d7-NMeFOSE (S)	74	%	10-150		1	08/11/23 10:22	08/17/23 17:42	24448-09-7	
13C2-PFTA (S)	99	%	25-150		1	08/11/23 10:22	08/17/23 17:42		
d9-NEtFOSE (S)	74	%	10-150		1	08/11/23 10:22	08/17/23 17:42	1691-99-2	
d5-NEtFOSA (S)	72	%	10-150		1	08/11/23 10:22	08/17/23 17:42	4151-50-2	
13C5-PFHxA (S)	30	%	25-150		1	08/11/23 10:22	08/17/23 17:42	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-10 Lab ID: 40265595010 Collected: 07/24/23 12:13 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 17:49	763051-92-9	N2
4:2 FTS	5.2	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 17:49	757124-72-4	N2
6:2 FTS	2310	ng/L	192	68.1	100	08/11/23 10:22	08/18/23 12:16	27619-97-2	N2
8:2 FTS	<0.51	ng/L	1.9	0.51	1	08/11/23 10:22	08/17/23 17:49	39108-34-4	N2
9CI-PF3ONS	<0.47	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 17:49	756426-58-1	N2
ADONA	<0.93	ng/L	1.9	0.93	1	08/11/23 10:22	08/17/23 17:49	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 17:49	13252-13-6	N2
NEtFOSAA	<0.82	ng/L	2.0	0.82	1	08/11/23 10:22	08/17/23 17:49	2991-50-6	N2
NEtFOSA	<0.58	ng/L	2.0	0.58	1	08/11/23 10:22	08/17/23 17:49	4151-50-2	N2
NEtFOSE	<0.90	ng/L	2.0	0.90	1	08/11/23 10:22	08/17/23 17:49	1691-99-2	N2
NMeFOSAA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 17:49	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 17:49	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/11/23 10:22	08/17/23 17:49	24448-09-7	N2
Perfluorobutanesulfonic acid	28.7	ng/L	1.8	0.49	1	08/11/23 10:22	08/17/23 17:49	375-73-5	N2
Perfluorodecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 17:49	335-76-2	N2
Perfluorohexanoic acid	5630	ng/L	202	91.8	100	08/11/23 10:22	08/18/23 12:16	307-24-4	N2
PFBA	1010	ng/L	202	50.2	100	08/11/23 10:22	08/18/23 12:16	375-22-4	L1,N2
PFDS	<0.65	ng/L	1.9	0.65	1	08/11/23 10:22	08/17/23 17:49	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 17:49	79780-39-5	N2
PFHpS	<0.67	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 17:49	375-92-8	N2
PFNS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 17:49	68259-12-1	N2
PFOSA	<0.72	ng/L	2.0	0.72	1	08/11/23 10:22	08/17/23 17:49	754-91-6	N2
PFPeA	10900	ng/L	202	82.8	100	08/11/23 10:22	08/18/23 12:16	2706-90-3	N2
PFPeS	<0.61	ng/L	1.9	0.61	1	08/11/23 10:22	08/17/23 17:49	2706-91-4	N2
Perfluorododecanoic acid	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 17:49	307-55-1	N2
Perfluoroheptanoic acid	907	ng/L	202	69.5	100	08/11/23 10:22	08/18/23 12:16	375-85-9	N2
Perfluorohexanesulfonic acid	0.82J	ng/L	1.8	0.54	1	08/11/23 10:22	08/17/23 17:49	355-46-4	N2
Perfluorononanoic acid	<0.80	ng/L	2.0	0.80	1	08/11/23 10:22	08/17/23 17:49	375-95-1	N2
Perfluorooctanesulfonic acid	<0.67	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 17:49	1763-23-1	N2
Perfluorooctanoic acid	9.2	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 17:49	335-67-1	N2
Perfluorotetradecanoic acid	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 17:49	376-06-7	N2
Perfluorotridecanoic acid	<0.63	ng/L	2.0	0.63	1	08/11/23 10:22	08/17/23 17:49	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 17:49	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	6	%	25-150		1	08/11/23 10:22	08/17/23 17:49	375-22-4	S0
13C5-PFPeA (S)	11	%	25-150		1	08/11/23 10:22	08/17/23 17:49	2706-90-3	S0
13C3-PFBS (S)	77	%	25-150		1	08/11/23 10:22	08/17/23 17:49	375-73-5	
13C24:2FTS (S)	180	%	25-150		1	08/11/23 10:22	08/17/23 17:49		S0
13C3HFPO-DA (S)	65	%	25-150		1	08/11/23 10:22	08/17/23 17:49		
13C4-PFHpA (S)	82	%	25-150		1	08/11/23 10:22	08/17/23 17:49	375-85-9	
13C3-PFHxS (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 17:49	355-46-4	
13C26:2FTS (S)	186	%	25-150		1	08/11/23 10:22	08/17/23 17:49		S0
13C8-PFOA (S)	87	%	25-150		1	08/11/23 10:22	08/17/23 17:49	335-67-1	
13C8-PFOS (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 17:49	1763-23-1	
13C9-PFNA (S)	136	%	25-150		1	08/11/23 10:22	08/17/23 17:49	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-10 Lab ID: 40265595010 Collected: 07/24/23 12:13 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	144	%	25-150		1	08/11/23 10:22	08/17/23 17:49	335-76-2	
13C28:2FTS (S)	291	%	25-150		1	08/11/23 10:22	08/17/23 17:49		S0
d3-MeFOSAA (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 17:49	2355-31-9	
13C7-PFUdA (S)	138	%	25-150		1	08/11/23 10:22	08/17/23 17:49	2058-94-8	
13C8-PFOSA (S)	95	%	25-150		1	08/11/23 10:22	08/17/23 17:49	754-91-6	
d5-EtFOSAA (S)	114	%	25-150		1	08/11/23 10:22	08/17/23 17:49	2991-50-6	
13C2-PFDoA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 17:49		
d3-NMeFOSA (S)	14	%	10-150		1	08/11/23 10:22	08/17/23 17:49	31506-32-8	
d7-NMeFOSE (S)	61	%	10-150		1	08/11/23 10:22	08/17/23 17:49	24448-09-7	
13C2-PFTA (S)	100	%	25-150		1	08/11/23 10:22	08/17/23 17:49		
d9-NEtFOSE (S)	54	%	10-150		1	08/11/23 10:22	08/17/23 17:49	1691-99-2	
d5-NEtFOSA (S)	14	%	10-150		1	08/11/23 10:22	08/17/23 17:49	4151-50-2	
13C5-PFHxA (S)	36	%	25-150		1	08/11/23 10:22	08/17/23 17:49	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-11 Lab ID: 40265595011 Collected: 07/24/23 12:23 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.55	ng/L	1.8	0.55	1	08/11/23 10:22	08/17/23 18:04	763051-92-9	N2
4:2 FTS	7.8	ng/L	1.8	0.46	1	08/11/23 10:22	08/17/23 18:04	757124-72-4	N2
6:2 FTS	2730	ng/L	187	66.3	100	08/11/23 10:22	08/18/23 12:24	27619-97-2	N2
8:2 FTS	1.6J	ng/L	1.9	0.50	1	08/11/23 10:22	08/17/23 18:04	39108-34-4	N2
9CI-PF3ONS	<0.46	ng/L	1.8	0.46	1	08/11/23 10:22	08/17/23 18:04	756426-58-1	N2
ADONA	<0.90	ng/L	1.9	0.90	1	08/11/23 10:22	08/17/23 18:04	919005-14-4	N2
HFPO-DA	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 18:04	13252-13-6	N2
NEtFOSAA	<0.80	ng/L	2.0	0.80	1	08/11/23 10:22	08/17/23 18:04	2991-50-6	N2
NEtFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 18:04	4151-50-2	N2
NEtFOSE	<0.87	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 18:04	1691-99-2	N2
NMeFOSAA	<0.68	ng/L	2.0	0.68	1	08/11/23 10:22	08/17/23 18:04	2355-31-9	N2
NMeFOSA	<0.54	ng/L	2.0	0.54	1	08/11/23 10:22	08/17/23 18:04	31506-32-8	N2
NMeFOSE	<0.51	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 18:04	24448-09-7	N2
Perfluorobutanesulfonic acid	30.4	ng/L	1.7	0.48	1	08/11/23 10:22	08/17/23 18:04	375-73-5	N2
Perfluorodecanoic acid	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 18:04	335-76-2	N2
Perfluorohexanoic acid	2330	ng/L	197	89.4	100	08/11/23 10:22	08/18/23 12:24	307-24-4	N2
PFBA	333	ng/L	197	48.9	100	08/11/23 10:22	08/18/23 12:24	375-22-4	L1,N2
PFDS	<0.63	ng/L	1.9	0.63	1	08/11/23 10:22	08/17/23 18:04	335-77-3	N2
PFDoS	<0.58	ng/L	1.9	0.58	1	08/11/23 10:22	08/17/23 18:04	79780-39-5	N2
PFHpS	<0.66	ng/L	1.9	0.66	1	08/11/23 10:22	08/17/23 18:04	375-92-8	N2
PFNS	<0.58	ng/L	1.9	0.58	1	08/11/23 10:22	08/17/23 18:04	68259-12-1	N2
PFOSA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 18:04	754-91-6	N2
PFPeA	4970	ng/L	197	80.7	100	08/11/23 10:22	08/18/23 12:24	2706-90-3	N2
PFPeS	<0.59	ng/L	1.8	0.59	1	08/11/23 10:22	08/17/23 18:04	2706-91-4	N2
Perfluorododecanoic acid	<0.47	ng/L	2.0	0.47	1	08/11/23 10:22	08/17/23 18:04	307-55-1	N2
Perfluoroheptanoic acid	306	ng/L	197	67.7	100	08/11/23 10:22	08/18/23 12:24	375-85-9	N2
Perfluorohexanesulfonic acid	1.0J	ng/L	1.8	0.52	1	08/11/23 10:22	08/17/23 18:04	355-46-4	N2
Perfluorononanoic acid	1.6J	ng/L	2.0	0.78	1	08/11/23 10:22	08/17/23 18:04	375-95-1	N2
Perfluorooctanesulfonic acid	1.1J	ng/L	1.8	0.65	1	08/11/23 10:22	08/17/23 18:04	1763-23-1	N2
Perfluorooctanoic acid	12.4	ng/L	2.0	0.85	1	08/11/23 10:22	08/17/23 18:04	335-67-1	N2
Perfluorotetradecanoic acid	<0.59	ng/L	2.0	0.59	1	08/11/23 10:22	08/17/23 18:04	376-06-7	N2
Perfluorotridecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 18:04	72629-94-8	N2
Perfluoroundecanoic acid	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 18:04	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	3	%	25-150		1	08/11/23 10:22	08/17/23 18:04	375-22-4	S0
13C5-PFPeA (S)	9	%	25-150		1	08/11/23 10:22	08/17/23 18:04	2706-90-3	S0
13C3-PFBS (S)	63	%	25-150		1	08/11/23 10:22	08/17/23 18:04	375-73-5	
13C24:2FTS (S)	114	%	25-150		1	08/11/23 10:22	08/17/23 18:04		
13C3HFPO-DA (S)	47	%	25-150		1	08/11/23 10:22	08/17/23 18:04		
13C4-PFHpA (S)	75	%	25-150		1	08/11/23 10:22	08/17/23 18:04	375-85-9	
13C3-PFHxS (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 18:04	355-46-4	
13C26:2FTS (S)	236	%	25-150		1	08/11/23 10:22	08/17/23 18:04		S0
13C8-PFOA (S)	46	%	25-150		1	08/11/23 10:22	08/17/23 18:04	335-67-1	
13C8-PFOS (S)	108	%	25-150		1	08/11/23 10:22	08/17/23 18:04	1763-23-1	
13C9-PFNA (S)	116	%	25-150		1	08/11/23 10:22	08/17/23 18:04	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-11 Lab ID: 40265595011 Collected: 07/24/23 12:23 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	126	%	25-150		1	08/11/23 10:22	08/17/23 18:04	335-76-2	
13C28:2FTS (S)	289	%	25-150		1	08/11/23 10:22	08/17/23 18:04		S0
d3-MeFOSAA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 18:04	2355-31-9	
13C7-PFUdA (S)	129	%	25-150		1	08/11/23 10:22	08/17/23 18:04	2058-94-8	
13C8-PFOSA (S)	90	%	25-150		1	08/11/23 10:22	08/17/23 18:04	754-91-6	
d5-EtFOSAA (S)	115	%	25-150		1	08/11/23 10:22	08/17/23 18:04	2991-50-6	
13C2-PFDoA (S)	121	%	25-150		1	08/11/23 10:22	08/17/23 18:04		
d3-NMeFOSA (S)	84	%	10-150		1	08/11/23 10:22	08/17/23 18:04	31506-32-8	
d7-NMeFOSE (S)	70	%	10-150		1	08/11/23 10:22	08/17/23 18:04	24448-09-7	
13C2-PFTA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 18:04		
d9-NEtFOSE (S)	63	%	10-150		1	08/11/23 10:22	08/17/23 18:04	1691-99-2	
d5-NEtFOSA (S)	83	%	10-150		1	08/11/23 10:22	08/17/23 18:04	4151-50-2	
13C5-PFHxA (S)	30	%	25-150		1	08/11/23 10:22	08/17/23 18:04	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-12 Lab ID: 40265595012 Collected: 07/24/23 09:06 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 18:12	763051-92-9	N2
4:2 FTS	<0.98	ng/L	3.9	0.98	1	08/11/23 10:22	08/17/23 18:12	757124-72-4	N2
6:2 FTS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 18:12	27619-97-2	N2
8:2 FTS	<1.1	ng/L	4.1	1.1	1	08/11/23 10:22	08/17/23 18:12	39108-34-4	N2
9CI-PF3ONS	<0.99	ng/L	3.9	0.99	1	08/11/23 10:22	08/17/23 18:12	756426-58-1	N2
ADONA	<1.9	ng/L	4.0	1.9	1	08/11/23 10:22	08/17/23 18:12	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:12	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:12	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:12	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 18:12	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:12	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:12	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 18:12	24448-09-7	N2
Perfluorobutanesulfonic acid	5.1	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 18:12	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:12	335-76-2	N2
Perfluorohexanoic acid	11.6	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 18:12	307-24-4	N2
PFBA	87.3	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 18:12	375-22-4	L1,N2
PFDS	<1.4	ng/L	4.1	1.4	1	08/11/23 10:22	08/17/23 18:12	335-77-3	N2
PFDoS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 18:12	79780-39-5	N2
PFHpS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 18:12	375-92-8	N2
PFNS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 18:12	68259-12-1	N2
PFOSA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:12	754-91-6	N2
PFPeA	12.0	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:12	2706-90-3	N2
PFPeS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 18:12	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:12	307-55-1	N2
Perfluoroheptanoic acid	3.9J	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:12	375-85-9	N2
Perfluorohexanesulfonic acid	<1.1	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 18:12	355-46-4	N2
Perfluorononanoic acid	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:12	375-95-1	N2
Perfluorooctanesulfonic acid	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 18:12	1763-23-1	N2
Perfluorooctanoic acid	4.1J	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 18:12	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:12	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:12	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:12	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	3	%	25-150		1	08/11/23 10:22	08/17/23 18:12	375-22-4	S0
13C5-PFPeA (S)	37	%	25-150		1	08/11/23 10:22	08/17/23 18:12	2706-90-3	
13C3-PFBS (S)	70	%	25-150		1	08/11/23 10:22	08/17/23 18:12	375-73-5	
13C24:2FTS (S)	226	%	25-150		1	08/11/23 10:22	08/17/23 18:12		S0
13C3HFPO-DA (S)	59	%	25-150		1	08/11/23 10:22	08/17/23 18:12		
13C4-PFHpA (S)	109	%	25-150		1	08/11/23 10:22	08/17/23 18:12	375-85-9	
13C3-PFHxS (S)	109	%	25-150		1	08/11/23 10:22	08/17/23 18:12	355-46-4	
13C26:2FTS (S)	306	%	25-150		1	08/11/23 10:22	08/17/23 18:12		S0
13C8-PFOA (S)	123	%	25-150		1	08/11/23 10:22	08/17/23 18:12	335-67-1	
13C8-PFOS (S)	129	%	25-150		1	08/11/23 10:22	08/17/23 18:12	1763-23-1	
13C9-PFNA (S)	145	%	25-150		1	08/11/23 10:22	08/17/23 18:12	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-12 Lab ID: 40265595012 Collected: 07/24/23 09:06 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	148	%	25-150		1	08/11/23 10:22	08/17/23 18:12	335-76-2	
13C28:2FTS (S)	233	%	25-150		1	08/11/23 10:22	08/17/23 18:12		S0
d3-MeFOSAA (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 18:12	2355-31-9	
13C7-PFUdA (S)	146	%	25-150		1	08/11/23 10:22	08/17/23 18:12	2058-94-8	
13C8-PFOSA (S)	96	%	25-150		1	08/11/23 10:22	08/17/23 18:12	754-91-6	
d5-EtFOSAA (S)	129	%	25-150		1	08/11/23 10:22	08/17/23 18:12	2991-50-6	
13C2-PFDoA (S)	139	%	25-150		1	08/11/23 10:22	08/17/23 18:12		
d3-NMeFOSA (S)	83	%	10-150		1	08/11/23 10:22	08/17/23 18:12	31506-32-8	
d7-NMeFOSE (S)	80	%	10-150		1	08/11/23 10:22	08/17/23 18:12	24448-09-7	
13C2-PFTA (S)	127	%	25-150		1	08/11/23 10:22	08/17/23 18:12		
d9-NEtFOSE (S)	74	%	10-150		1	08/11/23 10:22	08/17/23 18:12	1691-99-2	
d5-NEtFOSA (S)	79	%	10-150		1	08/11/23 10:22	08/17/23 18:12	4151-50-2	
13C5-PFHxA (S)	84	%	25-150		1	08/11/23 10:22	08/17/23 18:12	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-13 Lab ID: 40265595013 Collected: 07/24/23 09:12 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	3.9	1.2	1	08/11/23 10:22	08/17/23 18:19	763051-92-9	N2
4:2 FTS	<0.97	ng/L	3.9	0.97	1	08/11/23 10:22	08/17/23 18:19	757124-72-4	N2
6:2 FTS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 18:19	27619-97-2	N2
8:2 FTS	<1.1	ng/L	4.0	1.1	1	08/11/23 10:22	08/17/23 18:19	39108-34-4	N2
9CI-PF3ONS	<0.98	ng/L	3.9	0.98	1	08/11/23 10:22	08/17/23 18:19	756426-58-1	N2
ADONA	<1.9	ng/L	4.0	1.9	1	08/11/23 10:22	08/17/23 18:19	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:19	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:19	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:19	4151-50-2	N2
NEtFOSE	<1.9	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 18:19	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:19	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:19	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 18:19	24448-09-7	N2
Perfluorobutanesulfonic acid	3.1J	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 18:19	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:19	335-76-2	N2
Perfluorohexanoic acid	5.8	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 18:19	307-24-4	N2
PFBA	50.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:19	375-22-4	L1,N2
PFDS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 18:19	335-77-3	N2
PFDoS	<1.2	ng/L	4.1	1.2	1	08/11/23 10:22	08/17/23 18:19	79780-39-5	N2
PFHpS	<1.4	ng/L	4.0	1.4	1	08/11/23 10:22	08/17/23 18:19	375-92-8	N2
PFNS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 18:19	68259-12-1	N2
PFOSA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:19	754-91-6	N2
PFPeA	6.6	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:19	2706-90-3	N2
PFPeS	<1.3	ng/L	3.9	1.3	1	08/11/23 10:22	08/17/23 18:19	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:19	307-55-1	N2
Perfluoroheptanoic acid	<1.4	ng/L	4.2	1.4	1	08/11/23 10:22	08/17/23 18:19	375-85-9	N2
Perfluorohexanesulfonic acid	<1.1	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 18:19	355-46-4	N2
Perfluorononanoic acid	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:19	375-95-1	N2
Perfluorooctanesulfonic acid	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 18:19	1763-23-1	N2
Perfluorooctanoic acid	<1.8	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 18:19	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:19	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:19	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:19	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	7	%	25-150		1	08/11/23 10:22	08/17/23 18:19	375-22-4	S0
13C5-PFPeA (S)	37	%	25-150		1	08/11/23 10:22	08/17/23 18:19	2706-90-3	
13C3-PFBS (S)	52	%	25-150		1	08/11/23 10:22	08/17/23 18:19	375-73-5	
13C24:2FTS (S)	111	%	25-150		1	08/11/23 10:22	08/17/23 18:19		
13C3HFPO-DA (S)	49	%	25-150		1	08/11/23 10:22	08/17/23 18:19		
13C4-PFHpA (S)	74	%	25-150		1	08/11/23 10:22	08/17/23 18:19	375-85-9	
13C3-PFHxS (S)	71	%	25-150		1	08/11/23 10:22	08/17/23 18:19	355-46-4	
13C26:2FTS (S)	111	%	25-150		1	08/11/23 10:22	08/17/23 18:19		
13C8-PFOA (S)	78	%	25-150		1	08/11/23 10:22	08/17/23 18:19	335-67-1	
13C8-PFOS (S)	66	%	25-150		1	08/11/23 10:22	08/17/23 18:19	1763-23-1	
13C9-PFNA (S)	78	%	25-150		1	08/11/23 10:22	08/17/23 18:19	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-13 Lab ID: 40265595013 Collected: 07/24/23 09:12 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178

Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	68	%	25-150		1	08/11/23 10:22	08/17/23 18:19	335-76-2	
13C28:2FTS (S)	94	%	25-150		1	08/11/23 10:22	08/17/23 18:19		
d3-MeFOSAA (S)	52	%	25-150		1	08/11/23 10:22	08/17/23 18:19	2355-31-9	
13C7-PFUdA (S)	56	%	25-150		1	08/11/23 10:22	08/17/23 18:19	2058-94-8	
13C8-PFOSA (S)	23	%	25-150		1	08/11/23 10:22	08/17/23 18:19	754-91-6	S0
d5-EtFOSAA (S)	51	%	25-150		1	08/11/23 10:22	08/17/23 18:19	2991-50-6	
13C2-PFDoA (S)	34	%	25-150		1	08/11/23 10:22	08/17/23 18:19		
d3-NMeFOSA (S)	0	%	10-150		1	08/11/23 10:22	08/17/23 18:19	31506-32-8	S0
d7-NMeFOSE (S)	5	%	10-150		1	08/11/23 10:22	08/17/23 18:19	24448-09-7	S0
13C2-PFTA (S)	6	%	25-150		1	08/11/23 10:22	08/17/23 18:19		S0
d9-NEtFOSE (S)	5	%	10-150		1	08/11/23 10:22	08/17/23 18:19	1691-99-2	S0
d5-NEtFOSA (S)	2	%	10-150		1	08/11/23 10:22	08/17/23 18:19	4151-50-2	S0
13C5-PFHxA (S)	65	%	25-150		1	08/11/23 10:22	08/17/23 18:19	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-14 Lab ID: 40265595014 Collected: 07/24/23 10:28 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 18:26	763051-92-9	N2
4:2 FTS	<0.47	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 18:26	757124-72-4	N2
6:2 FTS	4.7	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 18:26	27619-97-2	N2
8:2 FTS	<0.50	ng/L	1.9	0.50	1	08/11/23 10:22	08/17/23 18:26	39108-34-4	N2
9CI-PF3ONS	<0.47	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 18:26	756426-58-1	N2
ADONA	<0.92	ng/L	1.9	0.92	1	08/11/23 10:22	08/17/23 18:26	919005-14-4	N2
HFPO-DA	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:26	13252-13-6	N2
NEtFOSAA	<0.82	ng/L	2.0	0.82	1	08/11/23 10:22	08/17/23 18:26	2991-50-6	N2
NEtFOSA	<0.57	ng/L	2.0	0.57	1	08/11/23 10:22	08/17/23 18:26	4151-50-2	N2
NEtFOSE	<0.89	ng/L	2.0	0.89	1	08/11/23 10:22	08/17/23 18:26	1691-99-2	N2
NMeFOSAA	<0.69	ng/L	2.0	0.69	1	08/11/23 10:22	08/17/23 18:26	2355-31-9	N2
NMeFOSA	<0.55	ng/L	2.0	0.55	1	08/11/23 10:22	08/17/23 18:26	31506-32-8	N2
NMeFOSE	<0.52	ng/L	2.0	0.52	1	08/11/23 10:22	08/17/23 18:26	24448-09-7	N2
Perfluorobutanesulfonic acid	1.9	ng/L	1.8	0.49	1	08/11/23 10:22	08/17/23 18:26	375-73-5	N2
Perfluorodecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 18:26	335-76-2	N2
Perfluorohexanoic acid	17.4	ng/L	2.0	0.91	1	08/11/23 10:22	08/17/23 18:26	307-24-4	N2
PFBA	17.5	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 18:26	375-22-4	L1,N2
PFDS	<0.64	ng/L	1.9	0.64	1	08/11/23 10:22	08/17/23 18:26	335-77-3	N2
PFDoS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 18:26	79780-39-5	N2
PFHpS	<0.67	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 18:26	375-92-8	N2
PFNS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 18:26	68259-12-1	N2
PFOSA	<0.72	ng/L	2.0	0.72	1	08/11/23 10:22	08/17/23 18:26	754-91-6	N2
PFPeA	25.2	ng/L	2.0	0.82	1	08/11/23 10:22	08/17/23 18:26	2706-90-3	N2
PFPeS	<0.60	ng/L	1.9	0.60	1	08/11/23 10:22	08/17/23 18:26	2706-91-4	N2
Perfluorododecanoic acid	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 18:26	307-55-1	N2
Perfluoroheptanoic acid	4.3	ng/L	2.0	0.69	1	08/11/23 10:22	08/17/23 18:26	375-85-9	N2
Perfluorohexanesulfonic acid	4.3	ng/L	1.8	0.53	1	08/11/23 10:22	08/17/23 18:26	355-46-4	N2
Perfluorononanoic acid	<0.79	ng/L	2.0	0.79	1	08/11/23 10:22	08/17/23 18:26	375-95-1	N2
Perfluorooctanesulfonic acid	3.6	ng/L	1.9	0.67	1	08/11/23 10:22	08/17/23 18:26	1763-23-1	N2
Perfluorooctanoic acid	4.8	ng/L	2.0	0.86	1	08/11/23 10:22	08/17/23 18:26	335-67-1	N2
Perfluorotetradecanoic acid	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 18:26	376-06-7	N2
Perfluorotridecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 18:26	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:26	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	7	%	25-150		1	08/11/23 10:22	08/17/23 18:26	375-22-4	S0
13C5-PFPeA (S)	43	%	25-150		1	08/11/23 10:22	08/17/23 18:26	2706-90-3	
13C3-PFBS (S)	70	%	25-150		1	08/11/23 10:22	08/17/23 18:26	375-73-5	
13C24:2FTS (S)	230	%	25-150		1	08/11/23 10:22	08/17/23 18:26		S0
13C3HFPO-DA (S)	61	%	25-150		1	08/11/23 10:22	08/17/23 18:26		
13C4-PFHpA (S)	112	%	25-150		1	08/11/23 10:22	08/17/23 18:26	375-85-9	
13C3-PFHxS (S)	112	%	25-150		1	08/11/23 10:22	08/17/23 18:26	355-46-4	
13C26:2FTS (S)	318	%	25-150		1	08/11/23 10:22	08/17/23 18:26		S0
13C8-PFOA (S)	125	%	25-150		1	08/11/23 10:22	08/17/23 18:26	335-67-1	
13C8-PFOS (S)	125	%	25-150		1	08/11/23 10:22	08/17/23 18:26	1763-23-1	
13C9-PFNA (S)	144	%	25-150		1	08/11/23 10:22	08/17/23 18:26	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-14 Lab ID: 40265595014 Collected: 07/24/23 10:28 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	143	%	25-150		1	08/11/23 10:22	08/17/23 18:26	335-76-2	
13C28:2FTS (S)	247	%	25-150		1	08/11/23 10:22	08/17/23 18:26		S0
d3-MeFOSAA (S)	116	%	25-150		1	08/11/23 10:22	08/17/23 18:26	2355-31-9	
13C7-PFUdA (S)	141	%	25-150		1	08/11/23 10:22	08/17/23 18:26	2058-94-8	
13C8-PFOSA (S)	100	%	25-150		1	08/11/23 10:22	08/17/23 18:26	754-91-6	
d5-EtFOSAA (S)	128	%	25-150		1	08/11/23 10:22	08/17/23 18:26	2991-50-6	
13C2-PFDoA (S)	130	%	25-150		1	08/11/23 10:22	08/17/23 18:26		
d3-NMeFOSA (S)	69	%	10-150		1	08/11/23 10:22	08/17/23 18:26	31506-32-8	
d7-NMeFOSE (S)	76	%	10-150		1	08/11/23 10:22	08/17/23 18:26	24448-09-7	
13C2-PFTA (S)	117	%	25-150		1	08/11/23 10:22	08/17/23 18:26		
d9-NEtFOSE (S)	70	%	10-150		1	08/11/23 10:22	08/17/23 18:26	1691-99-2	
d5-NEtFOSA (S)	70	%	10-150		1	08/11/23 10:22	08/17/23 18:26	4151-50-2	
13C5-PFHxA (S)	87	%	25-150		1	08/11/23 10:22	08/17/23 18:26	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-15 Lab ID: 40265595015 Collected: 07/24/23 09:55 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.56	ng/L	1.9	0.56	1	08/11/23 10:22	08/17/23 18:33	763051-92-9	N2
4:2 FTS	<0.47	ng/L	1.9	0.47	1	08/11/23 10:22	08/17/23 18:33	757124-72-4	N2
6:2 FTS	45.7	ng/L	1.9	0.69	1	08/11/23 10:22	08/17/23 18:33	27619-97-2	N2
8:2 FTS	<0.51	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 18:33	39108-34-4	N2
9CI-PF3ONS	<0.48	ng/L	1.9	0.48	1	08/11/23 10:22	08/17/23 18:33	756426-58-1	N2
ADONA	<0.93	ng/L	1.9	0.93	1	08/11/23 10:22	08/17/23 18:33	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/11/23 10:22	08/17/23 18:33	13252-13-6	N2
NEtFOSAA	<0.83	ng/L	2.0	0.83	1	08/11/23 10:22	08/17/23 18:33	2991-50-6	N2
NEtFOSA	<0.58	ng/L	2.0	0.58	1	08/11/23 10:22	08/17/23 18:33	4151-50-2	N2
NEtFOSE	<0.90	ng/L	2.0	0.90	1	08/11/23 10:22	08/17/23 18:33	1691-99-2	N2
NMeFOSAA	<0.70	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 18:33	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/11/23 10:22	08/17/23 18:33	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/11/23 10:22	08/17/23 18:33	24448-09-7	N2
Perfluorobutanesulfonic acid	3.3	ng/L	1.8	0.49	1	08/11/23 10:22	08/17/23 18:33	375-73-5	N2
Perfluorodecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 18:33	335-76-2	N2
Perfluorohexanoic acid	105	ng/L	2.0	0.92	1	08/11/23 10:22	08/17/23 18:33	307-24-4	N2
PFBA	52.3	ng/L	2.0	0.51	1	08/11/23 10:22	08/17/23 18:33	375-22-4	L1,N2
PFDS	<0.65	ng/L	2.0	0.65	1	08/11/23 10:22	08/17/23 18:33	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 18:33	79780-39-5	N2
PFHpS	<0.68	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 18:33	375-92-8	N2
PFNS	<0.60	ng/L	1.9	0.60	1	08/11/23 10:22	08/17/23 18:33	68259-12-1	N2
PFOSA	<0.73	ng/L	2.0	0.73	1	08/11/23 10:22	08/17/23 18:33	754-91-6	N2
PFPeA	190	ng/L	2.0	0.83	1	08/11/23 10:22	08/17/23 18:33	2706-90-3	N2
PFPeS	<0.61	ng/L	1.9	0.61	1	08/11/23 10:22	08/17/23 18:33	2706-91-4	N2
Perfluorododecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:33	307-55-1	N2
Perfluoroheptanoic acid	19.0	ng/L	2.0	0.70	1	08/11/23 10:22	08/17/23 18:33	375-85-9	N2
Perfluorohexanesulfonic acid	0.89J	ng/L	1.8	0.54	1	08/11/23 10:22	08/17/23 18:33	355-46-4	N2
Perfluorononanoic acid	<0.81	ng/L	2.0	0.81	1	08/11/23 10:22	08/17/23 18:33	375-95-1	N2
Perfluorooctanesulfonic acid	<0.68	ng/L	1.9	0.68	1	08/11/23 10:22	08/17/23 18:33	1763-23-1	N2
Perfluorooctanoic acid	1.1J	ng/L	2.0	0.87	1	08/11/23 10:22	08/17/23 18:33	335-67-1	N2
Perfluorotetradecanoic acid	<0.61	ng/L	2.0	0.61	1	08/11/23 10:22	08/17/23 18:33	376-06-7	N2
Perfluorotridecanoic acid	<0.63	ng/L	2.0	0.63	1	08/11/23 10:22	08/17/23 18:33	72629-94-8	N2
Perfluoroundecanoic acid	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:33	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	5	%	25-150		1	08/11/23 10:22	08/17/23 18:33	375-22-4	S0
13C5-PFPeA (S)	42	%	25-150		1	08/11/23 10:22	08/17/23 18:33	2706-90-3	
13C3-PFBS (S)	82	%	25-150		1	08/11/23 10:22	08/17/23 18:33	375-73-5	
13C24:2FTS (S)	290	%	25-150		1	08/11/23 10:22	08/17/23 18:33		S0
13C3HFPO-DA (S)	65	%	25-150		1	08/11/23 10:22	08/17/23 18:33		
13C4-PFHpA (S)	124	%	25-150		1	08/11/23 10:22	08/17/23 18:33	375-85-9	
13C3-PFHxS (S)	125	%	25-150		1	08/11/23 10:22	08/17/23 18:33	355-46-4	
13C26:2FTS (S)	388	%	25-150		1	08/11/23 10:22	08/17/23 18:33		S0
13C8-PFOA (S)	137	%	25-150		1	08/11/23 10:22	08/17/23 18:33	335-67-1	
13C8-PFOS (S)	143	%	25-150		1	08/11/23 10:22	08/17/23 18:33	1763-23-1	
13C9-PFNA (S)	156	%	25-150		1	08/11/23 10:22	08/17/23 18:33	375-95-1	S0

