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SI REPORT

Dane County Fire Training Areas -  
Darwin Road SI  
BRRTS # 02-13-583366  
MADISON, WISCONSIN

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Submitted To: Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, Wisconsin 53707-7921  
Attn: Mr. Larry Kinsman

Subject: SI REPORT, DANE COUNTY FIRE TRAINING AREAS - DARWIN ROAD  
BRRTS # 02-13-583366, MADISON, WISCONSIN

Shannon & Wilson is pleased to submit this report for the SI activities completed in accordance with Chapter NR 716 of the Wisconsin Administrative Code at the property located at the Dane County Regional Airport, Darwin Road, Madison, Wisconsin.

Sincerely,

SHANNON & WILSON, INC.



Mark A. Rutkowski, P.G.  
Sr. Associate/Madison Office Manager



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Sr. Hydrogeologist

MXR:CRP/tad

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# 1 EXECUTIVE SUMMARY

Shannon & Wilson, Inc. (SWI) completed an environmental Site Investigation (SI) in accordance with a Wisconsin Department of Natural Resources (WDNR) approved work plan (submitted on March 24th, 2023). The work plan was drafted in accordance with Wisconsin Administrative Code (WAC) Ch. NR 716.07 (SI scoping) and Ch. NR 716.09 (SI work plan) for the investigation of per- and polyfluorinated alkyl substances (PFAS) in soil and groundwater at the former Darwin Road fire training area (Site) (**Figures 1 and 2**) at the Dane County Regional Airport (DCRA). The objective of the SI was to define the magnitude and extent of PFAS impacts to soil and groundwater at the Site.

Fire training areas, reportedly used between 1953 and 1987, were identified in the vicinity of Darwin Road along the southwestern portion of the DCRA. Fire training utilized Aqueous Film Forming Foam (AFFF) as a fire suppressant for flammable liquid fires that could occur during an airfield emergency. Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are the primary components of AFFF (along with a number of other accessory PFAS).

SI activities consisted of the advancement of twenty-three (23) direct-push soil borings and the installation of four (4) groundwater-table monitoring wells and one deeper piezometer to characterize the soil and groundwater at the Site. Field activities identified Site geology as generally consisting of an upper topsoil/fill material horizon underlain by a lean clay and a basal silty sand unit to the maximum extent of drilling at 45-feet below ground surface (ft bgs).

Shallow groundwater at the Site is contained in the silty sand unit, approximately 10 to 16-ft bgs. Based on depth to groundwater measurements, the horizontal direction of groundwater flow at the Site was determined to generally be to the east/northeast; however, because of the low horizontal gradient (flat water table) measured across the Site, variations in flow direction are possible and anticipated.

Discrete soil samples were collected at specific depth intervals in order to assess the extent of PFAS in the vicinity of the fire training “burn pit” areas. All soil borings completed during the SI had reported concentrations of PFAS above laboratory method detection limits (MDLs). PFOA was reported above the WDNR non-industrial direct contact Residual Contaminant Level (RCL) at boring B-9. PFOA, perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS), and PFOS were detected in groundwater samples collected at the Site above

their respective recommended Enforcement Standards (ES) which are recommended by the Wisconsin Department of Health Services (DHS) to the WDNR.

Spider plots were created for perfluorobutanoic acid (PFBA), perfluoropentanoic acid (PFPeA), perfluorohexanoic acid (PFHxA), PFOA, PFNA, PFHxS, PFOS, and 6:2 fluorotelomersulfonic acid (6:2 FTS) for soil and groundwater samples collected from soil borings and their related groundwater monitoring wells. The intent of the spider plots was to determine if there was any correlation between the occurrence of PFAS detected in soil and groundwater samples collected from the same location.

While a statistical evaluation was not completed for the soil and groundwater datasets, an empirical assessment of the spider plots identified that the occurrence of PFHxS in soil samples from the soil borings coincided with the occurrence of PFHxS in the groundwater samples collected from monitoring wells completed at the same locations. Based on the spider plots created for a limited number of PFAS, PFHxS is the dominant PFAS in shallow groundwater at the Site. PFOS was identified as the dominant PFAS in the groundwater sample collected from the piezometer at a depth of greater than 40 ft bgs.

Based on the results of the groundwater sampling, the horizontal extent of PFAS impacted groundwater has not been defined to the north (and east with select PFAS) or vertically in deeper groundwater. The magnitude and extent of PFAS impacts to shallow soil have also not been fully defined at the Site.

## 2 GENERAL INFORMATION

### 2.1 Introduction

Shannon & Wilson, Inc. (SWI) was retained by Orin Technologies to complete an environmental Site Investigation (SI) in accordance with a Wisconsin Administrative Code (WAC) Ch. NR 716 work plan submitted by SWI to the Wisconsin Department of Natural Resources (WDNR) on March 24th, 2023. The SI work plan was drafted in accordance with WAC Ch. NR 716.07 (SI scoping) and Ch. NR 716.09 (SI work plan) for the investigation of per- and polyfluorinated alkyl substances (PFAS) in soil and groundwater at the former Darwin Road fire training area (Site) (BRRTS# 02-13-583366) (**Figures 1 and 2**) at the Dane County Regional Airport (DCRA). The SI work plan was approved by the WDNR via email on March 30, 2023. The objective of the SI was to define the magnitude and extent of PFAS impacts to soil and groundwater at the Site.

The SI activities were based in part on the results of two previous site investigation reports and on a review of historical aerial photographs. The site investigation reports included a Mead & Hunt/LimnoTech (M&H) July 2020 investigation entitled *Former Fire Fighting Training Areas-Soil and Groundwater Sampling Summary-Dane County Regional Airport BRRTS# 02-13-583366, November 2020 (M&H report)*, and on a 1989 *Final Engineering Report – Contamination Evaluation Truax Field, Madison, Wisconsin, Envirodyne Engineers, Inc.*<sup>1</sup> (Envirodyne report). Fire training areas were identified on historical aerial photographs from the Dane County (Access Dane) on-line GIS database. SI activities per the SI work plan were completed by SWI between April and August 2023 and form the basis of this report.

## 2.2 Responsible Parties, Consultant, and Site Location

Responsible Party: Dane County Regional Airport  
4000 International Lane  
Madison, Wisconsin 53704

City of Madison  
210 Martin Luther King Blvd., #403  
Madison, Wisconsin 53703

Wisconsin Air National Guard  
3110 Mitchell Street, Building 1210  
Madison, Wisconsin 53704

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Site Location: Former Fire Training Area  
Darwin Road and International Lane  
Madison, WI 53704

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<sup>1</sup> Envirodyne Engineers, Inc. 1989. Final Engineering Report – Contamination Evaluation Truax Field, Madison, Wisconsin under Contract DCRA 49-87-D-0003, Delivery No. 9, prepared for US Army Corps of Engineers.

## 2.3 Site Description

The Site is located east of International Lane and north of Darwin Road within the East Half (E ½) of Section 30, Township 8 North, Range 10 East in Madison, Dane County, Wisconsin (Wisconsin Transverse Mercator [WTM] coordinates; X – 573115, Y – 295365; approximate). The Site location and topography are shown on **Figure 1** (Deforest, WI, 7.5-minute topographic map [USGS, 2022]).

The Site consists of an approximately ±3.5-acre field, with an airport parking lot to the north, Darwin Road and a field to the south, International Lane and a commercial building to the west, and a field, airport perimeter road, and taxiway/runway to the east. According to the City of Madison zoning information, the Site is classified as Commercial exempt and zoned AP – Airport District.

Based on a review of multiple sources, it appears that there are at least two fire/training burn pit areas in the fields just north of Darwin Road. The general location and shape of the suspected main fire training area/burn pit on the Site was identified in the 2020 M&H report which in turn was based on the 1989 Envirodyne report. Additional review of historical aerial photographs by SWI places the location of the area slightly to the west (**Figure 2**). SWI identified one additional suspected fire training area to the north of the main fire training area (**Figure 2**) based on the review of a 1955 aerial photograph (**Appendix A**) obtained from the Access Dane GIS website which appears to depict a charred area surrounding the outline of a small airplane.

## 3 BACKGROUND INFORMATION

The following sections provide a brief background on the Site that includes its history as a fire training area, as well as physiographic setting including regional geology, hydrogeology, and a brief summary of the previous SI work completed at the Site.

### 3.1 Site Background / History

Information regarding the history of the former Darwin Road/West Fire Training area/burn pit presented in the 1989 Envirodyne report describes the burn pit as being irregularly shaped, approximately 200 ft by 100 ft, and located approximately 200 ft north of Darwin Road, approximately 400 ft east of International Lane, and approximately 400 ft west of a creek, referred to as (West Branch) Starkweather Creek. The area was used for fire-fighting training during the period from 1953 to 1987, although it was noted that the Darwin Road/West Fire Training area may have been used prior to 1953. Training exercises were conducted by U.S.

Air Force/Department of Defense personnel during the 1950s, by the Air National Guard during the 1960s, and later by the City of Madison, Dane County, and various volunteer fire departments. It is estimated that fire training took place 10 to 15 times per year with the practice being terminated in December 1987. The area was described as “blackened and void of vegetation” during a July 1988 investigation, with surface stains indicating “that surface runoff from the Burn Area migrates to the south”<sup>2</sup> (Envirodyn report).

## 3.2 Regional Geology and Hydrogeology

### 3.2.1 Physiographic Setting

DCRA is located at an elevation of approximately 870 ft above mean sea level (based on the survey information obtained from the Site) with generally level topography sloping gently to the south and east. DCRA is “within the Great Lakes Section of the Central Lowlands Physiographic Province, which is characterized by numerous lakes with associated lacustrine plains, prominent end moraines, and a still partially exposed cuestaform topography”.<sup>3</sup> Lakes Mendota, Monona, and Waubesa are located to the southwest and south of DCRA.

Surface water drainage at DCRA is outward from the airfield to Starkweather Creek, which flows around the DCRA on its north, west, and south sides. Surface water flow at the DCRA is conveyed by ditches, culverts, and storm sewers that outfall to Starkweather Creek. Starkweather Creek empties into Lake Monona approximately 2 miles to the south.

### 3.2.2 Regional Geology

Glacial deposits in southern Wisconsin range in thickness from a few feet to several hundred feet. Because DCRA is situated on a locally thick (approximately 100 to 300 ft) section of glacial drift, several geologic layers encountered elsewhere in the region are not present beneath the DCRA. There is an approximately 350-foot thick layer of Mt. Simon Sandstone bedrock beneath the glacial deposits in the area of DCRA .

### 3.2.3 Regional Hydrogeology

Information provided in the *Phase 1 Regional Site Inspection of Truax Field*<sup>4</sup> included the following summary of observations that are believed to be representative of DCRA:

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<sup>2</sup> Envirodyne Engineers, Inc. 1989. Final Engineering Report – Contamination Evaluation Truax Field, Madison, Wisconsin under Contract DCRA 49-87-D-0003, Delivery No. 9, prepared for US Army Corps of Engineers.

<sup>3</sup> IBID

<sup>4</sup> FY 16 Phase 1 Regional Site Inspections for Perfluorinated Compounds, Wisconsin Air National Guard Truax Air National Guard Base Madison, WI. Amec Foster Wheeler Environment & Infrastructure, Inc. March 2019.

“Regionally, groundwater is found in the unconsolidated glacial deposits and underlying bedrock formations including sandstone of the Trempealeau Group, the deeper Tunnel City Group, and the underlying Elk Mound Group. These bedrock aquifers comprise the principal water supply aquifers in Dane County. The Mt. Simon Sandstone underlying the glacial deposits in the vicinity of DCRA is the lowermost formation of the Elk Mound Group. Based on information collected during previous investigation activities at the DCRA, monitoring wells screened across the water table indicate shallow groundwater flow is generally toward the south and southeast.”

There are currently no known drinking water supply wells at DCRA, and the shallow groundwater system in the vicinity of DCRA is not used as a source of drinking water.

### 3.3 Previous SI Work

Soil and groundwater sampling activities were conducted at the Site by M&H in July 2020 to confirm the occurrence of PFAS in soil and groundwater at the Site. Soil and groundwater sampling procedures and sample locations were described in the *Initial SI Work Plan for BRRTS Activity #02-13-583366, Mead & Hunt, March 2020*, submitted to the WDNR on March 4, 2020.

Soil and groundwater samples were collected at six locations, identified as SBT20-01 through SBT20-06, at the Site using a direct-push sampling rig (Geoprobe®). Soil boring information obtained from the M&H report was used to create a conceptual site model (CSM) of the subsurface soil and groundwater at the Site. Two soil samples were collected from above the observed water table from each soil boring; one from the uppermost foot of the soil boring and the second from unsaturated soil immediately above the observed water table. One groundwater sample was also collected at each soil boring location from temporary wells. Soil borings at the Site were advanced to between 15-feet below ground surface (ft bgs) and 25-ft bgs. Saturated conditions, based on information recorded on the soil boring logs, were observed between approximately 10- and 18-ft bgs. Variable interbedded sands, silts, and clays were noted in soil borings SBT20-01 through SBT20-04 in the upper 4- to 8-ft, below which a uniform brown fine sand with varying amounts of silt was observed. Interbedded “non-uniform” soil was observed deeper in soil borings SBT20-05 (to approximately 11-ft bgs) and SBT20-06 (to approximately 18-ft bgs). A continuous layer of light brown fine sand with varying amounts of silt was observed in all borings beneath these interbedded upper soil layers.

PFOA and PFOS were detected in discrete soil samples collected near surface (up to 363 micrograms per kilogram [ $\mu\text{g}/\text{kg}$ ], PFOS) and at depth (up to 279  $\mu\text{g}/\text{kg}$ , PFOA). The WDNR has set a non-industrial direct contact Residual Contaminant Level (RCL) (Ch. NR 720) for

both PFOA and PFOS at 1.26 milligrams per kilogram (mg/kg) (1,260 µg/kg) and an industrial direct contact RCL (Ch. NR 720) for both PFOA and PFOS at 16.4 mg/kg (16,400 µg/kg). There are no generic WDNR soil-to-groundwater RCLs for PFAS at this time.

PFOA was detected in all groundwater samples collected between 54.9 nanograms per liter (ng/L) (SBT20-04) and 67,300 ng/L (SBT20-01). PFOS was also detected in all groundwater samples collected between 193 ng/L (SBT20-04) and 1,900 ng/L (SBT20-05). The Wisconsin Department of Health Services (DHS) recommended groundwater Enforcement Standard (ES) and Preventive Action Limit (PAL) for both PFOA and PFOS are 20 ng/L and 2 ng/L, respectively.

All samples collected during the July 2020 investigation were submitted to Vista Analytical Laboratory in El Dorado Hills, California for PFAS analysis using USEPA Analytical Method 537M.

## 4 FIELD ACTIVITIES AND METHODOLOGIES

The means and methods of the SI activities employed by SWI are discussed in the following sections.

### 4.1 Subsurface Soil Investigation

Between April 17th and 19th, 2023, 23 soil borings (B-1 through B-23) were completed along the north side of Darwin Road in and around the main fire training area (Figure 3). Prior to drilling activities, all utilities at the Site were cleared by public (Wisconsin 811 Digger's Hotline) and private (DCRA personnel) utility locates.

Soil borings were advanced by On-Site Environmental, Inc. with a track-mounted, hydraulically operated, direct-push sampling rig (Geoprobe®) to collect soil samples for physical and chemical analysis. All borings were advanced and sampled to approximately 20- to 25-ft bgs. Soil samples were collected continuously to the target depth using a 5-foot-long clear acetate sample collection tube located inside a steel sampling rod. The sampling rod string was pneumatically advanced in 5-foot increments using a hammer on the direct-push drilling rig. The total length of soil sample recovered, and a description of the collected materials, including soil type following the Unified Soil Classification System (USCS) soil classification system, color, occurrence of obvious odors or non-native solid materials (solid waste), relative grain size, and moisture content, were detailed on soil boring logs. The completed WDNR Soil Boring Log Information forms (Form 4400-122) are included in **Appendix B**.

Chemical characterization of the subsurface soil included the collection of soil samples from two discrete depth intervals at each soil boring location. Soil samples collected from the soil borings were identified by their depth interval (e.g., soil sample B-1 (2.5') identifies a soil sample collected at soil boring B-1 at a depth of 2.5-ft bgs). A third soil sample was collected from below the observed water table at soil borings B-10 and B-18 to evaluate possible partitioning of PFAS from soil to groundwater.

As a standard practice shallow soil samples (surface to 4-ft bgs) are collected to evaluate the direct-contact risks associated with contaminated soil. At the Site, shallow soil samples were collected from 2- to 3-ft bgs. Deeper soil samples were collected in the vadose zone above the observed water table at each boring location. Deeper soil samples were generally collected between 10- and 13-ft bgs at the Site, with samples from B-8 (8-ft bgs) and B-19 (5.5-ft bgs) being slightly shallower due to these boring locations being from the lowest elevations at the Site (ditch along Darwin Road). Exhibit 1 below summarizes total depth of each soil boring and soil sample depth intervals.

**Exhibit 1 – Soil Boring Total Depths & Sample Intervals**

Boring ID	Total Depth ft bgs	Sample Depths ft bgs	Boring ID	Total Depth ft bgs	Sample Depths ft bgs
B-1	25	2.5, 13	B-13	20	3, 10
B-2	22	3, 12	B-14	20	2, 10
B-3/MW-1	25	2.5, 13	B-15	15	2, 10
B-4	20	3, 12	B-16	20	2, 10
B-5	20	3, 13	B-17	20	2, 9
B-6	20	3, 13	B-18	20	3, 8, 16
B-7	20	2, 13.5	B-19	20	2, 2(dup), 5.5
B-8	20	3, 8	B-20/MW-2	20	3, 10
B-9	20	3, 13, 13(dup)	B-21	20	2, 9
B-10/MW-4	20	3, 13, 17	B-22	25	2, 10
B-11	20	3, 10	B-23/MW-3	25	2, 10
B-12	20	3, 11			

(dup) identifies a soil sample duplicate

Soil collected for laboratory analysis was placed in laboratory-provided sample jars (unpreserved), placed in a cooler, on ice, and transported to Eurofins – Sacramento, CA laboratory (Accreditation No. 998204680) under chain-of-custody protocol for analysis of PFAS (WDNR list of 33 PFAS found in the *Wisconsin DNR PFAS Updates [effective March 1, 2021]*) by USEPA Analytical Method 537M (modified utilizing isotope dilution).



All soil cuttings were placed in open top steel 55-gallon drums that were labeled and stored in a secured location for later disposal.

## 4.2 Groundwater Investigation

Four water-table monitoring wells were constructed at soil boring locations B-3 (MW-1), B-20 (MW-2), B-23 (MW-3), and B-10 (MW-4). A single piezometer was also nested adjacent to the location of SB-10/MW-4. The four water-table monitoring wells and the piezometer were constructed between April 17th and April 19th, 2023, in accordance with Wisconsin Administrative Code (WAC) Ch. NR 141. The water-table monitoring well and piezometer locations are included on **Figure 3**.

The wells were installed at their respective boring locations using the track-mounted Geoprobe® drill rig by over-drilling the soil borings with 8.25-inch outside diameter hollow stem augers (HSAs). Water-table monitoring wells were constructed by inserting two-inch inside diameter (ID) Schedule 40 polyvinyl chloride (PVC) casing attached to a 10-foot section of 2-inch-ID 0.010-inch factory-slotted Schedule 40 PVC well screen with a PVC well point into the open portions of the HSA drill strings. The piezometer was installed in a similar fashion using a 5-foot PVC well screen. The well casings were topped with expanding waterproof caps. Filter pack sand was inserted into the annular space between the well casing and auger until it reached approximately two feet above the well screen. Two feet of fine sand was introduced above the filter pack and the remainder of the annular space was sealed with bentonite chips to approximately one foot below finished grade. The wells were completed with flush-mounted, bolt-down steel protective covers cemented in place.

Locations and elevations of the monitoring wells and piezometer were surveyed to a reference datum that was located at the Site. The elevations of the completed Ch. NR 141-compliant wells were surveyed relative to a known datum using a Topcon® laser level and rod. The datum used, located along the southern edge of the Site, is a secondary airport control station designated as MSN F with an elevation of 866.00 ft above mean sea level (North American Vertical Datum of 1988 [NAVD 88]). The reference elevation for each well is the north side of the top of the PVC casing. A Trimble GeoXH 6000 series instrument was used to locate the horizontal locations of all wells and soil borings.

After installation, all wells were developed by surging and bailing with a disposable polyethylene bailer until relatively sediment-free water was observed in accordance with Ch. NR 141. Groundwater removed from the wells for well development and sampling purposes was placed in open top steel 55-gallon drums that were labeled and stored in a secured location for later disposal.

WDNR Monitoring Well Construction Forms (Form 4400-113A) and Monitoring Well Development Forms (Form 4400-113B) were completed for each monitoring well and are included in **Appendix B** of this report.

### 4.3 Groundwater Sampling

Groundwater sampling consisted of obtaining the following information in the field prior to collecting groundwater samples at the Site. Pre-sample information included:

- Obtaining static water level (SWL) measurements for determining groundwater flow direction and gradients;
- Determining the physical state (turbidity, color, odor) of the groundwater at each monitoring well location; and
- Obtaining and recording groundwater field parameters before sample collection.

Low-flow groundwater sample collection was completed using a peristaltic pump and high-density polyethylene (HDPE) tubing. New HDPE tubing was used at each monitoring well sampled to avoid cross-contamination between wells. Groundwater purged from the wells prior to collecting a sample for laboratory analysis was measured infield for temperature, pH, dissolved oxygen (DO), oxidation reduction potential (ORP), turbidity, and specific conductivity using a Horiba U-52-2 Horiba® water-quality meter. Readings were collected until the parameters were similar (within  $\pm 10\%$ ) for three consecutive measurements. Summaries of low-flow groundwater stabilization measurements are provided in **Appendix C**.

The groundwater samples collected for laboratory analysis were placed in laboratory-provided sample containers (two-250 milliliter [ml] polypropylene sample bottles with Teflon®-free caps), placed in a cooler, on ice, and transported to Eurofins – Sacramento, CA laboratory (Accreditation No. 998204680) under chain-of-custody protocol for analysis of PFAS (WDNR list of 33 PFAS found in the *Wisconsin DNR PFAS Updates [effective March 1, 2021]*) by USEPA Analytical Method 537M (modified; utilizing isotope dilution).

### 4.4 Equipment Decontamination

All drilling equipment and non-disposable sampling equipment was decontaminated before being brought to the Site and between each of the boring/well locations. Alconox detergent and a steam pressure washer were used with clean PFAS-free water to decontaminate all drill tooling. All non-disposable sampling equipment (e.g., water-level meter) was decontaminated prior to use and after each use using Alconox detergent and laboratory-supplied PFAS-free water. All decontamination water was collected and contained in open-

top steel 55-gallon drums for later off-Site disposal. It is noted that On-Site Environmental, Inc. brought water from their shop that had been previously analyzed for PFAS and was determined to be PFAS free. SWI used potable water from the office location that was determined to be from City of Madison Well No. 29. No PFAS were detected at Well No. 29 during a 2022 sampling event.

#### 4.5 Field Quality Assurance/Quality Control (QA/QC) Samples

Because of the ubiquitous nature of PFAS, field QA/QC samples were collected to ensure contamination from PFAS was not introduced into the collected samples from drilling or sampling equipment, decontamination products or procedures, field sampling personnel, or transport or storage of samples.

QA/QC samples for the investigation consisted of equipment rinse blanks (EBs), field blanks (FBs), trip blanks (TBs), and field duplicates.

Equipment rinse blank (EB) samples were collected during the SI to ensure and document that contamination from PFAS was not introduced into the collected samples from the drilling equipment, sampling equipment, or water/detergents used for equipment decontamination. EBs were collected by passing laboratory-supplied and verified PFAS-free water over or through decontaminated field sampling equipment, including drill tooling, to assess the adequacy of the decontamination process and/or to evaluate potential contamination from the equipment used during sampling. Field blank (FB) samples were prepared in the field concurrent with EB sample collection using laboratory-supplied and verified PFAS-free water. The PFAS-free water was poured directly into clean, pre-labeled, laboratory-provided containers. Trip blank (TB) samples consist of a container of PFAS-free water that had been prepared in the laboratory and shipped from the laboratory to the Site and then back to the laboratory for analysis without having been exposed to any sampling procedures. A TB is typically used for volatile compounds, but it has been recommended for PFAS sampling to assess cross-contamination introduced from the laboratory and during shipping procedures.

Field duplicates (laboratory blind) samples were collected and submitted to the laboratory to assess the potential for laboratory data inconsistency and the adequacy of the sampling and handling procedures. A duplicate sample is collected from the same source utilizing identical collection procedures. During sample collection the original and duplicate sample are collected simultaneously by partially filling the original and then the duplicate and alternating back and forth, providing two (2) representative samples for analyses. Field duplicates were submitted "blind" to the laboratory by providing a random identification number.

A temperature blank was also included in each cooler shipped to the laboratory to ensure acceptable sample temperatures.

All field QA/QC samples were sent to the Eurofins laboratory on ice, under chain-of-custody protocols, for the analysis of PFAS (WDNR list of 33 PFAS found in the *Wisconsin DNR PFAS Updates [effective March 1, 2021]*) by USEPA Analytical Method 537M (modified; utilizing isotope dilution).

#### 4.5.1 QA/QC Analytical Results – Soil

There were no reported PFAS concentrations in either of the two EBs or the one FB collected during the soil investigation above laboratory method detection limits (MDLs). Results of the field duplicates did not indicate any issues with laboratory data consistency. Results of the soil QA/QC sample analysis is summarized along with the soil data in the attached **Table 1**.

According to the laboratory sample receiving notes in the Eurofins laboratory report, the temperature of the cooler used to transport samples was determined from a sample not the temperature blank; the temperature of the cooler was 4.2° C (acceptable sample shipping temperature) when the coolers arrived at the laboratory.

#### 4.5.2 QA/QC Analytical Results – Groundwater

Low levels of PFAS were reported in the EB and FB samples collected during groundwater sampling. PFHxS was reported at a concentration of 0.66 J nanograms per liter (ng/L) in the EB sample collected during the May 2023 sampling event. The J flag qualifier indicates that the reported concentration is an estimate, below the laboratory reporting limit (RL), but above the laboratory MDL.

Perfluoropentanoic acid (PFPeA), perfluorohexanoic acid (PFHxA), PFOA, PFNA, perfluorobutanesulfonic acid (PFBS), PFHxS, and PFOS were reported at low levels, well below their respective Preventative Action Limits (PALs) recommended by the Wisconsin DHS, in the FB samples submitted for chemical analysis. Results of the field duplicates collected during the groundwater sampling event did not indicate any issues with laboratory data consistency. While detected in the FBs, the low levels of PFAS are not considered a threat to the overall data quality and representativeness of the samples collected.

There were no PFAS detected in the TB above laboratory MDLs.

As with the soil temperature blank, the cooler temperature was determined from a sample and not the temperature blank; the cooler temperature was acceptable at 3.3° C when the coolers arrived at the laboratory.

## 4.6 PFAS Investigation/Sampling Considerations

All sampling activities were conducted according to procedures/protocols for collecting and handling environmental samples analyzed for PFAS as outlined in the *Michigan Department of Environmental Quality's General PFAS Sampling Guidance, October 16, 2018*. Potential sources of PFAS cross-contamination in the sampling environment include water used during decontamination activities, sampling equipment, field clothing and personal protective equipment (PPE), sun and biological protection products, personal hygiene and personal care products (PCPs), and food packaging, among other items in the environment itself. SWI personnel avoided all potential sources of PFAS cross-contamination while in the field collecting samples.

## 4.7 Investigative Derived Waste

Soil, purged groundwater, decontamination water, PPE, and any other investigative derived waste (IDW) were placed in the appropriate containers for proper disposal. Soil produced from SI activities (soil and monitoring well borings) was placed in open top, steel, 55-gallon drums, labeled, and stored on-Site in a secured location for later disposal at a licensed solid waste facility or to be incorporated into any soil mixing activities that would be a part of remedial actions at the Site. Groundwater removed from the wells for development and sampling purposes and water used in decontamination processes was placed in open top, steel, 55-gallon drums, labeled, and stored on-Site in a secured location for subsequent off-Site disposal. Disposables (e.g., nitrile gloves, sample tubing) were treated as solid waste and placed in sealed trash bags for disposal at a licensed solid waste facility.

## 4.8 Field Health & Safety Procedures

SWI field activities were completed in accordance with a Site-specific Health & Safety Plan (HASP) created for this SI. At a minimum, SWI held daily tailgate health & safety meetings to ensure site workers were aware of the potential physical and chemical hazards that exist at the Site.

# 5 RESULTS

The results the investigation are discussed in the following sections.

## 5.1 Site Geology

In general, the Site geology consists of an upper topsoil fill layer underlain by a lean clay that contains thin (5 to 6-inch thick) discontinuous lenses of sand/silty sand in select locations. A

uniform fine sand with varying amounts of silt was observed in all soil borings underlying these interbedded upper soil layers. Geologic cross-sections included as **Figures 5** through **8** (with the cross-section transect map as **Figure 4**) present a profile view of the major soil types encountered at the Site.

A slight petroleum odor was noted in soil borings B-12 and B-13, at depths of 3-ft bgs and 4 ft bgs, respectively. Petroleum odors were not reported at any of the other soil boring locations. It is also noted that drilling refusal was encountered in B-2 at 22-ft bgs, B-16 at 7-ft bgs, and PZ-1 at 21-ft bgs. The boreholes for B-16 and PZ-1 were moved slightly redrilled and completed to their target depths of 20- and 45-ft bgs, respectively.

### 5.1.1 Geologic Cross-Section A to A'

Geologic cross-section A – A' (Figures 5 and 6) presents a profile of the subsurface soil based on the soil boring log information in a west to east transect across the Site. From west to east, it includes soil borings and soil boring/monitoring well pairs B-3/MW-1, B-7, B 11, B-10/MW-4/PZ-1, B-13, B-14, and B-15. Three primary soil units observed on the soil boring logs represented in this cross-section include an upper topsoil/fill horizon, a lean clay, and a silty sand. The topsoil/fill layer is thinner to the west (approaching 2-ft) and generally becomes thicker moving east (approximately 4-ft at B-14) with a thicker lens of topsoil/fill observed at boring B-10/MW-4 where the topsoil fill layer approaches 6-ft in thickness. This coincides with the suspected center of the main fire training area identified in the historical aerial photographs. The upper topsoil/fill horizon then thins out farther east (approximately 1-ft at B-15).

Beneath the topsoil/fill upper unit is a lean clay that exhibits a similar yet more pronounced thickening from west to east, similar to the topsoil/fill. The lean clay is approximately 2-ft thick at boring B-3/MW-1, dips toward the east somewhat following the contour of the upper land surface, and then thickens to approximately 13-ft in boring B-15. It is noted that two thinner silty sand seams were observed within the lean clay unit in B-15. Similar to the topsoil/fill horizon, a slight depression was observed in the lean clay unit at boring B-10/MW 4 coinciding with the center of the main fire training area.

A silty sand was observed below the lean clay in all soil borings advanced during the SI. Although not continuously logged beyond 20-ft bgs, silty sand was also observed in the drill cuttings to a depth of 45-ft bgs at PZ-1. The upper surface of this unit generally dips from west to east, with an abrupt dip between borings B-13 and B-14. The shallow water table is contained in the silty sand horizon. Groundwater elevations obtained from the static water levels measured in the water-table monitoring wells show a very slight slope from west to east across this transect paralleling the topographic expression of the upper land surface.

### 5.1.2 Geologic Cross-Section B to B'

Geologic cross-section B to B' (**Figures 7 and 8**) presents a profile of the subsurface soil based on the soil boring log information in a north to south transect across the Site and, in similar fashion, is centered on B-10/MW-4/PZ-1 positioned in the approximate center of the main fire training area. From north to south, it includes soil borings and soil boring/monitoring well pairs B-23/MW-3, B-9, B 10/MW-4/PZ-1, B-13, B-12, and B-18. The thickness and overall appearance of the upper topsoil/fill horizon is very similar to that of cross-section A to A'; following the contours of the land surface topography with a thicker component filling in a scoured-out section of the lean-clay at boring B-10/MW-4. The lean clay is thicker north of boring B 10/MW-4 and thins toward the southern portion of the Site as it approaches Darwin Road.