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-15 Lab ID: 40265595015 Collected: 07/24/23 09:55 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	153	%	25-150		1	08/11/23 10:22	08/17/23 18:33	335-76-2	S0
13C28:2FTS (S)	312	%	25-150		1	08/11/23 10:22	08/17/23 18:33		S0
d3-MeFOSAA (S)	110	%	25-150		1	08/11/23 10:22	08/17/23 18:33	2355-31-9	
13C7-PFUdA (S)	141	%	25-150		1	08/11/23 10:22	08/17/23 18:33	2058-94-8	
13C8-PFOSA (S)	74	%	25-150		1	08/11/23 10:22	08/17/23 18:33	754-91-6	
d5-EtFOSAA (S)	112	%	25-150		1	08/11/23 10:22	08/17/23 18:33	2991-50-6	
13C2-PFDoA (S)	111	%	25-150		1	08/11/23 10:22	08/17/23 18:33		
d3-NMeFOSA (S)	2	%	10-150		1	08/11/23 10:22	08/17/23 18:33	31506-32-8	S0
d7-NMeFOSE (S)	21	%	10-150		1	08/11/23 10:22	08/17/23 18:33	24448-09-7	
13C2-PFTA (S)	52	%	25-150		1	08/11/23 10:22	08/17/23 18:33		
d9-NEtFOSE (S)	16	%	10-150		1	08/11/23 10:22	08/17/23 18:33	1691-99-2	
d5-NEtFOSA (S)	4	%	10-150		1	08/11/23 10:22	08/17/23 18:33	4151-50-2	S0
13C5-PFHxA (S)	96	%	25-150		1	08/11/23 10:22	08/17/23 18:33	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-16 Lab ID: 40265595016 Collected: 07/24/23 11:11 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.55	ng/L	1.9	0.55	1	08/11/23 10:22	08/17/23 18:41	763051-92-9	N2
4:2 FTS	0.66J	ng/L	1.9	0.46	1	08/11/23 10:22	08/17/23 18:41	757124-72-4	N2
6:2 FTS	224	ng/L	18.9	6.7	10	08/11/23 10:22	08/18/23 12:52	27619-97-2	N2
8:2 FTS	<0.50	ng/L	1.9	0.50	1	08/11/23 10:22	08/17/23 18:41	39108-34-4	N2
9CI-PF3ONS	<0.47	ng/L	1.8	0.47	1	08/11/23 10:22	08/17/23 18:41	756426-58-1	N2
ADONA	<0.91	ng/L	1.9	0.91	1	08/11/23 10:22	08/17/23 18:41	919005-14-4	N2
HFPO-DA	<0.49	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:41	13252-13-6	N2
NEtFOSAA	<0.81	ng/L	2.0	0.81	1	08/11/23 10:22	08/17/23 18:41	2991-50-6	N2
NEtFOSA	<0.57	ng/L	2.0	0.57	1	08/11/23 10:22	08/17/23 18:41	4151-50-2	N2
NEtFOSE	<0.88	ng/L	2.0	0.88	1	08/11/23 10:22	08/17/23 18:41	1691-99-2	N2
NMeFOSAA	<0.69	ng/L	2.0	0.69	1	08/11/23 10:22	08/17/23 18:41	2355-31-9	N2
NMeFOSA	<0.55	ng/L	2.0	0.55	1	08/11/23 10:22	08/17/23 18:41	31506-32-8	N2
NMeFOSE	<0.52	ng/L	2.0	0.52	1	08/11/23 10:22	08/17/23 18:41	24448-09-7	N2
Perfluorobutanesulfonic acid	5.5	ng/L	1.8	0.48	1	08/11/23 10:22	08/17/23 18:41	375-73-5	N2
Perfluorodecanoic acid	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 18:41	335-76-2	N2
Perfluorohexanoic acid	353	ng/L	19.9	9.0	10	08/11/23 10:22	08/18/23 12:52	307-24-4	N2
PFBA	150	ng/L	2.0	0.49	1	08/11/23 10:22	08/17/23 18:41	375-22-4	L1,N2
PFDS	<0.64	ng/L	1.9	0.64	1	08/11/23 10:22	08/17/23 18:41	335-77-3	N2
PFDoS	<0.59	ng/L	1.9	0.59	1	08/11/23 10:22	08/17/23 18:41	79780-39-5	N2
PFHpS	<0.66	ng/L	1.9	0.66	1	08/11/23 10:22	08/17/23 18:41	375-92-8	N2
PFNS	<0.58	ng/L	1.9	0.58	1	08/11/23 10:22	08/17/23 18:41	68259-12-1	N2
PFOSA	<0.71	ng/L	2.0	0.71	1	08/11/23 10:22	08/17/23 18:41	754-91-6	N2
PFPeA	633	ng/L	19.9	8.2	10	08/11/23 10:22	08/18/23 12:52	2706-90-3	N2
PFPeS	<0.60	ng/L	1.9	0.60	1	08/11/23 10:22	08/17/23 18:41	2706-91-4	N2
Perfluorododecanoic acid	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 18:41	307-55-1	N2
Perfluoroheptanoic acid	64.5	ng/L	2.0	0.68	1	08/11/23 10:22	08/17/23 18:41	375-85-9	N2
Perfluorohexanesulfonic acid	<0.53	ng/L	1.8	0.53	1	08/11/23 10:22	08/17/23 18:41	355-46-4	N2
Perfluorononanoic acid	<0.79	ng/L	2.0	0.79	1	08/11/23 10:22	08/17/23 18:41	375-95-1	N2
Perfluorooctanesulfonic acid	0.79J	ng/L	1.8	0.66	1	08/11/23 10:22	08/17/23 18:41	1763-23-1	N2
Perfluorooctanoic acid	2.6	ng/L	2.0	0.85	1	08/11/23 10:22	08/17/23 18:41	335-67-1	N2
Perfluorotetradecanoic acid	<0.60	ng/L	2.0	0.60	1	08/11/23 10:22	08/17/23 18:41	376-06-7	N2
Perfluorotridecanoic acid	<0.62	ng/L	2.0	0.62	1	08/11/23 10:22	08/17/23 18:41	72629-94-8	N2
Perfluoroundecanoic acid	<0.48	ng/L	2.0	0.48	1	08/11/23 10:22	08/17/23 18:41	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	8	%	25-150		1	08/11/23 10:22	08/17/23 18:41	375-22-4	S0
13C5-PFPeA (S)	38	%	25-150		1	08/11/23 10:22	08/17/23 18:41	2706-90-3	
13C3-PFBS (S)	74	%	25-150		1	08/11/23 10:22	08/17/23 18:41	375-73-5	
13C24:2FTS (S)	238	%	25-150		1	08/11/23 10:22	08/17/23 18:41		S0
13C3HFPO-DA (S)	62	%	25-150		1	08/11/23 10:22	08/17/23 18:41		
13C4-PFHpA (S)	108	%	25-150		1	08/11/23 10:22	08/17/23 18:41	375-85-9	
13C3-PFHxS (S)	109	%	25-150		1	08/11/23 10:22	08/17/23 18:41	355-46-4	
13C26:2FTS (S)	267	%	25-150		1	08/11/23 10:22	08/17/23 18:41		S0
13C8-PFOA (S)	117	%	25-150		1	08/11/23 10:22	08/17/23 18:41	335-67-1	
13C8-PFOS (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 18:41	1763-23-1	
13C9-PFNA (S)	132	%	25-150		1	08/11/23 10:22	08/17/23 18:41	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-16 Lab ID: 40265595016 Collected: 07/24/23 11:11 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW** Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	129	%	25-150		1	08/11/23 10:22	08/17/23 18:41	335-76-2	
13C28:2FTS (S)	260	%	25-150		1	08/11/23 10:22	08/17/23 18:41		S0
d3-MeFOSAA (S)	108	%	25-150		1	08/11/23 10:22	08/17/23 18:41	2355-31-9	
13C7-PFUdA (S)	125	%	25-150		1	08/11/23 10:22	08/17/23 18:41	2058-94-8	
13C8-PFOSA (S)	65	%	25-150		1	08/11/23 10:22	08/17/23 18:41	754-91-6	
d5-EtFOSAA (S)	107	%	25-150		1	08/11/23 10:22	08/17/23 18:41	2991-50-6	
13C2-PFDoA (S)	101	%	25-150		1	08/11/23 10:22	08/17/23 18:41		
d3-NMeFOSA (S)	2	%	10-150		1	08/11/23 10:22	08/17/23 18:41	31506-32-8	S0
d7-NMeFOSE (S)	19	%	10-150		1	08/11/23 10:22	08/17/23 18:41	24448-09-7	
13C2-PFTA (S)	56	%	25-150		1	08/11/23 10:22	08/17/23 18:41		
d9-NEtFOSE (S)	15	%	10-150		1	08/11/23 10:22	08/17/23 18:41	1691-99-2	
d5-NEtFOSA (S)	3	%	10-150		1	08/11/23 10:22	08/17/23 18:41	4151-50-2	S0
13C5-PFHxA (S)	84	%	25-150		1	08/11/23 10:22	08/17/23 18:41	307-24-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-17 Lab ID: 40265595017 Collected: 07/24/23 09:37 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	3.9	1.2	1	08/11/23 10:22	08/17/23 18:48	763051-92-9	N2
4:2 FTS	<0.97	ng/L	3.9	0.97	1	08/11/23 10:22	08/17/23 18:48	757124-72-4	N2
6:2 FTS	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 18:48	27619-97-2	N2
8:2 FTS	<1.0	ng/L	4.0	1.0	1	08/11/23 10:22	08/17/23 18:48	39108-34-4	N2
9CI-PF3ONS	<0.98	ng/L	3.9	0.98	1	08/11/23 10:22	08/17/23 18:48	756426-58-1	N2
ADONA	<1.9	ng/L	3.9	1.9	1	08/11/23 10:22	08/17/23 18:48	919005-14-4	N2
HFPO-DA	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:48	13252-13-6	N2
NEtFOSAA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:48	2991-50-6	N2
NEtFOSA	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:48	4151-50-2	N2
NEtFOSE	<1.8	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 18:48	1691-99-2	N2
NMeFOSAA	<1.4	ng/L	4.2	1.4	1	08/11/23 10:22	08/17/23 18:48	2355-31-9	N2
NMeFOSA	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 18:48	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.2	1.1	1	08/11/23 10:22	08/17/23 18:48	24448-09-7	N2
Perfluorobutanesulfonic acid	1.4J	ng/L	3.7	1.0	1	08/11/23 10:22	08/17/23 18:48	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:48	335-76-2	N2
Perfluorohexanoic acid	<1.9	ng/L	4.2	1.9	1	08/11/23 10:22	08/17/23 18:48	307-24-4	N2
PFBA	14.7	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:48	375-22-4	L1,N2
PFDS	<1.3	ng/L	4.0	1.3	1	08/11/23 10:22	08/17/23 18:48	335-77-3	N2
PFDoS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 18:48	79780-39-5	N2
PFHpS	<1.4	ng/L	3.9	1.4	1	08/11/23 10:22	08/17/23 18:48	375-92-8	N2
PFNS	<1.2	ng/L	4.0	1.2	1	08/11/23 10:22	08/17/23 18:48	68259-12-1	N2
PFOSA	<1.5	ng/L	4.2	1.5	1	08/11/23 10:22	08/17/23 18:48	754-91-6	N2
PFPeA	<1.7	ng/L	4.2	1.7	1	08/11/23 10:22	08/17/23 18:48	2706-90-3	N2
PFPeS	<1.2	ng/L	3.9	1.2	1	08/11/23 10:22	08/17/23 18:48	2706-91-4	N2
Perfluorododecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:48	307-55-1	N2
Perfluoroheptanoic acid	<1.4	ng/L	4.2	1.4	1	08/11/23 10:22	08/17/23 18:48	375-85-9	N2
Perfluorohexanesulfonic acid	<1.1	ng/L	3.8	1.1	1	08/11/23 10:22	08/17/23 18:48	355-46-4	N2
Perfluorononanoic acid	<1.6	ng/L	4.2	1.6	1	08/11/23 10:22	08/17/23 18:48	375-95-1	N2
Perfluorooctanesulfonic acid	<1.4	ng/L	3.8	1.4	1	08/11/23 10:22	08/17/23 18:48	1763-23-1	N2
Perfluorooctanoic acid	<1.8	ng/L	4.2	1.8	1	08/11/23 10:22	08/17/23 18:48	335-67-1	N2
Perfluorotetradecanoic acid	<1.2	ng/L	4.2	1.2	1	08/11/23 10:22	08/17/23 18:48	376-06-7	N2
Perfluorotridecanoic acid	<1.3	ng/L	4.2	1.3	1	08/11/23 10:22	08/17/23 18:48	72629-94-8	N2
Perfluoroundecanoic acid	<1.0	ng/L	4.2	1.0	1	08/11/23 10:22	08/17/23 18:48	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	23	%	25-150		1	08/11/23 10:22	08/17/23 18:48	375-22-4	S0
13C5-PFPeA (S)	75	%	25-150		1	08/11/23 10:22	08/17/23 18:48	2706-90-3	
13C3-PFBS (S)	95	%	25-150		1	08/11/23 10:22	08/17/23 18:48	375-73-5	
13C24:2FTS (S)	177	%	25-150		1	08/11/23 10:22	08/17/23 18:48		S0
13C3HFPO-DA (S)	90	%	25-150		1	08/11/23 10:22	08/17/23 18:48		
13C4-PFHpA (S)	122	%	25-150		1	08/11/23 10:22	08/17/23 18:48	375-85-9	
13C3-PFHxS (S)	120	%	25-150		1	08/11/23 10:22	08/17/23 18:48	355-46-4	
13C26:2FTS (S)	170	%	25-150		1	08/11/23 10:22	08/17/23 18:48		S0
13C8-PFOA (S)	133	%	25-150		1	08/11/23 10:22	08/17/23 18:48	335-67-1	
13C8-PFOS (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 18:48	1763-23-1	
13C9-PFNA (S)	138	%	25-150		1	08/11/23 10:22	08/17/23 18:48	375-95-1	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: MW-17 Lab ID: 40265595017 Collected: 07/24/23 09:37 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	127	%	25-150		1	08/11/23 10:22	08/17/23 18:48	335-76-2	
13C28:2FTS (S)	165	%	25-150		1	08/11/23 10:22	08/17/23 18:48		S0
d3-MeFOSAA (S)	99	%	25-150		1	08/11/23 10:22	08/17/23 18:48	2355-31-9	
13C7-PFUdA (S)	118	%	25-150		1	08/11/23 10:22	08/17/23 18:48	2058-94-8	
13C8-PFOSA (S)	97	%	25-150		1	08/11/23 10:22	08/17/23 18:48	754-91-6	
d5-EtFOSAA (S)	104	%	25-150		1	08/11/23 10:22	08/17/23 18:48	2991-50-6	
13C2-PFDoA (S)	109	%	25-150		1	08/11/23 10:22	08/17/23 18:48		
d3-NMeFOSA (S)	80	%	10-150		1	08/11/23 10:22	08/17/23 18:48	31506-32-8	
d7-NMeFOSE (S)	88	%	10-150		1	08/11/23 10:22	08/17/23 18:48	24448-09-7	
13C2-PFTA (S)	100	%	25-150		1	08/11/23 10:22	08/17/23 18:48		
d9-NEtFOSE (S)	83	%	10-150		1	08/11/23 10:22	08/17/23 18:48	1691-99-2	
d5-NEtFOSA (S)	76	%	10-150		1	08/11/23 10:22	08/17/23 18:48	4151-50-2	
13C5-PFHxA (S)	111	%	25-150		1	08/11/23 10:22	08/17/23 18:48	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: PZ-1 Lab ID: 40265595018 Collected: 07/24/23 14:30 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<2.9	ng/L	9.9	2.9	1	08/16/23 09:58	08/18/23 16:53	763051-92-9	N2
4:2 FTS	<2.5	ng/L	9.8	2.5	1	08/16/23 09:58	08/18/23 16:53	757124-72-4	N2
6:2 FTS	7.1J	ng/L	10.0	3.6	1	08/16/23 09:58	08/18/23 16:53	27619-97-2	N2
8:2 FTS	<2.7	ng/L	10.2	2.7	1	08/16/23 09:58	08/18/23 16:53	39108-34-4	N2
9CI-PF3ONS	<2.5	ng/L	9.8	2.5	1	08/16/23 09:58	08/18/23 16:53	756426-58-1	N2
ADONA	<4.8	ng/L	10	4.8	1	08/16/23 09:58	08/18/23 16:53	919005-14-4	N2
HFPO-DA	<2.6	ng/L	10.5	2.6	1	08/16/23 09:58	08/18/23 16:53	13252-13-6	N2
NEtFOSAA	<4.3	ng/L	10.5	4.3	1	08/16/23 09:58	08/18/23 16:53	2991-50-6	N2
NEtFOSA	<3.0	ng/L	10.5	3.0	1	08/16/23 09:58	08/18/23 16:53	4151-50-2	N2
NEtFOSE	<4.7	ng/L	10.5	4.7	1	08/16/23 09:58	08/18/23 16:53	1691-99-2	N2
NMeFOSAA	<3.7	ng/L	10.5	3.7	1	08/16/23 09:58	08/18/23 16:53	2355-31-9	N2
NMeFOSA	<2.9	ng/L	10.5	2.9	1	08/16/23 09:58	08/18/23 16:53	31506-32-8	N2
NMeFOSE	<2.7	ng/L	10.5	2.7	1	08/16/23 09:58	08/18/23 16:53	24448-09-7	N2
Perfluorobutanesulfonic acid	<2.6	ng/L	9.3	2.6	1	08/16/23 09:58	08/18/23 16:53	375-73-5	N2
Perfluorodecanoic acid	<3.2	ng/L	10.5	3.2	1	08/16/23 09:58	08/18/23 16:53	335-76-2	N2
Perfluorohexanoic acid	<4.8	ng/L	10.5	4.8	1	08/16/23 09:58	08/18/23 16:53	307-24-4	N2
PFBA	<2.6	ng/L	10.5	2.6	1	08/16/23 09:58	08/18/23 16:53	375-22-4	N2
PFDS	<3.4	ng/L	10.2	3.4	1	08/16/23 09:58	08/18/23 16:53	335-77-3	N2
PFDoS	<3.1	ng/L	10.2	3.1	1	08/16/23 09:58	08/18/23 16:53	79780-39-5	N2
PFHpS	<3.5	ng/L	10.0	3.5	1	08/16/23 09:58	08/18/23 16:53	375-92-8	N2
PFNS	<3.1	ng/L	10.1	3.1	1	08/16/23 09:58	08/18/23 16:53	68259-12-1	N2
PFOSA	<3.8	ng/L	10.5	3.8	1	08/16/23 09:58	08/18/23 16:53	754-91-6	N2
PFPeA	<4.3	ng/L	10.5	4.3	1	08/16/23 09:58	08/18/23 16:53	2706-90-3	N2
PFPeS	<3.2	ng/L	9.9	3.2	1	08/16/23 09:58	08/18/23 16:53	2706-91-4	N2
Perfluorododecanoic acid	<2.5	ng/L	10.5	2.5	1	08/16/23 09:58	08/18/23 16:53	307-55-1	N2
Perfluoroheptanoic acid	<3.6	ng/L	10.5	3.6	1	08/16/23 09:58	08/18/23 16:53	375-85-9	N2
Perfluorohexanesulfonic acid	<2.8	ng/L	9.6	2.8	1	08/16/23 09:58	08/18/23 16:53	355-46-4	N2
Perfluorononanoic acid	<4.2	ng/L	10.5	4.2	1	08/16/23 09:58	08/18/23 16:53	375-95-1	N2
Perfluorooctanesulfonic acid	<3.5	ng/L	9.7	3.5	1	08/16/23 09:58	08/18/23 16:53	1763-23-1	N2
Perfluorooctanoic acid	<4.5	ng/L	10.5	4.5	1	08/16/23 09:58	08/18/23 16:53	335-67-1	N2
Perfluorotetradecanoic acid	<3.2	ng/L	10.5	3.2	1	08/16/23 09:58	08/18/23 16:53	376-06-7	N2
Perfluorotridecanoic acid	<3.3	ng/L	10.5	3.3	1	08/16/23 09:58	08/18/23 16:53	72629-94-8	N2
Perfluoroundecanoic acid	<2.6	ng/L	10.5	2.6	1	08/16/23 09:58	08/18/23 16:53	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	22	%	25-150		1	08/16/23 09:58	08/18/23 16:53	375-22-4	S0
13C5-PFPeA (S)	46	%	25-150		1	08/16/23 09:58	08/18/23 16:53	2706-90-3	
13C3-PFBS (S)	49	%	25-150		1	08/16/23 09:58	08/18/23 16:53	375-73-5	
13C24:2FTS (S)	76	%	25-150		1	08/16/23 09:58	08/18/23 16:53		
13C3HFPO-DA (S)	64	%	25-150		1	08/16/23 09:58	08/18/23 16:53		
13C4-PFHpA (S)	76	%	25-150		1	08/16/23 09:58	08/18/23 16:53	375-85-9	
13C3-PFHxS (S)	78	%	25-150		1	08/16/23 09:58	08/18/23 16:53	355-46-4	
13C26:2FTS (S)	227	%	25-150		1	08/16/23 09:58	08/18/23 16:53		S3
13C8-PFOA (S)	85	%	25-150		1	08/16/23 09:58	08/18/23 16:53	335-67-1	
13C8-PFOS (S)	74	%	25-150		1	08/16/23 09:58	08/18/23 16:53	1763-23-1	
13C9-PFNA (S)	78	%	25-150		1	08/16/23 09:58	08/18/23 16:53	375-95-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: PZ-1 Lab ID: 40265595018 Collected: 07/24/23 14:30 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	76	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	335-76-2	
13C28:2FTS (S)	80	%.	25-150		1	08/16/23 09:58	08/18/23 16:53		
d3-MeFOSAA (S)	60	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	2355-31-9	
13C7-PFUdA (S)	77	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	2058-94-8	
13C8-PFOSA (S)	56	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	754-91-6	
d5-EtFOSAA (S)	69	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	2991-50-6	
13C2-PFDoA (S)	72	%.	25-150		1	08/16/23 09:58	08/18/23 16:53		
d3-NMeFOSA (S)	0	%.	10-150		1	08/16/23 09:58	08/18/23 16:53	31506-32-8	S0
d7-NMeFOSE (S)	13	%.	10-150		1	08/16/23 09:58	08/18/23 16:53	24448-09-7	
13C2-PFTA (S)	55	%.	25-150		1	08/16/23 09:58	08/18/23 16:53		
d9-NEtFOSE (S)	14	%.	10-150		1	08/16/23 09:58	08/18/23 16:53	1691-99-2	
d5-NEtFOSA (S)	0	%.	10-150		1	08/16/23 09:58	08/18/23 16:53	4151-50-2	S0
13C5-PFHxA (S)	65	%.	25-150		1	08/16/23 09:58	08/18/23 16:53	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: PZ-2 Lab ID: 40265595019 Collected: 07/24/23 14:26 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.2	ng/L	4.1	1.2	1	08/16/23 09:58	08/18/23 16:39	763051-92-9	N2
4:2 FTS	<1.0	ng/L	4.1	1.0	1	08/16/23 09:58	08/18/23 16:39	757124-72-4	N2
6:2 FTS	<1.5	ng/L	4.2	1.5	1	08/16/23 09:58	08/18/23 16:39	27619-97-2	N2
8:2 FTS	<1.1	ng/L	4.2	1.1	1	08/16/23 09:58	08/18/23 16:39	39108-34-4	N2
9CI-PF3ONS	<1.0	ng/L	4.1	1.0	1	08/16/23 09:58	08/18/23 16:39	756426-58-1	N2
ADONA	<2.0	ng/L	4.1	2.0	1	08/16/23 09:58	08/18/23 16:39	919005-14-4	N2
HFPO-DA	<1.1	ng/L	4.4	1.1	1	08/16/23 09:58	08/18/23 16:39	13252-13-6	N2
NEtFOSAA	<1.8	ng/L	4.4	1.8	1	08/16/23 09:58	08/18/23 16:39	2991-50-6	N2
NEtFOSA	<1.3	ng/L	4.4	1.3	1	08/16/23 09:58	08/18/23 16:39	4151-50-2	N2
NEtFOSE	<2.0	ng/L	4.4	2.0	1	08/16/23 09:58	08/18/23 16:39	1691-99-2	N2
NMeFOSAA	<1.5	ng/L	4.4	1.5	1	08/16/23 09:58	08/18/23 16:39	2355-31-9	N2
NMeFOSA	<1.2	ng/L	4.4	1.2	1	08/16/23 09:58	08/18/23 16:39	31506-32-8	N2
NMeFOSE	<1.1	ng/L	4.4	1.1	1	08/16/23 09:58	08/18/23 16:39	24448-09-7	N2
Perfluorobutanesulfonic acid	<1.1	ng/L	3.9	1.1	1	08/16/23 09:58	08/18/23 16:39	375-73-5	N2
Perfluorodecanoic acid	<1.3	ng/L	4.4	1.3	1	08/16/23 09:58	08/18/23 16:39	335-76-2	N2
Perfluorohexanoic acid	<2.0	ng/L	4.4	2.0	1	08/16/23 09:58	08/18/23 16:39	307-24-4	N2
PFBA	<1.1	ng/L	4.4	1.1	1	08/16/23 09:58	08/18/23 16:39	375-22-4	M1,N2
PFDS	<1.4	ng/L	4.2	1.4	1	08/16/23 09:58	08/18/23 16:39	335-77-3	N2
PFDoS	<1.3	ng/L	4.3	1.3	1	08/16/23 09:58	08/18/23 16:39	79780-39-5	N2
PFHpS	<1.5	ng/L	4.2	1.5	1	08/16/23 09:58	08/18/23 16:39	375-92-8	N2
PFNS	<1.3	ng/L	4.2	1.3	1	08/16/23 09:58	08/18/23 16:39	68259-12-1	N2
PFOSA	<1.6	ng/L	4.4	1.6	1	08/16/23 09:58	08/18/23 16:39	754-91-6	N2
PFPeA	<1.8	ng/L	4.4	1.8	1	08/16/23 09:58	08/18/23 16:39	2706-90-3	N2
PFPeS	<1.3	ng/L	4.1	1.3	1	08/16/23 09:58	08/18/23 16:39	2706-91-4	N2
Perfluorododecanoic acid	<1.1	ng/L	4.4	1.1	1	08/16/23 09:58	08/18/23 16:39	307-55-1	N2
Perfluoroheptanoic acid	<1.5	ng/L	4.4	1.5	1	08/16/23 09:58	08/18/23 16:39	375-85-9	N2
Perfluorohexanesulfonic acid	<1.2	ng/L	4.0	1.2	1	08/16/23 09:58	08/18/23 16:39	355-46-4	N2
Perfluorononanoic acid	<1.7	ng/L	4.4	1.7	1	08/16/23 09:58	08/18/23 16:39	375-95-1	N2
Perfluorooctanesulfonic acid	<1.5	ng/L	4.1	1.5	1	08/16/23 09:58	08/18/23 16:39	1763-23-1	N2
Perfluorooctanoic acid	<1.9	ng/L	4.4	1.9	1	08/16/23 09:58	08/18/23 16:39	335-67-1	N2
Perfluorotetradecanoic acid	<1.3	ng/L	4.4	1.3	1	08/16/23 09:58	08/18/23 16:39	376-06-7	N2
Perfluorotridecanoic acid	<1.4	ng/L	4.4	1.4	1	08/16/23 09:58	08/18/23 16:39	72629-94-8	N2
Perfluoroundecanoic acid	<1.1	ng/L	4.4	1.1	1	08/16/23 09:58	08/18/23 16:39	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	31	%	25-150		1	08/16/23 09:58	08/18/23 16:39	375-22-4	
13C5-PFPeA (S)	58	%	25-150		1	08/16/23 09:58	08/18/23 16:39	2706-90-3	
13C3-PFBS (S)	65	%	25-150		1	08/16/23 09:58	08/18/23 16:39	375-73-5	
13C24:2FTS (S)	210	%	25-150		1	08/16/23 09:58	08/18/23 16:39		S3
13C3HFPO-DA (S)	62	%	25-150		1	08/16/23 09:58	08/18/23 16:39		
13C4-PFHpA (S)	88	%	25-150		1	08/16/23 09:58	08/18/23 16:39	375-85-9	
13C3-PFHxS (S)	88	%	25-150		1	08/16/23 09:58	08/18/23 16:39	355-46-4	
13C26:2FTS (S)	374	%	25-150		1	08/16/23 09:58	08/18/23 16:39		S3
13C8-PFOA (S)	96	%	25-150		1	08/16/23 09:58	08/18/23 16:39	335-67-1	
13C8-PFOS (S)	90	%	25-150		1	08/16/23 09:58	08/18/23 16:39	1763-23-1	
13C9-PFNA (S)	95	%	25-150		1	08/16/23 09:58	08/18/23 16:39	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: PZ-2 Lab ID: 40265595019 Collected: 07/24/23 14:26 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	100	%	25-150		1	08/16/23 09:58	08/18/23 16:39	335-76-2	
13C28:2FTS (S)	190	%	25-150		1	08/16/23 09:58	08/18/23 16:39		S3
d3-MeFOSAA (S)	92	%	25-150		1	08/16/23 09:58	08/18/23 16:39	2355-31-9	
13C7-PFUdA (S)	106	%	25-150		1	08/16/23 09:58	08/18/23 16:39	2058-94-8	
13C8-PFOSA (S)	74	%	25-150		1	08/16/23 09:58	08/18/23 16:39	754-91-6	
d5-EtFOSAA (S)	113	%	25-150		1	08/16/23 09:58	08/18/23 16:39	2991-50-6	
13C2-PFDoA (S)	91	%	25-150		1	08/16/23 09:58	08/18/23 16:39		
d3-NMeFOSA (S)	31	%	10-150		1	08/16/23 09:58	08/18/23 16:39	31506-32-8	
d7-NMeFOSE (S)	60	%	10-150		1	08/16/23 09:58	08/18/23 16:39	24448-09-7	
13C2-PFTA (S)	82	%	25-150		1	08/16/23 09:58	08/18/23 16:39		
d9-NEtFOSE (S)	63	%	10-150		1	08/16/23 09:58	08/18/23 16:39	1691-99-2	
d5-NEtFOSA (S)	29	%	10-150		1	08/16/23 09:58	08/18/23 16:39	4151-50-2	
13C5-PFHxA (S)	79	%	25-150		1	08/16/23 09:58	08/18/23 16:39	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: SUMP Lab ID: 40265595020 Collected: 07/24/23 14:52 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.55	ng/L	1.8	0.55	1	08/16/23 09:58	08/18/23 17:00	763051-92-9	N2
4:2 FTS	1.9	ng/L	1.8	0.46	1	08/16/23 09:58	08/18/23 17:00	757124-72-4	D6,N2
6:2 FTS	3420	ng/L	186	66.2	100	08/16/23 09:58	08/21/23 13:33	27619-97-2	D6,N2
8:2 FTS	9.2	ng/L	1.9	0.49	1	08/16/23 09:58	08/18/23 17:00	39108-34-4	D6,N2
9CI-PF3ONS	<0.46	ng/L	1.8	0.46	1	08/16/23 09:58	08/18/23 17:00	756426-58-1	N2
ADONA	<0.90	ng/L	1.9	0.90	1	08/16/23 09:58	08/18/23 17:00	919005-14-4	N2
HFPO-DA	<0.48	ng/L	2.0	0.48	1	08/16/23 09:58	08/18/23 17:00	13252-13-6	N2
NEtFOSAA	<0.80	ng/L	2.0	0.80	1	08/16/23 09:58	08/18/23 17:00	2991-50-6	N2
NEtFOSA	<0.56	ng/L	2.0	0.56	1	08/16/23 09:58	08/18/23 17:00	4151-50-2	N2
NEtFOSE	<0.87	ng/L	2.0	0.87	1	08/16/23 09:58	08/18/23 17:00	1691-99-2	N2
NMeFOSAA	<0.68	ng/L	2.0	0.68	1	08/16/23 09:58	08/18/23 17:00	2355-31-9	N2
NMeFOSA	<0.54	ng/L	2.0	0.54	1	08/16/23 09:58	08/18/23 17:00	31506-32-8	N2
NMeFOSE	<0.51	ng/L	2.0	0.51	1	08/16/23 09:58	08/18/23 17:00	24448-09-7	N2
Perfluorobutanesulfonic acid	0.89J	ng/L	1.7	0.48	1	08/16/23 09:58	08/18/23 17:00	375-73-5	N2
Perfluorodecanoic acid	0.80J	ng/L	2.0	0.60	1	08/16/23 09:58	08/18/23 17:00	335-76-2	N2
Perfluorohexanoic acid	1090	ng/L	19.6	8.9	10	08/16/23 09:58	08/21/23 13:26	307-24-4	D6,N2
PFBA	261	ng/L	19.6	4.9	10	08/16/23 09:58	08/21/23 13:26	375-22-4	D6,N2
PFDS	<0.63	ng/L	1.9	0.63	1	08/16/23 09:58	08/18/23 17:00	335-77-3	N2
PFDoS	<0.58	ng/L	1.9	0.58	1	08/16/23 09:58	08/18/23 17:00	79780-39-5	N2
PFHpS	<0.66	ng/L	1.9	0.66	1	08/16/23 09:58	08/18/23 17:00	375-92-8	N2
PFNS	<0.58	ng/L	1.9	0.58	1	08/16/23 09:58	08/18/23 17:00	68259-12-1	N2
PFOSA	<0.70	ng/L	2.0	0.70	1	08/16/23 09:58	08/18/23 17:00	754-91-6	N2
PFPeA	1740	ng/L	19.6	8.1	10	08/16/23 09:58	08/21/23 13:26	2706-90-3	D6,N2
PFPeS	<0.59	ng/L	1.8	0.59	1	08/16/23 09:58	08/18/23 17:00	2706-91-4	N2
Perfluorododecanoic acid	<0.47	ng/L	2.0	0.47	1	08/16/23 09:58	08/18/23 17:00	307-55-1	N2
Perfluoroheptanoic acid	263	ng/L	19.6	6.8	10	08/16/23 09:58	08/21/23 13:26	375-85-9	D6,N2
Perfluorohexanesulfonic acid	<0.52	ng/L	1.8	0.52	1	08/16/23 09:58	08/18/23 17:00	355-46-4	N2
Perfluorononanoic acid	2.7	ng/L	2.0	0.78	1	08/16/23 09:58	08/18/23 17:00	375-95-1	N2
Perfluorooctanesulfonic acid	0.99J	ng/L	1.8	0.65	1	08/16/23 09:58	08/18/23 17:00	1763-23-1	N2
Perfluorooctanoic acid	9.7	ng/L	2.0	0.84	1	08/16/23 09:58	08/18/23 17:00	335-67-1	D6,N2
Perfluorotetradecanoic acid	<0.59	ng/L	2.0	0.59	1	08/16/23 09:58	08/18/23 17:00	376-06-7	N2
Perfluorotridecanoic acid	<0.61	ng/L	2.0	0.61	1	08/16/23 09:58	08/18/23 17:00	72629-94-8	N2
Perfluoroundecanoic acid	<0.48	ng/L	2.0	0.48	1	08/16/23 09:58	08/18/23 17:00	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	20	%	25-150		1	08/16/23 09:58	08/18/23 17:00	375-22-4	S0
13C5-PFPeA (S)	34	%	25-150		1	08/16/23 09:58	08/18/23 17:00	2706-90-3	
13C3-PFBS (S)	51	%	25-150		1	08/16/23 09:58	08/18/23 17:00	375-73-5	
13C24:2FTS (S)	198	%	25-150		1	08/16/23 09:58	08/18/23 17:00		S0
13C3HFPO-DA (S)	43	%	25-150		1	08/16/23 09:58	08/18/23 17:00		
13C4-PFHpA (S)	65	%	25-150		1	08/16/23 09:58	08/18/23 17:00	375-85-9	
13C3-PFHxS (S)	77	%	25-150		1	08/16/23 09:58	08/18/23 17:00	355-46-4	
13C26:2FTS (S)	199	%	25-150		1	08/16/23 09:58	08/18/23 17:00		S0
13C8-PFOA (S)	42	%	25-150		1	08/16/23 09:58	08/18/23 17:00	335-67-1	
13C8-PFOS (S)	75	%	25-150		1	08/16/23 09:58	08/18/23 17:00	1763-23-1	
13C9-PFNA (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 17:00	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: SUMP Lab ID: 40265595020 Collected: 07/24/23 14:52 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	90	%	25-150		1	08/16/23 09:58	08/18/23 17:00	335-76-2	
13C28:2FTS (S)	238	%	25-150		1	08/16/23 09:58	08/18/23 17:00		S0
d3-MeFOSAA (S)	68	%	25-150		1	08/16/23 09:58	08/18/23 17:00	2355-31-9	
13C7-PFUdA (S)	92	%	25-150		1	08/16/23 09:58	08/18/23 17:00	2058-94-8	
13C8-PFOSA (S)	72	%	25-150		1	08/16/23 09:58	08/18/23 17:00	754-91-6	
d5-EtFOSAA (S)	82	%	25-150		1	08/16/23 09:58	08/18/23 17:00	2991-50-6	
13C2-PFDoA (S)	80	%	25-150		1	08/16/23 09:58	08/18/23 17:00		
d3-NMeFOSA (S)	34	%	10-150		1	08/16/23 09:58	08/18/23 17:00	31506-32-8	
d7-NMeFOSE (S)	53	%	10-150		1	08/16/23 09:58	08/18/23 17:00	24448-09-7	
13C2-PFTA (S)	60	%	25-150		1	08/16/23 09:58	08/18/23 17:00		
d9-NEtFOSE (S)	44	%	10-150		1	08/16/23 09:58	08/18/23 17:00	1691-99-2	
d5-NEtFOSA (S)	33	%	10-150		1	08/16/23 09:58	08/18/23 17:00	4151-50-2	
13C5-PFHxA (S)	54	%	25-150		1	08/16/23 09:58	08/18/23 17:00	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: POND Lab ID: 40265595021 Collected: 07/24/23 13:57 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<5.5	ng/L	18.5	5.5	10	08/16/23 09:58	08/18/23 16:24	763051-92-9	N2
4:2 FTS	<4.6	ng/L	18.4	4.6	10	08/16/23 09:58	08/18/23 16:24	757124-72-4	N2
6:2 FTS	388	ng/L	18.7	6.6	10	08/16/23 09:58	08/18/23 16:24	27619-97-2	N2
8:2 FTS	<5.0	ng/L	19.0	5.0	10	08/16/23 09:58	08/18/23 16:24	39108-34-4	N2
9CI-PF3ONS	<4.6	ng/L	18.3	4.6	10	08/16/23 09:58	08/18/23 16:24	756426-58-1	N2
ADONA	<9.0	ng/L	18.6	9.0	10	08/16/23 09:58	08/18/23 16:24	919005-14-4	N2
HFPO-DA	<4.9	ng/L	19.7	4.9	10	08/16/23 09:58	08/18/23 16:24	13252-13-6	N2
NEtFOSAA	<8.0	ng/L	19.7	8.0	10	08/16/23 09:58	08/18/23 16:24	2991-50-6	N2
NEtFOSA	<5.6	ng/L	19.7	5.6	10	08/16/23 09:58	08/18/23 16:24	4151-50-2	N2
NEtFOSE	<8.7	ng/L	19.7	8.7	10	08/16/23 09:58	08/18/23 16:24	1691-99-2	N2
NMeFOSAA	<6.8	ng/L	19.7	6.8	10	08/16/23 09:58	08/18/23 16:24	2355-31-9	N2
NMeFOSA	<5.4	ng/L	19.7	5.4	10	08/16/23 09:58	08/18/23 16:24	31506-32-8	N2
NMeFOSE	<5.1	ng/L	19.7	5.1	10	08/16/23 09:58	08/18/23 16:24	24448-09-7	N2
Perfluorobutanesulfonic acid	8.7J	ng/L	17.4	4.8	10	08/16/23 09:58	08/18/23 16:24	375-73-5	N2
Perfluorodecanoic acid	<6.0	ng/L	19.7	6.0	10	08/16/23 09:58	08/18/23 16:24	335-76-2	N2
Perfluorohexanoic acid	361	ng/L	19.7	9.0	10	08/16/23 09:58	08/18/23 16:24	307-24-4	N2
PFBA	160	ng/L	19.7	4.9	10	08/16/23 09:58	08/18/23 16:24	375-22-4	N2
PFDS	<6.3	ng/L	19.0	6.3	10	08/16/23 09:58	08/18/23 16:24	335-77-3	N2
PFDoS	<5.8	ng/L	19.1	5.8	10	08/16/23 09:58	08/18/23 16:24	79780-39-5	N2
PFHpS	<6.6	ng/L	18.7	6.6	10	08/16/23 09:58	08/18/23 16:24	375-92-8	N2
PFNS	<5.8	ng/L	18.9	5.8	10	08/16/23 09:58	08/18/23 16:24	68259-12-1	N2
PFOSA	<7.1	ng/L	19.7	7.1	10	08/16/23 09:58	08/18/23 16:24	754-91-6	N2
PFPeA	674	ng/L	19.7	8.1	10	08/16/23 09:58	08/18/23 16:24	2706-90-3	N2
PFPeS	<5.9	ng/L	18.5	5.9	10	08/16/23 09:58	08/18/23 16:24	2706-91-4	N2
Perfluorododecanoic acid	<4.7	ng/L	19.7	4.7	10	08/16/23 09:58	08/18/23 16:24	307-55-1	N2
Perfluoroheptanoic acid	132	ng/L	19.7	6.8	10	08/16/23 09:58	08/18/23 16:24	375-85-9	N2
Perfluorohexanesulfonic acid	<5.2	ng/L	17.9	5.2	10	08/16/23 09:58	08/18/23 16:24	355-46-4	N2
Perfluorononanoic acid	<7.8	ng/L	19.7	7.8	10	08/16/23 09:58	08/18/23 16:24	375-95-1	N2
Perfluorooctanesulfonic acid	<6.6	ng/L	18.2	6.6	10	08/16/23 09:58	08/18/23 16:24	1763-23-1	N2
Perfluorooctanoic acid	<8.5	ng/L	19.7	8.5	10	08/16/23 09:58	08/18/23 16:24	335-67-1	N2
Perfluorotetradecanoic acid	<5.9	ng/L	19.7	5.9	10	08/16/23 09:58	08/18/23 16:24	376-06-7	N2
Perfluorotridecanoic acid	<6.1	ng/L	19.7	6.1	10	08/16/23 09:58	08/18/23 16:24	72629-94-8	N2
Perfluoroundecanoic acid	<4.8	ng/L	19.7	4.8	10	08/16/23 09:58	08/18/23 16:24	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	51	%	25-150		10	08/16/23 09:58	08/18/23 16:24	375-22-4	
13C5-PFPeA (S)	80	%	25-150		10	08/16/23 09:58	08/18/23 16:24	2706-90-3	
13C3-PFBS (S)	77	%	25-150		10	08/16/23 09:58	08/18/23 16:24	375-73-5	
13C24:2FTS (S)	175	%	25-150		10	08/16/23 09:58	08/18/23 16:24		S4
13C3HFPO-DA (S)	99	%	25-150		10	08/16/23 09:58	08/18/23 16:24		
13C4-PFHpA (S)	120	%	25-150		10	08/16/23 09:58	08/18/23 16:24	375-85-9	
13C3-PFHxS (S)	120	%	25-150		10	08/16/23 09:58	08/18/23 16:24	355-46-4	
13C26:2FTS (S)	217	%	25-150		10	08/16/23 09:58	08/18/23 16:24		S4
13C8-PFOA (S)	127	%	25-150		10	08/16/23 09:58	08/18/23 16:24	335-67-1	
13C8-PFOS (S)	127	%	25-150		10	08/16/23 09:58	08/18/23 16:24	1763-23-1	
13C9-PFNA (S)	141	%	25-150		10	08/16/23 09:58	08/18/23 16:24	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: POND Lab ID: 40265595021 Collected: 07/24/23 13:57 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	131	%	25-150		10	08/16/23 09:58	08/18/23 16:24	335-76-2	
13C28:2FTS (S)	149	%	25-150		10	08/16/23 09:58	08/18/23 16:24		
d3-MeFOSAA (S)	104	%	25-150		10	08/16/23 09:58	08/18/23 16:24	2355-31-9	
13C7-PFUdA (S)	127	%	25-150		10	08/16/23 09:58	08/18/23 16:24	2058-94-8	
13C8-PFOSA (S)	108	%	25-150		10	08/16/23 09:58	08/18/23 16:24	754-91-6	
d5-EtFOSAA (S)	109	%	25-150		10	08/16/23 09:58	08/18/23 16:24	2991-50-6	
13C2-PFDoA (S)	100	%	25-150		10	08/16/23 09:58	08/18/23 16:24		
d3-NMeFOSA (S)	53	%	10-150		10	08/16/23 09:58	08/18/23 16:24	31506-32-8	
d7-NMeFOSE (S)	73	%	10-150		10	08/16/23 09:58	08/18/23 16:24	24448-09-7	
13C2-PFTA (S)	71	%	25-150		10	08/16/23 09:58	08/18/23 16:24		
d9-NEtFOSE (S)	66	%	10-150		10	08/16/23 09:58	08/18/23 16:24	1691-99-2	
d5-NEtFOSA (S)	49	%	10-150		10	08/16/23 09:58	08/18/23 16:24	4151-50-2	
13C5-PFHxA (S)	104	%	25-150		10	08/16/23 09:58	08/18/23 16:24	307-24-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: TRIP BLANK Lab ID: 40265595022 Collected: 07/24/23 13:59 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.54	ng/L	1.8	0.54	1	08/16/23 09:58	08/18/23 16:31	763051-92-9	N2
4:2 FTS	<0.45	ng/L	1.8	0.45	1	08/16/23 09:58	08/18/23 16:31	757124-72-4	N2
6:2 FTS	<0.65	ng/L	1.8	0.65	1	08/16/23 09:58	08/18/23 16:31	27619-97-2	N2
8:2 FTS	<0.49	ng/L	1.9	0.49	1	08/16/23 09:58	08/18/23 16:31	39108-34-4	N2
9CI-PF3ONS	<0.45	ng/L	1.8	0.45	1	08/16/23 09:58	08/18/23 16:31	756426-58-1	N2
ADONA	<0.89	ng/L	1.8	0.89	1	08/16/23 09:58	08/18/23 16:31	919005-14-4	N2
HFPO-DA	<0.48	ng/L	1.9	0.48	1	08/16/23 09:58	08/18/23 16:31	13252-13-6	N2
NEtFOSAA	<0.79	ng/L	1.9	0.79	1	08/16/23 09:58	08/18/23 16:31	2991-50-6	N2
NEtFOSA	<0.55	ng/L	1.9	0.55	1	08/16/23 09:58	08/18/23 16:31	4151-50-2	N2
NEtFOSE	<0.86	ng/L	1.9	0.86	1	08/16/23 09:58	08/18/23 16:31	1691-99-2	N2
NMeFOSAA	<0.67	ng/L	1.9	0.67	1	08/16/23 09:58	08/18/23 16:31	2355-31-9	N2
NMeFOSA	<0.53	ng/L	1.9	0.53	1	08/16/23 09:58	08/18/23 16:31	31506-32-8	N2
NMeFOSE	<0.50	ng/L	1.9	0.50	1	08/16/23 09:58	08/18/23 16:31	24448-09-7	N2
Perfluorobutanesulfonic acid	<0.47	ng/L	1.7	0.47	1	08/16/23 09:58	08/18/23 16:31	375-73-5	N2
Perfluorodecanoic acid	<0.59	ng/L	1.9	0.59	1	08/16/23 09:58	08/18/23 16:31	335-76-2	N2
Perfluorohexanoic acid	<0.88	ng/L	1.9	0.88	1	08/16/23 09:58	08/18/23 16:31	307-24-4	N2
PFBA	<0.48	ng/L	1.9	0.48	1	08/16/23 09:58	08/18/23 16:31	375-22-4	N2
PFDS	<0.62	ng/L	1.9	0.62	1	08/16/23 09:58	08/18/23 16:31	335-77-3	N2
PFDoS	<0.57	ng/L	1.9	0.57	1	08/16/23 09:58	08/18/23 16:31	79780-39-5	N2
PFHpS	<0.65	ng/L	1.8	0.65	1	08/16/23 09:58	08/18/23 16:31	375-92-8	N2
PFNS	<0.57	ng/L	1.9	0.57	1	08/16/23 09:58	08/18/23 16:31	68259-12-1	N2
PFOSA	<0.69	ng/L	1.9	0.69	1	08/16/23 09:58	08/18/23 16:31	754-91-6	N2
PFPeA	<0.79	ng/L	1.9	0.79	1	08/16/23 09:58	08/18/23 16:31	2706-90-3	N2
PFPeS	<0.58	ng/L	1.8	0.58	1	08/16/23 09:58	08/18/23 16:31	2706-91-4	N2
Perfluorododecanoic acid	<0.46	ng/L	1.9	0.46	1	08/16/23 09:58	08/18/23 16:31	307-55-1	N2
Perfluoroheptanoic acid	<0.67	ng/L	1.9	0.67	1	08/16/23 09:58	08/18/23 16:31	375-85-9	N2
Perfluorohexanesulfonic acid	<0.51	ng/L	1.8	0.51	1	08/16/23 09:58	08/18/23 16:31	355-46-4	N2
Perfluorononanoic acid	<0.77	ng/L	1.9	0.77	1	08/16/23 09:58	08/18/23 16:31	375-95-1	N2
Perfluorooctanesulfonic acid	<0.64	ng/L	1.8	0.64	1	08/16/23 09:58	08/18/23 16:31	1763-23-1	N2
Perfluorooctanoic acid	<0.83	ng/L	1.9	0.83	1	08/16/23 09:58	08/18/23 16:31	335-67-1	N2
Perfluorotetradecanoic acid	<0.58	ng/L	1.9	0.58	1	08/16/23 09:58	08/18/23 16:31	376-06-7	N2
Perfluorotridecanoic acid	<0.60	ng/L	1.9	0.60	1	08/16/23 09:58	08/18/23 16:31	72629-94-8	N2
Perfluoroundecanoic acid	<0.47	ng/L	1.9	0.47	1	08/16/23 09:58	08/18/23 16:31	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	69	%	25-150		1	08/16/23 09:58	08/18/23 16:31	375-22-4	
13C5-PFPeA (S)	82	%	25-150		1	08/16/23 09:58	08/18/23 16:31	2706-90-3	
13C3-PFBS (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 16:31	375-73-5	
13C24:2FTS (S)	96	%	25-150		1	08/16/23 09:58	08/18/23 16:31		
13C3HFPO-DA (S)	84	%	25-150		1	08/16/23 09:58	08/18/23 16:31		
13C4-PFHpA (S)	89	%	25-150		1	08/16/23 09:58	08/18/23 16:31	375-85-9	
13C3-PFHxS (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 16:31	355-46-4	
13C26:2FTS (S)	160	%	25-150		1	08/16/23 09:58	08/18/23 16:31		S3
13C8-PFOA (S)	85	%	25-150		1	08/16/23 09:58	08/18/23 16:31	335-67-1	
13C8-PFOS (S)	56	%	25-150		1	08/16/23 09:58	08/18/23 16:31	1763-23-1	
13C9-PFNA (S)	66	%	25-150		1	08/16/23 09:58	08/18/23 16:31	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: TRIP BLANK Lab ID: 40265595022 Collected: 07/24/23 13:59 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW** Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	59	%	25-150		1	08/16/23 09:58	08/18/23 16:31	335-76-2	
13C28:2FTS (S)	82	%	25-150		1	08/16/23 09:58	08/18/23 16:31		
d3-MeFOSAA (S)	49	%	25-150		1	08/16/23 09:58	08/18/23 16:31	2355-31-9	
13C7-PFUdA (S)	59	%	25-150		1	08/16/23 09:58	08/18/23 16:31	2058-94-8	
13C8-PFOSA (S)	59	%	25-150		1	08/16/23 09:58	08/18/23 16:31	754-91-6	
d5-EtFOSAA (S)	57	%	25-150		1	08/16/23 09:58	08/18/23 16:31	2991-50-6	
13C2-PFDoA (S)	59	%	25-150		1	08/16/23 09:58	08/18/23 16:31		
d3-NMeFOSA (S)	33	%	10-150		1	08/16/23 09:58	08/18/23 16:31	31506-32-8	
d7-NMeFOSE (S)	46	%	10-150		1	08/16/23 09:58	08/18/23 16:31	24448-09-7	
13C2-PFTA (S)	55	%	25-150		1	08/16/23 09:58	08/18/23 16:31		
d9-NEtFOSE (S)	46	%	10-150		1	08/16/23 09:58	08/18/23 16:31	1691-99-2	
d5-NEtFOSA (S)	32	%	10-150		1	08/16/23 09:58	08/18/23 16:31	4151-50-2	
13C5-PFHxA (S)	87	%	25-150		1	08/16/23 09:58	08/18/23 16:31	307-24-4	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: FIELD BLANK 1 Lab ID: 40265595023 Collected: 07/24/23 09:00 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b> Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.55	ng/L	1.9	0.55	1	08/16/23 09:58	08/18/23 16:10	763051-92-9	N2
4:2 FTS	<0.46	ng/L	1.8	0.46	1	08/16/23 09:58	08/18/23 16:10	757124-72-4	N2
6:2 FTS	<0.67	ng/L	1.9	0.67	1	08/16/23 09:58	08/18/23 16:10	27619-97-2	N2
8:2 FTS	<0.50	ng/L	1.9	0.50	1	08/16/23 09:58	08/18/23 16:10	39108-34-4	N2
9CI-PF3ONS	<0.46	ng/L	1.8	0.46	1	08/16/23 09:58	08/18/23 16:10	756426-58-1	N2
ADONA	<0.91	ng/L	1.9	0.91	1	08/16/23 09:58	08/18/23 16:10	919005-14-4	N2
HFPO-DA	<0.49	ng/L	2.0	0.49	1	08/16/23 09:58	08/18/23 16:10	13252-13-6	N2
NEtFOSAA	<0.81	ng/L	2.0	0.81	1	08/16/23 09:58	08/18/23 16:10	2991-50-6	N2
NEtFOSA	<0.57	ng/L	2.0	0.57	1	08/16/23 09:58	08/18/23 16:10	4151-50-2	N2
NEtFOSE	<0.88	ng/L	2.0	0.88	1	08/16/23 09:58	08/18/23 16:10	1691-99-2	N2
NMeFOSAA	<0.69	ng/L	2.0	0.69	1	08/16/23 09:58	08/18/23 16:10	2355-31-9	N2
NMeFOSA	<0.55	ng/L	2.0	0.55	1	08/16/23 09:58	08/18/23 16:10	31506-32-8	N2
NMeFOSE	<0.52	ng/L	2.0	0.52	1	08/16/23 09:58	08/18/23 16:10	24448-09-7	N2
Perfluorobutanesulfonic acid	<0.48	ng/L	1.8	0.48	1	08/16/23 09:58	08/18/23 16:10	375-73-5	N2
Perfluorodecanoic acid	<0.60	ng/L	2.0	0.60	1	08/16/23 09:58	08/18/23 16:10	335-76-2	N2
Perfluorohexanoic acid	<0.90	ng/L	2.0	0.90	1	08/16/23 09:58	08/18/23 16:10	307-24-4	N2
PFBA	<0.49	ng/L	2.0	0.49	1	08/16/23 09:58	08/18/23 16:10	375-22-4	N2
PFDS	<0.63	ng/L	1.9	0.63	1	08/16/23 09:58	08/18/23 16:10	335-77-3	N2
PFDoS	<0.58	ng/L	1.9	0.58	1	08/16/23 09:58	08/18/23 16:10	79780-39-5	N2
PFHpS	<0.66	ng/L	1.9	0.66	1	08/16/23 09:58	08/18/23 16:10	375-92-8	N2
PFNS	<0.58	ng/L	1.9	0.58	1	08/16/23 09:58	08/18/23 16:10	68259-12-1	N2
PFOSA	<0.71	ng/L	2.0	0.71	1	08/16/23 09:58	08/18/23 16:10	754-91-6	N2
PFPeA	<0.81	ng/L	2.0	0.81	1	08/16/23 09:58	08/18/23 16:10	2706-90-3	N2
PFPeS	<0.59	ng/L	1.9	0.59	1	08/16/23 09:58	08/18/23 16:10	2706-91-4	N2
Perfluorododecanoic acid	<0.47	ng/L	2.0	0.47	1	08/16/23 09:58	08/18/23 16:10	307-55-1	N2
Perfluoroheptanoic acid	<0.68	ng/L	2.0	0.68	1	08/16/23 09:58	08/18/23 16:10	375-85-9	N2
Perfluorohexanesulfonic acid	<0.53	ng/L	1.8	0.53	1	08/16/23 09:58	08/18/23 16:10	355-46-4	N2
Perfluorononanoic acid	<0.79	ng/L	2.0	0.79	1	08/16/23 09:58	08/18/23 16:10	375-95-1	N2
Perfluorooctanesulfonic acid	<0.66	ng/L	1.8	0.66	1	08/16/23 09:58	08/18/23 16:10	1763-23-1	N2
Perfluorooctanoic acid	<0.85	ng/L	2.0	0.85	1	08/16/23 09:58	08/18/23 16:10	335-67-1	N2
Perfluorotetradecanoic acid	<0.59	ng/L	2.0	0.59	1	08/16/23 09:58	08/18/23 16:10	376-06-7	N2
Perfluorotridecanoic acid	<0.62	ng/L	2.0	0.62	1	08/16/23 09:58	08/18/23 16:10	72629-94-8	N2
Perfluoroundecanoic acid	<0.48	ng/L	2.0	0.48	1	08/16/23 09:58	08/18/23 16:10	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	76	%	25-150		1	08/16/23 09:58	08/18/23 16:10	375-22-4	
13C5-PFPeA (S)	86	%	25-150		1	08/16/23 09:58	08/18/23 16:10	2706-90-3	
13C3-PFBS (S)	87	%	25-150		1	08/16/23 09:58	08/18/23 16:10	375-73-5	
13C24:2FTS (S)	101	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
13C3HFPO-DA (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
13C4-PFHpA (S)	93	%	25-150		1	08/16/23 09:58	08/18/23 16:10	375-85-9	
13C3-PFHxS (S)	95	%	25-150		1	08/16/23 09:58	08/18/23 16:10	355-46-4	
13C26:2FTS (S)	147	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
13C8-PFOA (S)	96	%	25-150		1	08/16/23 09:58	08/18/23 16:10	335-67-1	
13C8-PFOS (S)	70	%	25-150		1	08/16/23 09:58	08/18/23 16:10	1763-23-1	
13C9-PFNA (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 16:10	375-95-1	

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: FIELD BLANK 1 Lab ID: 40265595023 Collected: 07/24/23 09:00 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	69	%	25-150		1	08/16/23 09:58	08/18/23 16:10	335-76-2	
13C28:2FTS (S)	80	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
d3-MeFOSAA (S)	54	%	25-150		1	08/16/23 09:58	08/18/23 16:10	2355-31-9	
13C7-PFUdA (S)	68	%	25-150		1	08/16/23 09:58	08/18/23 16:10	2058-94-8	
13C8-PFOSA (S)	68	%	25-150		1	08/16/23 09:58	08/18/23 16:10	754-91-6	
d5-EtFOSAA (S)	59	%	25-150		1	08/16/23 09:58	08/18/23 16:10	2991-50-6	
13C2-PFDoA (S)	65	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
d3-NMeFOSA (S)	44	%	10-150		1	08/16/23 09:58	08/18/23 16:10	31506-32-8	
d7-NMeFOSE (S)	47	%	10-150		1	08/16/23 09:58	08/18/23 16:10	24448-09-7	
13C2-PFTA (S)	58	%	25-150		1	08/16/23 09:58	08/18/23 16:10		
d9-NEtFOSE (S)	48	%	10-150		1	08/16/23 09:58	08/18/23 16:10	1691-99-2	
d5-NEtFOSA (S)	41	%	10-150		1	08/16/23 09:58	08/18/23 16:10	4151-50-2	
13C5-PFHxA (S)	90	%	25-150		1	08/16/23 09:58	08/18/23 16:10	307-24-4	