The upper surface of the basal silty sand horizon does not match the contours of the land surface and is more undulating than what was observed in cross-section A to A'. The shallow water-table is depicted with a very slight slope from north to south in this transect.

## 5.2 Site Hydrogeology

Shallow groundwater at the Site is contained in the silty sand unit between 9.4-ft bgs (MW-2) and 17.3-ft bgs (MW-1) based on the static water level measurements collected from the water-table monitoring wells. The groundwater elevation data are summarized on **Table 2**. Groundwater flow based on the May 2023 static water level data (**Figure 9**) generally trends in a northeasterly direction, with a measured horizontal hydraulic gradient of 0.002 ft/ft. Groundwater flow based on the August 2023 static water level data (**Figure 10**) generally trends in a more easterly direction, with a measured horizontal hydraulic gradient of 0.001 ft/ft. Both of these calculated horizontal gradients are considered very low and because of the low horizontal gradients (flat water table), variations in flow direction are possible and expected.

PZ-1 was installed to a depth of approximately 45-ft bgs to evaluate vertical groundwater gradients at the Site. The vertical hydraulic gradient between MW-4 and PZ-1 calculated from static water levels measured during the May 2023 sampling event was approximately 0.0036 ft/ft in the downward direction. Conversely, the vertical hydraulic gradient between MW-4 and PZ-1 calculated from static water levels measured during the August 2023 sampling event was approximately 0.0020 ft/ft in the upward direction.

Hydraulic conductivity (K) tests (slug tests) were performed on MW-4 and PZ-1 in August 2023. A slug test involves the abrupt displacement (removal or addition) of a known volume of water (or inert object if added) and then monitoring changes in water level as equilibrium

conditions return. The measurements are recorded and analyzed by one or more methods. The rate of water level change is a function of the hydraulic conductivity (K) of the formation and the geometry of the well or screened interval. An approximately 1.5-inch diameter solid Geotech® well slug (0.25-gallon displacement) was used along with a submersible Onset - HOBO MX® water level data logger.

Results of the hydraulic conductivity tests are included in **Appendix D**. The Bouwer and Rice Method was used to evaluate the data and calculate the hydraulic conductivity under unconfined conditions. The hydraulic conductivities calculated from the tests done on MW-4 were  $3.15 \times 10^{-4}$  centimeters per second (cm/s) and  $4.20 \times 10^{-4}$  cm/s. The hydraulic conductivity calculated from the test done on PZ-1 was  $1.99 \times 10^{-4}$  cm/s. Data from the second test on PZ-1 was not recorded due to an issue with water level data logger. These calculated hydraulic conductivities align with the silty sand geology observed below the water table at the Site. It is noted that hydraulic conductivity testing was completed for monitoring well TG-3 installed on the Site during the 1988 Envirodyne investigation. Hydraulic conductivity results for monitoring well TG-3 were  $8.47 \times 10^{-4}$  cm/s and  $8.85 \times 10^{-4}$  cm/s. This is in agreement with the recent hydraulic conductivity results completed by SWI in August of 2023.

Using the calculated hydraulic conductivities, calculated horizontal hydraulic gradients, and assuming an effective porosity of 30%, shallow groundwater flows slowly across the Site at a rate of approximately 2.9 ft per year.

### 5.3 PFAS Analytical Results – Soil

Forty-eight (48) soil samples were collected from 23 borings (B-1 through B-23) completed at the Site between April 17th and April 19th, 2023 (**Figure 3**). Soil analytical results are summarized in **Table 1** and the laboratory analytical reports are included in **Appendix E**. The purpose of the sampling was to determine the magnitude and extent of PFAS impacts to soil.

PFAS were detected in all of the subsurface soil samples collected from the soil borings completed at the Site. Twenty-five of the 33 individual PFAS included in the analyte list were reported above laboratory MDLs. A breakdown of the PFAS identified by their chemical grouping is as follows:

- Carboxylic Acids – 10 of the 11 were detected;
- Sulfonic Acids – 11 of the 11 were detected;
- Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols – 1 of the 7 were detected (a single soil sample had 4 of the 7 detected); and
- PFAS Replacement Chemicals – 0 of the 4 were detected.



While the bulk of the PFAS impacted soil is centered on soil boring B-10/MW-4, the distribution of PFOA and PFOS depicted on iso-concentration maps (**Figures 11 through 14**) does not follow the normal conventions for contaminant distribution in the subsurface soil at the Site. That is, a conventional contaminant migration path in a uniform porous media that typically exhibits the characteristics of linear dispersion or exponential dispersion as one moves away from a source area.

**Figures 11, 12, 13, and 14** depict the distribution of PFOA and PFOS in soil across the Site, both in shallow soils (generally 1- to 3-ft bgs) and deeper soils (generally 8- to 13-ft bgs). The highest concentrations of PFOA were detected in shallow samples from B-9 (1,300 ug/kg), B 10/MW-4 (360 ug/kg), and B-13 (700 ug/kg); largely in the northern and eastern portions of the main fire training area identified on the historical aerial photographs. The highest concentrations of PFOS were detected in shallow samples from B-23 (550 ug/kg) and 2020 M&H boring SBT20-03 (363 ug/kg). These soil borings are north of the main fire training area identified on the historical aerial photographs and just south of the fire training area identified on the 1955 historical aerial photograph.

PFOA/PFOS concentrations in the deeper soil samples generally decrease significantly from concentrations in shallow soils; by up to two orders of magnitude in one case (PFOA - B-9 shallow [3-ft bgs] = 1,300 ug/kg vs. B-9 deep [13-ft bgs] = 2.4 ug/kg). The exception to this lies in the eastern/southeastern portion of the Site where PFOS concentration increased from 73 ug/kg to 460 ug/kg in B-18 and from 1.5 ug/kg to 280 ug/kg in B-17. These are the highest concentrations by an order of magnitude in deeper soils at the Site.

From a PFOA perspective, the only location that saw a relatively significant increase in concentration from shallow to deep, and the only location with a deeper soil sample exceeding 100 ug/kg (an arbitrary benchmark concentration), was M&H boring SBT20-01, which increased from 2.05 ug/kg (1-ft bgs) to 279 ug/kg (11-ft bgs). SBT20-01 is located in the east-central portion of the Site. Based on the distribution of PFAS in soil across the Site, impacts to soil are largely defined, with the exception being to the north in shallow soils (**Figures 11 and 13**).

A third, deeper soil sample was collected from below the water table in borings B-10/MW-4 and B-18 (see cross-section **Figures 5 through 8**). In general, the concentrations in the deepest soil sample decreased from the concentration in the sample collected immediately above it (e.g., PFOA, B-10/MW-4 = 360 ug/kg [3-ft bgs], 15 ug/kg [13-ft bgs], 3.6 ug/kg [17-ft bgs] or PFOS, B-18 = 73 ug/kg [3-ft bgs], 460 ug/kg [8-ft bgs], 160 ug/kg [16-ft bgs]). The rationale for this distribution of PFAS in the subsurface soil was not the primary objective of the SI activities completed at Darwin Road.

### 5.3.1 Direct Contact Regulatory Exceedance

PFOA was detected in a single soil sample collected at B-9 from a depth of 3-ft bgs at 1,300 µg/kg. This concentration exceeds the WDNR's non-industrial direct contact RCL concentration of 1,260 µg/kg. B-9 is located north of B-10/MW-4 and near the northern extent of the main fire training area identified on the historical aerial photographs.

## 5.4 PFAS Analytical Results - Groundwater

Groundwater samples were collected from all Site monitoring wells (MW-1, MW-2, MW-3, MW-4, and PZ-1) during two sampling events; May 2nd, 2023, and August 16th, 2023. Groundwater analytical results are summarized in **Table 3** and the laboratory analytical reports are included in **Appendix E**. Concentrations of PFOA and PFOS are included on groundwater iso-concentration maps (**Figures 15 and 16**) and on the geologic cross-sections (**Figures 5 through 8**). Additionally, concentrations of PFHxS are also included on a groundwater iso-concentration map (**Figure 17**). The purpose of the sampling was to determine the magnitude and extent of PFAS impacts to groundwater.

PFAS were reported above laboratory MDLs in groundwater samples collected from the four water-table monitoring wells and the piezometer. In all, fifteen PFAS were identified in the groundwater samples collected. The breakdown of the PFAS identified in groundwater by their chemical grouping is as follows:

- Carboxylic Acids – 7 of the 11 were detected, with 2 constituents exceeding their recommended ESs;
- Sulfonic Acids – 8 of the 11 were detected, with 2 constituents exceeding their recommended ESs;
- Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols – No constituents were detected above laboratory MDLs; and
- PFAS Replacement Chemicals – No constituents were detected above laboratory MDLs.

### 5.4.1 WI DHS Recommended PAL and ES Regulatory Exceedances

Two carboxylic acids, PFOA and PFNA, were detected above their respective recommended ES in the groundwater samples collected. PFOA was detected in all of the water-table monitoring wells and the piezometer above its recommended ES. PFNA was detected above its recommended ES in all wells with the exception of up-gradient water-table monitoring well MW-1.

Two sulfonic acids, PFHxS and PFOS, were also detected above their respective recommended ESs. Both PFHxS and PFOS were detected in all of the water-table monitoring wells and the piezometer above their respective recommended ESs.

**Figures 15, 16, and 17** depict the distribution of PFOA, PFOS, and PFHxS in groundwater across the Site, using both groundwater data from the May 2nd, 2023, sampling event and groundwater data from the M&H investigation in 2020. Although there is a 3 year difference in data collection events, PFAS are largely persistent in groundwater at the Site. Groundwater at the Site flows at a fairly low velocity (2.9 ft per year) and the reported concentrations between 2020 and 2023 generally align. It is noted that there wasn't a significant (order of magnitude) change in groundwater concentrations between the August 2023 and May 2023 sampling events.

The highest concentrations of PFOA were detected in MW-3 (17,000 nanograms per liter [ng/L]) in the northern portion of the Site between the main fire training area to the south and the fire training area depicted on the 1955 aerial photograph to the north, and 2020 locations SBT20-06 (65,300 ng/L) and SBT20-01 (67,300 ng/L); both located east of the main fire training area. Concentrations of PFOA at the water-table decrease to the west (MW-1, [100 ng/L]) and south (SBT20-04 [54.9 ng/L] and MW-2 [760 ng/L]). PFOA impacts to groundwater are not defined to the north or northeast (**Figure 15**).

The highest concentrations of PFOS were detected in the nested well pair MW-4 (2,400 ng/L) / PZ-1 (29,000 ng/L) located in the center of the main fire training area. Concentrations of PFOS at the water-table decrease to the west (MW-1, [9 ng/L]), north (MW-3 [280 ng/L]), northeast (SBT20-06 [230 ng/L]), and south (SBT20-04 [193 ng/L] and MW-2 [940 ng/L]). Although concentrations decrease to the east, PFOS impacts are not fully defined to the east (**Figure 16**). In addition, PFOS, along with PFNA are the only constituents to show an order of magnitude increase in concentrations with depth based on reported concentration of those constituents in well nest MW-4/PZ-1. There were also very minimal increases in 6:2 FTS and 8:2 fluorotelomersulfonic acid (8:2 FTS) between MW-4 and PZ-1; no other constituents had reported concentrations that increased with depth.

The highest concentrations of PFHxS were detected in MW-3 (41,000 ng/L) in the northern portion of the Site and 2020 location SBT20-06 (79,000 ng/L), located east of the main fire training area. Concentrations of PFHxS at the water-table decrease to the west (MW-1, [250 ng/L]) and south/southeast (SBT20-04 [228 ng/L] and MW-2 [6,900 ng/L]). Similar to PFOA, PFHxS impacts to groundwater are not defined to the north or northeast (**Figure 17**).

Exhibit 3 provides a summary of the PFAS that were detected in groundwater above the DHS recommended PALs and ESs.

**Exhibit 3: PFAS DHS Recommended PAL and ES Groundwater Exceedances**

Constituent	EPA Acronym	PAL*	ES*	MW-1	MW-2	MW-3	MW-4	PZ-1
<b>PFAS (ng/L)</b>				MAY 2023				
Perfluorooctanoic acid [C8]	PFOA	2	20	100	760	17,000	11,000	3,400
Perfluorononanoic acid [C9]	PFNA	3	30	ND	24	130	310	3,700
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	250	6,900	41,000	30,000	14,000
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	9	940	280	2,400	29,000

Constituent	EPA Acronym	PAL*	ES*	MW-1	MW-2	MW-3	MW-4	PZ-1
<b>PFAS (ng/L)</b>				AUGUST 2023				
Perfluorooctanoic acid [C8]	PFOA	2	20	130	1,500	16,000	10,000	3,000
Perfluorononanoic acid [C9]	PFNA	3	30	0.24	32	240	290	4,100
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	500	12,000	40,000	29,000	14,000
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	21	1,400	460	3,000	37,000

## 5.5 Discussion

Spider plots were created for PFBA, PFPeA, PFHxS, PFOA, PFNA, PFHxS, PFOS, and 6:2 FTS depicting the relative concentrations (on a percentage basis) of PFAS at the soil boring locations that were also converted to groundwater monitoring wells (B-3/MW-1, B-20/MW-2, B-23/MW-3, and B-10/MW-4). These PFAS compounds were selected because PFOA, PFOS, PFHxS and 6:2 FTS are typically associated with AFFF based on on-line research of these compounds. PFBA, PFPeA, PFNA, and PFHxA are associated with the breakdown of other PFAS compounds according to the on-line research. In nearly all cases, the PFAS used to create the spider plots were detected in soil and groundwater samples collected at the Site so their use in determining the relationship between PFAS soil and groundwater impacts (if only empirically stated) was thought to have value for this SI.

The values used for the spider plots were the percent of the sum total of all of the PFAS detected at each sample location. Sample results with J or I qualifiers were used at their reported concentration.

There was no linear regression analysis, association analysis, or other statistical analysis completed on the data sets used to create the spider plots.

There was little correlation between the soil plots and the groundwater plots generated for soil boring/monitoring well pairs B-3/MW-1, B-20/MW-2, or B-23/MW-3. Soil data plotted

from boring B-10/MW-4 located near the center of the suspected main fire training area has a higher percentage of PFHxS than the other PFAS plotted in the soil samples at 3-ft and 13-ft bgs. PFHxS is also the dominant constituent detected in the groundwater sample collected from MW-4 and does show a relationship between the soil sample and groundwater analytical results.

While a statistical evaluation was not completed for the soil and groundwater datasets, an empirical assessment of the spider plots identified that the occurrence of PFHxS in soil samples from the soil borings coincided with the occurrence of PFHxS in the groundwater samples collected from monitoring wells completed at the same locations. Based on the spider plots created for a limited number of PFAS, PFHxS is the dominant PFAS in shallow groundwater at the Site. PFOS was identified as the dominant PFAS in the groundwater sample collected from the piezometer at a depth of greater than 40 ft bgs.

Spider plots for each of the well pairs are provided in **Appendix F**.

## 6 CONCLUSIONS

Based on the results of the soil and groundwater SI activities it was determined that:

Subsurface soil consists of three distinct soil horizons: an upper topsoil/fill horizon underlain by a lean clay and then a basal silty sand unit. It appears that the lean clay is scoured out in the vicinity of B-10/MW-4/PZ-1. This correlates with the suspected main fire training area depicted on historical aerial photographs. The scoured-out area may have been exposed at the land surface at one time and later filled in as part of the evolution of the airport property.

Shallow groundwater, which is contained in the silty sand unit at the Site approximately 10 to 16-ft bgs, generally flows from the west/southwest to the east/northeast across the Site with a very low horizontal hydraulic gradient.

The vertical hydraulic gradient between MW-4 and PZ-1 calculated using the May 2023 data was 0.0036 ft/ft in the downward direction. Conversely, the vertical hydraulic gradient calculated using the August 2023 data was 0.0020 ft/ft in the upward direction. The downward vertical gradient is likely responsible for downward dispersal of PFAS compounds observed at depth.

Hydraulic conductivity (K) tests were performed on MW-4 and PZ-1. The hydraulic conductivities calculated from the tests done on MW-4 were  $3.15 \times 10^{-4}$  cm/s and  $4.20 \times 10^{-4}$  cm/s, and from the single test done on PZ-1 was  $1.99 \times 10^{-4}$  cm/s. These calculated hydraulic conductivities align with the silty sand geology found at the Site. Using the calculated

hydraulic conductivities, calculated horizontal gradients, and an effective porosity of 30%, groundwater flows across the Site at approximately 2.9 ft per year.

All of the soil borings completed during the SI had reported concentrations of PFAS detected above laboratory MDLs. PFOA, reported at a concentration of 1,300 µg/kg in boring B-9, exceeded the WDNR's non-industrial direct contact RCL at a depth of 3-ft bgs.

The distribution of PFOA and PFOS across the Site does not appear to follow the normal conventions for contaminant distribution in the subsurface soil at the Site, suggesting possible different sources and/or the different constituent make-up of fire-fighting foam over the years. Another possible explanation are earth moving activities (e.g. regrading, importing and mixing of fill materials) that have changed the expression of the land surface to accommodate the expansion of the airport and development of access roads, parking lots and other cultural features.

PFOA, PFNA, PFHxS, and PFOS were detected in groundwater samples above DHS recommended PALs and ESs. The highest concentrations of total PFAS was identified at MW 3, which is north of the suspected main fire training area, but south of another possible fire training area (depicted on a 1955 aerial). The second highest concentration of total PFAS was detected in the groundwater sample collected from PZ-1 at a depth of approximately 40-ft bgs. Based on the results of the groundwater sampling, the horizontal extent of PFAS impacted groundwater has not been defined to the north (and some cases east) or vertically in the deeper groundwater.

Spider plots created for a limited number of PFAS provided insight into the variability of the occurrence of PFAS in the subsurface soil. In three of the four soil boring/monitoring well data sets, the PFAS identified as the dominant constituents in soil were not the same as the dominant constituents in groundwater. There are a number of factors that contribute to this that include fire training/use of AFFF at different locations, different formulations of AFFF or mixing AFFF from different vendors, or moving, importing, or regrading soil. As mentioned above, a historical aerial photograph (1955) depicts a suspected fire training area north of the existing study area.

There is correlation between soil from boring B-10 and groundwater from MW-4; PFHxS is dominant in the soil and in the groundwater at this location.

Based on the results of the groundwater sampling, the horizontal extent of PFAS impacted groundwater has not been defined to the north (and east with select PFAS) or vertically in deeper groundwater. The magnitude and extent of PFAS impacts to soil has also not been fully defined at the Site.

## 7 REFERENCES

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October 16, 2018 Wisconsin Department of Natural Resources; Chapter NR 716 of the Wisconsin Administrative Code.

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# Tables

**TABLES**

TABLES

**Table 1**  
**Soil Analytical Results**  
**DCRA - Darwin Road PFAS Site**  
**Madison, Wisconsin**

Constituent	EPA Acronym	Non-Industrial Direct Contact RCL (1)	Industrial Direct Contact RCL (1)	B-1		B-2		B-3/MW-1		B-4		B-5		B-6		B-7		B-8	
				2.5 ft bgs	13 ft bgs	3 ft bgs	12 ft bgs	2.5 ft bgs	13 ft bgs	3 ft bgs	12 ft bgs	3 ft bgs	13 ft bgs	3 ft bgs	13 ft bgs	2 ft bgs	13.5 ft bgs	3 ft bgs	8 ft bgs
<b>PFAS (ug/kg)</b>			Date Collected:	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023	04/17/2023
<b>Carboxylic Acids (ug/kg)</b>																			
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	--		0.22J B	0.091J B	0.40B	0.079J B	0.31B	0.098J B	0.24B	0.11J B	0.25B	0.091J B	0.17J B	0.11J B	0.47B	0.094J	0.17J	0.11J
Perfluoropentanoic acid [C5]	PFPeA	--		0.17J	<0.044	0.45	<0.042	0.27	<0.042	0.19J	<0.040	0.16J	<0.041	0.21J	0.061J	0.64	0.11J	0.089J	<0.044
Perfluorohexanoic acid [C6]	PFHxA	--		0.072J	<0.033	0.092J	<0.032	0.61	<0.032	0.67	<0.031	0.15J	<0.031	0.19J	0.064J	0.58	0.24	0.088J	<0.033
Perfluoroheptanoic acid [C7]	PFHpA	--		0.049J	<0.041	0.093J	<0.039	0.22J	<0.039	0.25	<0.037	<0.043	<0.038	0.19J	0.087J	0.20J	0.081J	0.040J	<0.041
Perfluorooctanoic acid [C8]	PFOA	1,260	16,400	0.35	<0.057	0.88	0.22	0.66	0.093J	0.53	<0.13J	0.34	0.065J	0.79	0.85	0.44	0.43	0.16J	<0.057
Perfluorononanoic acid [C9]	PFNA	--		<0.026	<0.024	0.18J	<0.023	0.079J	<0.023	0.074J	<0.022	0.038J	<0.022	0.067J	<0.024	0.91	<0.023	0.052J	<0.023
Perfluorodecanoic acid [C10]	PFDA	--		<0.057	<0.052	<0.056	<0.049	<0.058	<0.050	<0.056	<0.047	<0.055	<0.048	<0.054	<0.052	<0.059	<0.050	<0.051	<0.051
Perfluoroundecanoic acid [C11]	PFUnA	--		<0.050	<0.045	<0.049	<0.043	<0.051	<0.043	<0.049	<0.041	<0.048	<0.042	<0.047	<0.045	<0.051	<0.043	<0.044	<0.045
Perfluorododecanoic acid [C12]	PFDoA	--		<0.036	<0.032	<0.035	<0.031	<0.036	<0.031	<0.035	<0.030	<0.034	<0.030	<0.034	<0.032	<0.037	<0.031	<0.032	<0.032
Perfluorotridecanoic acid [C13]	PFTriDA	--		<0.025	<0.023	<0.025	<0.022	<0.025	<0.022	<0.025	<0.021	<0.024	<0.021	<0.024	<0.023	<0.026	<0.022	<0.022	<0.022
Perfluorotetradecanoic acid [C14]	PFTA	--		<0.044	<0.040	<0.043	<0.038	<0.045	<0.038	<0.043	<0.036	<0.042	<0.037	<0.042	<0.040	<0.045	<0.038	<0.039	<0.039
<b>Sulfonic Acids (ug/kg)</b>																			
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	--		<0.045	<0.041	<0.045	<0.039	<0.046	<0.039	<0.044	<0.037	<0.043	<0.038	<0.043	<0.041	0.13J	0.050J	<0.040	<0.041
Perfluoropentanesulfonic acid [C5]	PFPeS	--		<0.044	<0.040	<0.043	<0.038	<0.045	<0.038	<0.043	<0.036	<0.042	<0.037	<0.042	<0.040	0.16J	0.079J	<0.039	<0.039
Perfluorohexanesulfonic acid [C6]	PFHxS	--		0.19J	0.042J	0.66	0.37	0.31	0.10J	0.19J	0.080J	0.18J	0.16J	2.9	2.6	2.8	2.5	0.13J	0.093J
Perfluoroheptanesulfonic acid [C7]	PFHpS	--		<0.058	<0.053	<0.058	<0.050	<0.059	<0.051	<0.057	<0.048	<0.056	<0.049	<0.055	<0.053	0.18J	0.11J	<0.052	<0.052
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	1,260	16,400	0.31	<0.046	2.0	0.098J	1.2	<0.044	2.6	0.22	1.5	0.65	0.34	0.16J	14	0.621	0.99	0.061J
Perfluorononanesulfonic acid [C9]	PFNS	--		<0.034	<0.031	<0.034	<0.030	<0.035	<0.030	<0.034	<0.029	<0.033	<0.029	<0.033	<0.031	<0.035	<0.030	<0.031	<0.031
Perfluorodecanesulfonic acid [C10]	PFDS	--		<0.062	<0.056	<0.061	<0.053	<0.063	<0.054	<0.061	<0.051	<0.059	<0.052	<0.059	<0.056	<0.064	<0.054	<0.055	<0.055
Perfluorododecanesulfonic acid [C12]	PFDoS	--		<0.056	<0.051	<0.055	<0.048	<0.057	<0.049	<0.055	<0.046	<0.053	<0.047	<0.053	<0.051	<0.058F1	<0.048	<0.050	<0.050
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--		<0.061	<0.055	<0.060	<0.052	<0.062	<0.053	<0.060	<0.050	<0.058	<0.051	<0.058	<0.055	<0.062	<0.053	<0.054	<0.054
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--		<0.032	<0.029	<0.032	<0.028	<0.033	<0.028	<0.032	<0.027	<0.031	<0.027	<0.030	0.059J	<0.033	<0.028	<0.028	<0.029
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--		<0.042	<0.038	<0.041	<0.036	<0.042	<0.036	<0.041	<0.034	<0.040	0.095J	<0.039	<0.038	<0.043	<0.036	<0.037	<0.037
<b>Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ug/kg)</b>																			
Perfluorooctanesulfonamide [C8]	PFOSA	--		<0.039	<0.035	<0.039	<0.034	<0.040	<0.034	<0.039	<0.033	<0.038	0.068J	<0.037	<0.036	<0.040	<0.034	<0.035	<0.035
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--		<0.058	<0.053	<0.058	<0.050	<0.059	<0.051	<0.057	<0.048	<0.056	<0.049	<0.055	<0.053	<0.060	<0.051	<0.052	<0.052
N-Ethylperfluorooctanesulfonamide [C10] (Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	--		<0.056	<0.051	<0.055	<0.048	<0.057	<0.049	<0.055	<0.046	<0.053	<0.047	<0.053	<0.051	<0.058	<0.048	<0.050	<0.050
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--		<0.027	<0.025	<0.027	<0.024	<0.028	<0.024	<0.027	<0.023	<0.026	<0.023	<0.026	<0.025	<0.028	<0.024	<0.024	<0.025
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	--		<0.057	<0.052	<0.056	<0.049	<0.058	<0.050	<0.056	<0.047	<0.055	<0.048	<0.054	<0.052	<0.059	<0.050	<0.051	<0.051
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--		<0.056	<0.051	<0.055	<0.048	<0.057	<0.049	<0.055	<0.046	<0.053	<0.047	<0.053	<0.051	<0.058	<0.048	<0.050	<0.050
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	--		<0.033	<0.030	<0.033	<0.029	<0.034	<0.029	<0.033	<0.028	<0.032	<0.028	<0.032	<0.030	<0.034	<0.029	<0.030	<0.030
<b>Replacement Chemicals (ug/kg)</b>																			
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	--		<0.049	<0.044	<0.048	<0.042	<0.050	<0.042	<0.048	<0.040	<0.047	<0.041	<0.046	<0.044	<0.050	<0.042	<0.043	<0.044
4,8-dioxa-3H-perfluorononanoic acid [C7]	DONA	--		<0.046	<0.042	<0.046	<0.040	<0.047	<0.040	<0.046	<0.038	<0.044	<0.039	<0.044	<0.042	<0.048	<0.040	<0.041	<0.042
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--		<0.042	<0.038	<0.041	<0.036	<0.042	<0.036	<0.041	<0.034	<0.040	<0.035	<0.039	<0.038	<0.043	<0.036	<0.037	<0.037
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--		<0.037	<0.033	<0.036	<0.032	<0.037	<0.032	<0.036	<0.031	<0.035	<0.031	<0.035	<0.033	<0.038	<0.032	<0.033	<0.033

(1) = Source: Wisconsin Department of Natural Resources NR 720 RCL Spreadsheet (updated December 2018).

RCL = Residual contaminant level.

PFAS = perfluoroalkyl and polyfluoroalkyl substances.

3 ft bgs = Soil sample collected at 3 feet below ground surface.

\* = FD-1 was taken at B-9 (13'); FD-2 was taken at B-19 (2')

ug/kg = micrograms per kilogram.

-- = Standard not established.

N/A = Not applicable.

< = Less than the laboratory method detection limit (MDL).

**BOLD** = Sample result exceeds the Non-Industrial Direct Contact RCL.

J = Result is less than the laboratory reporting limit but greater than or equal to the laboratory MDL; the reported concentration is estimated.

B = Compound was found in the blank and sample.

F1 = Matrix spike and/or matrix spike duplicate recovery exceeds control limits.

I = Value is the estimated maximum possible concentration.





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**Table 2**  
**Groundwater Levels**  
**DCRA - Darwin Road PFAS Site**  
**Madison, Wisconsin**

Well	Date	Refernce Elevation* (feet NGVD)	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NGVD)
MW-1	4/25/2023	869.21	16.11	853.10
	5/2/2023		16.21	853.00
	8/16/2023		17.30	851.91
MW-2	4/25/2023	862.00	9.75	852.25
	5/2/2023		9.40	852.60
	8/16/2023		10.42	851.58
MW-3	4/25/2023	868.09	15.54	852.55
	5/2/2023		15.60	852.49
	8/16/2023		16.44	851.65
MW-4	4/25/2023	867.15	14.31	852.84
	5/2/2023		14.42	852.73
	8/16/2023		15.46	851.69
PZ-1	4/25/2023	867.03	14.30	852.73
	5/2/2023		14.39	852.64
	8/16/2023		15.29	851.74

NGVD = National Geodetic Vertical Datum.

TOC: Top of PVC casing.

\*: Measured at top of PVC casing.