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## ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: FIELD BLANK 2 Lab ID: 40265595024 Collected: 07/24/23 13:45 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WI ID NPW</b>									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.57	ng/L	1.9	0.57	1	08/16/23 09:58	08/18/23 16:17	763051-92-9	N2
4:2 FTS	<0.48	ng/L	1.9	0.48	1	08/16/23 09:58	08/18/23 16:17	757124-72-4	N2
6:2 FTS	<0.69	ng/L	1.9	0.69	1	08/16/23 09:58	08/18/23 16:17	27619-97-2	N2
8:2 FTS	<0.51	ng/L	2.0	0.51	1	08/16/23 09:58	08/18/23 16:17	39108-34-4	N2
9CI-PF3ONS	<0.48	ng/L	1.9	0.48	1	08/16/23 09:58	08/18/23 16:17	756426-58-1	N2
ADONA	<0.94	ng/L	1.9	0.94	1	08/16/23 09:58	08/18/23 16:17	919005-14-4	N2
HFPO-DA	<0.50	ng/L	2.0	0.50	1	08/16/23 09:58	08/18/23 16:17	13252-13-6	N2
NEtFOSAA	<0.83	ng/L	2.0	0.83	1	08/16/23 09:58	08/18/23 16:17	2991-50-6	N2
NEtFOSA	<0.59	ng/L	2.0	0.59	1	08/16/23 09:58	08/18/23 16:17	4151-50-2	N2
NEtFOSE	<0.91	ng/L	2.0	0.91	1	08/16/23 09:58	08/18/23 16:17	1691-99-2	N2
NMeFOSAA	<0.71	ng/L	2.0	0.71	1	08/16/23 09:58	08/18/23 16:17	2355-31-9	N2
NMeFOSA	<0.56	ng/L	2.0	0.56	1	08/16/23 09:58	08/18/23 16:17	31506-32-8	N2
NMeFOSE	<0.53	ng/L	2.0	0.53	1	08/16/23 09:58	08/18/23 16:17	24448-09-7	N2
Perfluorobutanesulfonic acid	<0.50	ng/L	1.8	0.50	1	08/16/23 09:58	08/18/23 16:17	375-73-5	N2
Perfluorodecanoic acid	<0.62	ng/L	2.0	0.62	1	08/16/23 09:58	08/18/23 16:17	335-76-2	N2
Perfluorohexanoic acid	<0.93	ng/L	2.0	0.93	1	08/16/23 09:58	08/18/23 16:17	307-24-4	N2
PFBA	<0.51	ng/L	2.0	0.51	1	08/16/23 09:58	08/18/23 16:17	375-22-4	N2
PFDS	<0.65	ng/L	2.0	0.65	1	08/16/23 09:58	08/18/23 16:17	335-77-3	N2
PFDoS	<0.60	ng/L	2.0	0.60	1	08/16/23 09:58	08/18/23 16:17	79780-39-5	N2
PFHpS	<0.68	ng/L	1.9	0.68	1	08/16/23 09:58	08/18/23 16:17	375-92-8	N2
PFNS	<0.60	ng/L	2.0	0.60	1	08/16/23 09:58	08/18/23 16:17	68259-12-1	N2
PFOSA	<0.73	ng/L	2.0	0.73	1	08/16/23 09:58	08/18/23 16:17	754-91-6	N2
PFPeA	<0.84	ng/L	2.0	0.84	1	08/16/23 09:58	08/18/23 16:17	2706-90-3	N2
PFPeS	<0.61	ng/L	1.9	0.61	1	08/16/23 09:58	08/18/23 16:17	2706-91-4	N2
Perfluorododecanoic acid	<0.49	ng/L	2.0	0.49	1	08/16/23 09:58	08/18/23 16:17	307-55-1	N2
Perfluoroheptanoic acid	<0.70	ng/L	2.0	0.70	1	08/16/23 09:58	08/18/23 16:17	375-85-9	N2
Perfluorohexanesulfonic acid	<0.54	ng/L	1.9	0.54	1	08/16/23 09:58	08/18/23 16:17	355-46-4	N2
Perfluorononanoic acid	<0.81	ng/L	2.0	0.81	1	08/16/23 09:58	08/18/23 16:17	375-95-1	N2
Perfluorooctanesulfonic acid	<0.68	ng/L	1.9	0.68	1	08/16/23 09:58	08/18/23 16:17	1763-23-1	N2
Perfluorooctanoic acid	<0.88	ng/L	2.0	0.88	1	08/16/23 09:58	08/18/23 16:17	335-67-1	N2
Perfluorotetradecanoic acid	<0.61	ng/L	2.0	0.61	1	08/16/23 09:58	08/18/23 16:17	376-06-7	N2
Perfluorotridecanoic acid	<0.64	ng/L	2.0	0.64	1	08/16/23 09:58	08/18/23 16:17	72629-94-8	N2
Perfluoroundecanoic acid	<0.50	ng/L	2.0	0.50	1	08/16/23 09:58	08/18/23 16:17	2058-94-8	N2
<b>Surrogates</b>									
13C4-PFBA (S)	74	%	25-150		1	08/16/23 09:58	08/18/23 16:17	375-22-4	
13C5-PFPeA (S)	84	%	25-150		1	08/16/23 09:58	08/18/23 16:17	2706-90-3	
13C3-PFBS (S)	85	%	25-150		1	08/16/23 09:58	08/18/23 16:17	375-73-5	
13C24:2FTS (S)	100	%	25-150		1	08/16/23 09:58	08/18/23 16:17		
13C3HFPO-DA (S)	83	%	25-150		1	08/16/23 09:58	08/18/23 16:17		
13C4-PFHpA (S)	93	%	25-150		1	08/16/23 09:58	08/18/23 16:17	375-85-9	
13C3-PFHxS (S)	89	%	25-150		1	08/16/23 09:58	08/18/23 16:17	355-46-4	
13C26:2FTS (S)	156	%	25-150		1	08/16/23 09:58	08/18/23 16:17		S3
13C8-PFOA (S)	93	%	25-150		1	08/16/23 09:58	08/18/23 16:17	335-67-1	
13C8-PFOS (S)	60	%	25-150		1	08/16/23 09:58	08/18/23 16:17	1763-23-1	
13C9-PFNA (S)	76	%	25-150		1	08/16/23 09:58	08/18/23 16:17	375-95-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: SOLBERG PFAS

Pace Project No.: 40265595

Sample: FIELD BLANK 2 Lab ID: 40265595024 Collected: 07/24/23 13:45 Received: 07/24/23 15:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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**WI ID NPW**

Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178  
Pace Analytical Services - Minneapolis

**Surrogates**

13C6-PFDA (S)	66	%	25-150		1	08/16/23 09:58	08/18/23 16:17	335-76-2	
13C28:2FTS (S)	74	%	25-150		1	08/16/23 09:58	08/18/23 16:17		
d3-MeFOSAA (S)	53	%	25-150		1	08/16/23 09:58	08/18/23 16:17	2355-31-9	
13C7-PFUdA (S)	64	%	25-150		1	08/16/23 09:58	08/18/23 16:17	2058-94-8	
13C8-PFOSA (S)	74	%	25-150		1	08/16/23 09:58	08/18/23 16:17	754-91-6	
d5-EtFOSAA (S)	64	%	25-150		1	08/16/23 09:58	08/18/23 16:17	2991-50-6	
13C2-PFDoA (S)	63	%	25-150		1	08/16/23 09:58	08/18/23 16:17		
d3-NMeFOSA (S)	54	%	10-150		1	08/16/23 09:58	08/18/23 16:17	31506-32-8	
d7-NMeFOSE (S)	62	%	10-150		1	08/16/23 09:58	08/18/23 16:17	24448-09-7	
13C2-PFTA (S)	58	%	25-150		1	08/16/23 09:58	08/18/23 16:17		
d9-NEtFOSE (S)	58	%	10-150		1	08/16/23 09:58	08/18/23 16:17	1691-99-2	
d5-NEtFOSA (S)	54	%	10-150		1	08/16/23 09:58	08/18/23 16:17	4151-50-2	
13C5-PFHxA (S)	90	%	25-150		1	08/16/23 09:58	08/18/23 16:17	307-24-4	

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QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

QC Batch: 898848 Analysis Method: ENV-SOP-MIN4-0178

QC Batch Method: ENV-SOP-MIN4-0178 Analysis Description: WI ID NPW

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 40265595001, 40265595002, 40265595003, 40265595004, 40265595005, 40265595006, 40265595007, 40265595008, 40265595009, 40265595010, 40265595011, 40265595012, 40265595013, 40265595014, 40265595015, 40265595016, 40265595017

METHOD BLANK: 4734321 Matrix: Water

Associated Lab Samples: 40265595001, 40265595002, 40265595003, 40265595004, 40265595005, 40265595006, 40265595007, 40265595008, 40265595009, 40265595010, 40265595011, 40265595012, 40265595013, 40265595014, 40265595015, 40265595016, 40265595017

Table with 6 columns: Parameter, Units, Blank Result, Reporting Limit, Analyzed, Qualifiers. Lists various chemical compounds and their analysis results.

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.

REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

METHOD BLANK: 4734321

Matrix: Water

Associated Lab Samples: 40265595001, 40265595002, 40265595003, 40265595004, 40265595005, 40265595006, 40265595007, 40265595008, 40265595009, 40265595010, 40265595011, 40265595012, 40265595013, 40265595014, 40265595015, 40265595016, 40265595017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C28:2FTS (S)	%	161	25-150	08/18/23 13:14	S3
13C3-PFBS (S)	%	147	25-150	08/18/23 13:14	
13C3-PFHxS (S)	%	143	25-150	08/18/23 13:14	
13C3HFPO-DA (S)	%	145	25-150	08/18/23 13:14	
13C4-PFBA (S)	%	154	25-150	08/18/23 13:14	S3
13C4-PFHpA (S)	%	145	25-150	08/18/23 13:14	
13C5-PFHxA (S)	%	146	25-150	08/18/23 13:14	
13C5-PFPeA (S)	%	149	25-150	08/18/23 13:14	
13C6-PFDA (S)	%	102	25-150	08/18/23 13:14	
13C7-PFUdA (S)	%	99	25-150	08/18/23 13:14	
13C8-PFOA (S)	%	141	25-150	08/18/23 13:14	
13C8-PFOS (S)	%	106	25-150	08/18/23 13:14	
13C8-PFOSA (S)	%	95	25-150	08/18/23 13:14	
13C9-PFNA (S)	%	109	25-150	08/18/23 13:14	
d3-MeFOSAA (S)	%	82	25-150	08/18/23 13:14	
d3-NMeFOSA (S)	%	90	20-150	08/18/23 13:14	
d5-EtFOSAA (S)	%	95	25-150	08/18/23 13:14	
d5-NEtFOSA (S)	%	94	20-150	08/18/23 13:14	
d7-NMeFOSE (S)	%	100	20-150	08/18/23 13:14	
d9-NEtFOSE (S)	%	97	20-150	08/18/23 13:14	

LABORATORY CONTROL SAMPLE & LCSD: 4734322

4734323

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ng/L	3.7	3.0	3.2	81	89	50-150	6	30	
4:2 FTS	ng/L	3.7	3.5	3.2	95	88	50-150	10	30	
6:2 FTS	ng/L	3.8	3.8	4.0	100	108	50-150	5	30	
8:2 FTS	ng/L	3.8	3.6	3.8	95	102	50-150	5	30	
9CI-PF3ONS	ng/L	3.7	3.3	3.1	90	86	50-150	8	30	
ADONA	ng/L	3.7	3.3	3.3	90	90	50-150	2	30	
HFPO-DA	ng/L	3.9	3.5	3.6	88	94	50-150	5	30	
NEtFOSA	ng/L	3.9	3.5	3.6	90	93	50-150	1	30	
NEtFOSAA	ng/L	3.9	3.2	4.0	81	105	50-150	23	30	
NEtFOSE	ng/L	3.9	3.8	3.4	97	89	50-150	11	30	
NMeFOSA	ng/L	3.9	3.6	3.8	92	98	50-150	4	30	
NMeFOSAA	ng/L	3.9	3.2	3.8	80	98	50-150	17	30	
NMeFOSE	ng/L	3.9	3.1	3.5	79	92	50-150	13	30	
Perfluorobutanesulfonic acid	ng/L	3.5	4.0	3.5	115	104	50-150	13	30	
Perfluorodecanoic acid	ng/L	3.9	3.4	3.4	85	89	50-150	2	30	
Perfluorododecanoic acid	ng/L	3.9	3.3	3.4	83	88	50-150	3	30	
Perfluoroheptanoic acid	ng/L	3.9	3.5	3.2	88	83	50-150	9	30	
Perfluorohexanesulfonic acid	ng/L	3.6	3.1	3.4	86	97	50-150	10	30	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

LABORATORY CONTROL SAMPLE & LCSD: 4734322		4734323								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Perfluorohexanoic acid	ng/L	3.9	3.8	4.2	97	109	50-150	8	30	
Perfluorononanoic acid	ng/L	3.9	3.2	3.6	81	92	50-150	11	30	
Perfluorooctanesulfonic acid	ng/L	3.7	3.9	3.6	107	102	50-150	8	30	
Perfluorooctanoic acid	ng/L	3.9	3.9	3.8	98	98	50-150	2	30	
Perfluorotetradecanoic acid	ng/L	3.9	3.2	3.7	82	95	50-150	12	30	
Perfluorotridecanoic acid	ng/L	3.9	3.2	3.7	81	96	50-150	14	30	
Perfluoroundecanoic acid	ng/L	3.9	3.6	3.2	90	83	50-150	11	30	
PFBA	ng/L	3.9	4.5	6.1	113	159	50-150	31	30	L1,R1
PFDoS	ng/L	3.8	3.0	2.6	79	70	50-150	15	30	
PFDS	ng/L	3.8	2.5	3.2	65	85	50-150	24	30	
PFHpS	ng/L	3.8	3.9	4.0	104	108	50-150	1	30	
PFNS	ng/L	3.8	3.1	3.2	83	88	50-150	3	30	
PFOSA	ng/L	3.9	3.6	3.8	90	100	50-150	8	30	
PFPeA	ng/L	3.9	3.9	4.8	98	125	50-150	22	30	
PFPeS	ng/L	3.7	3.2	3.5	88	97	50-150	8	30	
13C2-PFDoA (S)	%				99	119	25-150			
13C2-PFTA (S)	%				87	114	25-150			
13C24:2FTS (S)	%				93	161	25-150			S0
13C26:2FTS (S)	%				108	154	25-150			S0
13C28:2FTS (S)	%				132	174	25-150			S0
13C3-PFBS (S)	%				112	155	25-150			S0
13C3-PFHxS (S)	%				120	152	25-150			S0
13C3HFPO-DA (S)	%				106	153	25-150			S0
13C4-PFBA (S)	%				99	165	25-150			S0
13C4-PFHpA (S)	%				128	151	25-150			S0
13C5-PFHxA (S)	%				125	153	25-150			S0
13C5-PFPeA (S)	%				110	157	25-150			S0
13C6-PFDA (S)	%				111	127	25-150			
13C7-PFUdA (S)	%				102	128	25-150			
13C8-PFOA (S)	%				128	155	25-150			S0
13C8-PFOS (S)	%				100	134	25-150			
13C8-PFOSA (S)	%				94	113	25-150			
13C9-PFNA (S)	%				119	132	25-150			
d3-MeFOSAA (S)	%				91	106	25-150			
d3-NMeFOSA (S)	%				85	92	20-150			
d5-EtFOSAA (S)	%				101	106	25-150			
d5-NEtFOSA (S)	%				86	91	20-150			
d7-NMeFOSE (S)	%				102	115	20-150			
d9-NEtFOSE (S)	%				90	117	20-150			

MATRIX SPIKE SAMPLE: 4737328

Parameter	Units	40265849001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	ND	3.8	2.6	69	50-150	
4:2 FTS	ng/L	ND	3.8	3.7	99	50-150	

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QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

MATRIX SPIKE SAMPLE: 4737328		40265849001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
6:2 FTS	ng/L	ND	3.8	3.6	95	50-150	
8:2 FTS	ng/L	ND	3.9	3.7	95	50-150	
9Cl-PF3ONS	ng/L	ND	3.8	3.3	89	50-150	
ADONA	ng/L	ND	3.8	3.0	78	50-150	
HFPO-DA	ng/L	ND	4	3.3	81	50-150	
NEtFOSA	ng/L	ND	4	3.7	92	50-150	
NEtFOSAA	ng/L	ND	4	4.1	95	50-150	
NEtFOSE	ng/L	ND	4	3.9	98	50-150	
NMeFOSA	ng/L	ND	4	4.7	118	50-150	
NMeFOSAA	ng/L	ND	4	3.5	88	50-150	
NMeFOSE	ng/L	ND	4	2.7	68	50-150	
Perfluorobutanesulfonic acid	ng/L	1.8	3.5	3.3	43	50-150	M1
Perfluorodecanoic acid	ng/L	ND	4	3.7	91	50-150	
Perfluorododecanoic acid	ng/L	ND	4	3.5	87	50-150	
Perfluoroheptanoic acid	ng/L	ND	4	4.5	85	50-150	
Perfluorohexanesulfonic acid	ng/L	ND	3.7	4.9	112	50-150	
Perfluorohexanoic acid	ng/L	2.8	4	6.0	80	50-150	
Perfluorononanoic acid	ng/L	ND	4	3.9	86	50-150	
Perfluorooctanesulfonic acid	ng/L	1.9	3.7	5.2	90	50-150	
Perfluorooctanoic acid	ng/L	ND	4	5.3	94	50-150	
Perfluorotetradecanoic acid	ng/L	ND	4	3.2	80	50-150	
Perfluorotridecanoic acid	ng/L	ND	4	2.7	68	50-150	
Perfluoroundecanoic acid	ng/L	ND	4	3.5	88	50-150	
PFBA	ng/L	7.4	4	12.3	122	50-150	
PFDoS	ng/L	ND	3.9	1.8J	47	50-150	M1
PFDS	ng/L	ND	3.9	2.8	73	50-150	
PFHpS	ng/L	ND	3.8	3.2	84	50-150	
PFNS	ng/L	ND	3.9	3.4	87	50-150	
PFOSA	ng/L	ND	4	3.5	85	50-150	
PFPeA	ng/L	ND	4	3.9	69	50-150	
PFPeS	ng/L	ND	3.8	3.9	100	50-150	
13C2-PFDoA (S)	%				105	25-150	
13C2-PFTA (S)	%				75	25-150	
13C24:2FTS (S)	%				283	25-150	S0
13C26:2FTS (S)	%				415	25-150	S0
13C28:2FTS (S)	%				356	25-150	S0
13C3-PFBS (S)	%				73	25-150	
13C3-PFHxS (S)	%				102	25-150	
13C3HFPO-DA (S)	%				59	25-150	
13C4-PFBA (S)	%				11	25-150	S0
13C4-PFHpA (S)	%				105	25-150	
13C5-PFHxA (S)	%				89	25-150	
13C5-PFPeA (S)	%				51	25-150	
13C6-PFDA (S)	%				131	25-150	
13C7-PFUdA (S)	%				127	25-150	
13C8-PFOA (S)	%				112	25-150	
13C8-PFOS (S)	%				112	25-150	