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**Table 3  
Groundwater Analytical Results  
DCRA - Darwin Road PFAS Site  
Madison, Wisconsin**

Constituent	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	MW-1		MW-2			MW-3		MW-4		PZ-1			TRIP BLANK	EQUIPMENT BLANK	FIELD BLANK	
				Date:															
<b>PFAS (ng/L)</b>				05/02/2023	8/16/2023	05/02/2023	05/02/2023**	8/16/2023	05/02/2023	8/16/2023	05/02/2023	8/16/2023	05/02/2023	8/16/2023	8/16/2023**	05/02/2023	05/02/2023	05/02/2023	8/16/2023
<b>Carboxylic Acids (ng/L)</b>																			
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	10	9.4	470	510	550	1,100	1,300	1,900	1,900	730	830	850	<2.1	<2.2	<2.2	<2.0
Perfluoropentanoic acid [C5]	PFPeA	--	--	17	14	1,400	1,400	1,600	4,600	4,800	7,900	8,800	4,400	4,000	3,900	<0.44 F1	<0.46	0.52 J	<0.41
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	53	49	2,000	2,100	2,100	4,800	5,200	11,000	11,000	4,700	5,300	5,400	<0.52	<0.54	0.66 J	<0.49
Perfluoroheptanoic acid [C7]	PFHpA	--	--	30	42	670	600	610	3,200	3,000	2,800	3,100	2,100	2,400	2,500	<0.22	<0.23	<0.23	<0.21
Perfluorooctanoic acid [C8]	PFOA	2	20	100	130	760	700	1,500	17,000	16,000	11,000	10,000	3,400	3,000	3,200	<0.76	<0.80	0.87 J	<0.72
Perfluorononanoic acid [C9]	PFNA	3	30	<0.25	0.24 J	24	25	32	130 J	240	310	290	3,700	4,100	4,300	<0.24 F1	<0.25	<0.25	0.26 J
Perfluorodecanoic acid [C10]	PFDA	60	300	<0.28	<0.26	1.2 J	1.2 J	1.0 J	<28	<0.27	<0.28	<0.26	<0.29	<0.26	<0.26	<0.28	<0.29	<0.28	<0.26
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<1.0	<0.94	<0.98	<1.0	<0.95	<100	<0.95	<100	<0.93	<1.0	<0.92	<0.93	<0.98	<1.0	<1.0	<0.93
Perfluorododecanoic acid [C12]	PFDaA	100	500	<0.50	<0.47	<0.49	<0.51	<0.47	<51	<0.47	<0.51	<0.46	<0.52	<0.46	<0.46	<0.49	<0.51	<0.50	<0.46
Perfluorotridecanoic acid [C13]	PFTrDA	--	--	<1.2	<1.1	<1.2	<1.2	<1.1	<120	<1.1	<1.2	<1.1	<1.2	<1.1	<1.1	<1.2	<1.2	<1.2	<1.1
Perfluorotetradecanoic acid [C14]	PFTeA	2,000	10,000	<0.67	<0.62	<0.65	<0.67	<0.63	<67	<0.63	<0.67	<0.61	<0.69	<0.61	<0.62	<0.65	<0.68	<0.67	<0.62
<b>Sulfonic Acids (ng/L)</b>																			
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	6.5	5.9	1,200	1,100	1,100	1,700	1,800	3,700	4,000	1,900	1,700	1,600	<0.18	<0.19	0.24 J	<0.17
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	6.4	6.5	850	860	710	2,000	1,700	2,300	2,500	1,900	1,600	1,500	<0.27 F1	<0.28	<0.27	<0.25
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	250	500	6,900	6,400	12,000	41,000 E	40,000 E	30,000	29,000	14,000	14,000	13,000	<0.51	0.66 J	2.7	0.94 J
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	0.66 J	<0.16	17	17	21	63 J	120	1,400	1,900	840	590	580	<0.17 F1	<0.18	<0.17	<0.16
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	9.0 I	21 I	940	1,000	1,400	280	460 I	2,400 I	3,000 I	29,000	37,000 E	36,000 E	<0.48	<0.51	2.1 I	2.3
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<0.34	<0.32	<0.33	<0.34	<0.32	<34	<0.32	<0.34	<0.32	<0.35	<0.31	<0.31	<0.33 F1	<0.35	<0.34	<0.31
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<0.29	<0.27	<0.29	<0.30	<0.28	<29	<0.28	<0.29	<0.27	<0.30	<0.27	<0.27	<0.29 F1	<0.30	<0.29	<0.27
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	<0.89	<0.83	<0.87	<0.90	<0.84	<89	<0.84	<0.89	<0.83	<0.91	<0.81	<0.82	<0.87	<0.91	<0.89	<0.82
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	<0.22	<0.20	<0.21	<0.22	<0.21	<22	<0.21	2.1	1.7	<0.23	0.45 J	0.44 J	<0.21 F1	<0.22	<0.22	<0.20
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	<2.3	<2.1	18	17	22	<230	41	240	210	300	270	270	<2.2 F1	<2.3	<2.3	<2.1
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<0.42	<0.39	17	18	40	<42	<0.40	<0.42	<0.39	13	23	26	<0.41	<0.43	<0.42	<0.39
<b>Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)</b>																			
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<0.90	<0.84	<0.87	<0.91	<0.84	<90	<0.84	<0.90	<0.82	<0.92	0.83 J	<0.83	<0.88	<0.92	<0.90	<0.83
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<0.39	<0.37	<0.38	<0.40	<0.37	<40	<0.37	<0.40	<0.36	<0.41	<0.36	<0.36	<0.38	<0.40	<0.39	<0.36
N-Ethylperfluorooctanesulfonamide [C10] (Astar, Finitron, Fluoramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEiFOSA	2	20	<0.80	<0.74	<0.78	<0.80	<0.75	<80	<0.75	<0.80	<0.73	<0.82	<0.73	<0.73	<0.78	<0.81	<0.79	<0.73
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<1.1	<1.0	<1.1	<1.1	<1.0	<110	<1.0	<1.1	<1.0	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<1.0
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEiFOSAA	2	20	<1.2	<1.1	<1.2	<1.2	<1.1	<120	<1.1	<1.2	<1.1	<1.2	<1.1	<1.1	<1.2 F1	<1.2	<1.2	<1.1
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<1.3	<1.2	<1.2	<1.3	<1.2	<130	<1.2	<1.3	<1.2	<1.3	<1.2	<1.2	<1.3 F1	<1.3	<1.3	<1.2
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEiFOSE	2	20	<0.78	<0.72	<0.76	<0.79	<0.73	<78	<0.73	<0.78	<0.72	<0.80	<0.71	<0.72	<0.76 F1	<0.80	<0.78	<0.72
<b>Replacement Chemicals (ng/L)</b>																			
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<1.4	<1.3	<1.3	<1.4	<1.3	<140	<1.3	<140	<1.3	<140	<1.3	<1.3	<1.3	<1.4	<1.4	<1.3
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<0.37	<0.34	<0.36	<0.37	<0.34	<37	<0.34	<0.37	<0.34	<0.38	0.92 J	<0.34	<0.36 F1	<0.37	<0.37	<0.34
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<0.22	<0.20	<0.21	<0.22	<0.21	<22	<0.21	<0.22	<0.20	<0.23	<0.20	<0.20	<0.21 F1	<0.22	<0.22	<0.20
11-chloroicosadecafluoro-3-oxadecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--	--	<0.29	<0.27	<0.29	<0.30	<0.28	<29	<0.28	<0.29	<0.27	<0.30	0.31 J	<0.27	<0.29 F1	<0.30	<0.29	<0.27

\* = Source: Wisconsin Department of Natural Resources (WDNR) PFAS List - 1.1.21. The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Wisconsin Department of Health Services to the WDNR. The WDNR is in the rule making process to include these values into ch. NR 140 Wisconsin Administrative Code.  
 \*\* = Field duplicate sample.  
 PFAS = perfluoroalkyl and polyfluoroalkyl substances.  
 ng/L = nanograms per liter (parts per trillion).  
 -- = Standard not established.  
 < = Less than laboratory method detection limit (MDL).  
 BOLD = Sample result exceeds the ch. NR 140 ES.  
 Italics = Sample result exceeds the ch. NR 140 PAL.  
 \*+ = LCS and/or LCSd is outside acceptance limits, high biased.  
 I = Value is EMPC (estimated maximum possible concentration).  
 E = Result exceeded calibration range.  
 F1 = MS and/or MSD recovery exceeds control limits.

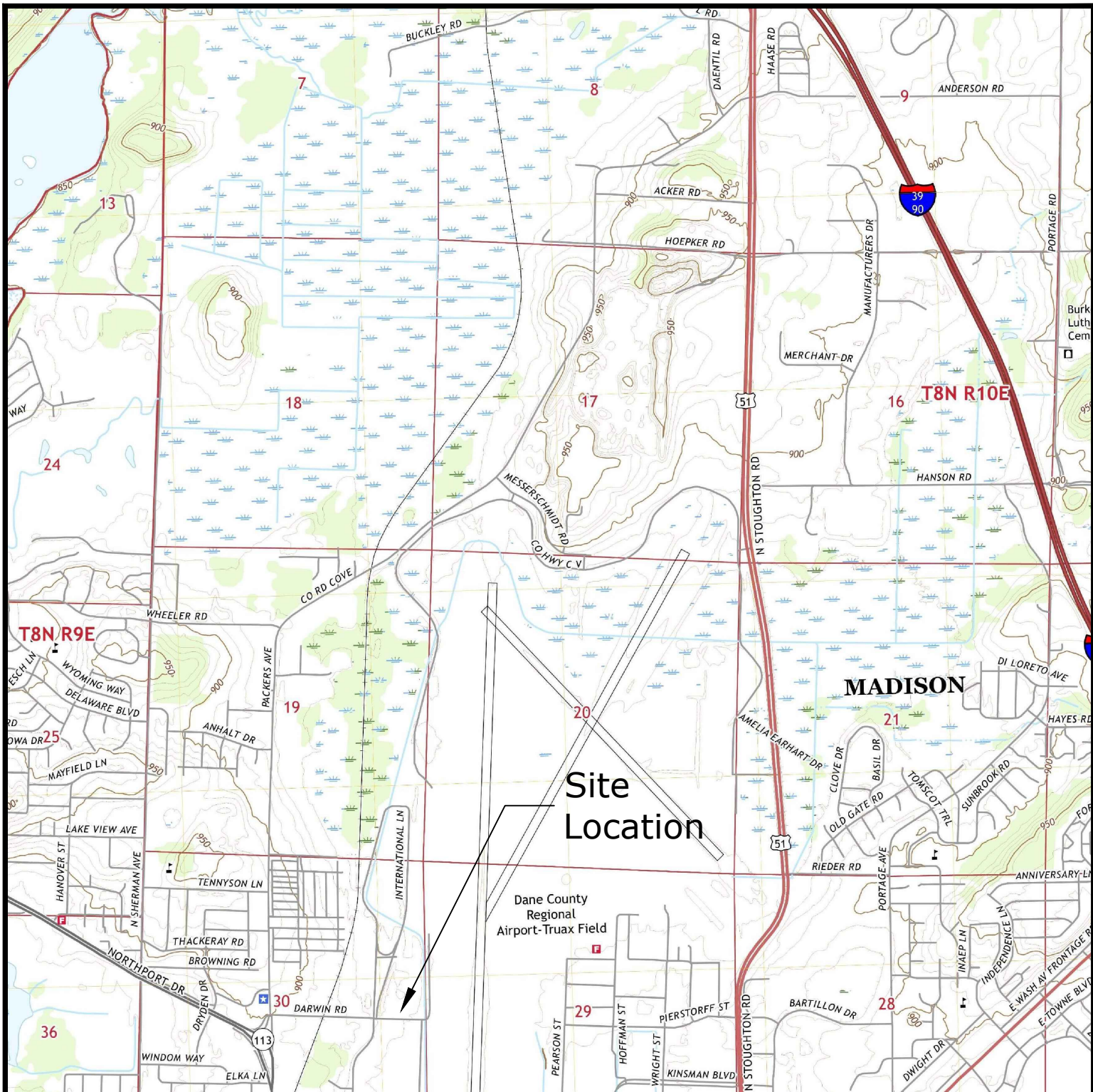
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# Figures

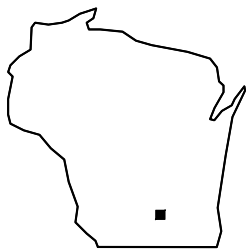
FIGURES

FIGURES

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BASE MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, DEFOREST WISCONSIN, DATED 2022.



QUADRANGLE LOCATION



NORTH

DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN


FIGURE 1  
SITE LOCATION

DRAWN BY: CRP

DATE: 03-21-2023



BASE MAP SOURCE: DCiMap, Dane County, WI Aerial, 2022

  
 NORTH  
 SCALE: 1"=80'

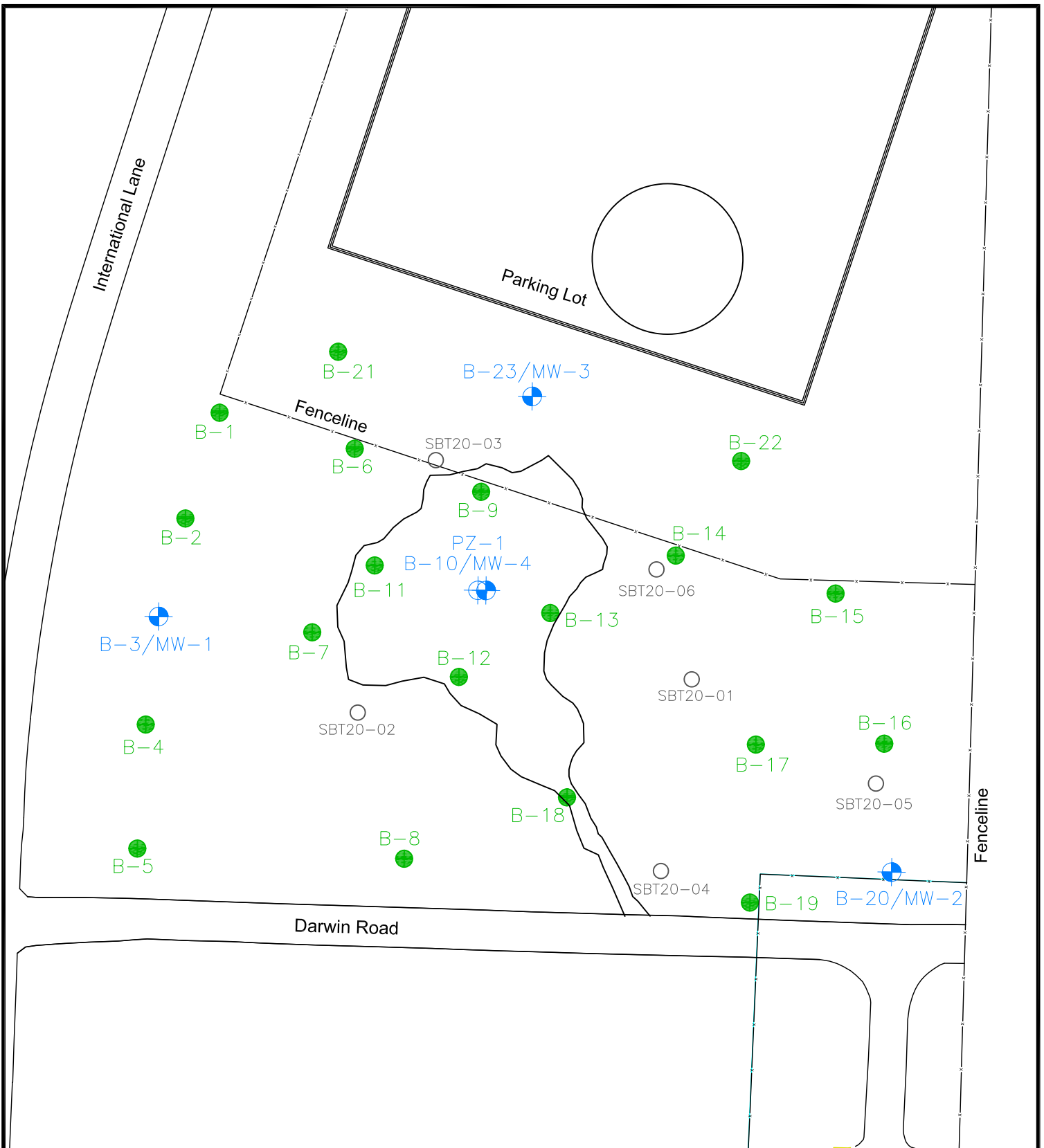
- 1 - Outline taken from Envirodyne Engineers, Inc. 1989. Final Engineering Report, Contamination Evaluation Truax Field, Madison, Wisconsin - DASHED LINE
- 2 - Outline taken from DCiMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 2  
SITE MAP**

DRAWN BY: CRP


DATE: 06-05-2023



BASE MAP SOURCE: DCiMap, Dane County, WI Aerial, 2022

**LEGEND**

-  Monitoring Well Location
-  Piezometer Location
-  Soil Boring Location
-  July 2020 Soil/Groundwater Sample Location


  
 NORTH  
 SCALE: 1"=80'

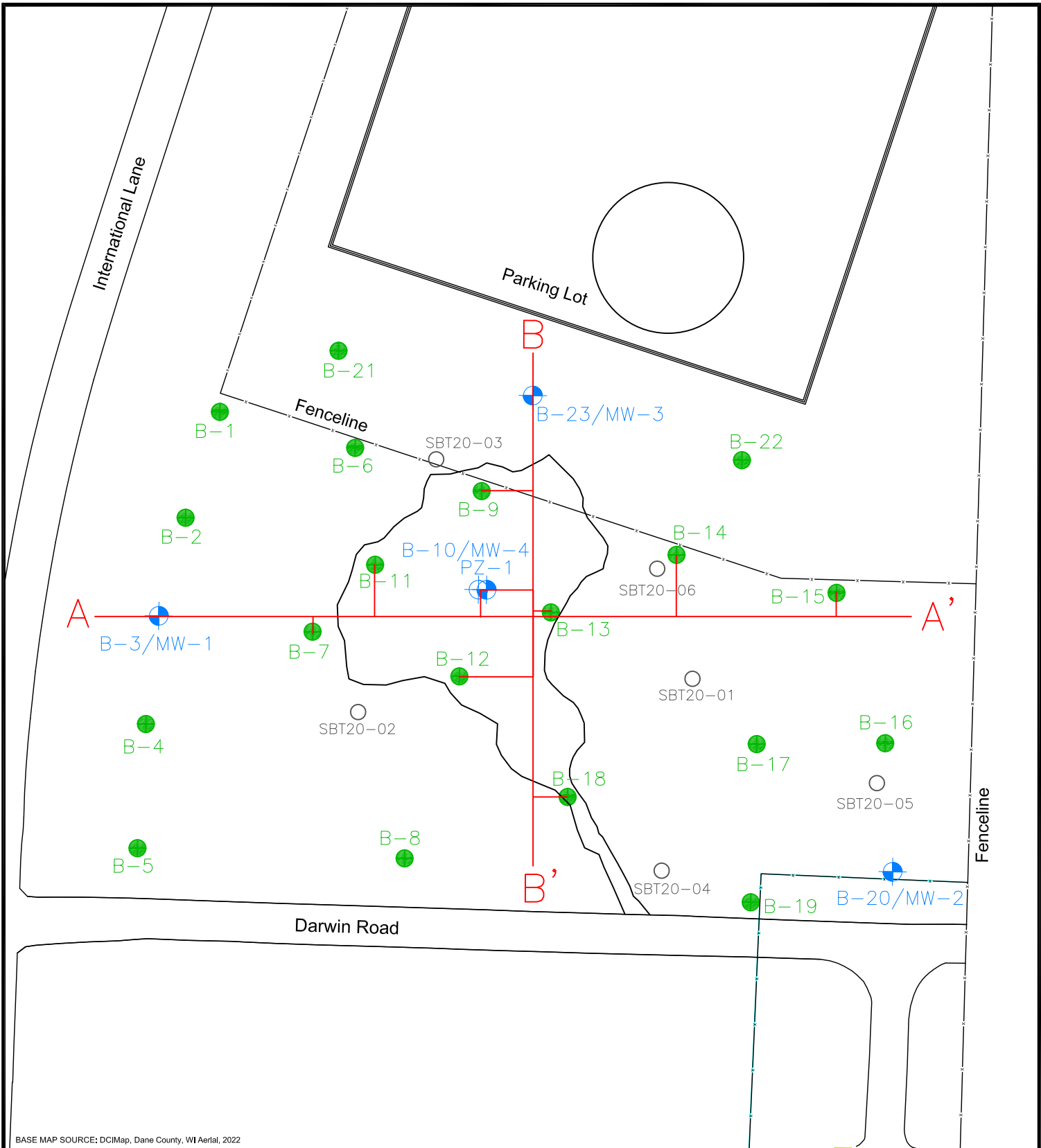
**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 3  
SOIL BORING AND MONITORING WELL  
LOCATION MAP**

DRAWN BY: CRP

DATE: 06-05-2023


 2 - Outline taken from DCiMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

-  Monitoring Well Location
-  Piezometer Location
-  Soil Boring Location
-  July 2020 Soil/Groundwater Sample Location


  
 NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 4  
CROSS-SECTION TRANSECT MAP**

DRAWN BY: CRP

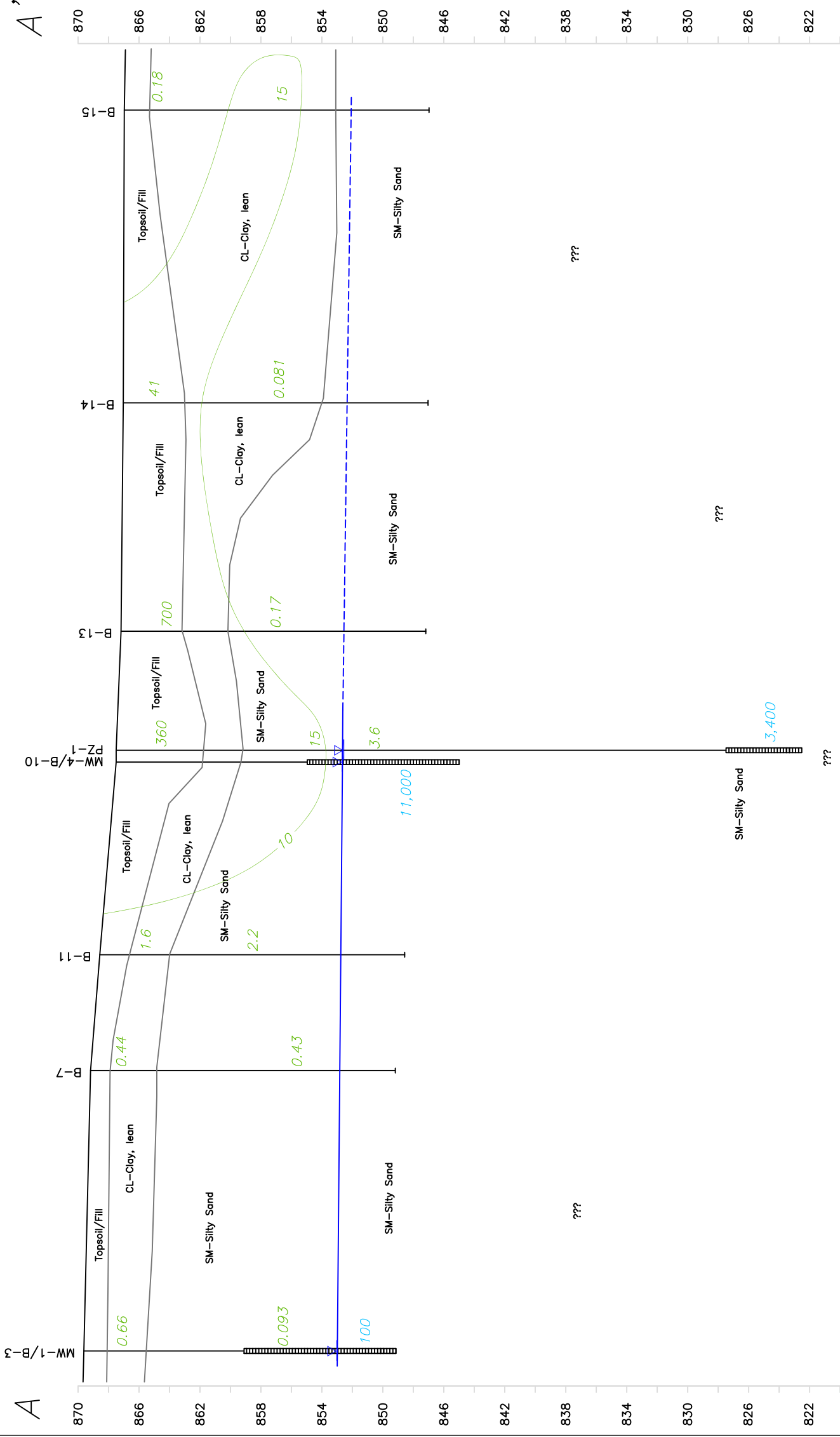
DATE: 07-05-2023

 Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974



WEST







A



EAST

A'

**LEGEND**

-  WELL SCREEN INTERVAL
-  WATER LEVELS MEASURED MEASURED MAY 02, 2023
-  STRATIGRAPHIC CONTACTS
-  PFOA ISOCONTOUR IN SOIL (ug/kg)
-  15 PFOA CONCENTRATION IN SOIL (ug/kg) ND=NOT DETECTED ABOVE LABORATORY MDL
-  11,000 PFOA CONCENTRATION IN GROUNDWATER (ng/L) (MAY 02, 2023)

DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN

FIGURE 5  
GEOLOGIC CROSS-SECTION A-A'  
PFOA CONCENTRATIONS

DRAWN BY: CRP

DATE: 09-28-2023

SCALE:

HORIZONTAL 1" = 40'

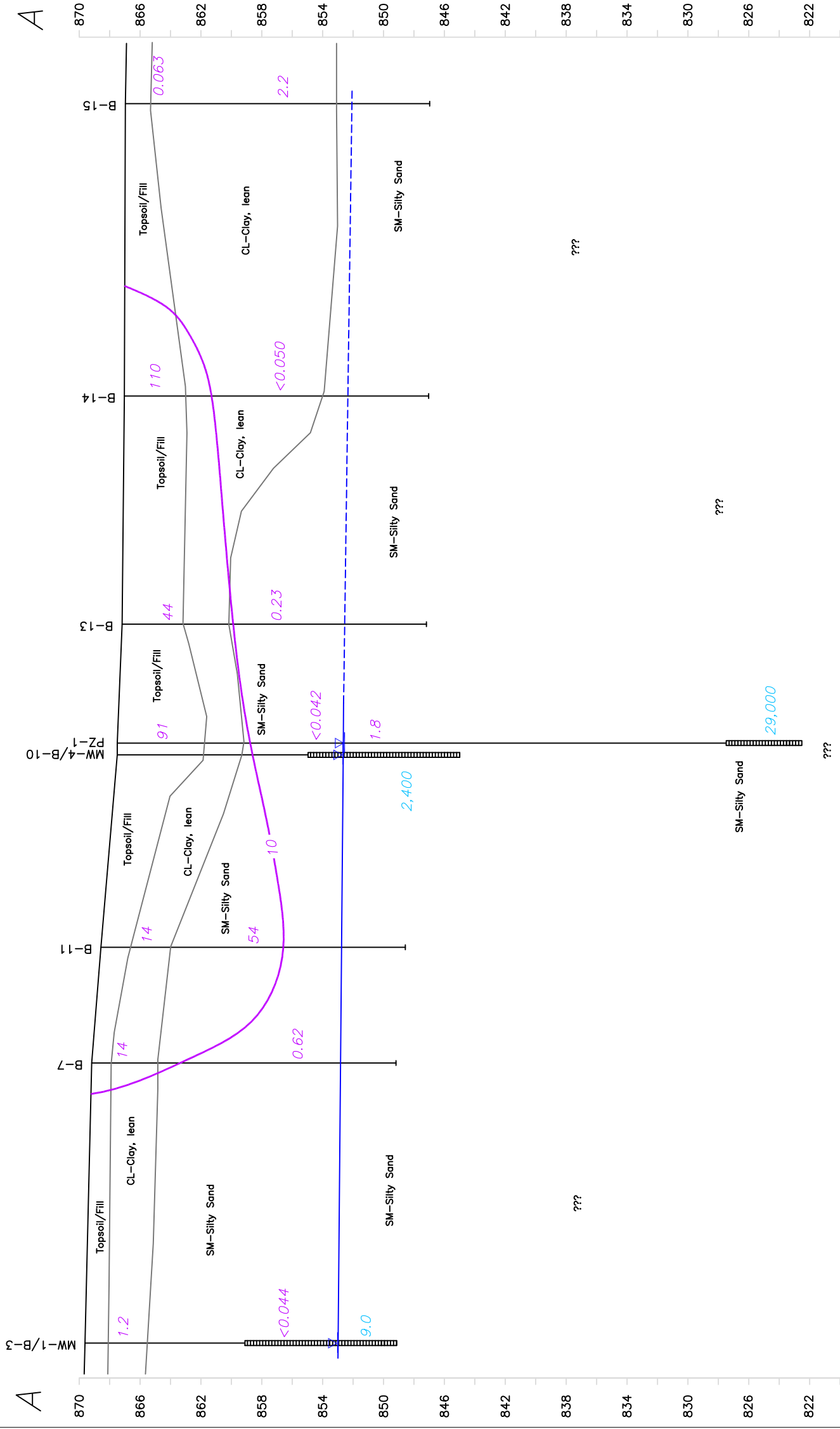
VERTICAL 1" = 8'

WEST







A

EAST

A'



**LEGEND**

-  WELL SCREEN INTERVAL
-  WATER LEVELS MEASURED MEASURED MAY 02, 2023
-  STRATIGRAPHIC CONTACTS
-  PFOS ISOCONTOUR IN SOIL (ug/kg)
-  PFOS CONCENTRATION IN SOIL (ug/kg) <= NOT DETECTED ABOVE LABORATORY MDL
-  PFOS CONCENTRATION IN GROUNDWATER (ng/L) (MAY 02, 2023)

DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN

FIGURE 6  
GEOLOGIC CROSS-SECTION A-A'  
PFOS CONCENTRATIONS

DRAWN BY: CRP

DATE: 09-28-2023

SCALE:

HORIZONTAL 1" = 40'

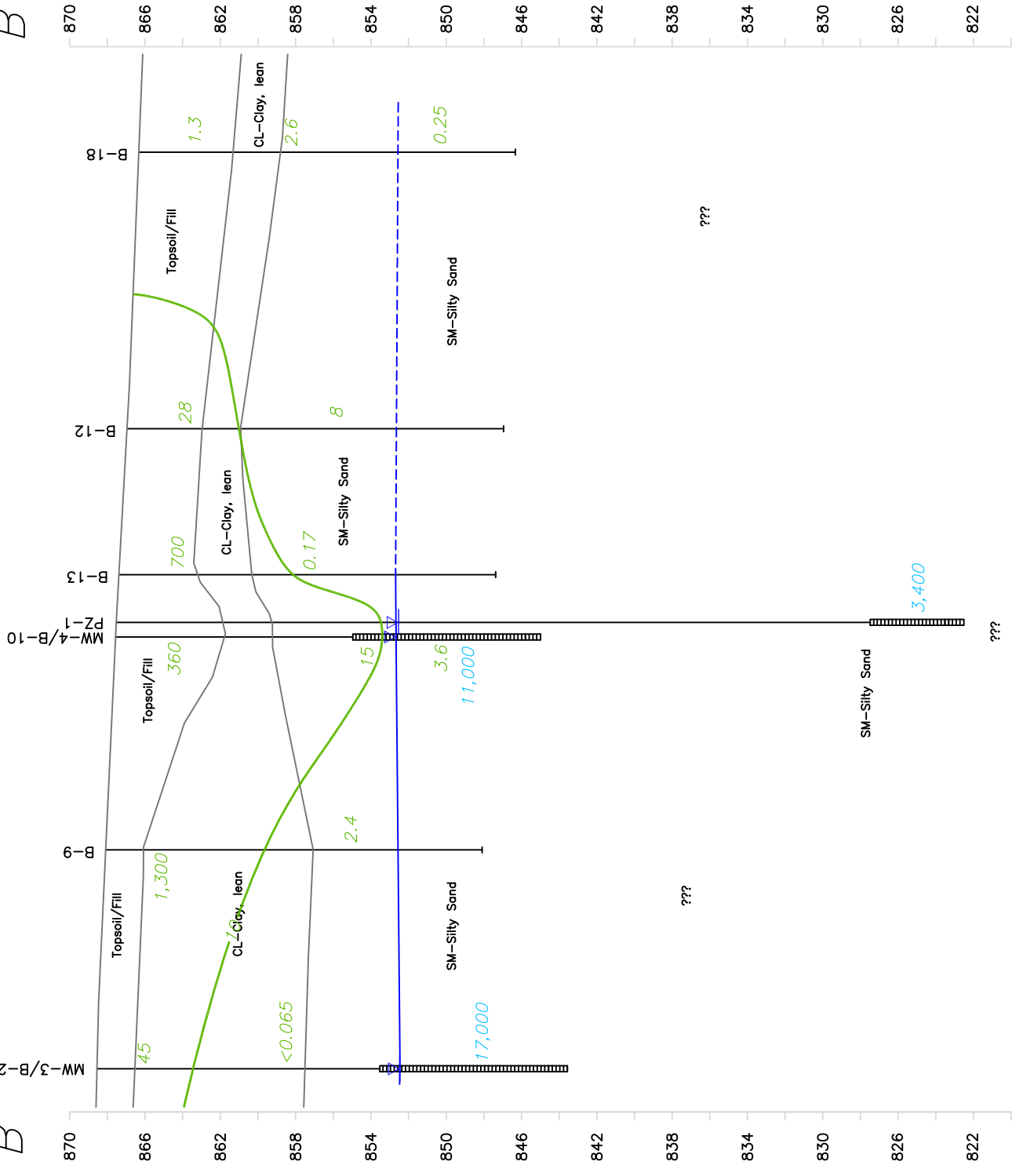
VERTICAL 1" = 8'

SOUTH

B'

NORTH

B



LEGEND



WELL SCREEN INTERVAL



WATER LEVELS MEASURED  
MEASURED MAY 02, 2023



STRATIGRAPHIC CONTACTS



PFOA ISOCONTOUR IN SOIL  
(ug/kg)



PFOA CONCENTRATION IN SOIL  
(ug/kg) < = NOT DETECTED ABOVE  
LABORATORY MDL



PFOA CONCENTRATION IN  
GROUNDWATER (ng/L) (MAY 02,  
2023)

DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN

FIGURE 7  
GEOLOGIC CROSS-SECTION B-B'  
PFOA CONCENTRATIONS

DRAWN BY: CRP

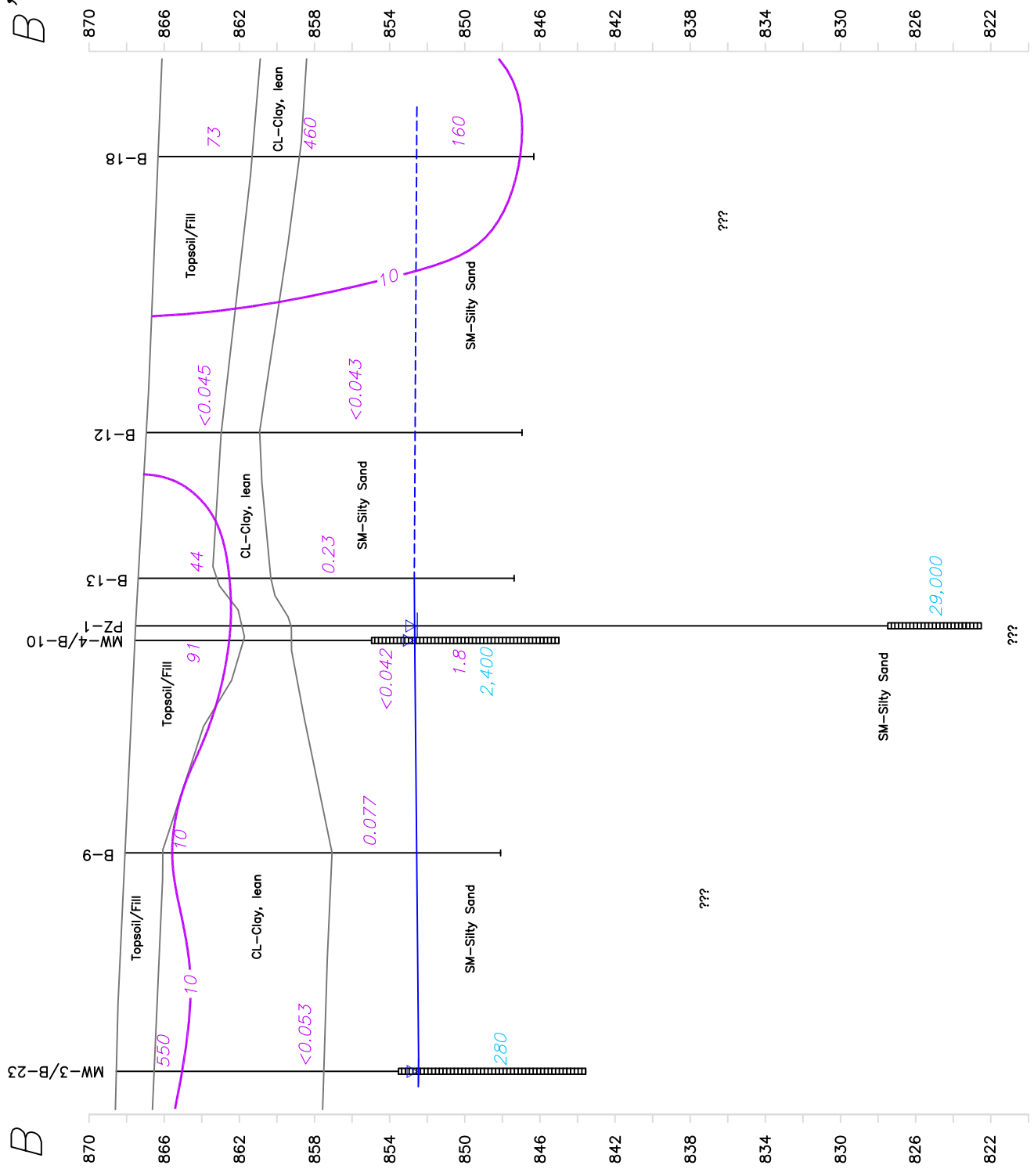
DATE: 09-28-2023

SCALE:

HORIZONTAL 1" = 40'

VERTICAL 1" = 8'

NORTH B SOUTH B'



LEGEND

- WELL SCREEN INTERVAL
- WATER LEVELS MEASURED MEASURED MAY 02, 2023
- STRATIGRAPHIC CONTACTS
- PFOS ISOCONTOUR IN SOIL (ug/kg)
- 2.6 PFOS CONCENTRATION IN SOIL (ug/kg) < = NOT DETECTED ABOVE LABORATORY MDL
- 11,000 PFOS CONCENTRATION IN GROUNDWATER (ng/L) (MAY 02, 2023)

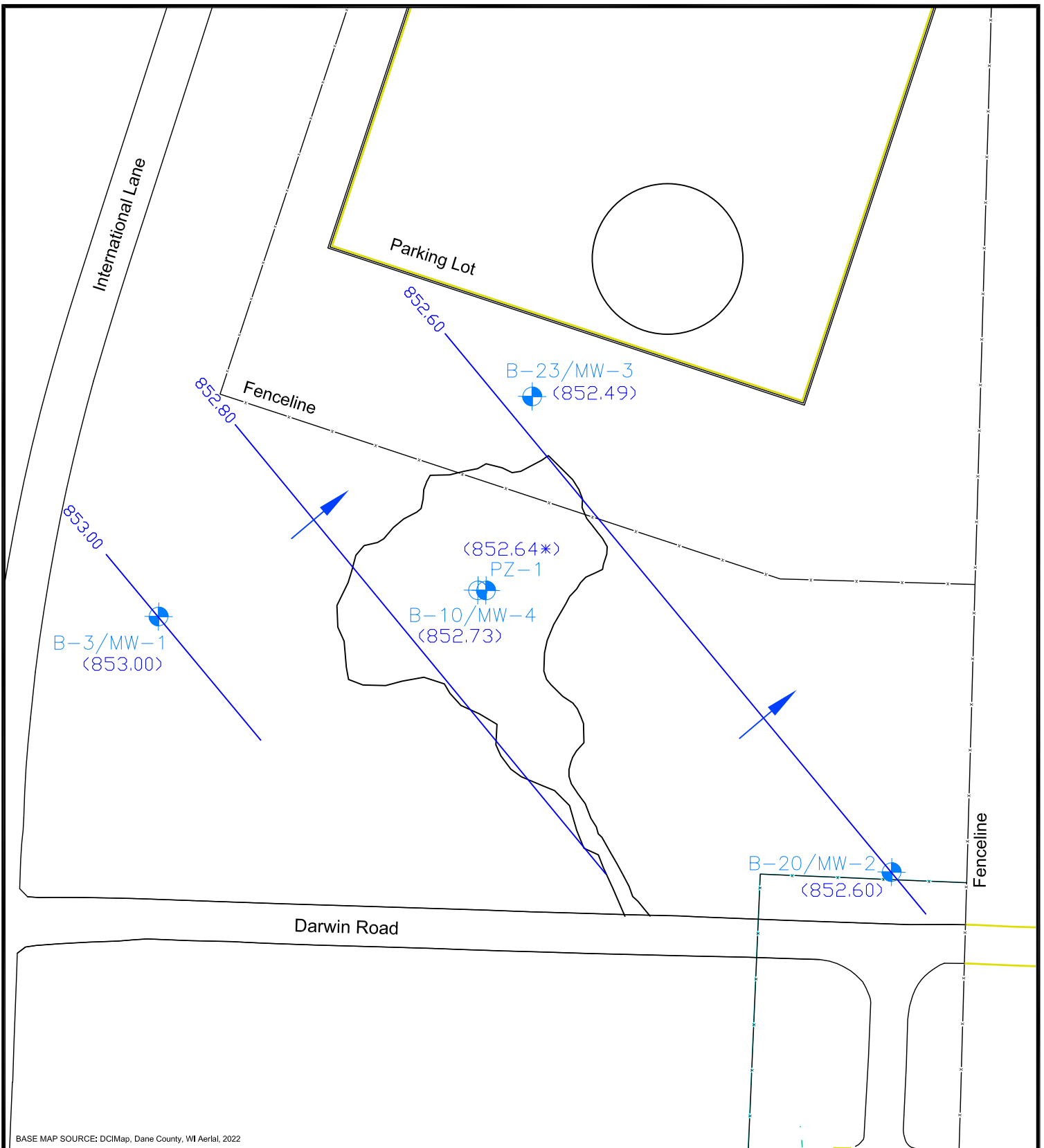
DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN

FIGURE 8  
GEOLOGIC CROSS-SECTION B-B'  
PFOS CONCENTRATIONS

DRAWN BY: CRP      DATE: 09-28-2023








SCALE:  
HORIZONTAL 1" = 40'  
VERTICAL 1" = 8'



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

### LEGEND

-  Monitoring Well Location
-  Piezometer Location
-  Groundwater Elevation Contour (ft msl)
-  (853.00) Groundwater Elevation (ft msl)


  
 NORTH  
 SCALE: 1"=80'

## DARWIN ROAD PFAS INVESTIGATION MADISON, WISCONSIN

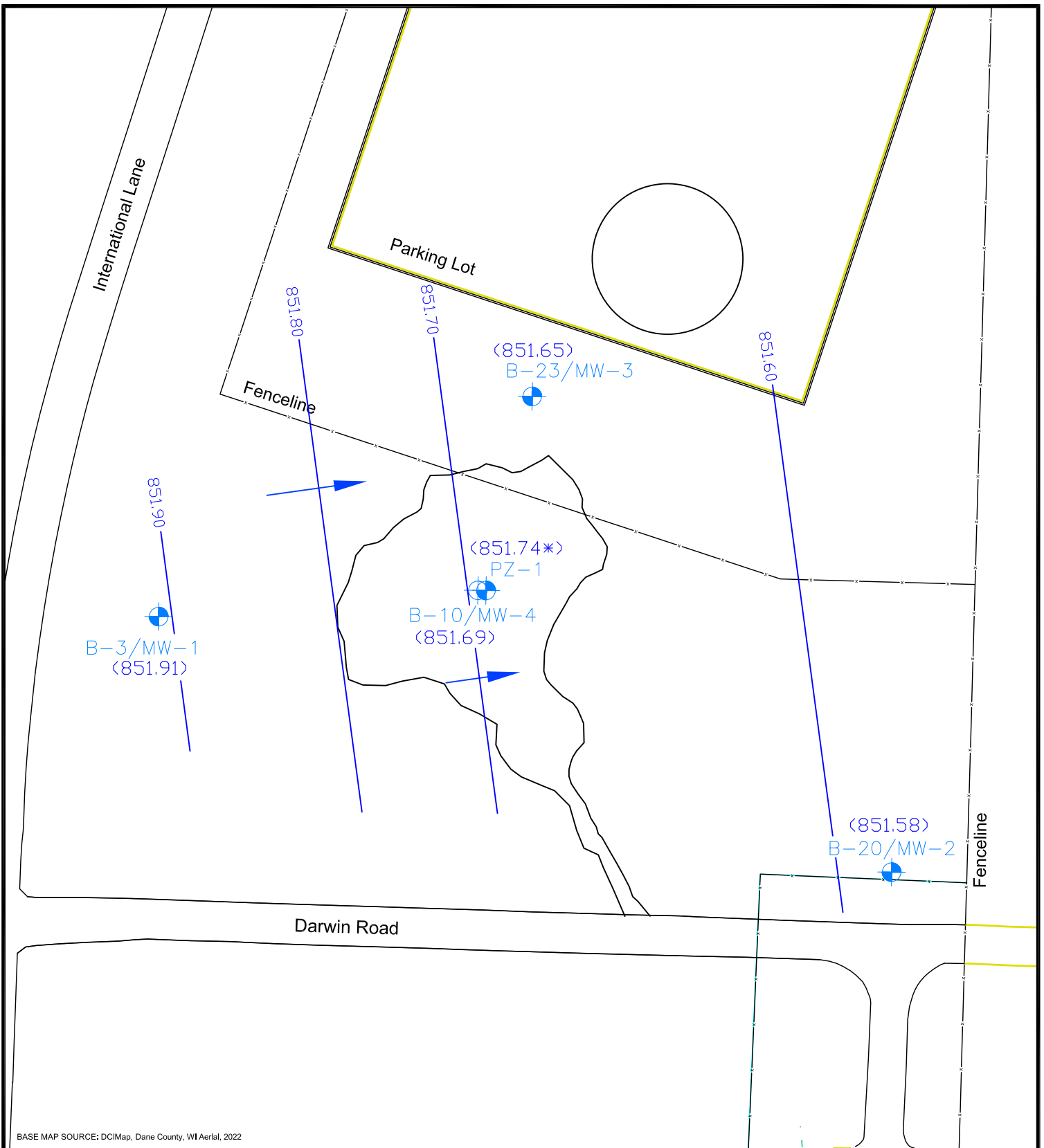
### FIGURE 9 GROUNDWATER FLOW MAP - MAY 02, 2023

DRAWN BY: CRP

DATE: 07-05-2023





 Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974

\* - PZ-1 not used in groundwater elevation contouring



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

-  Monitoring Well Location
-  Piezometer Location
-  Groundwater Elevation Contour (ft msl)
-  Groundwater Elevation (ft msl)

  
 NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

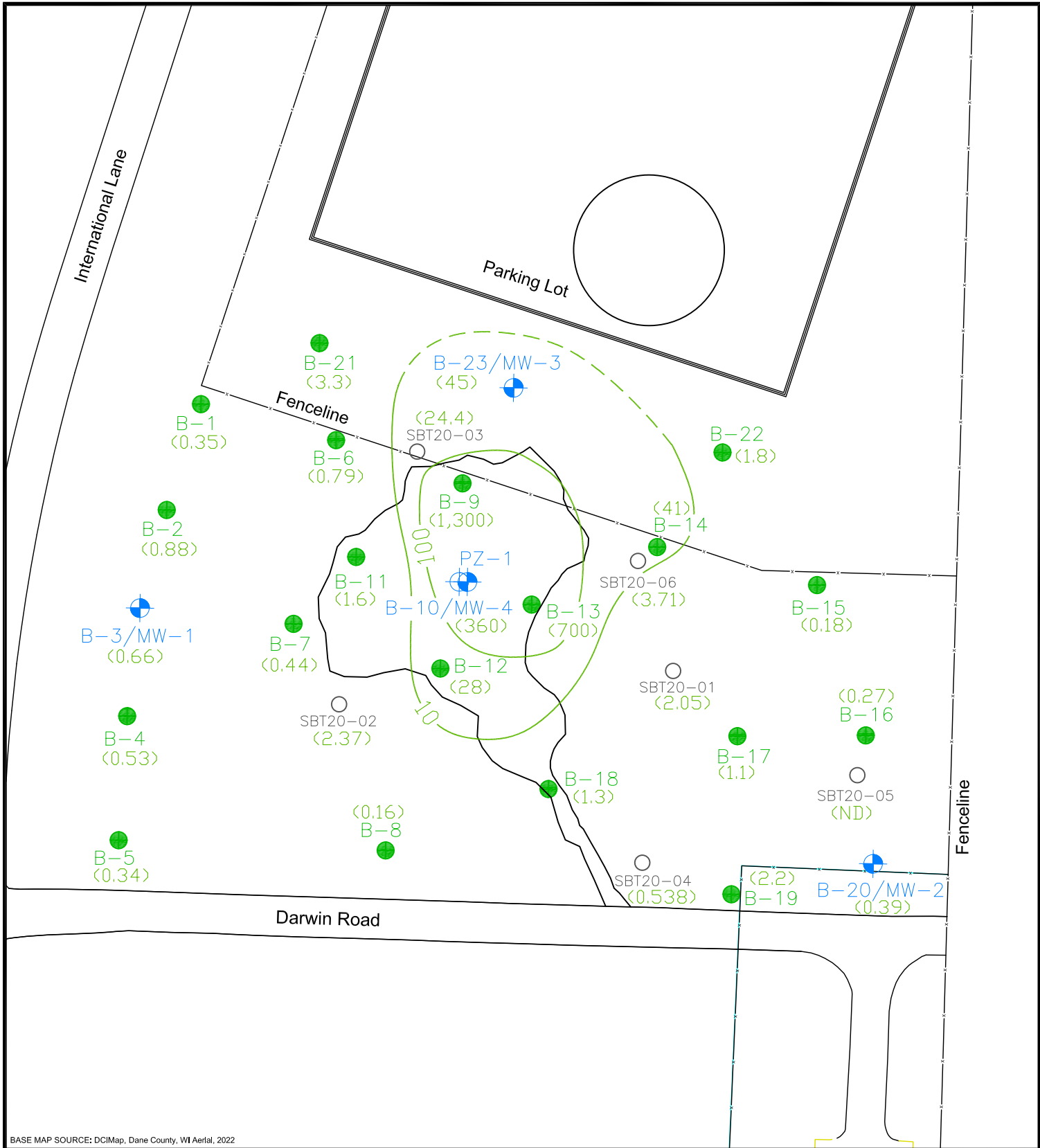
**FIGURE 10  
GROUNDWATER FLOW MAP - AUGUST 16, 2023**

DRAWN BY: CRP

DATE: 09-05-2023

Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974

\* - PZ-1 not used in groundwater elevation contouring



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

- Monitoring Well Location
- Piezometer Location
- Soil Boring Location
- PFOA Iso-Concentration Contour (ug/kg)
- <0.66> PFOA Concentration (ug/kg)
- <ND> Not Detected Above Laboratory Method Detection Limit

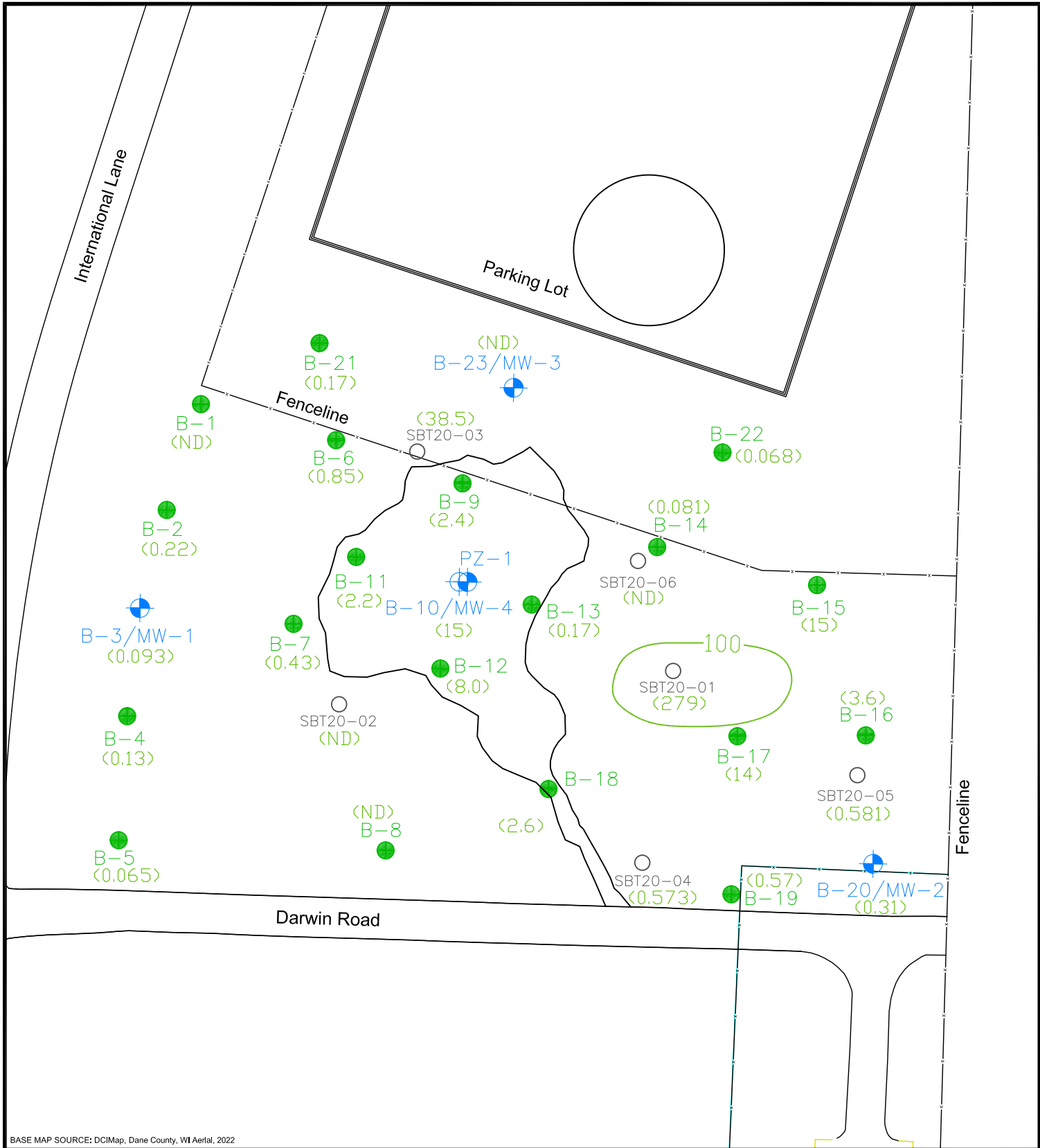
NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 11  
PFOA CONCENTRATIONS IN SHALLOW SOIL**







DRAWN BY: CRP      DATE: 09-27-2023


Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

-  Monitoring Well Location
-  Piezometer Location
-  Soil Boring Location
-  PFOA Iso-Concentration Contour (ug/kg)
-  <0.13> PFOA Concentration (ug/kg)
-  <ND> Not Detected Above Laboratory Method Detection Limit

  
 NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

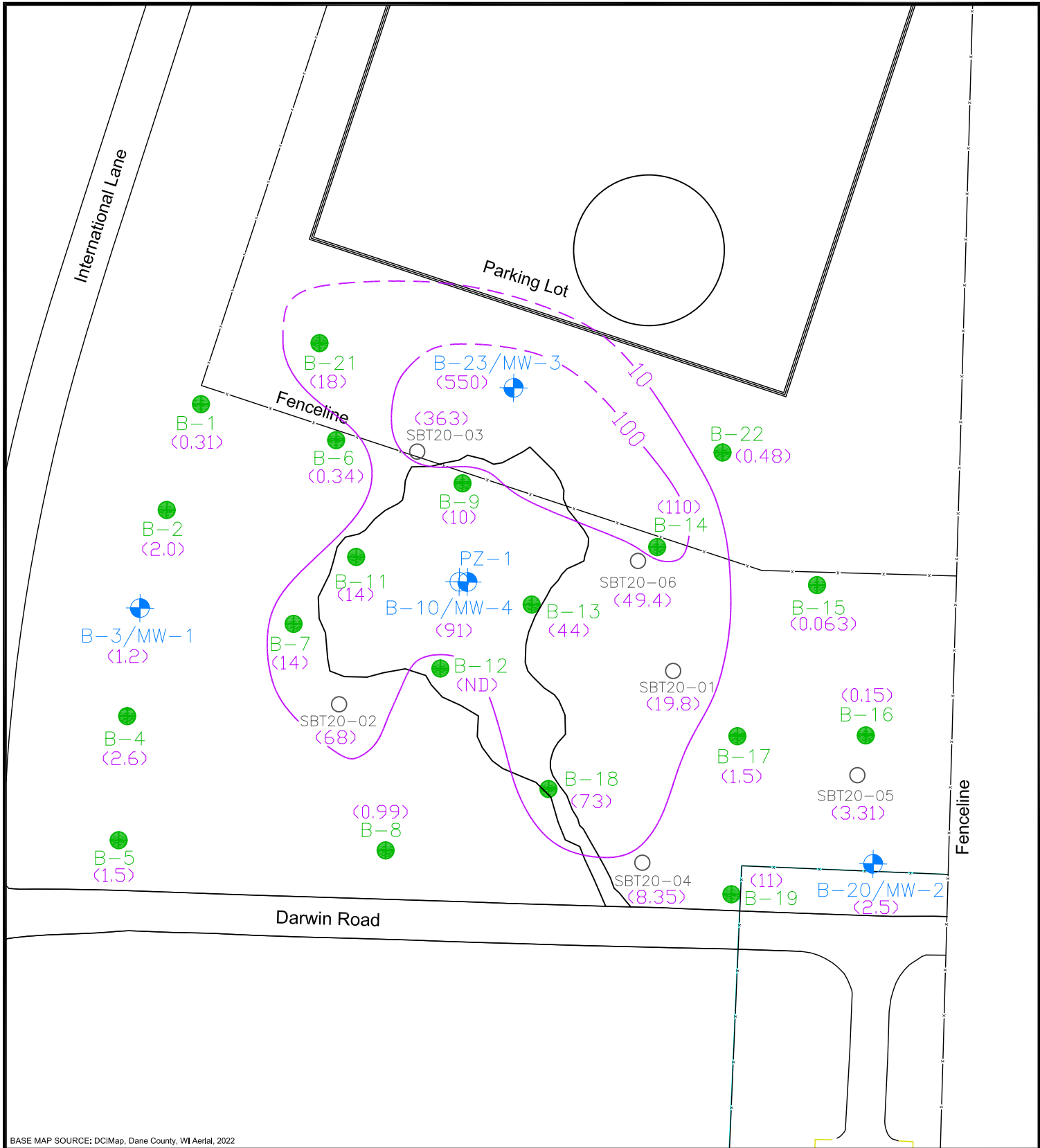
**FIGURE 12  
PFOA CONCENTRATIONS IN DEEP SOIL**

DRAWN BY: CRP      DATE: 09-27-2023



 Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974





BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

- Monitoring Well Location
- Piezometer Location
- Soil Boring Location
- PFOS Iso-Concentration Contour (ug/kg)
- (14) PFOS Concentration (ug/kg)
- (ND) Not Detected Above Laboratory Method Detection Limit

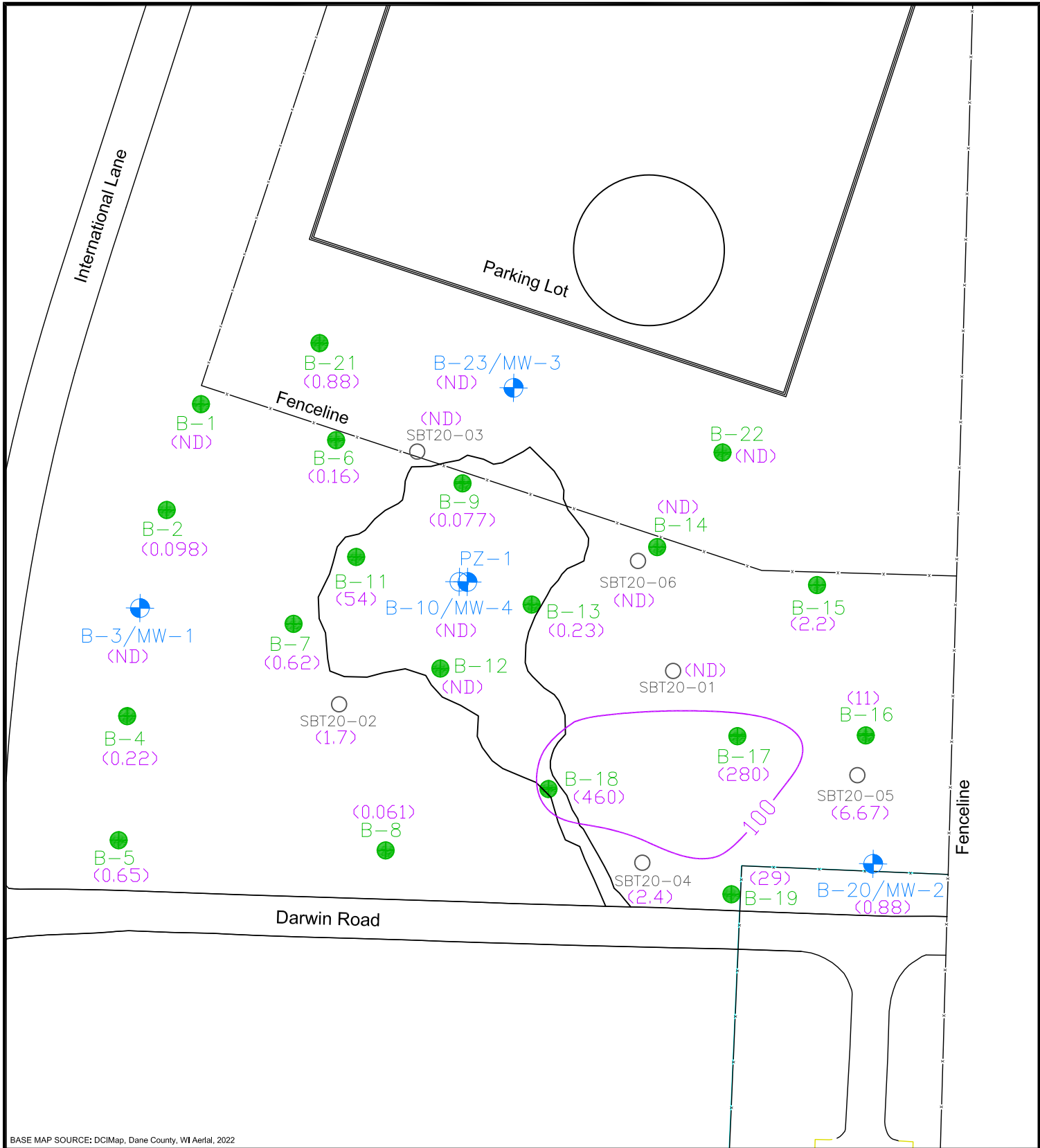
NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 13  
PFOS CONCENTRATIONS IN SHALLOW SOIL**







DRAWN BY: CRP

DATE: 09-27-2023



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**


-  Monitoring Well Location
-  Piezometer Location
-  Soil Boring Location
-  PFOS Iso-Concentration Contour (ug/kg)
-  (0.23) PFOS Concentration (ug/kg)
-  (ND) Not Detected Above Laboratory Method Detection Limit

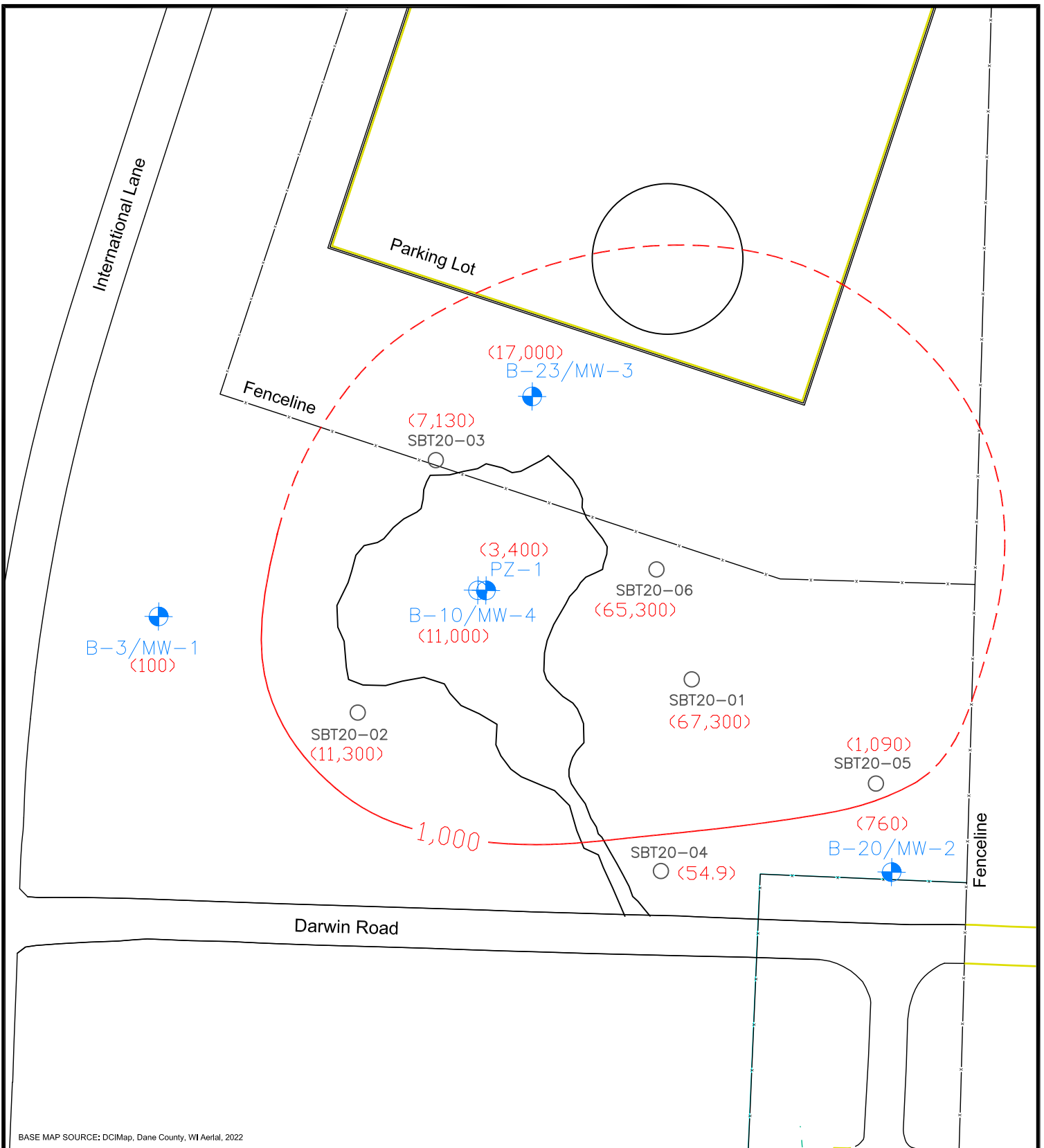
  
 NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 14  
PFOS CONCENTRATIONS IN DEEP SOIL**

DRAWN BY: CRP      DATE: 09-27-2023

 Fire Training Area Outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

- Monitoring Well Location
- Piezometer Location
- July 2020 Groundwater Sample Location
- PFOA Iso-Concentration Contour (dashed where inferred)
- PFOA Concentration in Groundwater - nanograms per liter (ng/l)

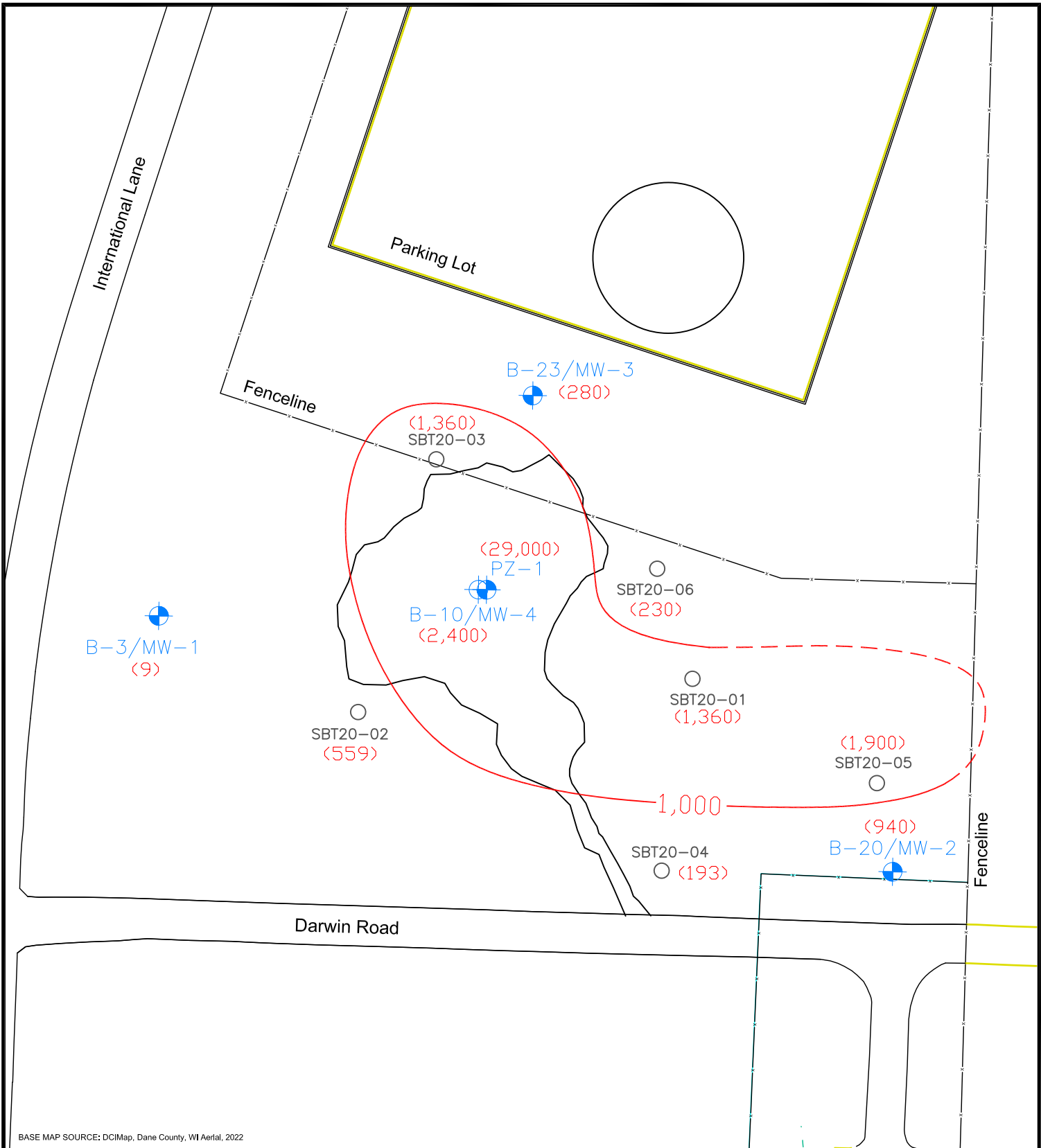
NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 15  
PFOA GROUNDWATER ISO-CONCENTRATION  
MAP - MAY 02, 2023**






DRAWN BY: CRP


DATE: 07-11-2023



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

-  Monitoring Well Location
-  Piezometer Location
-  July 2020 Groundwater Sample Location
-  PFOS Iso-Concentration Contour (dashed where inferred)
-  <280> PFOS Concentration in Groundwater - nanograms per liter (ng/l)

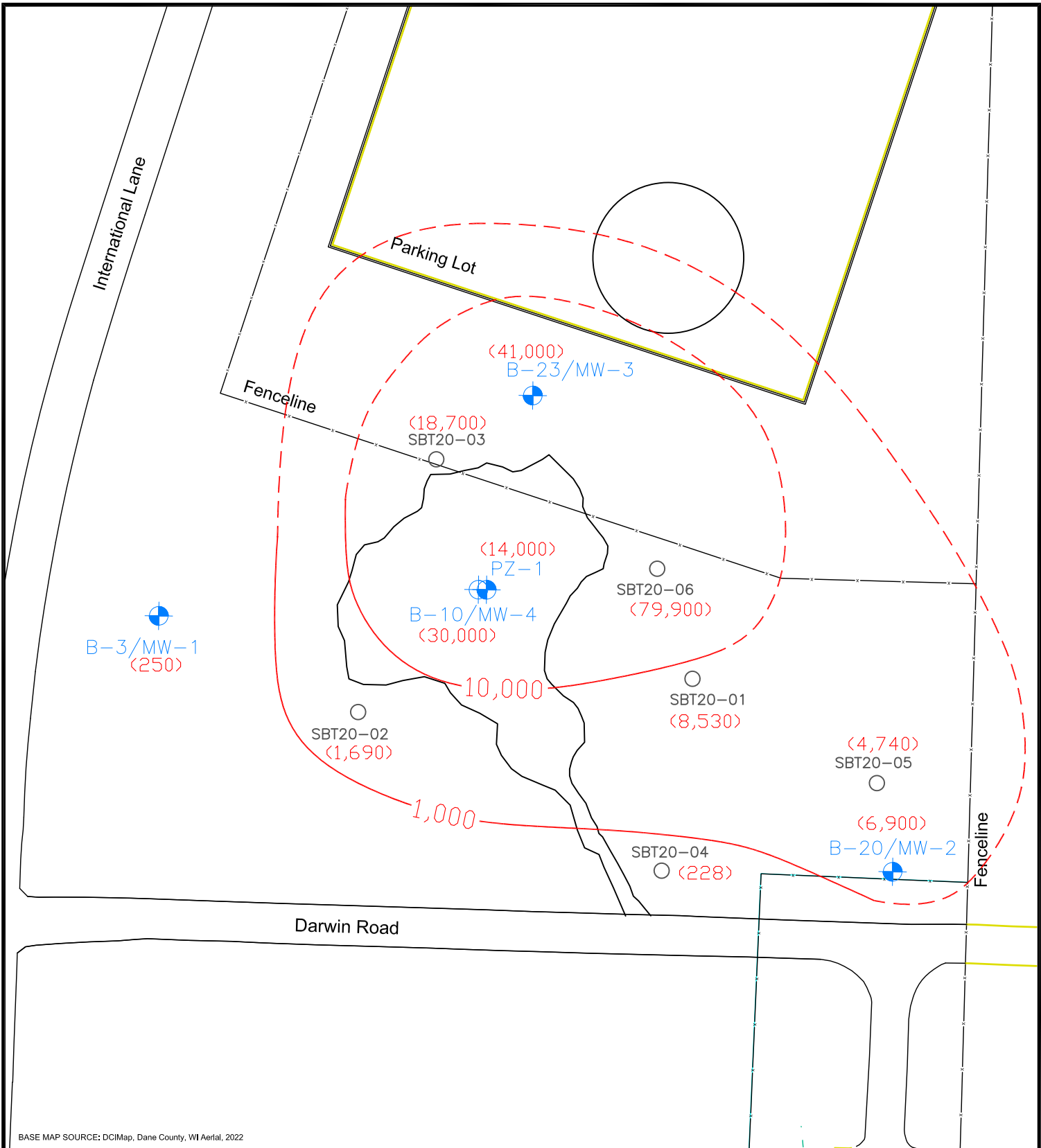
  
 NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION**  
**MADISON, WISCONSIN**  
**FIGURE 16**  
**PFOS GROUNDWATER ISO-CONCENTRATION**  
**MAP - MAY 02, 2023**

DRAWN BY: CRP      DATE: 07-11-2023



Fire training area outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974



BASE MAP SOURCE: DCIMap, Dane County, WI Aerial, 2022

**LEGEND**

- Monitoring Well Location
- Piezometer Location
- July 2020 Groundwater Sample Location
- PFHxS Iso-Concentration Contour (dashed where inferred)
- <250> PFHxS Concentration in Groundwater - nanograms per liter (ng/l)

NORTH  
 SCALE: 1"=80'

**DARWIN ROAD PFAS INVESTIGATION  
MADISON, WISCONSIN**

**FIGURE 17  
PFHxS GROUNDWATER ISO-CONCENTRATION  
MAP - MAY 02, 2023**

DRAWN BY: CRP

DATE: 07-11-2023

Fire training area outlines taken from DCIMap, Dane County, Wisconsin, Aerial, 1955, 1968, & 1974

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Appendix A

# Historical Aerial Photographs

APPENDIX A: HISTORICAL AERIAL PHOTOGRAPHS

APPENDIX A: HISTORICAL AERIAL PHOTOGRAPHS

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1955 Historical Aerial Photograph – Suspected Burn Pit Location

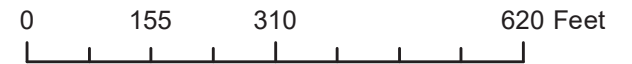


# Dane County Map 1955



March 22, 2023

 Parcels





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Appendix B

# Soil Boring/Abandonment Logs/Well Construction Reports

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-1</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1 GS	60 54		2	Topsoil. Fill material - Silt, some sand, some organics, stiff, dark brown, dry to moist.	Fill										Soil sample collected for laboratory analysis @ 2.5 ft bg.
				Clay, lean, stiff, brown, dry.	CL										
2 GS	60 60		4	Sand, fine, some silt, occasional trace gravel, brown, dry to moist.											Soil sample collected for laboratory analysis @ 13 ft bg.
3 GS	60 60		10												
4 GS	60 60		16	wet @ 15 ft bg	SM										
5 GS	60 60		20												
			24												
				EOB @ 25 ft bg											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature \_\_\_\_\_ Firm **Shannon & Wilson, Inc.** Tel: \_\_\_\_\_  
Fax: \_\_\_\_\_

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-10/MW-4</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name <b>MW-4</b>	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	

Facility ID	County <b>Dane</b>	County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>
-------------	-----------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry to moist.	Fill			-						
			3.0											
2 GS	60 60		4.5	Clay, lean, light brown, moist.	CL			-						Soil sample collected for laboratory analysis @ 3 ft bg.
			6.0											
3 GS	60 54		7.5	Sand, fine, some silt, occasional trace gravel, light brown, moist.				-						
			9.0											
4 GS	60 60		10.5	wet @ 13.5 ft bg	SM			-						Soil sample collected for laboratory analysis @ 13 ft bg.
			12.0											
			13.5											
			15.0											
			16.5											
			18.0											
			19.5											
				EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
-----------	--	--------------



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-11</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 54		1.5	Topsoil. Fill material - Sand, some silt, some organics, dark brown, dry to moist.	Fill			-						
			3.0	Clay, lean, light brown, dry.	CL								Soil sample collected for laboratory analysis @ 3 ft bg.	
2 GS	60 42		4.5	Sand, fine, some silt, occasional trace gravel, light brown, moist. Wet from 7 to 8.5 ft bg.				-						
			6.0											
3 GS	60 36		9.0	wet @ 13 ft bg	SM			-						
			12.0											
4 GS	60 60		15.0	EOB @ 20 ft bg				-						
			18.0											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
-----------	--	--------------

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-12</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Sand, some silt, dark brown to black, dry to moist.	Fill									
			3.0											
2 GS	60 48		4.5	Clay, lean, light brown, moist.	CL									
			6.0											
3 GS	60 60		7.5	Sand, fine, some silt, occasional trace gravel, dark to light brown, moist.	SM									
			10.5											
4 GS	60 60		12.0	wet @ 14 ft bg										
			15.0											
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-13</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1 GS	60 36		1.5	Topsoil. Fill material - Sand, some silt, some gravelly sand, black to brown, dry to moist.	Fill			-							
2 GS	60 60		4.5	Clay, lean, black to dark brown, moist.	CL			-							Soil sample collected for laboratory analysis @ 3 ft bg. Petroleum odor.
3 GS	60 42		7.5	Sand, fine, some silt, occasional trace gravel, brown, moist.				-							Soil sample collected for laboratory analysis @ 10 ft bg.
4 GS	60 60		12.0	6-inch sand/gravel seam @ 11.5 ft bg				-							
			13.5	wet @ 13 ft bg	SM										
			15.0												
			16.5												
			18.0												
			19.5												
				EOB @ 20 ft bg											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>			License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-14</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>			Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.	Common Well Name		Final Static Water Level <b>Feet MSL</b>	
					Surface Elevation <b>Feet MSL</b>	
					Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>			Local Grid Location			
State Plane <b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>			Lat <b>43° 7' 25.0"</b>			<input type="checkbox"/> N <input type="checkbox"/> E
			Long <b>-89° 20' 13.9"</b>			<input type="checkbox"/> S <input type="checkbox"/> W
Facility ID		County <b>Dane</b>		County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Sand, some silt, some organics, dark brown to tan, dry to moist.	Fill									
			3.0											
2 GS	60 36		4.5	Clay, lean, light brown, dry. Turns black to dark brown @ 7.5 ft bg.	CL									Soil sample collected for laboratory analysis @ 2 ft bg.
			6.0											
3 GS	60 54		10.5	Sand, fine, some silt, little gravel, dark brown, moist. Clay, lean, dark tan, moist.	SM CL									Soil sample collected for laboratory analysis @ 10 ft bg.
			12.0											
4 GS	60 60		15.0	Sand, fine, some silt, occasional trace gravel, light brown, moist. wet @ 15.5 ft bg	SM									
			16.5											
			18.0	1-ft clay seam @ 18 ft bg										
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-15</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments					
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200						
1 GS	60 60		1.5	Topsoil. Fill material - Sand, some silt, some organics, light brown, moist.	Fill									Soil sample collected for laboratory analysis @ 2 ft bg.					
			3.0	Clay, lean, little gravel, light to dark brown, moist.	CL														
2 GS	60 60		4.5	Sand, some silt, firm, dark brown, dry	SM								Soil sample collected for laboratory analysis @ 10 ft bg.						
			6.0	Clay, lean, firm, dark brown to black, dry.															
3 GS	60 60		7.5	6-inch sand/silt seam @ 8 ft bg	CL										Soil sample collected for laboratory analysis @ 10 ft bg.				
			9.0																
4 GS	60 60		10.5	Sand, fine, some silt, occasional trace gravel, light brown, moist. wet @ 14.5 ft bg	SM											Soil sample collected for laboratory analysis @ 10 ft bg.			
			12.0																
			13.5	3-inch clay seam @ 16 ft bg													Soil sample collected for laboratory analysis @ 10 ft bg.		
			15.0																
			16.5	EOB @ 20 ft bg														Soil sample collected for laboratory analysis @ 10 ft bg.	
			18.0																
			19.5																Soil sample collected for laboratory analysis @ 10 ft bg.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>			License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-16</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>			Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.	Common Well Name		Borehole Diameter <b>2.0 inches</b>	
			Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>			Local Grid Location			
State Plane <b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>			Lat <b>43° 7' 25.0"</b>			<input type="checkbox"/> N <input type="checkbox"/> E
			Long <b>-89° 20' 13.9"</b>			<input type="checkbox"/> S <input type="checkbox"/> W
Facility ID		County <b>Dane</b>		County Code <b>13</b>		Civil Town/City/ or Village <b>Madison</b>

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Sand, some silt, some organics, brown, moist.	Fill									Soil sample collected for laboratory analysis @ 2 ft bg.
				3.0	Clay, lean, little gravel, trace sand, brown, moist.	CL								
2 GS	60 60		4.5	Sand, some silt, firm, dark brown, dry.	SM								Soil sample collected for laboratory analysis @ 10 ft bg.	
			6.0	Clay, lean, firm, dark tan, dry.	CL									
			7.5	Sand, some silt, dark tan, moist.	SM									
3 GS	60 60		9.0	Clay, lean, firm, dark tan to brown, moist.	CL								Soil sample collected for laboratory analysis @ 10 ft bg.	
			10.5	Sand, fine, some silt, occasional gravel, tan/brown, moist.										
4 GS	60 60		12.0	wet @ 12 ft bg										
			15.0		SM									
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>			License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-17</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>			Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.	Common Well Name		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>			Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E			Lat <b>43° 7' 25.0"</b> Long <b>-89° 20' 13.9"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>	County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 56		1.5	Topsoil. Fill material - Sand, some silt, some organics, dark brown, moist. Clay, lean, stiff, trace gravel, dark brown, moist.	Fill									Soil sample collected for laboratory analysis @ 2 ft bg.
			3.0		CL									
2 GS	60 60		6.0	Sand, some silt, little gravel, black, dry. Clay, lean, trace gravel, light brown, moist.	SM								Soil sample collected for laboratory analysis @ 9 ft bg.	
			7.5		CL									
3 GS	60 36		9.0	Sand, fine, some silt, occasional gravel, brown, moist. 3-inch gravel seam @ 11.5 ft bg wet @ 12 ft bg									Soil sample collected for laboratory analysis @ 9 ft bg.	
			12.0		SM									
4 GS	60 0		15.0	EOB @ 20 ft bg										
			16.5											
			18.0											
			19.5											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-18</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 24		1.5	Topsoil. Fill material - Sand, some silt, some organics, brown to dark brown, moist.	Fill									
			3.0											
2 GS	60 36		4.5	Clay, lean, brown, moist. 6-inch gravel seam @ 6.5 ft bg	CL									Soil sample collected for laboratory analysis @ 3 ft bg.
			6.0											
3 GS	60 36		7.5	Sand, fine, some silt, occasional gravel, light brown to brown, moist. wet @ 10 ft bg	SM									Soil sample collected for laboratory analysis @ 8 ft bg.
			9.0											
4 GS	60 60		10.5	Silt, dense, some gravel, brown, very moist to wet. EOB @ 20 ft bg	ML									Soil sample collected for laboratory analysis @ 16 ft bg.
			12.0											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-19</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Sand, some silt, some organics, brown, moist.	Fill									Soil sample collected for laboratory analysis @ 2 ft bg.
			3.0	Clay, lean, trace sand, dark brown to light brown, dry.	CL									
2 GS	60 60		4.5	Sand, some silt, little gravel, light brown, dry.	SM								Soil sample collected for laboratory analysis @ 5.5 ft bg.	
			7.5	Sand, fine, some silt, occasional trace gravel, brown, moist. wet @ 7 ft bg										
3 GS	60 48		10.5											
4 GS	60 60		12.0		SM									
			15.0											
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature \_\_\_\_\_ Firm **Shannon & Wilson, Inc.** Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-2</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		0-2	Topsoil. Fill material - Silt and Sand, black/dark brown, dry.	Fill			-						Soil sample collected for laboratory analysis @ 3 ft bg.
				2-4	Clay, lean, occasional trace gravel, brown, dry.	CL			-					
3 GS	60 36		6-10	Sand, fine, some silt, occasional trace gravel, brown, dry to moist. 2-inch gravel seam @ 9 ft bg.				-					Soil sample collected for laboratory analysis @ 12 ft bg.	
				10-14	wet @ 14 ft bg	SM			-					
4 GS	60 60		14-16					-						
				16-18										
5 GS	24 24		18-20	hard @ 19.5 ft bg				-						
				20-22	EOB @ 22 ft bg (refusal)									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-20/MW-2</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
				<b>MW-2</b>	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b> Long <b>-89° 20' 13.9"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1 GS	60 24		1.5	Topsoil. Fill material - Sand, some silt, some organics, dark brown, dry to moist.				-							
			3.0		Fill										
2 GS	60 36		6.0	Clay, lean, firm, little gravel, trace sand, gray to tan, moist.	CL			-							Soil sample collected for laboratory analysis @ 3 ft bg.
			7.5												
3 GS	60 54		9.0	Sand, fine, some silt, occasional gravel, dark brown to light brown, moist.				-							
			10.5	wet @ 11 ft bg											Soil sample collected for laboratory analysis @ 10 ft bg.
			12.0		SM										
4 GS	60 60		15.0					-							
			16.5												
			18.0												
			19.5												
				EOB @ 20 ft bg											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-21</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/19/2023</b>		Date Drilling Completed <b>4/19/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 54		1.5	Topsoil. Fill material - Sand, some silt, little organics, trace gravel, dark brown to light brown, moist.	Fill			-						Soil sample collected for laboratory analysis @ 2 ft bg.
			3.0	Clay, lean, trace gravel, brown, moist.	CL			-						
2 GS	60 36		4.5										Soil sample collected for laboratory analysis @ 9 ft bg.	
			6.0											
3 GS	60 30		7.5										Soil sample collected for laboratory analysis @ 9 ft bg.	
			9.0	Sand, fine, some silt, occasional gravel, brown, moist. 3-inch gravel seam @ 9.5 ft bg										
4 GS	60 60		10.5											
			12.0											
			13.5	wet @ 13.5 ft bg	SM									
			15.0											
			16.5											
			18.0											
			18.5	2-inch gravel seam @ 18.5 ft bg										
			19.5											
				EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>			License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-22</b>		
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>			Date Drilling Started <b>4/19/2023</b>		Date Drilling Completed <b>4/19/2023</b>		
WI Unique Well No.			DNR Well ID No.		Common Well Name		
Final Static Water Level <b>Feet MSL</b>			Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>			Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>			Long <b>-89° 20' 13.9"</b>				
Facility ID		County <b>Dane</b>		County Code <b>13</b>		Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		0	Topsoil. Fill material - Sand, some silt, some organics, brown, moist.	Fill			-						Soil sample collected for laboratory analysis @ 2 ft bg.
			2	Clay, lean, trace gravel, brown to dark brown, dry.	CL									
2 GS	60 48		4	3-inch gravel seam @ 3.5 ft bg gray/black @ 4.5 ft bg	CL			-					Soil sample collected for laboratory analysis @ 10 ft bg.	
			6	moist @ 6.5 ft bg	SM									
3 GS	60 36		8	Sand, some silt, firm, black, moist.	SM			-					Soil sample collected for laboratory analysis @ 10 ft bg.	
			10	Clay, lean, firm, occasional cinders, black to gray, dry. Moist, soft @ 12 to 13 ft bg.	CL									
4 GS	60 30		14	Sand, fine, some silt, firm, occasional gravel, brown to black, moist.				-					Soil sample collected for laboratory analysis @ 10 ft bg.	
			16	wet, gray to light brown @ 18 ft bg	SM									
5 GS	60 48		18		SM			-					Soil sample collected for laboratory analysis @ 10 ft bg.	
			20											
			22											
			24											
				EOB @ 25 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-23/MW-3</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/19/2023</b>		Date Drilling Completed <b>4/19/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
				<b>MW-3</b>	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments		
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200			
1 GS	60 48		2	Topsoil. Fill material - Sand, some silt, some organics, brown, moist.	Fill									Soil sample collected for laboratory analysis @ 2 ft bg.		
				Clay, lean, firm, trace gravel, trace organics, brown, dry.	CL											
2 GS	60 54		4	Sand, some silt, little gravel, brown, moist.	SM								Soil sample collected for laboratory analysis @ 10 ft bg.			
				Clay, lean, firm, dark brown/black, moist.	CL											
3 GS	60 36		10	gray @ 7 ft bg	CL										Soil sample collected for laboratory analysis @ 10 ft bg.	
				Sand, some silt, little gravel, brown, moist.	SM											
4 GS	60 48		12	wet @ 12 ft bg	SM									Soil sample collected for laboratory analysis @ 10 ft bg.		
				Sand, some silt, little gravel, gray, dry.	SM											
5 GS	60 60		14	Sand, fine, occasional gravel, gray to tan, dry.	SP								Soil sample collected for laboratory analysis @ 10 ft bg.			
				wet @ 16.5 ft bg	SM											
			18	Sand, fine, some silt, occasional gravel, light brown, wet.	SM										Soil sample collected for laboratory analysis @ 10 ft bg.	
			20											Soil sample collected for laboratory analysis @ 10 ft bg.		
			22										Soil sample collected for laboratory analysis @ 10 ft bg.			
			24													Soil sample collected for laboratory analysis @ 10 ft bg.
				EOB @ 25 ft bg											Soil sample collected for laboratory analysis @ 10 ft bg.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-3/MW-1</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name <b>MW-1</b>	
		Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
				Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 54		2	Topsoil. Fill material - Sand, some silt, some organics, dark brown, dry to moist.	Fill			-						Soil sample collected for laboratory analysis @ 2.5 ft bg.
			4	Clay, lean, firm, trace sand, brown, dry.	CL									
2 GS	60 42		6	Sand, fine, some silt, occasional gravel, brown, dry to moist.				-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			8	6-inch sand/gravel seam @ 7.5 ft bg										
3 GS	60 60		10					-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			14	wet @ 14 ft bg	SM									
4 GS	60 60		16					-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			18											
5 GS	60 60		20					-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			22											
			24											
				EOB @ 25 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-4</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 54		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry.	Fill									
			3.0	Clay, lean, firm, brown, dry.	CL									
2 GS	60 59		4.5	Sand, fine, some silt, occasional trace gravel, brown, dry to moist.										Soil sample collected for laboratory analysis @ 3 ft bg.
			6.0											
3 GS	60 60		10.5											Soil sample collected for laboratory analysis @ 12 ft bg.
			12.0											
4 GS	60 60		15.0	wet @ 14.5 ft bg										
			18.0	3-inch sand/gravel seam @ 18 ft bg										
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-5</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		Long <b>-89° 20' 13.9"</b>	

Facility ID	County <b>Dane</b>	County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 54		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry to moist.	Fill			-						
			3.0	Clay, lean, little gravel, brown, dry.	CL								Soil sample collected for laboratory analysis @ 3 ft bg.	
2 GS	60 36		4.5	Sand, some silt, brown, moist.	SM			-						
			6.0	Clay, lean, brown, moist.	CL									
3 GS	60 42		7.5	Silt, some sand, little gravel, brown, dry.	SM			-						
			9.0	Sand, fine, some silt, occasional trace gravel, brown, moist.										
4 GS	60 60		10.5	wet @ 13.5 ft bg	SM			-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			12.0											
			13.5											
			15.0											
			16.5											
			18.0											
			19.5											
				EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-6</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		<input type="checkbox"/> N <input type="checkbox"/> E	
		Long <b>-89° 20' 13.9"</b>		<input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County <b>Dane</b>	County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1 GS	60 57		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry to moist.	Fill										
			3.0	Clay, lean, stiff, brown, dry.											
2 GS	60 36		4.5		CL										Soil sample collected for laboratory analysis @ 3 ft bg.
			6.0												
3 GS	60 42		7.5	Sand, fine, some silt, brown, occasional trace gravel, moist.											
			9.0	2-inch gravel seam @ 8.5 ft bg											
			10.5												
			12.0												
			13.5												
4 GS	60 60		15.0	wet @ 14 ft bg	SM										Soil sample collected for laboratory analysis @ 13 ft bg.
			16.5												
			18.0												
			19.5	2-inch gravel seam @ 18.5 ft bg											
				EOB @ 20 ft bg											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-7</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Local Grid Location	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 25.0"</b>		<input type="checkbox"/> N <input type="checkbox"/> E	
		Long <b>-89° 20' 13.9"</b>		<input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 60		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry to moist.	Fill			-						
			3.0	Clay, lean, firm, brown, moist.	CL								Soil sample collected for laboratory analysis @ 2.5 ft bg.	
2 GS	60 42		4.5	Sand, fine, some silt, occasional trace gravel, brown, moist.				-						
			6.0											
3 GS	60 42		10.5					-						
			12.0											
4 GS	60 60		15.0	2-inch gravel seam @ 14 ft bg wet @ 15 ft bg firm @ 16 ft bg	SM			-						
			16.5										Soil sample collected for laboratory analysis @ 13.5 ft bg.	
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-8</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/17/2023</b>		Date Drilling Completed <b>4/17/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			

Facility ID	County <b>Dane</b>	County Code <b>13</b>	Civil Town/City/ or Village <b>Madison</b>
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 48		1.5	Topsoil. Fill material - Silt, some organics, dark brown, moist.	Fill			-						
			3.0	Clay, some silt, trace gravel, brown, moist.	CL-ML									
2 GS	60 48		4.5	Sand, fine, some silt, occasional trace gravel, brown, moist.										Soil sample collected for laboratory analysis @ 3 ft bg.
			6.0											
3 GS	60 60		9.0	wet @ 9 ft bg										Soil sample collected for laboratory analysis @ 8 ft bg.
			10.5											
4 GS	60 60		15.0		SM									
			16.5											
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>B-9</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/18/2023</b>		Date Drilling Completed <b>4/18/2023</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>2.0 inches</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E <input checked="" type="checkbox"/> C/N</b>		Lat <b>43° 7' 25.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Long <b>-89° 20' 13.9"</b>			
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GS	60 42		1.5	Topsoil. Fill material - Silt, some organics, dark brown, dry to moist.	Fill			-						
			3.0	Sand, fine, brown, moist. Clay, lean, firm, dark brown/black, dry.	SP									
2 GS	60 60		4.5		CL			-					Soil sample collected for laboratory analysis @ 3 ft bg.	
			7.5	Clay, lean, firm, light brown, dry.	CL									
3 GS	60 48		9.0	Sand, fine, some silt, occasional trace gravel, light brown, moist.				-					Soil sample collected for laboratory analysis @ 13 ft bg.	
			13.5	wet @ 13.5 ft bg	SM									
4 GS	60 60		15.0					-						
			19.5	EOB @ 20 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Dane County Fire Training Areas - Darwin Road</b>		License/Permit/Monitoring Number <b>02-13-583366</b>		Boring Number <b>PZ-1</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Gage Kapugi On-Site Environmental</b>		Date Drilling Started <b>4/19/2023</b>		Date Drilling Completed <b>4/19/2023</b>	
WI Unique Well No.		DNR Well ID No.		Borehole Diameter <b>2.0 inches</b>	
Common Well Name <b>PZ-1</b>		Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>SE 1/4 of NE 1/4 of Section 30, T 8 N, R 10 E</b>		Lat <b>43° 7' 24.9"</b> Long <b>-89° 20' 13.9"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Dane</b>		County Code <b>13</b>	
				Civil Town/City/ or Village <b>Madison</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 CU	540		3.5 7.0 10.5 14.0 17.5 21.0 24.5 28.0 31.5 35.0 38.5 42.0	See log for B-10/MW-4 for geology in upper 20 feet.										
				Sand, some silt, trace gravel, light brown/brown, wet.	SM									
				EOB @ 45 ft bg										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>Shannon &amp; Wilson, Inc.</b>	Tel: Fax:
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# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N  
 \_\_\_\_\_ W  
 Format Code:  DD       DDM  
 Method Code:  GPS008       SCR002       OTH001

1/4 / 1/4      1/4      Section: 30      Township: 8 N      Range: 10 E  
 or Gov't Lot #       E       W

Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison      Well ZIP Code: 53704  
 Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-1

Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport  
 Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison      State: WI      ZIP Code: 53704

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well      Original Construction Date (mm/dd/yyyy): 04/17/2023  
 Water Well      If a Well Construction Report is available, please attach.  
 Borehole / Drillhole

Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_      Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_

Lower Drillhole Diameter (in.): 2      Casing Depth (ft.): N/A

Was well annular space grouted?  Yes       No       Unknown  
 If yes, to what depth (feet)? \_\_\_\_\_      Depth to Water (feet): N/A

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes       No       N/A  
 Liner(s) removed?  Yes       No       N/A  
 Liner(s) perforated?  Yes       No       N/A  
 Screen removed?  Yes       No       N/A  
 Casing left in place?  Yes       No       N/A

Was casing cut off below surface?  Yes       No       N/A  
 Did sealing material rise to surface?  Yes       No       N/A  
 Did material settle after 24 hours?  Yes       No       N/A  
 If yes, was hole retopped?  Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes       No       N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials:  
 Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	25	40 lbs	

## 6. Comments

## 7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By
Street or Route P.O. Box 280			Telephone Number ( 608 ) 837-8992	Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally Identifiable Information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001

1/4 Section: 30  
 Township: 8 N  
 Range: 10 E  W

Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison  
 Well ZIP Code: 53704

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-2

Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport  
 Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison State: WI ZIP Code: 53704

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/17/2023  
 If a Well Construction Report is available, please attach.

Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_  
 Boring depth: \_\_\_\_\_  
 Casing Diameter (in.): N/A

Lower Drillhole Diameter (in.): 2  
 Casing Depth (ft.): N/A

Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? N/A  
 Depth to Water (feet): \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials:  
 Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	22	35 lbs	

## 6. Comments

\_\_\_\_\_

## 7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By	
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments			
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	



# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N  
 \_\_\_\_\_ W

Format Code:  DD       DDM  
 Method Code:  GPS008       SCR002       OTH001

1/4 / 1/4      1/4      Section: 30      Township: 8 N      Range: 10  E  W  
 or Gov't Lot #

Well Street Address: Darwin Road & International Lane

Well City, Village or Town: Madison      Well ZIP Code: 53704

Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road

Facility ID (FID or PWS): \_\_\_\_\_

License/Permit/Monitoring #: B-3

Original Well Owner: Dane County Regional Airport

Present Well Owner: Dane County Regional Airport

Mailing Address of Present Owner: 4000 International Lane

City of Present Owner: Madison      State: WI      ZIP Code: 53704

Reason for Removal from Service: Investigative Soil boring

WI Unique Well # of Replacement Well: \_\_\_\_\_

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well      Original Construction Date (mm/dd/yyyy): 04/17/2023

Water Well

Borehole / Drillhole      If a Well Construction Report is available, please attach.

Construction Type:  Drilled       Driven (Sandpoint)       Dug

Other (specify): \_\_\_\_\_

Formation Type:  Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_      Casing Diameter (in.): N/A

Boring depth: \_\_\_\_\_

Lower Drillhole Diameter (in.): 2      Casing Depth (ft.): N/A

Was well annular space grouted?  Yes       No       Unknown

If yes, to what depth (feet)? N/A      Depth to Water (feet): \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes       No       N/A

Liner(s) removed?  Yes       No       N/A

Liner(s) perforated?  Yes       No       N/A

Screen removed?  Yes       No       N/A

Casing left in place?  Yes       No       N/A

Was casing cut off below surface?  Yes       No       N/A

Did sealing material rise to surface?  Yes       No       N/A

Did material settle after 24 hours?  Yes       No       N/A

If yes, was hole retopped?  Yes       No       N/A

If bentonite chips were used, were they hydrated with water from a known safe source?  Yes       No       N/A

Required Method of Placing Sealing Material:  Conductor Pipe-Gravity       Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials:  Neat Cement Grout       Concrete

Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout

Granular Bentonite       Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

## 6. Comments

## 7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By	
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments			
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane	WI Unique Well # of Removed Well	Hicap #	Facility Name Dane County Fire Training Areas - Darwin Road
Latitude / Longitude (see instructions) N _____ W _____	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 or Gov't Lot #	Section 30	Township 8 N	Range 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address Darwin Road & International Lane	Well City, Village or Town Madison	Well ZIP Code 53704	Original Well Owner Dane County Regional Airport
Subdivision Name	Lot #	City of Present Owner Madison	State WI
Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well	Mailing Address of Present Owner 4000 International Lane	ZIP Code 53704

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/17/2023	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) Boring depth: N/A	Casing Diameter (in.) N/A	Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) N/A	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
If yes, to what depth (feet)? N/A	Depth to Water (feet)	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments		
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road			
Latitude / Longitude (see Instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)			
1/4 / 1/4 or Gov't Lot #		Section 30		Township 8 N		Range 10		License/Permit/Monitoring # <b>B-5</b>	
Well Street Address Darwin Road & International Lane		Well ZIP Code 53704		Original Well Owner Dane County Regional Airport		Present Well Owner Dane County Regional Airport			
Subdivision Name		Lot #		City of Present Owner Madison		State WI		ZIP Code 53704	

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 04/17/2023		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) Boring depth: N/A		Casing Diameter (in.) N/A		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) N/A		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
If yes, to what depth (feet)? N/A		Depth to Water (feet)		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

5. Material Used to Fill Well / Drillhole				
	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By
Street or Route P.O. Box 280			Telephone Number ( 608 ) 837-8992	Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001

1/4 / 1/4 or Gov't Lot #: \_\_\_\_\_  
 Section: 30 Township: 8 N Range: 10  E  W

Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison Well ZIP Code: 53704

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-6

Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport

Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison State: WI ZIP Code: 53704

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/17/2023  
 If a Well Construction Report is available, please attach.

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation  Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_ Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_

Lower Drillhole Diameter (in.): 2 Casing Depth (ft.): N/A

Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? N/A Depth to Water (feet): \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): \_\_\_\_\_

Sealing Materials:  
 Neat Cement Grout  Concrete  
 Sand-Cement (Concrete) Grout  Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

## 6. Comments

## 7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By	
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments			
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road			
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)			
_____ N		<input type="checkbox"/> DD		<input type="checkbox"/> GPS008		License/Permit/Monitoring # <b>B-7</b>			
_____ W		<input type="checkbox"/> DDM		<input type="checkbox"/> SCR002					
_____ W		<input type="checkbox"/> OTH001							
1/4 1/4		Section		Township		Range		Original Well Owner	
or Gov't Lot #		30		8 N		10		Dane County Regional Airport	
								Present Well Owner	
Well Street Address Darwin Road & International Lane								Dane County Regional Airport	
Well City, Village or Town Madison				Well ZIP Code 53704		Mailing Address of Present Owner 4000 International Lane			
Subdivision Name				Lot #		City of Present Owner Madison		State WI	ZIP Code 53704

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		Pump and piping removed?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A			
Original Construction Date (mm/dd/yyyy) 04/17/2023		If a Well Construction Report is available, please attach.		Liner(s) removed?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Monitoring Well				Liner(s) perforated?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Water Well				Screen removed?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Borehole / Drillhole				Casing left in place?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A			
Construction Type:				Was casing cut off below surface?				<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Did sealing material rise to surface?				<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/> N/A	
<input type="checkbox"/> Other (specify): _____				Did material settle after 24 hours?				<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		<input type="checkbox"/> N/A	
Formation Type:				If yes, was hole retopped?				<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If bentonite chips were used, were they hydrated with water from a known safe source?				<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.)		Casing Diameter (in.)		Required Method of Placing Sealing Material									
Boring depth:		N/A		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped									
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____									
2		N/A		Sealing Materials									
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete									
If yes, to what depth (feet)? N/A				Depth to Water (feet) N/A		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips							
						For Monitoring Wells and Monitoring Well Boreholes Only:							
						<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout							
						<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry							

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	Date Received	Noted By
Street or Route P.O. Box 280		Telephone Number ( 608 ) 837-8992		Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane	WI Unique Well # of Removed Well	Hicap #
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4 or Gov't Lot #	Section 30	Township 8 N
Well Street Address Darwin Road & International Lane	Range 10	<input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well City, Village or Town Madison	Well ZIP Code 53704	
Subdivision Name	Lot #	

Facility Name Dane County Fire Training Areas - Darwin Road		
Facility ID (FID or PWS)		
License/Permit/Monitoring # B-8		
Original Well Owner Dane County Regional Airport		
Present Well Owner Dane County Regional Airport		
Mailing Address of Present Owner 4000 International Lane		
City of Present Owner Madison	State WI	ZIP Code 53704

Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well
--	--------------------------------------

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/17/2023
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) Boring depth:	Casing Diameter (in.) N/A
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) N/A
Was well annular space grouted? If yes, to what depth (feet)? N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Depth to Water (feet) N/A

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours? If yes, was hole retopped?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped		
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____		
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete		
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input checked="" type="checkbox"/> Bentonite Chips		
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout		
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry		

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/17/2023	DNR Use Only	
Street or Route P.O. Box 280	City Sun Prairie	State WI	ZIP Code 53590	Date Received
Telephone Number ( 608 ) 837-8992	Signature of Person Doing Work	Comments	Noted By	
Date Signed				

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road			
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)			
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring # B-9			
1/4 / 1/4		Section 30		Township 8 N		Range 10		<input checked="" type="checkbox"/> E <input type="checkbox"/> W	
or Gov't Lot #		Well Street Address Darwin Road & International Lane		Well City, Village or Town Madison		Well ZIP Code 53704		Original Well Owner Dane County Regional Airport	
Subdivision Name		Lot #		City of Present Owner Madison		State WI		ZIP Code 53704	
Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		Present Well Owner Dane County Regional Airport		Mailing Address of Present Owner 4000 International Lane		City of Present Owner Madison	

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 04/18/2023		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Pump and piping removed?	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed?	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated?	
Total Well Depth From Ground Surface (ft.) Boring depth:		Casing Diameter (in.) N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed?	
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Casing left in place?	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		If yes, to what depth (feet)? N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Was casing cut off below surface?	
Depth to Water (feet) N/A				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did sealing material rise to surface?	
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours?	
				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If yes, was hole retopped?	
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source?	
				Required Method of Placing Sealing Material	
				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
				Sealing Materials	
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
				For Monitoring Wells and Monitoring Well Boreholes Only:	
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	20	30 lbs	

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280		Telephone Number ( 608 ) 837-8992		Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road				
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)				
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring # <b>B-10</b>				
1/4 / 1/4 or Gov't Lot #		Section 30		Township 8 N		Range 10		<input checked="" type="checkbox"/> E <input type="checkbox"/> W		
Well Street Address Darwin Road & International Lane					Original Well Owner Dane County Regional Airport					
Well City, Village or Town Madison					Well ZIP Code 53704					
Subdivision Name					Lot #		City of Present Owner Madison		State WI	
Reason for Removal from Service Investigative Soil boring					WI Unique Well # of Replacement Well		Mailing Address of Present Owner 4000 International Lane		ZIP Code 53704	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well      Original Construction Date (mm/dd/yyyy)  
 Water Well      04/18/2023  
 Borehole / Drillhole      If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)      Casing Diameter (in.)  
Boring depth:      N/A

Lower Drillhole Diameter (in.)      Casing Depth (ft.)  
2      N/A

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?      Depth to Water (feet)  
N/A      N/A

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A

Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.			License #		Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023		DNR Use Only	
Street or Route P.O. Box 280			Telephone Number ( 608 ) 837-8992		Date Received		Noted By	
City Sun Prairie			State WI		ZIP Code 53590		Signature of Person Doing Work	
							Date Signed	



# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

Verification Only of Fill and Seal

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane	WI Unique Well # of Removed Well	Hicap #
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4 or Gov't Lot #	Section 30	Township 8 N
Well Street Address Darwin Road & International Lane	Range 10	Range <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well City, Village or Town Madison	Well ZIP Code 53704	
Subdivision Name	Lot #	

Facility Name Dane County Fire Training Areas - Darwin Road
Facility ID (FID or PWS)
License/Permit/Monitoring # B-11
Original Well Owner Dane County Regional Airport
Present Well Owner Dane County Regional Airport
Mailing Address of Present Owner 4000 International Lane
City of Present Owner Madison
State WI
ZIP Code 53704

Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well
--	--------------------------------------

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/18/2023
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) Boring depth:	Casing Diameter (in.) N/A
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) N/A
Was well annular space grouted? If yes, to what depth (feet)? N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Depth to Water (feet)

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours? If yes, was hole retopped?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input checked="" type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	DNR Use Only	
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments	Date Received	Noted By
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road			
Latitude / Longitude (see Instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)			
1/4 / 1/4 or Gov't Lot #		Section 30		Township 8 N		Range 10		License/Permit/Monitoring # B-12	
Well Street Address Darwin Road & International Lane		Well City, Village or Town Madison		Well ZIP Code 53704		Original Well Owner Dane County Regional Airport			
Subdivision Name		Lot #		City of Present Owner Madison		State WI		ZIP Code 53704	
Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		Present Well Owner Dane County Regional Airport					

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 04/18/2023		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
<input checked="" type="checkbox"/> Borehole / Drillhole				Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
Total Well Depth From Ground Surface (ft.) Boring depth:		Casing Diameter (in.) N/A		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) N/A		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A					
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A					
If yes, to what depth (feet)? N/A		Depth to Water (feet)		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
				If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A					

5. Material Used to Fill Well / Drillhole				From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips				Surface	20	30 lbs	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280			Telephone Number ( 608 ) 837-8992	Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information      2. Facility / Owner Information

County Dane	WI Unique Well # of Removed Well	Hicap #	Facility Name Dane County Fire Training Areas - Darwin Road
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 or Gov't Lot #	Section 30	Township 8 N	Range 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address Darwin Road & International Lane	Well City, Village or Town Madison	Well ZIP Code 53704	License/Permit/Monitoring # B-13
Subdivision Name	Lot #	City of Present Owner Madison	State WI
Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well	ZIP Code 53704	

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well

Water Well

Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
04/18/2023

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug

Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)      Casing Diameter (in.)

Boring depth:      N/A

Lower Drillhole Diameter (in.)      Casing Depth (ft.)

2      N/A

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?      Depth to Water (feet)

N/A      \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?       Yes       No       N/A

Liner(s) removed?       Yes       No       N/A

Liner(s) perforated?       Yes       No       N/A

Screen removed?       Yes       No       N/A

Casing left in place?       Yes       No       N/A

Was casing cut off below surface?       Yes       No       N/A

Did sealing material rise to surface?       Yes       No       N/A

Did material settle after 24 hours?       Yes       No       N/A

If yes, was hole retopped?       Yes       No       N/A

If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete

Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout

Granular Bentonite       Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

## 6. Comments

## 7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	DNR Use Only	
Street or Route P.O. Box 280	City Sun Prairie	State WI	ZIP Code 53590	Date Received
Telephone Number ( 808 ) 837-8992	Signature of Person Doing Work	Comments	Noted By	
			Date Signed	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane	WI Unique Well # of Removed Well	Hicap #	Facility Name Dane County Fire Training Areas - Darwin Road
Latitude / Longitude (see Instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 or Gov't Lot #	Section 30	Township 8 N	Range 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address Darwin Road & International Lane	Well City, Village or Town Madison	Well ZIP Code 53704	Original Well Owner Dane County Regional Airport
Subdivision Name	Lot #	City of Present Owner Madison	State WI
Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well	ZIP Code 53704	Present Well Owner Dane County Regional Airport

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/18/2023	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) Boring depth: 2	Casing Diameter (in.) N/A	Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) N/A	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
If yes, to what depth (feet)? N/A	Depth to Water (feet) N/A	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**      **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments		
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

Verification Only of Fill and Seal

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road			
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)			
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring # B-15			
1/4 / 1/4 or Gov't Lot #		Section 30		Township 8 N		Range 10		Original Well Owner Dane County Regional Airport	
Well Street Address Darwin Road & International Lane		Well City, Village or Town Madison		Well ZIP Code 53704		Present Well Owner Dane County Regional Airport			
Subdivision Name		Lot #		City of Present Owner Madison		State WI		ZIP Code 53704	

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 04/18/2023		Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) perforated?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:				Casing left in place?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Was casing cut off below surface?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Other (specify): _____				Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:				Did material settle after 24 hours?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If yes, was hole retopped?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.)		Casing Diameter (in.)		If bentonite chips were used, were they hydrated with water from a known safe source?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Boring depth: 2		N/A		Required Method of Placing Sealing Material			
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
N/A		N/A		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Was well annular space grouted?				Sealing Materials			
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete			
If yes, to what depth (feet)?		Depth to Water (feet)		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips			
N/A		N/A		For Monitoring Wells and Monitoring Well Boreholes Only:			
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>		
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280		Telephone Number ( 608 ) 837-8992		Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work		Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road	
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)	
_____ N		<input type="checkbox"/> DD		<input type="checkbox"/> GPS008		License/Permit/Monitoring # <b>B-16</b>	
_____ W		<input type="checkbox"/> DDM		<input type="checkbox"/> SCR002			
_____ W		<input type="checkbox"/> OTH001					
1/4 / 1/4		Section		Township		Range	
or Gov't Lot #		30		8 N		10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address Darwin Road & International Lane				Original Well Owner Dane County Regional Airport			
Well City, Village or Town Madison				Well ZIP Code 53704			
Subdivision Name				Lot #		City of Present Owner Madison	
Reason for Removal from Service Investigative Soil boring				WI Unique Well # of Replacement Well		State WI	
						ZIP Code 53704	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well      Original Construction Date (mm/dd/yyyy)  
 Water Well      04/18/2023  
 Borehole / Drillhole      If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring depth:	N/A
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	N/A

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?      Depth to Water (feet)

N/A

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	DNR Use Only	
				Date Received	Noted By
Street or Route P.O. Box 280			Telephone Number ( 808 ) 837-8992	Comments	
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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**Route to DNR Bureau:**

Verification Only of Fill and Seal

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_  
 Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001  
 1/4: \_\_\_\_\_ 1/4: \_\_\_\_\_ Section: 30 Township: 8 N Range: 10  E  W  
 or Gov't Lot #: \_\_\_\_\_  
 Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison Well ZIP Code: 53704  
 Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-17  
 Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport  
 Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison State: WI ZIP Code: 53704

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole  
 Original Construction Date (mm/dd/yyyy): 04/18/2023  
 If a Well Construction Report is available, please attach: \_\_\_\_\_  
 Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_  
 Formation Type:  
 Unconsolidated Formation       Bedrock  
 Total Well Depth From Ground Surface (ft.): \_\_\_\_\_ Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_  
 Lower Drillhole Diameter (in.): 2 Casing Depth (ft.): N/A  
 Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? N/A Depth to Water (feet): \_\_\_\_\_

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A  
 Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A  
 Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_  
 Sealing Materials:  
 Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips  
 For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	<b>DNR Use Only</b>	
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments	Date Received	Noted By
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

Verification Only of Fill and Seal

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_  
 Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001  
 1/4 / 1/4: \_\_\_\_\_ / \_\_\_\_\_  
 Section: 30      Township: 8 N      Range: 10 E  W  W  
 or Gov't Lot #: \_\_\_\_\_  
 Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison      Well ZIP Code: 53704  
 Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-18  
 Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport  
 Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison      State: WI      ZIP Code: 53704

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well      Original Construction Date (mm/dd/yyyy): 04/18/2023  
 Water Well  
 Borehole / Drillhole      If a Well Construction Report is available, please attach.  
 Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_  
 Formation Type:  
 Unconsolidated Formation       Bedrock  
 Total Well Depth From Ground Surface (ft.): \_\_\_\_\_      Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_  
 Lower Drillhole Diameter (in.): 2      Casing Depth (ft.): N/A  
 Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? N/A      Depth to Water (feet): \_\_\_\_\_

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A  
 Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A  
 Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_  
 Sealing Materials:  
 Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips  
 For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

**6. Comments**

**7. Supervision of Work**

Supervision of Work			DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments		
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed



**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

Verification Only of Fill and Seal

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Dane		WI Unique Well # of Removed Well		Hicap #		Facility Name Dane County Fire Training Areas - Darwin Road	
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)	
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring # <b>B-19</b>	
¼ / ¼ or Gov't Lot #		Section 30		Township 8 N		Range 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address Darwin Road & International Lane				Original Well Owner Dane County Regional Airport			
Well City, Village or Town Madison				Well ZIP Code 53704			
Subdivision Name				Lot #		Present Well Owner Dane County Regional Airport	
Reason for Removal from Service Investigative Soil boring		WI Unique Well # of Replacement Well		City of Present Owner Madison		State WI	
ZIP Code				ZIP Code 53704			
3. Filled & Sealed Well / Drillhole / Borehole Information							
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 04/18/2023		If a Well Construction Report is available, please attach.			
Construction Type:							
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____							
Formation Type:							
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock							
Total Well Depth From Ground Surface (ft.)		Casing Diameter (in.)		Required Method of Placing Sealing Material			
Boring depth:		N/A		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		Sealing Materials			
2		N/A		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown							
If yes, to what depth (feet)?		Depth to Water (feet)		For Monitoring Wells and Monitoring Well Boreholes Only:			
N/A				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
5. Material Used to Fill Well / Drillhole				From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips				Surface	25	40 lbs	
6. Comments							
7. Supervision of Work				DNR Use Only			
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.		License #		Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023		Date Received	
Street or Route P.O. Box 280		Telephone Number ( 608 ) 837-8992		Noted By			
City Sun Prairie		State WI		ZIP Code 53590		Signature of Person Doing Work	
						Date Signed	

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001

1/4 / 1/4 or Gov't Lot #: \_\_\_\_\_  
 Section: 30 Township: 8 N Range: 10  E  W

Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison Well ZIP Code: 53704

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-20

Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport

Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison State: WI ZIP Code: 53704

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/18/2023  
 If a Well Construction Report is available, please attach.

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation  Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_ Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_

Lower Drillhole Diameter (in.): 2 Casing Depth (ft.): N/A

Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? N/A Depth to Water (feet): \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): \_\_\_\_\_

Sealing Materials:  
 Neat Cement Grout  Concrete  
 Sand-Cement (Concrete) Grout  Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

## 6. Comments

\_\_\_\_\_

## 7. Supervision of Work

Supervision of Work			DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/18/2023	Date Received	Noted By
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments		
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Dane  
 WI Unique Well # of Removed Well: \_\_\_\_\_  
 Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N \_\_\_\_\_ W  
 Format Code:  DD  DDM  
 Method Code:  GPS008  SCR002  OTH001

1/4 / 1/4 or Gov't Lot #: \_\_\_\_\_ Section: 30 Township: 8 N Range: 10  E  W

Well Street Address: Darwin Road & International Lane  
 Well City, Village or Town: Madison Well ZIP Code: 53704

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Dane County Fire Training Areas - Darwin Road  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: B-21

Original Well Owner: Dane County Regional Airport  
 Present Well Owner: Dane County Regional Airport

Mailing Address of Present Owner: 4000 International Lane  
 City of Present Owner: Madison State: WI ZIP Code: 53704

Reason for Removal from Service: Investigative Soil boring  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/19/2023  
 If a Well Construction Report is available, please attach: \_\_\_\_\_

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation  Bedrock

Total Well Depth From Ground Surface (ft.): \_\_\_\_\_ Casing Diameter (in.): N/A  
 Boring depth: \_\_\_\_\_

Lower Drillhole Diameter (in.): 2 Casing Depth (ft.): N/A

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? N/A Depth to Water (feet): \_\_\_\_\_

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): \_\_\_\_\_

Sealing Materials:  
 Neat Cement Grout  Concrete  
 Sand-Cement (Concrete) Grout  Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

## 5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	30 lbs	

## 6. Comments

\_\_\_\_\_

## 7. Supervision of Work

Supervision of Work			DNR Use Only	
Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/19/2023	Date Received	Noted By
Street or Route P.O. Box 280	Telephone Number ( 608 ) 837-8992	Comments		
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See Instructions on reverse for more information.

Verification Only of Fill and Seal

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Dane		WI Unique Well # of Removed Well		Hicap #	
Latitude / Longitude (see instructions) N _____ W _____		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	
1/4 / 1/4 or Gov't Lot #		Section 30	Township 8 N	Range 10	<input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address Darwin Road & International Lane					
Well City, Village or Town Madison			Well ZIP Code 53704		
Subdivision Name			Lot #		

Facility Name Dane County Fire Training Areas - Darwin Road		
Facility ID (FID or PWS)		
License/Permit/Monitoring # B-22		
Original Well Owner Dane County Regional Airport		
Present Well Owner Dane County Regional Airport		
Mailing Address of Present Owner 4000 International Lane		
City of Present Owner Madison	State WI	ZIP Code 53704

Reason for Removal from Service Investigative Soil boring	WI Unique Well # of Replacement Well
--	--------------------------------------

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/19/2023
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) Boring depth:	Casing Diameter (in.) N/A
Lower Drillhole Diameter (in.) 8	Casing Depth (ft.) N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)? N/A	Depth to Water (feet)

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity		<input type="checkbox"/> Conductor Pipe-Pumped	
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)		<input type="checkbox"/> Other (Explain): _____	
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Concrete	
<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input checked="" type="checkbox"/> Bentonite Chips	
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input type="checkbox"/> Bentonite Chips		<input type="checkbox"/> Bentonite - Cement Grout	
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	500 lbs	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.			License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/19/2023	DNR Use Only	
Street or Route P.O. Box 280			Telephone Number ( 608 ) 837-8992		Date Received	Noted By
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work			Date Signed

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

<input type="checkbox"/> <b>Verification Only of Fill and Seal</b>	<b>Route to DNR Bureau:</b>		
	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Watershed/Wastewater	<input checked="" type="checkbox"/> Remediation/Redevelopment
	<input type="checkbox"/> Waste Management	<input type="checkbox"/> Other: _____	

1. Well Location Information	2. Facility / Owner Information
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County Dane	WI Unique Well # of Removed Well	Hicap #	Facility Name Dane County Fire Training Areas - Darwin Road		
Latitude / Longitude (see instructions) N _____ W _____		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)
1/4 or Gov't Lot #	Section 30	Township 8 N	Range 10	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	License/Permit/Monitoring # <span style="font-size: 1.5em; font-family: cursive;">B-23</span>
Well Street Address Darwin Road & International Lane			Original Well Owner Dane County Regional Airport		
Well City, Village or Town Madison			Present Well Owner Dane County Regional Airport		
Subdivision Name			Mailing Address of Present Owner 4000 International Lane		
Reason for Removal from Service Investigative Soil boring			City of Present Owner Madison		
WI Unique Well # of Replacement Well			State WI	ZIP Code 53704	

3. Filled & Sealed Well / Drillhole / Borehole Information	4. Pump, Liner, Screen, Casing & Sealing Material
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<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 04/19/2023	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.				
<input checked="" type="checkbox"/> Borehole / Drillhole		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips			
Total Well Depth From Ground Surface (ft.) Boring depth:	Casing Diameter (in.) N/A	For Monitoring Wells and Monitoring Well Boreholes Only: <input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) N/A				
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown					
If yes, to what depth (feet)? N/A	Depth to Water (feet)				

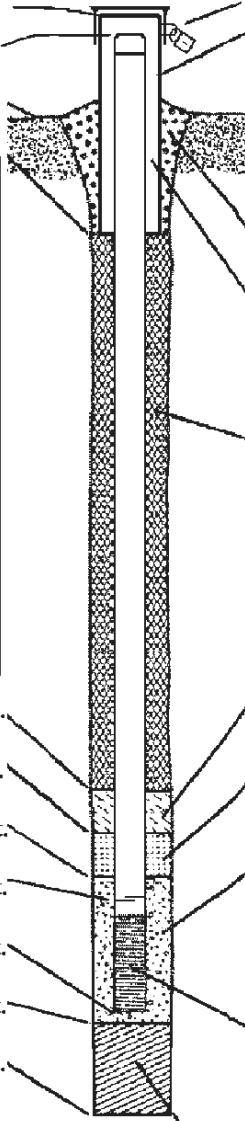
5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	25	40 lbs	

6. Comments
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7. Supervision of Work	DNR Use Only
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Name of Person or Firm Doing Filling & Sealing On-Site Environmental Services, Inc.	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 04/19/2023	Date Received	Noted By
Street or Route P.O. Box 280		Telephone Number ( 608 ) 837-8992		Comments
City Sun Prairie	State WI	ZIP Code 53590	Signature of Person Doing Work	
			Date Signed	

Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name <b>MW-1</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID		Lat. " Long. " or " or "		Date Well Installed <b>04/17/2023</b> m m d d y y y y	
Type of Well Well Code <b>11 / MW</b>		Section Location of Waste/Source 1/4 of 1/4 of Sec. T. N, R. <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm <b>Gage Kapugi</b>	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
Enf. Stds. Apply <input type="checkbox"/>				On-site Environmental Services, Inc.	

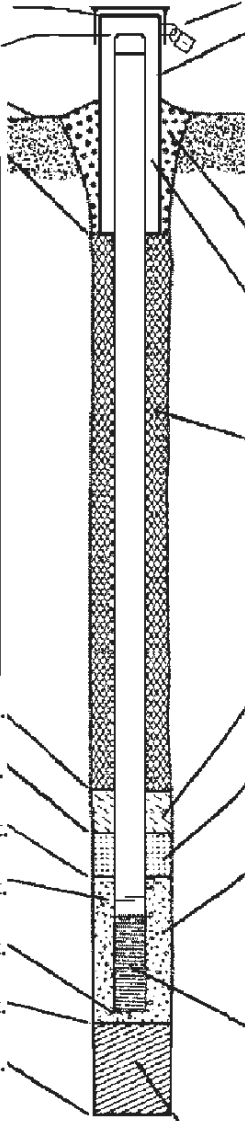
<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen:                  GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>                  SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/>                  Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0                  Hollow Stem Auger <input checked="" type="checkbox"/> 4 1                  Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1                  Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis, if required):                  _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or <u>.0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or <u>6.0</u> ft.</p> <p>G. Filter pack, top _____ ft. MSL or <u>8.0</u> ft.</p> <p>H. Screen joint, top _____ ft. MSL or <u>10.0</u> ft.</p> <p>I. Well bottom _____ ft. MSL or <u>20.0</u> ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or <u>20.5</u> ft.</p> <p>K. Borehole, bottom _____ ft. MSL or <u>20.5</u> ft.</p> <p>L. Borehole, diameter <u>8.25</u> in.</p> <p>M. O.D. well casing <u>2.35</u> in.</p> <p>N. I.D. well casing <u>2.03</u> in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe:                  a. Inside diameter: _____ in.                  b. Length: <u>1</u> ft.                  c. Material: Steel <input type="checkbox"/> 0 4                  Other <input type="checkbox"/>                  d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No                  If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0                  Concrete <input type="checkbox"/> 0 1                  Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe:                  Bentonite <input checked="" type="checkbox"/> 3 0                  Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3                  b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5                  c. _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 3 1                  d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0                  e. <u>2.0</u> Ft<sup>3</sup> volume added for any of the above                  f. How installed: Tremie <input type="checkbox"/> 0 1                  Tremie pumped <input type="checkbox"/> 0 2                  Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3                  b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2                  c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size                  a. <u>Sidley Ohio 30/100</u>                  b. Volume added <u>.5</u> ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size                  a. <u>Sidley Ohio #5 10/20</u>                  b. Volume added <u>3.5</u> ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3                  Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4                  Other <input type="checkbox"/></p> <p>10. Screen material: <u>PVC</u>                  a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1                  Continuous slot <input type="checkbox"/> 0 1                  Other <input type="checkbox"/>                  b. Manufacturer <u>Monoflex</u>                  c. Slot size: _____ in.                  d. Slotted length: _____ ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4                  Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Gage Kapugi Firm On-site Environmental Services, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name MW-2	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID		Lat. _____ " Long. _____ "		Date Well Installed 04 18 2023	
Type of Well Well Code 11 / MW		St. Plane _____ ft. N, _____ ft. E. S/C/N		Well Installed By: Name (first, last) and Firm Gage Kapugi	
Distance from Waste/Source _____ ft.		Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ <input type="checkbox"/> E <input type="checkbox"/> W		On-site Environmental Services, Inc.	
Enf. Stds. Apply <input type="checkbox"/>		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	

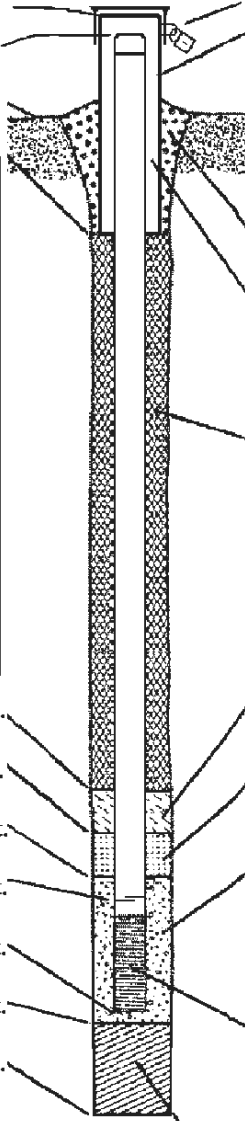
<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:              GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>              SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/>              Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0              Hollow Stem Auger <input checked="" type="checkbox"/> 4 1              Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1              Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No              Describe _____</p> <p>17. Source of water (attach analysis, if required):              _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or .0 ft.</p> <p>F. Fine sand, top _____ ft. MSL or 6.0 ft.</p> <p>G. Filter pack, top _____ ft. MSL or 8.0 ft.</p> <p>H. Screen joint, top _____ ft. MSL or 10.0 ft.</p> <p>I. Well bottom _____ ft. MSL or 20.0 ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or 20.5 ft.</p> <p>K. Borehole, bottom _____ ft. MSL or 20.5 ft.</p> <p>L. Borehole, diameter 8.25 in.</p> <p>M. O.D. well casing 2.35 in.</p> <p>N. I.D. well casing 2.03 in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe:          a. Inside diameter: _____ in.          b. Length: 1 ft.          c. Material: Steel <input type="checkbox"/> 0 4          Other <input type="checkbox"/>          d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No          If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0          Concrete <input type="checkbox"/> 0 1          Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe:          Bentonite <input checked="" type="checkbox"/> 3 0          Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3          b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5          c. _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 3 1          d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0          e. 2.0 Ft<sup>3</sup> volume added for any of the above          f. How installed: Tremie <input type="checkbox"/> 0 1          Tremie pumped <input type="checkbox"/> 0 2          Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3          b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2          c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size          a. Sidley Ohio 30/100          b. Volume added .5 ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size          a. Sidley Ohio #5 10/20          b. Volume added 3.5 ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3          Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4          Other <input type="checkbox"/></p> <p>10. Screen material: PVC          a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1          Continuous slot <input type="checkbox"/> 0 1          Other <input type="checkbox"/>          b. Manufacturer Monoflex          c. Slot size: 0. _____ in.          d. Slotted length: _____ ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4          Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Gage Kapugi Firm On-site Environmental Services, Inc.