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

MATRIX SPIKE SAMPLE: 4737328		40265849001	Spike	MS	MS	% Rec	Qualifiers
Parameter	Units	Result	Conc.	Result	% Rec	Limits	
13C8-PFOA (S)	%				96	25-150	
13C9-PFNA (S)	%				128	25-150	
d3-MeFOSAA (S)	%				113	25-150	
d3-NMeFOSA (S)	%				46	10-150	
d5-EtFOSAA (S)	%				120	25-150	
d5-NEtFOSA (S)	%				46	10-150	
d7-NMeFOSE (S)	%				64	10-150	
d9-NEtFOSE (S)	%				55	10-150	

SAMPLE DUPLICATE: 4737329

Parameter	Units	40265849002	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
11Cl-PF3OUdS	ng/L	ND	<0.55		30	
4:2 FTS	ng/L	ND	<0.46		30	
6:2 FTS	ng/L	ND	<0.67		30	
8:2 FTS	ng/L	ND	<0.50		30	
9Cl-PF3ONS	ng/L	ND	<0.47		30	
ADONA	ng/L	ND	<0.91		30	
HFPO-DA	ng/L	ND	<0.49		30	
NEtFOSA	ng/L	ND	<0.57		30	
NEtFOSAA	ng/L	ND	<0.81		30	
NEtFOSE	ng/L	ND	<0.89		30	
NMeFOSA	ng/L	ND	<0.55		30	
NMeFOSAA	ng/L	ND	<0.69		30	
NMeFOSE	ng/L	ND	<0.52		30	
Perfluorobutanesulfonic acid	ng/L	ND	0.85J		30	
Perfluorodecanoic acid	ng/L	ND	<0.61		30	
Perfluorododecanoic acid	ng/L	ND	<0.48		30	
Perfluoroheptanoic acid	ng/L	ND	0.90J		30	
Perfluorohexanesulfonic acid	ng/L	ND	0.68J		30	
Perfluorohexanoic acid	ng/L	2.3	2.2	8	30	
Perfluorononanoic acid	ng/L	ND	<0.79		30	
Perfluorooctanesulfonic acid	ng/L	ND	1.8J		30	
Perfluorooctanoic acid	ng/L	ND	1.8J		30	
Perfluorotetradecanoic acid	ng/L	ND	<0.60		30	
Perfluorotridecanoic acid	ng/L	ND	<0.62		30	
Perfluoroundecanoic acid	ng/L	ND	<0.48		30	
PFBA	ng/L	47.7	54.2	13	30	
PFDoS	ng/L	ND	<0.59		30	
PFDS	ng/L	ND	<0.64		30	
PFHpS	ng/L	ND	<0.67		30	
PFNS	ng/L	ND	<0.58		30	
PFOSA	ng/L	ND	<0.71		30	
PFPeA	ng/L	ND	1.3J		30	
PFPeS	ng/L	ND	<0.60		30	

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### QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

SAMPLE DUPLICATE: 4737329

Parameter	Units	40265849002 Result	Dup Result	RPD	Max RPD	Qualifiers
13C2-PFDoA (S)	%.	75	73			
13C2-PFTA (S)	%.	60	60			
13C24:2FTS (S)	%.	330	276			S0
13C26:2FTS (S)	%.	663	582			S0
13C28:2FTS (S)	%.	681	601			S0
13C3-PFBS (S)	%.	87	72			
13C3-PFHxS (S)	%.	117	102			
13C3HFPO-DA (S)	%.	61	51			
13C4-PFBA (S)	%.	16	14			S0
13C4-PFHpA (S)	%.	119	105			
13C5-PFHxA (S)	%.	103	88			
13C5-PFPeA (S)	%.	64	54			
13C6-PFDA (S)	%.	122	110			
13C7-PFUdA (S)	%.	110	98			
13C8-PFOA (S)	%.	128	113			
13C8-PFOS (S)	%.	116	102			
13C8-PFOSA (S)	%.	74	66			
13C9-PFNA (S)	%.	140	120			
d3-MeFOSAA (S)	%.	104	92			
d3-NMeFOSA (S)	%.	54	48			
d5-EtFOSAA (S)	%.	120	113			
d5-NEtFOSA (S)	%.	43	37			
d7-NMeFOSE (S)	%.	62	56			
d9-NEtFOSE (S)	%.	50	46			

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## QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

QC Batch: 899529

Analysis Method: ENV-SOP-MIN4-0178

QC Batch Method: ENV-SOP-MIN4-0178

Analysis Description: WI ID NPW

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 40265595018, 40265595019, 40265595020, 40265595021, 40265595022, 40265595023, 40265595024

METHOD BLANK: 4737756

Matrix: Water

Associated Lab Samples: 40265595018, 40265595019, 40265595020, 40265595021, 40265595022, 40265595023, 40265595024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	<0.55	1.9	08/18/23 15:48	
4:2 FTS	ng/L	<0.46	1.9	08/18/23 15:48	
6:2 FTS	ng/L	<0.67	1.9	08/18/23 15:48	
8:2 FTS	ng/L	<0.50	1.9	08/18/23 15:48	
9CI-PF3ONS	ng/L	<0.47	1.8	08/18/23 15:48	
ADONA	ng/L	<0.91	1.9	08/18/23 15:48	
HFPO-DA	ng/L	<0.49	2.0	08/18/23 15:48	
NEtFOSA	ng/L	<0.57	2.0	08/18/23 15:48	
NEtFOSAA	ng/L	<0.81	2.0	08/18/23 15:48	
NEtFOSE	ng/L	<0.88	2.0	08/18/23 15:48	
NMeFOSA	ng/L	<0.55	2.0	08/18/23 15:48	
NMeFOSAA	ng/L	<0.69	2.0	08/18/23 15:48	
NMeFOSE	ng/L	<0.52	2.0	08/18/23 15:48	
Perfluorobutanesulfonic acid	ng/L	<0.48	1.8	08/18/23 15:48	
Perfluorodecanoic acid	ng/L	<0.60	2.0	08/18/23 15:48	
Perfluorododecanoic acid	ng/L	<0.48	2.0	08/18/23 15:48	
Perfluoroheptanoic acid	ng/L	<0.68	2.0	08/18/23 15:48	
Perfluorohexanesulfonic acid	ng/L	<0.53	1.8	08/18/23 15:48	
Perfluorohexanoic acid	ng/L	<0.90	2.0	08/18/23 15:48	
Perfluorononanoic acid	ng/L	<0.79	2.0	08/18/23 15:48	
Perfluorooctanesulfonic acid	ng/L	<0.66	1.8	08/18/23 15:48	
Perfluorooctanoic acid	ng/L	<0.85	2.0	08/18/23 15:48	
Perfluorotetradecanoic acid	ng/L	<0.59	2.0	08/18/23 15:48	
Perfluorotridecanoic acid	ng/L	<0.62	2.0	08/18/23 15:48	
Perfluoroundecanoic acid	ng/L	<0.48	2.0	08/18/23 15:48	
PFBA	ng/L	<0.49	2.0	08/18/23 15:48	
PFDoS	ng/L	<0.59	1.9	08/18/23 15:48	
PFDS	ng/L	<0.63	1.9	08/18/23 15:48	
PFHpS	ng/L	<0.66	1.9	08/18/23 15:48	
PFNS	ng/L	<0.58	1.9	08/18/23 15:48	
PFOSA	ng/L	<0.71	2.0	08/18/23 15:48	
PFPeA	ng/L	<0.81	2.0	08/18/23 15:48	
PFPeS	ng/L	<0.60	1.9	08/18/23 15:48	
13C2-PFDoA (S)	%	51	25-150	08/18/23 15:48	
13C2-PFTA (S)	%	47	25-150	08/18/23 15:48	
13C24:2FTS (S)	%	90	25-150	08/18/23 15:48	
13C26:2FTS (S)	%	149	25-150	08/18/23 15:48	
13C28:2FTS (S)	%	53	25-150	08/18/23 15:48	
13C3-PFBS (S)	%	78	25-150	08/18/23 15:48	
13C3-PFHxS (S)	%	88	25-150	08/18/23 15:48	

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## QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

METHOD BLANK: 4737756

Matrix: Water

Associated Lab Samples: 40265595018, 40265595019, 40265595020, 40265595021, 40265595022, 40265595023, 40265595024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C3HFPO-DA (S)	%	80	25-150	08/18/23 15:48	
13C4-PFBA (S)	%	51	25-150	08/18/23 15:48	
13C4-PFHpA (S)	%	89	25-150	08/18/23 15:48	
13C5-PFHxA (S)	%	84	25-150	08/18/23 15:48	
13C5-PFPeA (S)	%	75	25-150	08/18/23 15:48	
13C6-PFDA (S)	%	48	25-150	08/18/23 15:48	
13C7-PFUdA (S)	%	47	25-150	08/18/23 15:48	
13C8-PFOA (S)	%	90	25-150	08/18/23 15:48	
13C8-PFOS (S)	%	47	25-150	08/18/23 15:48	
13C8-PFOSA (S)	%	57	25-150	08/18/23 15:48	
13C9-PFNA (S)	%	65	25-150	08/18/23 15:48	
d3-MeFOSAA (S)	%	41	25-150	08/18/23 15:48	
d3-NMeFOSA (S)	%	38	20-150	08/18/23 15:48	
d5-EtFOSAA (S)	%	53	25-150	08/18/23 15:48	
d5-NEtFOSA (S)	%	37	20-150	08/18/23 15:48	
d7-NMeFOSE (S)	%	46	20-150	08/18/23 15:48	
d9-NEtFOSE (S)	%	45	20-150	08/18/23 15:48	

LABORATORY CONTROL SAMPLE &amp; LCSD: 4737757

4737758

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ng/L	3.6	2.0	2.6	56	72	50-150	26	30	
4:2 FTS	ng/L	3.6	3.1	3.3	85	91	50-150	8	30	
6:2 FTS	ng/L	3.7	3.2	3.1	86	85	50-150	1	30	
8:2 FTS	ng/L	3.7	3.4	3.0	92	81	50-150	13	30	
9CI-PF3ONS	ng/L	3.6	2.4	2.9	67	80	50-150	18	30	
ADONA	ng/L	3.6	2.9	3.0	80	82	50-150	3	30	
HFPO-DA	ng/L	3.9	3.5	3.5	90	90	50-150	0	30	
NEtFOSA	ng/L	3.9	3.2	3.0	84	77	50-150	9	30	
NEtFOSAA	ng/L	3.9	3.0	3.6	77	94	50-150	21	30	
NEtFOSE	ng/L	3.9	3.2	3.5	84	90	50-150	7	30	
NMeFOSA	ng/L	3.9	2.5	3.1	66	81	50-150	21	30	
NMeFOSAA	ng/L	3.9	2.7	3.5	69	90	50-150	26	30	
NMeFOSE	ng/L	3.9	2.7	3.1	69	81	50-150	16	30	
Perfluorobutanesulfonic acid	ng/L	3.4	3.1	3.1	92	90	50-150	2	30	
Perfluorodecanoic acid	ng/L	3.9	3.1	3.2	81	83	50-150	2	30	
Perfluorododecanoic acid	ng/L	3.9	3.0	3.1	79	79	50-150	1	30	
Perfluoroheptanoic acid	ng/L	3.9	3.4	3.4	89	87	50-150	3	30	
Perfluorohexanesulfonic acid	ng/L	3.5	3.1	2.9	88	83	50-150	6	30	
Perfluorohexanoic acid	ng/L	3.9	3.5	3.4	91	87	50-150	4	30	
Perfluorononanoic acid	ng/L	3.9	3.3	3.2	85	84	50-150	1	30	
Perfluorooctanesulfonic acid	ng/L	3.6	2.9	3.1	80	87	50-150	8	30	
Perfluorooctanoic acid	ng/L	3.9	3.4	3.4	89	87	50-150	2	30	
Perfluorotetradecanoic acid	ng/L	3.9	3.2	3.3	82	86	50-150	5	30	

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

LABORATORY CONTROL SAMPLE & LCSD: 4737757		4737758								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Perfluorotridecanoic acid	ng/L	3.9	3.1	3.0	81	77	50-150	5	30	
Perfluoroundecanoic acid	ng/L	3.9	3.2	3.1	83	79	50-150	5	30	
PFBA	ng/L	3.9	3.5	3.5	91	91	50-150	0	30	
PFDoS	ng/L	3.7	2.4	2.4	65	64	50-150	1	30	
PFDS	ng/L	3.7	2.1	2.7	58	72	50-150	22	30	
PFHpS	ng/L	3.7	4.6	3.8	123	102	50-150	18	30	
PFNS	ng/L	3.7	2.2	2.4	60	66	50-150	9	30	
PFOSA	ng/L	3.9	3.5	3.5	90	91	50-150	2	30	
PFPeA	ng/L	3.9	3.4	3.3	89	85	50-150	4	30	
PFPeS	ng/L	3.6	3.0	3.1	84	85	50-150	1	30	
13C2-PFDoA (S)	%				48	68	25-150			
13C2-PFTA (S)	%				45	58	25-150			
13C24:2FTS (S)	%				89	89	25-150			
13C26:2FTS (S)	%				136	143	25-150			
13C28:2FTS (S)	%				63	73	25-150			
13C3-PFBS (S)	%				78	76	25-150			
13C3-PFHxS (S)	%				92	89	25-150			
13C3HFPO-DA (S)	%				81	78	25-150			
13C4-PFBA (S)	%				56	55	25-150			
13C4-PFHpA (S)	%				90	89	25-150			
13C5-PFHxA (S)	%				83	82	25-150			
13C5-PFPeA (S)	%				76	74	25-150			
13C6-PFDA (S)	%				60	69	25-150			
13C7-PFUdA (S)	%				50	69	25-150			
13C8-PFOA (S)	%				96	93	25-150			
13C8-PFOS (S)	%				64	69	25-150			
13C8-PFOSA (S)	%				62	72	25-150			
13C9-PFNA (S)	%				83	81	25-150			
d3-MeFOSAA (S)	%				41	56	25-150			
d3-NMeFOSA (S)	%				39	51	20-150			
d5-EtFOSAA (S)	%				46	66	25-150			
d5-NEtFOSA (S)	%				41	53	20-150			
d7-NMeFOSE (S)	%				49	59	20-150			
d9-NEtFOSE (S)	%				46	58	20-150			

MATRIX SPIKE SAMPLE: 4740251		40265595019		Spike		MS		% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	MS % Rec	MS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	<1.2	8.2	5.3	64	50-150			
4:2 FTS	ng/L	<1.0	8.2	6.7	82	50-150			
6:2 FTS	ng/L	<1.5	8.3	7.5	87	50-150			
8:2 FTS	ng/L	<1.1	8.4	7.6	91	50-150			
9Cl-PF3ONS	ng/L	<1.0	8.2	6.5	79	50-150			
ADONA	ng/L	<2.0	8.2	6.4	77	50-150			
HFPO-DA	ng/L	<1.1	8.7	7.0	80	50-150			

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

MATRIX SPIKE SAMPLE:	4740251	40265595019	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
NEtFOSA	ng/L	<1.3	8.7	7.1	81	50-150	
NEtFOSAA	ng/L	<1.8	8.7	7.3	81	50-150	
NEtFOSE	ng/L	<2.0	8.7	7.0	80	50-150	
NMeFOSA	ng/L	<1.2	8.7	6.3	72	50-150	
NMeFOSAA	ng/L	<1.5	8.7	8.0	91	50-150	
NMeFOSE	ng/L	<1.1	8.7	7.4	83	50-150	
Perfluorobutanesulfonic acid	ng/L	<1.1	7.7	6.7	85	50-150	
Perfluorodecanoic acid	ng/L	<1.3	8.7	7.7	88	50-150	
Perfluorododecanoic acid	ng/L	<1.1	8.7	7.3	83	50-150	
Perfluoroheptanoic acid	ng/L	<1.5	8.7	7.1	81	50-150	
Perfluorohexanesulfonic acid	ng/L	<1.2	8	7.1	89	50-150	
Perfluorohexanoic acid	ng/L	<2.0	8.7	7.6	85	50-150	
Perfluorononanoic acid	ng/L	<1.7	8.7	7.5	86	50-150	
Perfluorooctanesulfonic acid	ng/L	<1.5	8.1	6.8	80	50-150	
Perfluorooctanoic acid	ng/L	<1.9	8.7	8.0	92	50-150	
Perfluorotetradecanoic acid	ng/L	<1.3	8.7	7.4	85	50-150	
Perfluorotridecanoic acid	ng/L	<1.4	8.7	7.4	85	50-150	
Perfluoroundecanoic acid	ng/L	<1.1	8.7	7.4	85	50-150	
PFBA	ng/L	<1.1	8.7	14.6	167	50-150	M1
PFDoS	ng/L	<1.3	8.5	5.9	69	50-150	
PFDS	ng/L	<1.4	8.4	6.7	80	50-150	
PFHpS	ng/L	<1.5	8.4	6.9	83	50-150	
PFNS	ng/L	<1.3	8.4	6.1	72	50-150	
PFOSA	ng/L	<1.6	8.7	7.5	83	50-150	
PFPeA	ng/L	<1.8	8.7	5.5	62	50-150	
PFPeS	ng/L	<1.3	8.2	6.0	73	50-150	
13C2-PFDoA (S)	%				77	25-150	
13C2-PFTA (S)	%				70	25-150	
13C24:2FTS (S)	%				140	25-150	
13C26:2FTS (S)	%				296	25-150	SO
13C28:2FTS (S)	%				117	25-150	
13C3-PFBS (S)	%				46	25-150	
13C3-PFHxS (S)	%				84	25-150	
13C3HFPO-DA (S)	%				60	25-150	
13C4-PFBA (S)	%				14	25-150	SO
13C4-PFHpA (S)	%				81	25-150	
13C5-PFHxA (S)	%				68	25-150	
13C5-PFPeA (S)	%				39	25-150	
13C6-PFDA (S)	%				87	25-150	
13C7-PFUdA (S)	%				85	25-150	
13C8-PFOA (S)	%				87	25-150	
13C8-PFOS (S)	%				81	25-150	
13C8-PFOSA (S)	%				60	25-150	
13C9-PFNA (S)	%				90	25-150	
d3-MeFOSAA (S)	%				72	25-150	
d3-NMeFOSA (S)	%				4	10-150	SO
d5-EtFOSAA (S)	%				87	25-150	