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Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name MW-3	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID		Lat. " Long. " or " or "		Date Well Installed 04 / 19 / 2023 m m d d y y y y	
Type of Well Well Code 11 / MW		Section Location of Waste/Source 1/4 of 1/4 of Sec. T. N, R. <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Gage Kapugi	
Distance from Waste/Source ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	
Enf. Stds. Apply <input type="checkbox"/>				On-site Environmental Services, Inc.	

<p>A. Protective pipe, top elevation ----- ft. MSL</p> <p>B. Well casing, top elevation ----- ft. MSL</p> <p>C. Land surface elevation ----- ft. MSL</p> <p>D. Surface seal, bottom ----- ft. MSL or ----- ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:              GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>              SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/>              Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0              Hollow Stem Auger <input checked="" type="checkbox"/> 4 1              Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1              Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis, if required):              _____</p> </div> <p>E. Bentonite seal, top ----- ft. MSL or .0 ft.</p> <p>F. Fine sand, top ----- ft. MSL or 11.0 ft.</p> <p>G. Filter pack, top ----- ft. MSL or 13.0 ft.</p> <p>H. Screen joint, top ----- ft. MSL or 15.0 ft.</p> <p>I. Well bottom ----- ft. MSL or 25.0 ft.</p> <p>J. Filter pack, bottom ----- ft. MSL or 25.5 ft.</p> <p>K. Borehole, bottom ----- ft. MSL or 25.5 ft.</p> <p>L. Borehole, diameter 8.25 in.</p> <p>M. O.D. well casing 2.35 in.</p> <p>N. I.D. well casing 2.03 in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe:              a. Inside diameter: ----- in.              b. Length: 1 ft.              c. Material: Steel <input type="checkbox"/> 0 4              Other <input type="checkbox"/>              d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No              If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0              Concrete <input type="checkbox"/> 0 1              Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe:              Bentonite <input checked="" type="checkbox"/> 3 0              Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3              b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5              c. _____ Lbs/gal mud weight . . . . Bentonite slurry <input type="checkbox"/> 3 1              d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0              e. 3.5 Ft<sup>3</sup> volume added for any of the above              f. How installed: Tremie <input type="checkbox"/> 0 1              Tremie pumped <input type="checkbox"/> 0 2              Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3              b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2              c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size              a. Sidley Ohio 30/100              b. Volume added .5 ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size              a. Sidley Ohio #5 10/20              b. Volume added 3.5 ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3              Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4              Other <input type="checkbox"/></p> <p>10. Screen material: PVC              a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1              Continuous slot <input type="checkbox"/> 0 1              Other <input type="checkbox"/>              b. Manufacturer Monoflex              c. Slot size: 0. _____ in.              d. Slotted length: ----- ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4              Other <input type="checkbox"/></p>
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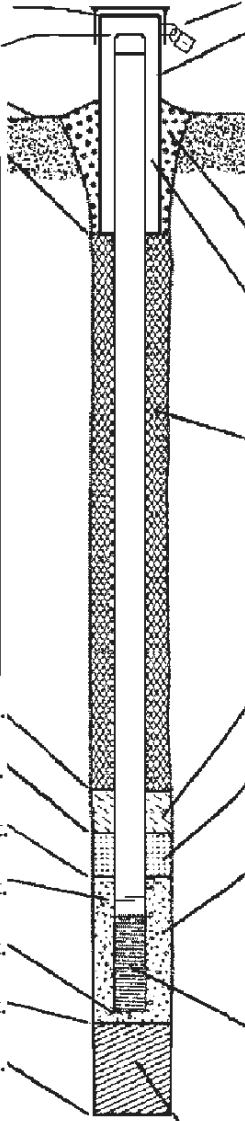
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Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name MW-4	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID		Lat. " Long. " or " "		Date Well Installed 04 19 2023	
Type of Well Well Code 11 / MW		Section Location of Waste/Source 1/4 of 1/4 of Sec. T. N, R. <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Gage Kapugi	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
Enf. Stds. Apply <input type="checkbox"/>				On-site Environmental Services, Inc.	

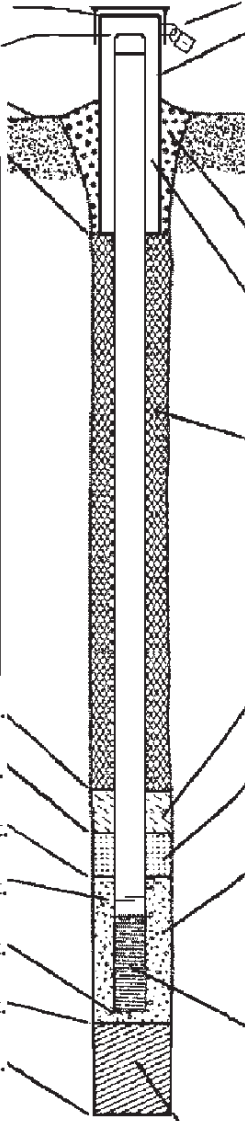
<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input checked="" type="checkbox"/> 4 1 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or .0 ft.</p> <p>F. Fine sand, top _____ ft. MSL or 8.0 ft.</p> <p>G. Filter pack, top _____ ft. MSL or 10.0 ft.</p> <p>H. Screen joint, top _____ ft. MSL or 12.0 ft.</p> <p>I. Well bottom _____ ft. MSL or 22.0 ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or 22.5 ft.</p> <p>K. Borehole, bottom _____ ft. MSL or 22.5 ft.</p> <p>L. Borehole, diameter 8.25 in.</p> <p>M. O.D. well casing 2.35 in.</p> <p>N. I.D. well casing 2.03 in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: 1 ft. c. Material: Steel <input type="checkbox"/> 0 4 Other <input type="checkbox"/></p> <p>d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3 0 Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight . . . . Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0 e. 2.5 Ft<sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0 1 Tremie pumped <input type="checkbox"/> 0 2 Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size a. Sidley Ohio 30/100 b. Volume added .5 ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size a. Sidley Ohio #5 10/20 b. Volume added 3.5 ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/></p> <p>10. Screen material: PVC a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1 Continuous slot <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>b. Manufacturer Monoflex c. Slot size: 0. _____ in. d. Slotted length: _____ ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Gage Kapugi Firm On-site Environmental Services, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name <b>PZ-1</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID		St. Plane _____ ft. N, _____ ft. E. S/C/N		Date Well Installed <b>04/19/2023</b> m m d d y y y y	
Type of Well Well Code <b>11 / MW</b>		Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm <b>Gage Kapugi</b>	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
Enf. Stds. Apply <input type="checkbox"/>				On-site Environmental Services, Inc.	

<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input checked="" type="checkbox"/> 4 1 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or <u>.0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or <u>36.0</u> ft.</p> <p>G. Filter pack, top _____ ft. MSL or <u>38.0</u> ft.</p> <p>H. Screen joint, top _____ ft. MSL or <u>40.0</u> ft.</p> <p>I. Well bottom _____ ft. MSL or <u>45.0</u> ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or <u>45.5</u> ft.</p> <p>K. Borehole, bottom _____ ft. MSL or <u>45.5</u> ft.</p> <p>L. Borehole, diameter <u>8.25</u> in.</p> <p>M. O.D. well casing <u>2.35</u> in.</p> <p>N. I.D. well casing <u>2.03</u> in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: <u>1</u> ft. c. Material: Steel <input type="checkbox"/> 0 4 Other <input type="checkbox"/></p> <p>d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3 0 Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ 13 _____ Ft<sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0 1 Tremie pumped <input type="checkbox"/> 0 2 Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size a. <u>Sidley Ohio 30/100</u> b. Volume added <u>.5</u> ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size a. <u>Sidley Ohio #5 10/20</u> b. Volume added <u>2.5</u> ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/></p> <p>10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1 Continuous slot <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>b. Manufacturer <u>Monoflex</u> c. Slot size: _____ in. d. Slotted length: _____ ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Gage Kapugi Firm On-site Environmental Services, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other  \_\_\_\_\_

Facility/Project Name	County Name	Well Name <u>PZ-1</u>	
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number

1. Can this well be purged dry?  Yes  No

2. Well development method

surged with bailer and bailed	<input checked="" type="checkbox"/>	4 1
surged with bailer and pumped	<input checked="" type="checkbox"/>	6 1
surged with block and bailed	<input type="checkbox"/>	4 2
surged with block and pumped	<input type="checkbox"/>	6 2
surged with block, bailed and pumped	<input type="checkbox"/>	7 0
compressed air	<input type="checkbox"/>	2 0
bailed only	<input type="checkbox"/>	1 0
pumped only	<input type="checkbox"/>	5 1
pumped slowly	<input type="checkbox"/>	5 0
Other _____	<input type="checkbox"/>	

3. Time spent developing well 75 min.

4. Depth of well (from top of well casing) 44.06 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 4.85 gal.

7. Volume of water removed from well 20 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>14.30</u> ft.	<u>29.76</u> ft.
Date	b. <u>04/25/2023</u>	<u>04/25/2023</u>
Time	c. <u>04:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>5:05</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) <u>Slight to Moderate Turb.</u>	Clear <input type="checkbox"/> 2 0 Turbid <input checked="" type="checkbox"/> 2 5 (Describe) <u>Slight Turb.</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>Joe</u>	Last Name: <u>Hahn</u>
Firm:	<u>Shannon + Wilson</u>	

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Facility/Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: \_\_\_\_\_

Print Name: Joseph Hahn

Firm: Shannon + Wilson

NOTE: See instructions for more information including a list of county codes and well type codes.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name	County Name	Well Name <u>Mw-1</u>	
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- 41 surged with bailer and bailed
  - 61 surged with bailer and pumped
  - 42 surged with block and bailed
  - 62 surged with block and pumped
  - 70 surged with block, bailed and pumped
  - 20 compressed air
  - 10 bailed only
  - 51 pumped only
  - 50 pumped slowly
  - Other \_\_\_\_\_
3. Time spent developing well 120 min.
4. Depth of well (from top of well casing) 19.60 ft.
5. Inside diameter of well 2.0 in.
6. Volume of water in filter pack and well casing 0.59 gal.
7. Volume of water removed from well 4+5 = 9.0 gal.
8. Volume of water added (if any) 0 gal.
9. Source of water added NA
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>16.11</u> ft.	<u>19.08</u> ft.
Date	b. <u>04/25/2023</u> m m d d y y y y	<u>04/25/2023</u> m m d d y y y y
Time	c. <u>01:40</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>02:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Moderate Turb.</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>Slight Turb.</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>-</u> mg/l	<u>-</u> mg/l
15. COD	<u>-</u> mg/l	<u>-</u> mg/l

17. Additional comments on development: 4/26/2023 - DTW (before) = 16.13  
DTW (after) = 18.92  
bailed 5 more gallons on 4/26 for 9 gallons total

Name and Address of Facility Contact /Owner/Responsible Party

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Facility/Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Joseph Hahn

Firm: Shannon + Wilson

NOTE: See instructions for more information including a list of county codes and well type codes.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name	County Name	Well Name <u>MW-2</u>	
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- 41 surged with bailer and bailed
  - 61 surged with bailer and pumped
  - 42 surged with block and bailed
  - 62 surged with block and pumped
  - 70 surged with block, bailed and pumped
  - 20 compressed air
  - 10 bailed only
  - 51 pumped only
  - 50 pumped slowly
  - Other \_\_\_\_\_
3. Time spent developing well 90 min.
4. Depth of well (from top of well casing) 19.82 ft.
5. Inside diameter of well 20 in.
6. Volume of water in filter pack and well casing 164 gal.
7. Volume of water removed from well 15.0 gal.
8. Volume of water added (if any) 0 gal.
9. Source of water added NA
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

- |   | Before Development   | After Development   |
|---|--|---|
| 11. Depth to Water (from top of well casing)                              | a. <u>975</u> ft.  | <u>15.08</u> ft.  |
| Date  | b. <u>04/26/2023</u><br>m m d d y y y y  | <u>04/26/2023</u><br>m m d d y y y y  |
| Time  | c. <u>09:55</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.     | <u>10:45</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m. |
| 12. Sediment in well bottom   | <u>0.00</u> inches   | <u>0.00</u> inches  |
| 13. Water clarity   | Clear <input type="checkbox"/> 10  | Clear <input type="checkbox"/> 20   |
|   | Turbid <input checked="" type="checkbox"/> 15<br>(Describe) <u>Light to Moderate Turb.</u> | Turbid <input checked="" type="checkbox"/> 25<br>(Describe) <u>Very Light Turb.</u> |
| Fill in if drilling fluids were used and well is at solid waste facility: |  |   |
| 14. Total suspended solids  | <u>—</u> mg/l  | <u>—</u> mg/l   |
| 15. COD   | <u>—</u> mg/l  | <u>—</u> mg/l   |
| 16. Well developed by: Name (first, last) and Firm                        |  |   |
| First Name:   | <u>Joe</u>   | Last Name: <u>Hahn</u>  |
| Firm:   | <u>Shannon + Wilson</u>  |   |

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Facility/Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Joseph Hahn

Firm: Shannon + Wilson

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name	County Name	Well Name
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number
		DNR Well ID Number

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other

3. Time spent developing well 75 min.

4. Depth of well (from top of well casing) 24.78 ft.

5. Inside diameter of well 20 in.

6. Volume of water in filter pack and well casing 1.5 gal.

7. Volume of water removed from well 15.0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added NA

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>15.54</u> ft.	<u>19.36</u> ft.
Date	b. <u>04/26/2023</u>	<u>04/26/2023</u>
Time	c. <u>07:45</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>08:35</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Moderate Turb. Light Brown</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>Slight Turb.</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>—</u> mg/l	<u>—</u> mg/l
15. COD	<u>—</u> mg/l	<u>—</u> mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>Joe</u>	Last Name: <u>Hahn</u>
Firm:	<u>Shannon + Wilson</u>	

Name and Address of Facility Contact/Owner/Responsible Party

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Facility/Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Joe Hahn

Firm: Shannon + Wilson

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name	County Name	Well Name
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number
		DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other
3. Time spent developing well 60 min.
4. Depth of well (from top of well casing) 21.64 ft.
5. Inside diameter of well 2.0 in.
6. Volume of water in filter pack and well casing 1.19 gal.
7. Volume of water removed from well 15.0 gal.
8. Volume of water added (if any) 0 gal.
9. Source of water added —
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

- |   | Before Development  | After Development  |
|---|---|--|
| 11. Depth to Water (from top of well casing)                              | a. <u>14.31</u> ft.   | <u>17.05</u> ft.   |
| Date  | b. <u>04/25/2023</u><br>m m d d y y y y   | <u>04/25/2023</u><br>m m d d y y y y   |
| Time  | c. <u>14:55</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.  | <u>15:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.                                      |
| 12. Sediment in well bottom   | <u>—</u> inches   | <u>—</u> inches  |
| 13. Water clarity   | Clear <input type="checkbox"/> 10<br>Turbid <input checked="" type="checkbox"/> 15<br>(Describe) <u>Moderate to heavy turb. Light brown</u> | Clear <input type="checkbox"/> 20<br>Turbid <input checked="" type="checkbox"/> 25<br>(Describe) <u>Slightly Turbid.</u> |
| Fill in if drilling fluids were used and well is at solid waste facility: |   |  |
| 14. Total suspended solids  | <u>—</u> mg/l   | <u>—</u> mg/l  |
| 15. COD   | <u>—</u> mg/l   | <u>—</u> mg/l  |
| 16. Well developed by: Name (first, last) and Firm                        |   |  |
| First Name:   | <u>Joe</u>  |  |
| Last Name:  | <u>Hahn</u>   |  |
| Firm:   | <u>Shannon + Wilson</u>   |  |

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Facility/Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Joseph Hahn

Firm: Shannon + Wilson

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Appendix C

# Hydraulic Conductivity Calculations

APPENDIX C: HYDRAULIC CONDUCTIVITY CALCULATIONS

APPENDIX C: HYDRAULIC CONDUCTIVITY CALCULATIONS

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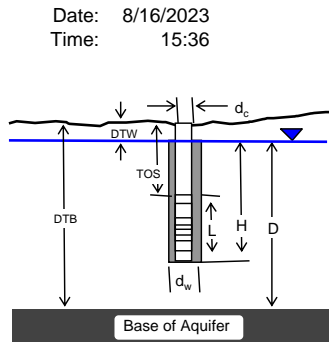
WELL ID: PZ-1

INPUT	
<b>Construction:</b>	
Casing dia. ( $d_c$ )	2 Inch
Annulus dia. ( $d_w$ )	8.25 Inch
Screen Length (L)	5 Feet
<b>Depths to:</b>	
water level (DTW)	15.29 Feet
top of screen (TOS)	38.82 Feet
Base of Aquifer (DTB)	43.82 Feet
<b>Annular Fill:</b>	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Fine Sand	

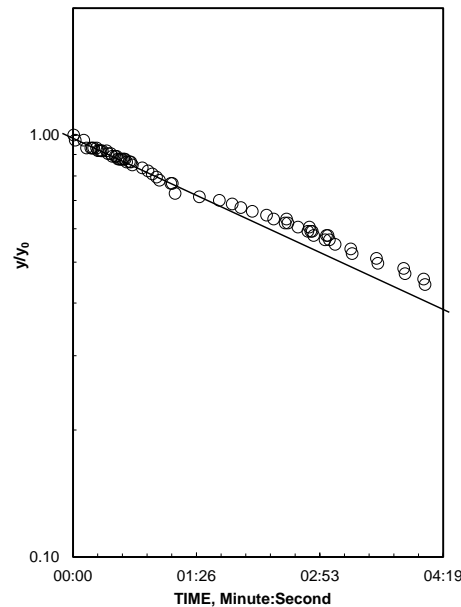
COMPUTED	
$L_{wetted}$	5 Feet
D =	28.53 Feet
H =	28.53 Feet
$L/r_w$ =	14.55
$Y_0$ -DISPLACEMENT =	1.70 Feet
$Y_0$ -SLUG =	1.69 Feet
From look-up table using $L/r_w$	
Fully penetrate C =	1.488
$\ln(Re/r_w)$ =	2.847
Re =	5.93 Feet
Slope =	0.001441 $\log_{10}/\text{sec}$
$t_{90\%}$ recovery =	694 sec

**Input is consistent.**

<b>K = 0.5700000 Feet/Day</b>
0.0001995 cm/S



Adjust slope of line to estimate K



**K= 0.57 is less than likely minimum of 3 for Fine Sand**

REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

[Empty box for additional remarks]

Entry	Reduced Data		Entry	Reduced Data	
	Time, Hr:Min:Sec	Water Level		Time, Hr:Min:Sec	Water Level
1	15:36:23.0	13.59	51	15:39:10.0	14.28
2	15:36:24.0	13.64	52	15:39:11.0	14.31
3	15:36:30.0	13.64	53	15:39:19.0	14.33
4	15:36:32.0	13.71	54	15:39:20.0	14.31
5	15:36:35.0	13.71	55	15:39:21.0	14.31
6	15:36:36.0	13.71	56	15:39:22.0	14.33
7	15:36:37.0	13.71	57	15:39:26.0	14.35
8	15:36:39.0	13.71	58	15:39:37.0	14.38
9	15:36:40.0	13.73	59	15:39:38.0	14.40
10	15:36:41.0	13.73	60	15:39:55.0	14.42
11	15:36:42.0	13.73	61	15:39:56.0	14.45
12	15:36:43.0	13.73	62	15:40:14.0	14.47
13	15:36:46.0	13.73	63	15:40:15.0	14.49
14	15:36:47.0	13.75	64	15:40:28.0	14.52
15	15:36:49.0	13.75	65	15:40:29.0	14.54
16	15:36:50.0	13.78	66	15:40:43.0	14.56
17	15:36:52.0	13.78	67	15:40:44.0	14.58
18	15:36:53.0	13.78	68	15:41:05.0	14.61
19	15:36:54.0	13.80	69	15:41:06.0	14.63
20	15:36:55.0	13.80	70	15:41:22.0	14.65
21	15:36:56.0	13.80	71	15:41:23.0	14.67
22	15:36:57.0	13.80	72	15:41:24.0	14.68
23	15:36:58.0	13.80	73	15:41:42.0	14.70
24	15:36:59.0	13.80	74	15:41:43.0	14.72
25	15:37:00.0	13.82	75	15:42:03.0	14.75
26	15:37:02.0	13.82	76	15:42:04.0	14.77
27	15:37:03.0	13.82	77	15:42:24.0	14.79
28	15:37:04.0	13.85	78	15:42:25.0	14.82
29	15:37:11.0	13.87	79	15:42:50.0	14.84
30	15:37:15.0	13.89	80	15:43:13.0	14.88
31	15:37:18.0	13.91	81	15:43:14.0	14.91
32	15:37:21.0	13.94	82	15:43:37.0	14.93
33	15:37:23.0	13.96	83	15:43:38.0	14.95
34	15:37:31.0	13.98	84	15:43:39.0	14.95
35	15:37:32.0	13.98	85	15:43:40.0	14.95
36	15:37:34.0	14.05	86	15:43:58.0	14.98
37	15:37:51.0	14.08	87	15:44:18.0	15.00
38	15:38:05.0	14.10	88	15:44:19.0	15.02
39	15:38:14.0	14.12	89	15:44:33.0	15.02
40	15:38:20.0	14.15	90	15:44:34.0	15.05
41	15:38:28.0	14.17	91	15:45:04.0	15.07
42	15:38:38.0	14.19	92	15:45:05.0	15.09
43	15:38:43.0	14.22	93	15:45:35.0	15.12
44	15:38:51.0	14.24	94	15:45:36.0	15.14
45	15:38:52.0	14.22	95	15:46:01.0	15.16
46	15:38:53.0	14.24	96	15:46:02.0	15.18
47	15:39:00.0	14.26			
48	15:39:07.0	14.28			
49	15:39:08.0	14.26			
50	15:39:09.0	14.28			

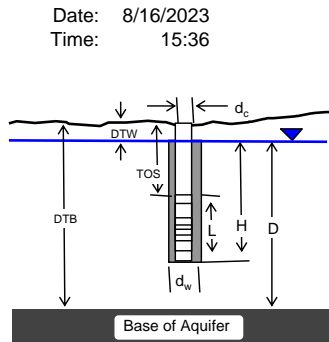
WELL ID: PZ-1

INPUT	
<b>Construction:</b>	
Casing dia. ( $d_c$ )	2 Inch
Annulus dia. ( $d_w$ )	8.25 Inch
Screen Length (L)	5 Feet
<b>Depths to:</b>	
water level (DTW)	15.29 Feet
top of screen (TOS)	38.82 Feet
Base of Aquifer (DTB)	43.82 Feet
<b>Annular Fill:</b>	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Fine Sand	

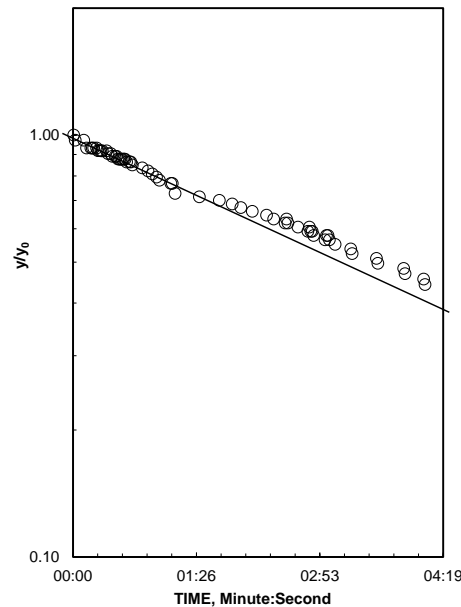
COMPUTED	
$L_{wetted}$	5 Feet
D =	28.53 Feet
H =	28.53 Feet
$L/r_w$ =	14.55
$Y_0$ -DISPLACEMENT =	1.70 Feet
$Y_0$ -SLUG =	1.69 Feet
From look-up table using $L/r_w$	
Fully penetrate C =	1.488
$\ln(Re/r_w)$ =	2.847
Re =	5.93 Feet
Slope =	0.001441 $\log_{10}/\text{sec}$
$t_{90\%}$ recovery =	694 sec

**Input is consistent.**

<b>K = 0.5700000 Feet/Day</b>
0.0001995 cm/S



Adjust slope of line to estimate K



**K= 0.57 is less than likely minimum of 3 for Fine Sand**

REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

[Empty box for additional remarks]

Entry	Reduced Data		Entry	Reduced Data	
	Time, Hr:Min:Sec	Water Level		Time, Hr:Min:Sec	Water Level
1	15:36:23.0	13.59	51	15:39:10.0	14.28
2	15:36:24.0	13.64	52	15:39:11.0	14.31
3	15:36:30.0	13.64	53	15:39:19.0	14.33
4	15:36:32.0	13.71	54	15:39:20.0	14.31
5	15:36:35.0	13.71	55	15:39:21.0	14.31
6	15:36:36.0	13.71	56	15:39:22.0	14.33
7	15:36:37.0	13.71	57	15:39:26.0	14.35
8	15:36:39.0	13.71	58	15:39:37.0	14.38
9	15:36:40.0	13.73	59	15:39:38.0	14.40
10	15:36:41.0	13.73	60	15:39:55.0	14.42
11	15:36:42.0	13.73	61	15:39:56.0	14.45
12	15:36:43.0	13.73	62	15:40:14.0	14.47
13	15:36:46.0	13.73	63	15:40:15.0	14.49
14	15:36:47.0	13.75	64	15:40:28.0	14.52
15	15:36:49.0	13.75	65	15:40:29.0	14.54
16	15:36:50.0	13.78	66	15:40:43.0	14.56
17	15:36:52.0	13.78	67	15:40:44.0	14.58
18	15:36:53.0	13.78	68	15:41:05.0	14.61
19	15:36:54.0	13.80	69	15:41:06.0	14.63
20	15:36:55.0	13.80	70	15:41:22.0	14.65
21	15:36:56.0	13.80	71	15:41:23.0	14.67
22	15:36:57.0	13.80	72	15:41:24.0	14.68
23	15:36:58.0	13.80	73	15:41:42.0	14.70
24	15:36:59.0	13.80	74	15:41:43.0	14.72
25	15:37:00.0	13.82	75	15:42:03.0	14.75
26	15:37:02.0	13.82	76	15:42:04.0	14.77
27	15:37:03.0	13.82	77	15:42:24.0	14.79
28	15:37:04.0	13.85	78	15:42:25.0	14.82
29	15:37:11.0	13.87	79	15:42:50.0	14.84
30	15:37:15.0	13.89	80	15:43:13.0	14.88
31	15:37:18.0	13.91	81	15:43:14.0	14.91
32	15:37:21.0	13.94	82	15:43:37.0	14.93
33	15:37:23.0	13.96	83	15:43:38.0	14.95
34	15:37:31.0	13.98	84	15:43:39.0	14.95
35	15:37:32.0	13.98	85	15:43:40.0	14.95
36	15:37:34.0	14.05	86	15:43:58.0	14.98
37	15:37:51.0	14.08	87	15:44:18.0	15.00
38	15:38:05.0	14.10	88	15:44:19.0	15.02
39	15:38:14.0	14.12	89	15:44:33.0	15.02
40	15:38:20.0	14.15	90	15:44:34.0	15.05
41	15:38:28.0	14.17	91	15:45:04.0	15.07
42	15:38:38.0	14.19	92	15:45:05.0	15.09
43	15:38:43.0	14.22	93	15:45:35.0	15.12
44	15:38:51.0	14.24	94	15:45:36.0	15.14
45	15:38:52.0	14.22	95	15:46:01.0	15.16
46	15:38:53.0	14.24	96	15:46:02.0	15.18
47	15:39:00.0	14.26			
48	15:39:07.0	14.28			
49	15:39:08.0	14.26			
50	15:39:09.0	14.28			

WELL ID: Darwin MW-4

INPUT	
<b>Construction:</b>	
Casing dia. ( $d_c$ )	2 Inch
Annulus dia. ( $d_w$ )	8.25 Inch
Screen Length (L)	10 Feet
<b>Depths to:</b>	
water level (DTW)	15.46 Feet
top of screen (TOS)	11.6 Feet
Base of Aquifer (DTB)	21.6 Feet
<b>Annular Fill:</b>	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Fine Sand	

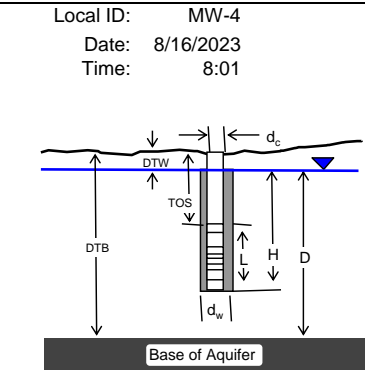
COMPUTED	
$L_{wetted}$	6.14 Feet
D =	6.14 Feet
H =	6.14 Feet
$L/r_w$	17.86
$y_0$ -DISPLACEMENT =	1.79 Feet
$y_0$ -SLUG =	1.69 Feet
From look-up table using $L/r_w$	
Fully penetrate C =	1.640
$\ln(Re/r_w)$ =	2.112
Re =	2.84 Feet
Slope =	0.005228 $\log_{10}/\text{sec}$
$t_{90\%}$ recovery =	191 sec

Input is consistent.

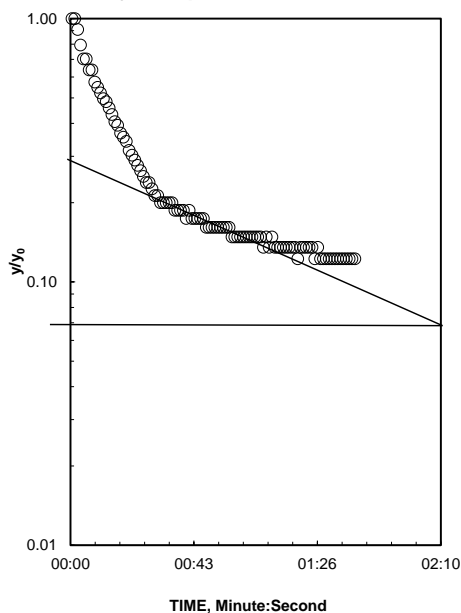
K =	1.2 Feet/Day
K =	0.00042 cm/S

**K= 1.2 is less than likely minimum of 3 for Fine Sand**

REMARKS:



Adjust slope of line to estimate K



Entry	Time, Hr:Min:Sec	Water Level
1	8:01:15.0	13.67
2	8:01:22.0	14.32
3	8:01:29.0	14.69
4	8:01:36.0	14.92
5	8:01:43.0	15.06
6	8:01:50.0	15.10
7	8:01:57.0	15.15
8	8:02:04.0	15.17
9	8:02:11.0	15.19
10	8:02:18.0	15.19
11	8:02:25.0	15.19
12	8:02:32.0	15.22
13	8:02:39.0	15.22
14	8:02:46.0	15.24
15	8:02:53.0	15.24
16	8:03:00.0	15.24
17	8:03:07.0	15.26
18	8:03:14.0	15.26
19	8:03:21.0	15.26
20	8:03:28.0	15.26
21	8:03:35.0	15.26
22	8:03:42.0	15.26
23	8:03:49.0	15.26
24	8:03:56.0	15.29
25	8:04:03.0	15.29
26	8:04:10.0	15.29
27	8:04:17.0	15.29
28	8:04:24.0	15.29
29	8:04:31.0	15.29
30	8:04:38.0	15.31
31	8:04:45.0	15.29
32	8:04:52.0	15.29
33	8:04:59.0	15.31
34	8:05:06.0	15.31
35	8:05:13.0	15.31
36	8:05:20.0	15.31
37	8:05:27.0	15.31
38	8:05:34.0	15.31
39	8:05:41.0	15.31
40	8:05:48.0	15.31
41	8:05:55.0	15.33
42	8:06:02.0	15.33
43	8:06:09.0	15.33
44	8:06:16.0	15.31
45	8:06:23.0	15.33

Bouwer and Rice analysis of slug test, WRR 1976

WELL ID: Darwin MW-4

INPUT	
<b>Construction:</b>	
Casing dia. ( $d_c$ )	2 Inch
Annulus dia. ( $d_w$ )	8.25 Inch
Screen Length (L)	10 Feet
<b>Depths to:</b>	
water level (DTW)	15.46 Feet
top of screen (TOS)	11.6 Feet
Base of Aquifer (DTB)	21.6 Feet
<b>Annular Fill:</b>	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Fine Sand	

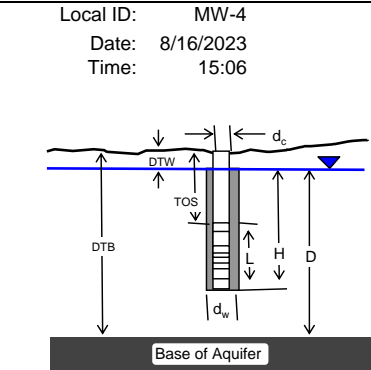
COMPUTED	
$L_{wetted}$	6.14 Feet
D =	6.14 Feet
H =	6.14 Feet
$L/r_w$	17.86
$y_0$ -DISPLACEMENT =	1.50 Feet
$y_0$ -SLUG =	1.69 Feet
From look-up table using $L/r_w$	
Fully penetrate C =	1.640
$\ln(Re/r_w)$ =	2.112
Re =	2.84 Feet
Slope =	0.003807 $\log_{10}/\text{sec}$
$t_{90\%}$ recovery =	263 sec

Input is consistent.

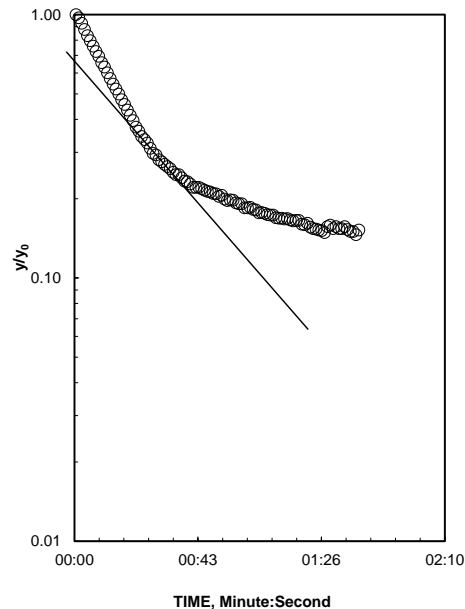
K =	0.9 Feet/Day
K =	0.000315 cm/S

**K= 0.9 is less than likely minimum of 3 for Fine Sand**

REMARKS:



Adjust slope of line to estimate K



Entry	Reduced Data Time, Hr:Min:Sec	Water Level
1	15:06:02.0	13.96
2	15:06:11.0	14.47
3	15:06:20.0	14.81
4	15:06:29.0	15.01
5	15:06:38.0	15.09
6	15:06:47.0	15.14
7	15:06:56.0	15.16
8	15:07:05.0	15.19
9	15:07:14.0	15.21
10	15:07:23.0	15.22
11	15:07:32.0	15.23
12	15:07:41.0	15.23
13	15:07:50.0	15.24
14	15:07:59.0	15.26
15	15:08:08.0	15.26
16	15:08:17.0	15.27
17	15:08:26.0	15.27
18	15:08:35.0	15.28
19	15:08:44.0	15.28
20	15:08:53.0	15.29
21	15:09:02.0	15.28
22	15:09:11.0	15.29
23	15:09:20.0	15.29
24	15:09:29.0	15.30
25	15:09:38.0	15.30
26	15:09:47.0	15.30
27	15:09:56.0	15.31
28	15:10:05.0	15.32
29	15:10:14.0	15.31
30	15:10:23.0	15.32
31	15:10:32.0	15.32
32	15:10:41.0	15.32
33	15:10:50.0	15.33
34	15:10:59.0	15.33
35	15:11:08.0	15.33
36	15:11:17.0	15.33
37	15:11:26.0	15.33
38	15:11:35.0	15.34
39	15:11:44.0	15.33
40	15:11:53.0	15.33
41	15:12:02.0	15.34
42	15:12:11.0	15.34
43	15:12:20.0	15.34
44	15:12:29.0	15.34
45	15:12:38.0	15.35

Appendix D

# Eurofins Laboratory Reports

APPENDIX D: EUROFINS LABORATORY REPORTS

**APPENDIX D: EUROFINS LABORATORY REPORTS**

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Joey Hahn  
Shannon & Wilson, Inc  
5325 Wall Street, Suite 2355  
Madison, Wisconsin 53718

Generated 5/15/2023 9:58:12 AM

## JOB DESCRIPTION

Dane County PFAS

## JOB NUMBER

500-232605-1

# Eurofins Chicago

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



Generated  
5/15/2023 9:58:12 AM

Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660



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# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

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## Job ID: 500-232605-1

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### Laboratory: Eurofins Chicago

#### Narrative

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#### Job Narrative 500-232605-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 4/21/2023 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

#### LCMS

Method 537 (modified): Results for sample B-9 (3') (500-232605-17) and B-10 (3') (500-232605-19) was reported from the analysis of a diluted extract due to high concentration of the target analyte. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: B-3 (2.5') (500-232605-5). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): The matrix spike (MS) recovery for preparation batch 320-669860 and analytical batch 320-670106 was outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 537 (modified): Due to the high concentration of Perfluorooctanesulfonic acid (PFOS), the matrix spike (MS) for preparation batch 320-669860 and analytical batch 320-670106 could not be evaluated for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): The matrix spike (MS) recoveries for preparation batch 320-669862 and analytical batch 320-670113 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. B-7 (13.5') (500-232605-14) and B-10 (17') (500-232605-21)

Method 537 (modified): Results for sample B-10 (13') (500-232605-20) was reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Due to the high concentration of one or more analytes, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-669862 and analytical batch 320-670113 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-1 (2.5')

## Lab Sample ID: 500-232605-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.22	J B	0.24	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.17	J	0.24	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.072	J	0.24	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.049	J	0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.35		0.24	0.063	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.24	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.31		0.24	0.051	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-1 (13')

## Lab Sample ID: 500-232605-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.091	J B	0.22	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.042	J	0.22	0.031	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-2 (3')

## Lab Sample ID: 500-232605-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.40	B	0.23	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.45		0.23	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.092	J	0.23	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.093	J	0.23	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.88		0.23	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.18	J	0.23	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.66		0.23	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.0		0.23	0.051	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-2 (12')

## Lab Sample ID: 500-232605-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.079	J B	0.21	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.22		0.21	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.37		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.098	J	0.21	0.044	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-3 (2.5')

## Lab Sample ID: 500-232605-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.31	B	0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.27		0.24	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.61		0.24	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.22	J	0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.66		0.24	0.064	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.079	J	0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.31		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.2		0.24	0.052	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-3 (13')

## Lab Sample ID: 500-232605-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.098	J B	0.21	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.093	J	0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.10	J	0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-4 (3')

## Lab Sample ID: 500-232605-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.24	B	0.23	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.19	J	0.23	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.67		0.23	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.25		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.53		0.23	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.074	J	0.23	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.23	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		0.23	0.050	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-4 (12')

## Lab Sample ID: 500-232605-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.11	J B	0.20	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.13	J	0.20	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.080	J	0.20	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.22		0.20	0.042	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-5 (3')

## Lab Sample ID: 500-232605-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.25	B	0.23	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.16	J	0.23	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.15	J	0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.34		0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.038	J	0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.18	J	0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.5		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-5 (13')

## Lab Sample ID: 500-232605-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.091	J B	0.20	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.065	J	0.20	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.16	J	0.20	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.65		0.20	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.068	J	0.20	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.095	J	0.20	0.035	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-6 (3')

## Lab Sample ID: 500-232605-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.17	J B	0.23	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.21	J	0.23	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.19	J	0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.19	J	0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.79		0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.067	J	0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.34		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-6 (13')

## Lab Sample ID: 500-232605-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.11	J B	0.22	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.061	J	0.22	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.064	J	0.22	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.087	J	0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.85		0.22	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		0.22	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.16	J	0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.059	J	0.22	0.029	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-7 (2')

## Lab Sample ID: 500-232605-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.47	B	0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.64		0.24	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.58		0.24	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.20	J	0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.44		0.24	0.065	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.91		0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.16	J	0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.8		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.18	J	0.24	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	14		0.24	0.053	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-7 (13.5')

## Lab Sample ID: 500-232605-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.094	J	0.21	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.11	J	0.21	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.24		0.21	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.081	J	0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.43		0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.050	J	0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.079	J	0.21	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.62	I	0.21	0.044	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-8 (3')

## Lab Sample ID: 500-232605-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.17	J	0.21	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.089	J	0.21	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.088	J	0.21	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.040	J	0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.16	J	0.21	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.052	J	0.21	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.13	J	0.21	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.99		0.21	0.045	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-8 (8')

## Lab Sample ID: 500-232605-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.11	J	0.21	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.093	J	0.21	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.061	J	0.21	0.046	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-9 (3')

## Lab Sample ID: 500-232605-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.2		0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.61		0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.7		0.24	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		0.24	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.048	J	0.24	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
4:2 FTS	0.42		0.24	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	47		24	5.0	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	180		24	3.8	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	110		24	4.6	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	1300		24	6.5	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	46		24	4.6	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	97		24	4.5	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	1700		24	3.5	ug/Kg	100	✳	537 (modified)	Total/NA
6:2 FTS - DL	62		24	3.3	ug/Kg	100	✳	537 (modified)	Total/NA

## Client Sample ID: B-9 (13')

## Lab Sample ID: 500-232605-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.47		0.21	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.5		0.21	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	7.7		0.21	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.7		0.21	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	18		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.077	J	0.21	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.42		0.21	0.028	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-10 (3')

## Lab Sample ID: 500-232605-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.0		0.22	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	9.5		0.22	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	18		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8		0.22	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.5		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	11		0.22	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	5.2		0.22	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.34		0.22	0.036	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-10 (3') (Continued)

Lab Sample ID: 500-232605-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4:2 FTS	0.089	J	0.22	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.71		0.22	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	27		22	3.4	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	360		22	5.7	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	610		22	3.1	ug/Kg	100	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	91		22	4.7	ug/Kg	100	✳	537 (modified)	Total/NA
6:2 FTS - DL	22		22	2.9	ug/Kg	100	✳	537 (modified)	Total/NA

## Client Sample ID: B-10 (13')

Lab Sample ID: 500-232605-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.39		0.19	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.91		0.19	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		0.19	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.74		0.19	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	15		0.19	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.40		0.19	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.41		0.19	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	3.0		0.19	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	19		0.97	0.14	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-10 (17')

Lab Sample ID: 500-232605-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.2		0.24	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.7		0.24	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	17		0.24	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.6		0.24	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.70		0.24	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.4		0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	4.6		0.24	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	17		0.24	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	5.0		0.24	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.8	I	0.24	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.17	J	0.24	0.032	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-11 (3')

Lab Sample ID: 500-232605-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.26		0.25	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.49		0.25	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.62		0.25	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.28		0.25	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.6		0.25	0.065	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.61		0.25	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.15	J	0.25	0.047	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

Client Sample ID: B-11 (3') (Continued)

Lab Sample ID: 500-232605-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanesulfonic acid (PFPeS)	0.20	J	0.25	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.6		0.25	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.25	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	14		0.25	0.053	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Method Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
D 2216	Percent Moisture	ASTM	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Sample Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-232605-1	B-1 (2.5')	Solid	04/17/23 09:45	04/21/23 09:35
500-232605-2	B-1 (13')	Solid	04/17/23 09:50	04/21/23 09:35
500-232605-3	B-2 (3')	Solid	04/17/23 10:10	04/21/23 09:35
500-232605-4	B-2 (12')	Solid	04/17/23 10:20	04/21/23 09:35
500-232605-5	B-3 (2.5')	Solid	04/17/23 10:50	04/21/23 09:35
500-232605-6	B-3 (13')	Solid	04/17/23 11:00	04/21/23 09:35
500-232605-7	B-4 (3')	Solid	04/17/23 11:40	04/21/23 09:35
500-232605-8	B-4 (12')	Solid	04/17/23 11:45	04/21/23 09:35
500-232605-9	B-5 (3')	Solid	04/17/23 12:10	04/21/23 09:35
500-232605-10	B-5 (13')	Solid	04/17/23 12:20	04/21/23 09:35
500-232605-11	B-6 (3')	Solid	04/17/23 14:15	04/21/23 09:35
500-232605-12	B-6 (13')	Solid	04/17/23 14:30	04/21/23 09:35
500-232605-13	B-7 (2')	Solid	04/17/23 14:45	04/21/23 09:35
500-232605-14	B-7 (13.5')	Solid	04/17/23 15:00	04/21/23 09:35
500-232605-15	B-8 (3')	Solid	04/17/23 15:25	04/21/23 09:35
500-232605-16	B-8 (8')	Solid	04/17/23 15:50	04/21/23 09:35
500-232605-17	B-9 (3')	Solid	04/18/23 08:30	04/21/23 09:35
500-232605-18	B-9 (13')	Solid	04/18/23 08:40	04/21/23 09:35
500-232605-19	B-10 (3')	Solid	04/18/23 08:55	04/21/23 09:35
500-232605-20	B-10 (13')	Solid	04/18/23 09:00	04/21/23 09:35
500-232605-21	B-10 (17')	Solid	04/18/23 09:10	04/21/23 09:35
500-232605-22	B-11 (3')	Solid	04/18/23 09:35	04/21/23 09:35



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-1 (2.5')**

**Lab Sample ID: 500-232605-1**

**Date Collected: 04/17/23 09:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 82.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.22	J B	0.24	0.055	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluoropentanoic acid (PFPeA)	0.17	J	0.24	0.049	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorohexanoic acid (PFHxA)	0.072	J	0.24	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluoroheptanoic acid (PFHpA)	0.049	J	0.24	0.045	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorooctanoic acid (PFOA)	0.35		0.24	0.063	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorononanoic acid (PFNA)	<0.026		0.24	0.026	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorodecanoic acid (PFDA)	<0.057		0.24	0.057	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluoroundecanoic acid (PFUnA)	<0.050		0.24	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorododecanoic acid (PFDoA)	<0.036		0.24	0.036	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.24	0.025	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorotetradecanoic acid (PFTeA)	<0.044		0.24	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorobutanesulfonic acid (PFBS)	<0.045		0.24	0.045	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluoropentanesulfonic acid (PFPeS)	<0.044		0.24	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.24	0.034	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.058		0.24	0.058	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorooctanesulfonic acid (PFOS)	0.31		0.24	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.24	0.034	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorodecanesulfonic acid (PFDS)	<0.062		0.24	0.062	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorododecanesulfonic acid (PFDoS)	<0.056		0.24	0.056	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
Perfluorooctanesulfonamide (FOSA)	<0.039		0.24	0.039	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NEtFOSA	<0.056		0.24	0.056	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NMeFOSA	<0.058		0.24	0.058	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NMeFOSAA	<0.027		0.24	0.027	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NEtFOSAA	<0.057		0.24	0.057	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NMeFOSE	<0.056		0.24	0.056	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
NEtFOSE	<0.033		0.24	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
4:2 FTS	<0.061		0.24	0.061	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
6:2 FTS	<0.032		0.24	0.032	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
8:2 FTS	<0.042		0.24	0.042	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.046		0.24	0.046	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
HFPO-DA (GenX)	<0.049		0.24	0.049	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
9Cl-PF3ONS	<0.042		0.24	0.042	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1
11Cl-PF3OUdS	<0.037		0.24	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 18:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	78		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C5 PFPeA	75		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 PFHxA	80		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C4 PFHpA	79		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C4 PFOA	76		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C5 PFNA	79		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 PFDA	74		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 PFUnA	71		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 PFDoA	77		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 PFTeDA	52		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C3 PFBS	70		25 - 150	04/23/23 19:00	04/25/23 18:43	1

Eurofins Chicago

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-1 (2.5')**

**Lab Sample ID: 500-232605-1**

**Date Collected: 04/17/23 09:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 82.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	80		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C4 PFOS	79		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C8 FOSA	78		10 - 150	04/23/23 19:00	04/25/23 18:43	1
d3-NMeFOSAA	56		25 - 150	04/23/23 19:00	04/25/23 18:43	1
d5-NEtFOSAA	62		25 - 150	04/23/23 19:00	04/25/23 18:43	1
d-N-MeFOSA-M	69		10 - 150	04/23/23 19:00	04/25/23 18:43	1
d-N-EtFOSA-M	71		10 - 150	04/23/23 19:00	04/25/23 18:43	1
d7-N-MeFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 18:43	1
d9-N-EtFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 18:43	1
M2-4:2 FTS	62		25 - 150	04/23/23 19:00	04/25/23 18:43	1
M2-6:2 FTS	68		25 - 150	04/23/23 19:00	04/25/23 18:43	1
M2-8:2 FTS	64		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C3 HFPO-DA	86		25 - 150	04/23/23 19:00	04/25/23 18:43	1
13C2 10:2 FTS	59		25 - 150	04/23/23 19:00	04/25/23 18:43	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-1 (13')**

**Lab Sample ID: 500-232605-2**

**Date Collected: 04/17/23 09:50**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.091</b>	<b>J B</b>	0.22	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluoropentanoic acid (PFPeA)	<0.044		0.22	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorohexanoic acid (PFHxA)	<0.033		0.22	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluoroheptanoic acid (PFHpA)	<0.041		0.22	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorooctanoic acid (PFOA)	<0.057		0.22	0.057	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorononanoic acid (PFNA)	<0.024		0.22	0.024	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorodecanoic acid (PFDA)	<0.052		0.22	0.052	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluoroundecanoic acid (PFUnA)	<0.045		0.22	0.045	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.22	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorobutanesulfonic acid (PFBS)	<0.041		0.22	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluoropentanesulfonic acid (PFPeS)	<0.040		0.22	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.042</b>	<b>J</b>	0.22	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		0.22	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorooctanesulfonic acid (PFOS)	<0.046		0.22	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.22	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorodecanesulfonic acid (PFDS)	<0.056		0.22	0.056	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
Perfluorooctanesulfonamide (FOSA)	<0.035		0.22	0.035	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
NEtFOSE	<0.030		0.22	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
4:2 FTS	<0.055		0.22	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
6:2 FTS	<0.029		0.22	0.029	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
8:2 FTS	<0.038		0.22	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
HFPO-DA (GenX)	<0.044		0.22	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
9Cl-PF3ONS	<0.038		0.22	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1
11Cl-PF3OUdS	<0.033		0.22	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 18:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	52		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C5 PFPeA	81		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 PFHxA	88		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C4 PFHpA	90		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C4 PFOA	89		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C5 PFNA	93		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 PFDA	91		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 PFUnA	84		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 PFDoA	85		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 PFTeDA	81		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C3 PFBS	79		25 - 150	04/23/23 19:00	04/25/23 18:54	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-1 (13')**  
**Date Collected: 04/17/23 09:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-2**  
**Matrix: Solid**  
**Percent Solids: 93.0**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	87		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C4 PFOS	92		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C8 FOSA	93		10 - 150	04/23/23 19:00	04/25/23 18:54	1
d3-NMeFOSAA	85		25 - 150	04/23/23 19:00	04/25/23 18:54	1
d5-NEtFOSAA	86		25 - 150	04/23/23 19:00	04/25/23 18:54	1
d-N-MeFOSA-M	92		10 - 150	04/23/23 19:00	04/25/23 18:54	1
d-N-EtFOSA-M	87		10 - 150	04/23/23 19:00	04/25/23 18:54	1
d7-N-MeFOSE-M	77		10 - 150	04/23/23 19:00	04/25/23 18:54	1
d9-N-EtFOSE-M	70		10 - 150	04/23/23 19:00	04/25/23 18:54	1
M2-4:2 FTS	74		25 - 150	04/23/23 19:00	04/25/23 18:54	1
M2-6:2 FTS	78		25 - 150	04/23/23 19:00	04/25/23 18:54	1
M2-8:2 FTS	78		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C3 HFPO-DA	84		25 - 150	04/23/23 19:00	04/25/23 18:54	1
13C2 10:2 FTS	70		25 - 150	04/23/23 19:00	04/25/23 18:54	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-2 (3')**

**Lab Sample ID: 500-232605-3**

**Date Collected: 04/17/23 10:10**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 79.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.40	B	0.23	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluoropentanoic acid (PFPeA)	0.45		0.23	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorohexanoic acid (PFHxA)	0.092	J	0.23	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluoroheptanoic acid (PFHpA)	0.093	J	0.23	0.045	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorooctanoic acid (PFOA)	0.88		0.23	0.062	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorononanoic acid (PFNA)	0.18	J	0.23	0.026	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorodecanoic acid (PFDA)	<0.056		0.23	0.056	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluoroundecanoic acid (PFUnA)	<0.049		0.23	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.23	0.035	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.23	0.025	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorotetradecanoic acid (PFTeA)	<0.043		0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.045		0.23	0.045	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluoropentanesulfonic acid (PFPeS)	<0.043		0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorohexanesulfonic acid (PFHxS)	0.66		0.23	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.058		0.23	0.058	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorooctanesulfonic acid (PFOS)	2.0		0.23	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.23	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorodecanesulfonic acid (PFDS)	<0.061		0.23	0.061	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
Perfluorooctanesulfonamide (FOSA)	<0.039		0.23	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NEtFOSA	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NMeFOSA	<0.058		0.23	0.058	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NMeFOSAA	<0.027		0.23	0.027	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NEtFOSAA	<0.056		0.23	0.056	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NMeFOSE	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
NEtFOSE	<0.033		0.23	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
4:2 FTS	<0.060		0.23	0.060	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
6:2 FTS	<0.032		0.23	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
8:2 FTS	<0.041		0.23	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.046		0.23	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
HFPO-DA (GenX)	<0.048		0.23	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
9Cl-PF3ONS	<0.041		0.23	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1
11Cl-PF3OUdS	<0.036		0.23	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 19:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	65		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C5 PFPeA	66		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 PFHxA	68		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C4 PFHpA	67		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C4 PFOA	68		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C5 PFNA	65		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 PFDA	67		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 PFUnA	63		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 PFDoA	64		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 PFTeDA	31		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C3 PFBS	65		25 - 150	04/23/23 19:00	04/25/23 19:05	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-2 (3')**  
**Date Collected: 04/17/23 10:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-3**  
**Matrix: Solid**  
**Percent Solids: 79.7**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	70		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C4 PFOS	67		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C8 FOSA	64		10 - 150	04/23/23 19:00	04/25/23 19:05	1
d3-NMeFOSAA	40		25 - 150	04/23/23 19:00	04/25/23 19:05	1
d5-NEtFOSAA	48		25 - 150	04/23/23 19:00	04/25/23 19:05	1
d-N-MeFOSA-M	64		10 - 150	04/23/23 19:00	04/25/23 19:05	1
d-N-EtFOSA-M	63		10 - 150	04/23/23 19:00	04/25/23 19:05	1
d7-N-MeFOSE-M	65		10 - 150	04/23/23 19:00	04/25/23 19:05	1
d9-N-EtFOSE-M	65		10 - 150	04/23/23 19:00	04/25/23 19:05	1
M2-4:2 FTS	57		25 - 150	04/23/23 19:00	04/25/23 19:05	1
M2-6:2 FTS	59		25 - 150	04/23/23 19:00	04/25/23 19:05	1
M2-8:2 FTS	62		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C3 HFPO-DA	74		25 - 150	04/23/23 19:00	04/25/23 19:05	1
13C2 10:2 FTS	50		25 - 150	04/23/23 19:00	04/25/23 19:05	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-2 (12')**

**Lab Sample ID: 500-232605-4**

**Date Collected: 04/17/23 10:20**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.079</b>	<b>J B</b>	0.21	0.047	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluoropentanoic acid (PFPeA)	<0.042		0.21	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorohexanoic acid (PFHxA)	<0.032		0.21	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluoroheptanoic acid (PFHpA)	<0.039		0.21	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.22</b>		0.21	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorodecanoic acid (PFDA)	<0.049		0.21	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.21	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorobutanesulfonic acid (PFBS)	<0.039		0.21	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluoropentanesulfonic acid (PFPeS)	<0.038		0.21	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.37</b>		0.21	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.050		0.21	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.098</b>	<b>J</b>	0.21	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorodecanesulfonic acid (PFDS)	<0.053		0.21	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorododecanesulfonic acid (PFDoS)	<0.048		0.21	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.21	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NEtFOSA	<0.048		0.21	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NMeFOSA	<0.050		0.21	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NEtFOSAA	<0.049		0.21	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NMeFOSE	<0.048		0.21	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
4:2 FTS	<0.052		0.21	0.052	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
6:2 FTS	<0.028		0.21	0.028	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
8:2 FTS	<0.036		0.21	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 19:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	86		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C5 PFPeA	86		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 PFHxA	87		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C4 PFHpA	90		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C4 PFOA	87		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C5 PFNA	90		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 PFDA	82		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 PFUnA	80		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 PFDoA	85		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 PFTeDA	78		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C3 PFBS	78		25 - 150	04/23/23 19:00	04/25/23 19:39	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-2 (12')**  
**Date Collected: 04/17/23 10:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-4**  
**Matrix: Solid**  
**Percent Solids: 93.0**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	86		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C4 PFOS	82		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C8 FOSA	86		10 - 150	04/23/23 19:00	04/25/23 19:39	1
d3-NMeFOSAA	79		25 - 150	04/23/23 19:00	04/25/23 19:39	1
d5-NEtFOSAA	80		25 - 150	04/23/23 19:00	04/25/23 19:39	1
d-N-MeFOSA-M	73		10 - 150	04/23/23 19:00	04/25/23 19:39	1
d-N-EtFOSA-M	72		10 - 150	04/23/23 19:00	04/25/23 19:39	1
d7-N-MeFOSE-M	71		10 - 150	04/23/23 19:00	04/25/23 19:39	1
d9-N-EtFOSE-M	73		10 - 150	04/23/23 19:00	04/25/23 19:39	1
M2-4:2 FTS	71		25 - 150	04/23/23 19:00	04/25/23 19:39	1
M2-6:2 FTS	73		25 - 150	04/23/23 19:00	04/25/23 19:39	1
M2-8:2 FTS	85		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C3 HFPO-DA	84		25 - 150	04/23/23 19:00	04/25/23 19:39	1
13C2 10:2 FTS	69		25 - 150	04/23/23 19:00	04/25/23 19:39	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-3 (2.5')**

**Lab Sample ID: 500-232605-5**

**Date Collected: 04/17/23 10:50**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 79.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.31	B	0.24	0.056	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluoropentanoic acid (PFPeA)	0.27		0.24	0.050	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorohexanoic acid (PFHxA)	0.61		0.24	0.037	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluoroheptanoic acid (PFHpA)	0.22	J	0.24	0.046	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorooctanoic acid (PFOA)	0.66		0.24	0.064	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorononanoic acid (PFNA)	0.079	J	0.24	0.027	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorodecanoic acid (PFDA)	<0.058		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorododecanoic acid (PFDoA)	<0.036		0.24	0.036	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.24	0.025	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.046		0.24	0.046	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.045		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorohexanesulfonic acid (PFHxS)	0.31		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorooctanesulfonic acid (PFOS)	1.2		0.24	0.052	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorononanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.063		0.24	0.063	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.24	0.040	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NEtFOSA	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NMeFOSA	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NEtFOSAA	<0.058		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NMeFOSE	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
4:2 FTS	<0.062		0.24	0.062	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
6:2 FTS	<0.033		0.24	0.033	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
8:2 FTS	<0.042		0.24	0.042	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.047		0.24	0.047	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
9Cl-PF3ONS	<0.042		0.24	0.042	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
11Cl-PF3OUdS	<0.037		0.24	0.037	ug/Kg	✱	04/23/23 19:00	04/29/23 04:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	69		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C5 PFPeA	68		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C2 PFHxA	72		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C4 PFHpA	77		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C4 PFOA	68		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C5 PFNA	65		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C2 PFDA	62		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C2 PFUnA	72		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C2 PFDoA	70		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C2 PFTeDA	30		25 - 150				04/23/23 19:00	04/29/23 04:32	1
13C3 PFBS	92		25 - 150				04/23/23 19:00	04/29/23 04:32	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-3 (2.5')**

**Lab Sample ID: 500-232605-5**

**Date Collected: 04/17/23 10:50**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 79.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	84		25 - 150	04/23/23 19:00	04/29/23 04:32	1
13C4 PFOS	70		25 - 150	04/23/23 19:00	04/29/23 04:32	1
13C8 FOSA	62		10 - 150	04/23/23 19:00	04/29/23 04:32	1
d3-NMeFOSAA	45		25 - 150	04/23/23 19:00	04/29/23 04:32	1
d5-NEtFOSAA	54		25 - 150	04/23/23 19:00	04/29/23 04:32	1
d-N-MeFOSA-M	70		10 - 150	04/23/23 19:00	04/29/23 04:32	1
d-N-EtFOSA-M	74		10 - 150	04/23/23 19:00	04/29/23 04:32	1
d7-N-MeFOSE-M	80		10 - 150	04/23/23 19:00	04/29/23 04:32	1
d9-N-EtFOSE-M	76		10 - 150	04/23/23 19:00	04/29/23 04:32	1
M2-4:2 FTS	59		25 - 150	04/23/23 19:00	04/29/23 04:32	1
M2-6:2 FTS	66		25 - 150	04/23/23 19:00	04/29/23 04:32	1
M2-8:2 FTS	56		25 - 150	04/23/23 19:00	04/29/23 04:32	1
13C3 HFPO-DA	76		25 - 150	04/23/23 19:00	04/29