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**QUALITY CONTROL DATA**

Project: SOLBERG PFAS

Pace Project No.: 40265595

MATRIX SPIKE SAMPLE: 4740251		40265595019	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
d5-NEtFOSA (S)	%.				3	10-150	S0
d7-NMeFOSE (S)	%.				23	10-150	
d9-NEtFOSE (S)	%.				19	10-150	

SAMPLE DUPLICATE: 4740252

Parameter	Units	40265595020	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
11Cl-PF3OUdS	ng/L	<0.55	<0.56		30	
4:2 FTS	ng/L	1.9	6.4	106	30	D6
6:2 FTS	ng/L	3420	5230	42	30	D6
8:2 FTS	ng/L	9.2	15.6	51	30	D6
9Cl-PF3ONS	ng/L	<0.46	<0.48		30	
ADONA	ng/L	<0.90	<0.93		30	
HFPO-DA	ng/L	<0.48	<0.50		30	
NEtFOSA	ng/L	<0.56	<0.58		30	
NEtFOSAA	ng/L	<0.80	<0.83		30	
NEtFOSE	ng/L	<0.87	<0.90		30	
NMeFOSA	ng/L	<0.54	<0.56		30	
NMeFOSAA	ng/L	<0.68	<0.70		30	
NMeFOSE	ng/L	<0.51	<0.53		30	
Perfluorobutanesulfonic acid	ng/L	0.89J	1.8		30	
Perfluorodecanoic acid	ng/L	0.80J	1.0J		30	
Perfluorododecanoic acid	ng/L	<0.47	<0.49		30	
Perfluoroheptanoic acid	ng/L	263	469	56	30	D6
Perfluorohexanesulfonic acid	ng/L	<0.52	<0.54		30	
Perfluorohexanoic acid	ng/L	1090	2560	80	30	D6
Perfluorononanoic acid	ng/L	2.7	3.4	22	30	
Perfluorooctanesulfonic acid	ng/L	0.99J	1.9		30	
Perfluorooctanoic acid	ng/L	9.7	13.6	34	30	D6
Perfluorotetradecanoic acid	ng/L	<0.59	<0.61		30	
Perfluorotridecanoic acid	ng/L	<0.61	<0.63		30	
Perfluoroundecanoic acid	ng/L	<0.48	<0.49		30	
PFBA	ng/L	261	523	67	30	D6
PFDoS	ng/L	<0.58	<0.60		30	
PFDS	ng/L	<0.63	<0.65		30	
PFHpS	ng/L	<0.66	<0.68		30	
PFNS	ng/L	<0.58	<0.60		30	
PFOSA	ng/L	<0.70	<0.73		30	
PFPeA	ng/L	1740	3810	74	30	D6
PFPeS	ng/L	<0.59	<0.61		30	
13C2-PFDoA (S)	%.	80	115			
13C2-PFTA (S)	%.	60	85			
13C24:2FTS (S)	%.	198	334			S0
13C26:2FTS (S)	%.	199	380			S0
13C28:2FTS (S)	%.	238	450			S0

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### QUALITY CONTROL DATA

Project: SOLBERG PFAS

Pace Project No.: 40265595

SAMPLE DUPLICATE: 4740252

Parameter	Units	40265595020 Result	Dup Result	RPD	Max RPD	Qualifiers
13C3-PFBS (S)	%.	51	111			
13C3-PFHxS (S)	%.	77	114			
13C3HFPO-DA (S)	%.	43	95			
13C4-PFBA (S)	%.	20	93			
13C4-PFHpA (S)	%.	65	100			
13C5-PFHxA (S)	%.	54	90			
13C5-PFPeA (S)	%.	34	78			
13C6-PFDA (S)	%.	90	131			
13C7-PFUdA (S)	%.	92	137			
13C8-PFOA (S)	%.	42	69			
13C8-PFOS (S)	%.	75	120			
13C8-PFOSA (S)	%.	72	107			
13C9-PFNA (S)	%.	83	128			
d3-MeFOSAA (S)	%.	68	94			
d3-NMeFOSA (S)	%.	34	33			
d5-EtFOSAA (S)	%.	82	108			
d5-NEtFOSA (S)	%.	33	27			
d7-NMeFOSE (S)	%.	53	60			
d9-NEtFOSE (S)	%.	44	57			

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.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: SOLBERG PFAS

Pace Project No.: 40265595

### 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.

DL - Adjusted Method Detection Limit.

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

- D6 The precision between the sample and sample duplicate exceeded laboratory control limits.
- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- R1 RPD value was outside control limits.
- S0 Surrogate recovery outside laboratory control limits.
- S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
- S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SOLBERG PFAS

Pace Project No.: 40265595

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40265595001	MW-1	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595002	MW-2	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595003	MW-3	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595004	MW-4	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595005	MW-5	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595006	MW-6	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595007	MW-7	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595008	MW-8	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595009	MW-9	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595010	MW-10	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595011	MW-11	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595012	MW-12	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595013	MW-13	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595014	MW-14	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595015	MW-15	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595016	MW-16	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595017	MW-17	ENV-SOP-MIN4-0178	898848	ENV-SOP-MIN4-0178	901065
40265595018	PZ-1	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595019	PZ-2	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595020	SUMP	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595021	POND	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595022	TRIP BLANK	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595023	FIELD BLANK 1	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425
40265595024	FIELD BLANK 2	ENV-SOP-MIN4-0178	899529	ENV-SOP-MIN4-0178	901425

### REPORT OF LABORATORY ANALYSIS

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# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40265595

ALL SHADED AREAS are for LAB USE ONLY

Company: Carow Land Surveying & Co (CLSE) Billing Information: CLSE  
 Address: 615 N Lyndale Ave Appleton WI 54914  
 Report To: Brian Youngwirth Email To: brian@CLSE.PRO  
 Copy To: Site Collection Info/Address: Green Bay WI

Container Preservative Type \*\*  
 Lab Project Manager:  
 \*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Customer Project Name/Number: Solberg PFAS State: WI County/City: Brown Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET  
 Phone: 920 2229-8669 Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No  
 Email: brian@CLSE.PRO  
 Collected By (print): Brian Youngwirth Purchase Order #: Solberg DW PWS ID #: DW Location Code:  
 Collected By (signature): Brian Young Turnaround Date Required: Immediately Packed on Ice:  Yes [ ] No  
 Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day Field Filtered (if applicable): [ ] Yes [ ] No  
 [ ] Hold: (Expedite Charges Apply) Analysis:

Analyses										Lab Profile/Line:
<p>PFAS</p> <p><del>XXXXXX</del></p>										Lab Sample Receipt Checklist: Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA - Headspace Acceptable Y N NA USDA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: Y N NA Sample pH Acceptable Y N NA pH Strips: Y N NA Sulfide Present Y N NA Lead Acetate Strips: Y N NA LAB USE ONLY: Lab Sample # / Comments:
										001
										002
										003
										004
										005
										006
										007
										008
										009
010										

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
MW-1	GW	Grab	7/24/23	1:22 PM				7
MW-2				1:05 PM				
MW-3				1:47 PM				
MW-4				10:51 AM				
MW-5				10:41 AM				
MW-6				12:00 PM				
MW-7				10:52 AM				
MW-8				1:32 PM				
MW-9				12:30 PM				
MW-10				12:13 PM				

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: Wet Blue Dry None  
 Packing Material Used: Lab Tracking #: 2891331  
 Radchem sample(s) screened (<500 cpm): Y N NA Samples received via: FEDEX UPS Client Courier Pace Courier

SHORT HOLDS PRESENT (<72 hours): Y N N/A  
 Lab Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: 134  
 Cooler 1 Temp Upon Receipt: 1.0 oC  
 Cooler 1 Therm Corr. Factor: 0.0 oC  
 Cooler 1 Corrected Temp: 1.0 oC  
 Comments:

Relinquished by/Company: (Signature) [Signature] Date/Time: 7/24/23 3:05 PM Received by/Company: (Signature) [Signature] Date/Time: 7/24/23 1505  
 Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time:  
 Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time:

MTJL LAB USE ONLY  
 Table #: Acctnum: Template: Prelogin: PM: PB:  
 Trip Blank Received: Y N NA  
 HCL MeOH TSP Other  
 Non Conformance(s): Page: 67 of 72  
 YES / NO of: 3



# CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40265595

**ALL SHADED AREAS are for LAB USE ONLY**

Company: <b>CLSE</b>		Billing Information: <b>CLSE</b>	
Address: <b>615 W Lyndale Dr Appleton WI</b>		Site Collection Info/Address: <b>Green Bay WI</b>	
Report To: <b>Brian Youngworth</b>		Email To: <b>Brian@CLSE.PRO</b>	
Customer Project Name/Number: <b>Solberg PEAS</b>		State: <b>WI</b> County/City: <b>Brown</b> Time Zone Collected: <b>[ ] PT [ ] MT [ ] CT [ ] ET</b>	
Phone: <b>920 229 8600</b>	Site/Facility ID #:	Compliance Monitoring? <b>[ ] Yes [ ] No</b>	
Email: <b>brian@clsead</b>	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:	
Collected By (print):	Turnaround Date Required:	Immediately Packed on Ice: <b>[ ] Yes [ ] No</b>	
Sample Disposal: <b>[ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:</b>	Rush: <b>[ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)</b>	Field Filtered (if applicable): <b>[ ] Yes [ ] No</b>	

Container Preservative Type **	Lab Project Manager:
--------------------------------	----------------------

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses	Lab Profile/Line:	
	Lab Sample Receipt Checklist:	
	Custody Seals Present/Intact	Y N NA
	Custody Signatures Present	Y N NA
	Collector Signature Present	Y N NA
	Bottles Intact	Y N NA
	Correct Bottles	Y N NA
	Sufficient Volume	Y N NA
	Samples Received on Ice	Y N NA
	VOA - Headspace Acceptable	Y N NA
	USDA Regulated Soils	Y N NA
	Samples in Holding Time	Y N NA
	Residual Chlorine Present	Y N NA
	Cl Strips:	
	Sample pH Acceptable	Y N NA
	pH Strips:	
	Sulfide Present	Y N NA
	Lead Acetate Strips:	

LAB USE ONLY:  
Lab Sample # / Comments:

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
MW-11	GW	Grab	7/24/23	7:32am				
MW-12				9:06am				
MW-13				9:12am				
MW-14				10:28am				
MW-15				9:55am				
MW-16				11:11am				
<del>MW-17</del>				9:37am				
<del>MW-17-1</del>				2:30pm				
P7-2				7:26pm				
Sump				12:52pm				

Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used: <b>Wet</b> Blue Dry None
	Packing Material Used:
	Radchem sample(s) screened (<500 cpm): <b>Y N NA</b>

SHORT HOLDS PRESENT (<72 hours): <b>Y N N/A</b>
Lab Tracking #: <b>2891332</b>
Samples received via: <b>FEDEX UPS Client Courier Pace Courier</b>

Lab Sample Temperature Info:
Temp Blank Received: <b>Y N NA</b>
Therm ID#: <b>134</b>
Cooler 1 Temp Upon Receipt: <b>1.0 oC</b>
Cooler 1 Therm Corr. Factor: <b>oC</b>
Cooler 1 Corrected Temp: <b>1.0 oC</b>
Comments:

Relinquished by/Company: (Signature)	Date/Time: <b>7/24/23 3:55pm</b>	Received by/Company: (Signature)	Date/Time: <b>7/24/23 1505</b>
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY	
Table #:	
Acctnum:	
Template:	
Prelogin:	
PM:	
PB:	

Trip Blank Received: <b>Y N NA</b>
HCL MeOH TSP Other
Non Conformance(s): <b>Page 68 of 72</b>
YES / NO of: <b>3</b>



# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40205595

**ALL SHADED AREAS are for LAB USE ONLY**

Company: CLSE  
Address: same

Billing Information: CLSE - Same

Report To: Brian@CLSE, PRO

Email To:

Copy To:

Site Collection Info/Address: Solberg - Green Bay

Customer Project Name/Number: Solberg PFAS

State: \_\_\_\_\_ County/City: WI Brown Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

Site/Facility ID #: \_\_\_\_\_

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): \_\_\_\_\_

Purchase Order #: \_\_\_\_\_  
Quote #: \_\_\_\_\_

DW PWS ID #: \_\_\_\_\_  
DW Location Code: \_\_\_\_\_

Collected By (signature): \_\_\_\_\_

Turnaround Date Required: \_\_\_\_\_

Immediately Packed on Ice: [ ] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: \_\_\_\_\_ [ ] Hold: \_\_\_\_\_

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No  
Analysis: \_\_\_\_\_

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
<u>Pond</u>	<u>GW</u>	<u>Grab</u>	<u>7/24/23</u>	<u>1:57 PM</u>				
<u>Trip Blank #</u>				<u>1:59 PM</u>				
<del><u>Trip Blank #</u></del>								
<u>Field Blank 1</u>				<u>9:00 AM</u>				
<u>Field Blank 2</u>				<u>1:45 PM</u>				

Container Preservative Type \*\*

Lab Project Manager:

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signature Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: \_\_\_\_\_

Sample pH Acceptable Y N NA

pH Strips: \_\_\_\_\_

Sulfide Present Y N NA

Lead Acetate Strips: \_\_\_\_\_

LAB USE ONLY: Lab Sample # / Comments:

PFAS  
PFAS  
PFAS

021  
022  
023  
024

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Packing Material Used:

Lab Tracking #: 2891333

Radchem sample(s) screened (<500 cpm): Y N NA

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: 134

Cooler 1 Temp Upon Receipt: 1.0 oC

Cooler 1 Therm Corr. Factor: \_\_\_\_\_ oC

Cooler 1 Corrected Temp: 1.0 oC

Comments:

Relinquished by/Company: (Signature) [Signature]

Date/Time: 7/24/23 3:05 PM

Received by/Company: (Signature) [Signature]

Date/Time: 7/24/23 1:50 PM

MTJL LAB USE ONLY

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Table #: \_\_\_\_\_  
Acctnum: \_\_\_\_\_  
Template: \_\_\_\_\_  
Prelogin: \_\_\_\_\_

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

PM: \_\_\_\_\_  
PB: \_\_\_\_\_

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): \_\_\_\_\_  
YES / NO

Page 69 of 72  
of: 3

Client Name: CLSE

**Sample Preservation Receipt Form**

Project # 40265595

All containers needing preservation have been checked and noted below  
Lab Lot# of pH paper.

Yes  No  N/A

Lab Std #ID of preservation (if pH adjusted):

Initial when completed.

Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars				General				VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)						
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC								GN 1	GN 2				
001								2																														2.5 / 5
002								2																														2.5 / 5
003								2																														2.5 / 5
004								2																														2.5 / 5
005								2																														2.5 / 5
006								2																														2.5 / 5
007								2																														2.5 / 5
008								2																														2.5 / 5
009								2																														2.5 / 5
010								2																														2.5 / 5
011								2																														2.5 / 5
012								2																														2.5 / 5
013								2																														2.5 / 5
014								2																														2.5 / 5
015								2																														2.5 / 5
016								2																														2.5 / 5
017								2																														2.5 / 5
018								2																														2.5 / 5
019								2																														2.5 / 5
020								2																														2.5 / 5

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

<b>AG1U</b> 1 liter amber glass	<b>BP1U</b> 1 liter plastic unpres	<b>VG9C</b> 40 mL clear ascorbic w/ HCl	<b>JGFU</b> 4 oz amber jar unpres
<b>BG1U</b> 1 liter clear glass	<b>BP3U</b> 250 mL plastic unpres	<b>DG9T</b> 40 mL amber Na Thio	<b>JG9U</b> 9 oz amber jar unpres
<b>AG1H</b> 1 liter amber glass HCL	<b>BP3B</b> 250 mL plastic NaOH	<b>VG9U</b> 40 mL clear vial unpres	<b>WGFU</b> 4 oz clear jar unpres
<b>AG4S</b> 125 mL amber glass H2SO4	<b>BP3N</b> 250 mL plastic HNO3	<b>VG9H</b> 40 mL clear vial HCL	<b>WPFU</b> 4 oz plastic jar unpres
<b>AG5U</b> 100 mL amber glass unpres	<b>BP3S</b> 250 mL plastic H2SO4	<b>VG9M</b> 40 mL clear vial MeOH	<b>SP5T</b> 120 mL plastic Na Thiosulfate
<b>AG2S</b> 500 mL amber glass H2SO4	<b>BP2Z</b> 500 mL plastic NaOH + Zn	<b>VG9D</b> 40 mL clear vial DI	
<b>BG3U</b> 250 mL clear glass unpres			
			<b>GN 1</b>
			<b>GN 2</b>

Client Name: CLSE

Sample Preservation Receipt Form  
Project #: 40265595

Pace Lab #	Glass						Plastic						Vials					Jars				General		VOA Vials (>6mm) *	H2SO4 pH s2	NaOH+Zn Act pH s9	NaOH pH s12	HNO3 pH s2	pH after adjusted	Volume (mL)						
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU								SP5T	ZPLC	GN 1	GN 2		
021								2																												2.5 / 5
022								2																												2.5 / 5
023								2																												2.5 / 5
024								2																												2.5 / 5
025																																				2.5 / 5
026																																				2.5 / 5
027																																				2.5 / 5
028																																				2.5 / 5
029																																				2.5 / 5
030																																				2.5 / 5
031																																				2.5 / 5
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040																																				2.5 / 5
041																																				2.5 / 5
042																																				2.5 / 5
043																																				2.5 / 5
044																																				2.5 / 5
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7/24/23 MW

**Sample Condition Upon Receipt Form (SCUR)**

Project #:

Client Name: CLSE

WO#: **40265595**

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_



Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used SR-134 Type of Ice: Wet Blue Dry None  Meltwater Only

Cooler Temperature Uncorr: 1.0 /Corr: 1.0

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:  
 Date: 7/24/23 /Initials: NK  
 Labeled By Initials: EL

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi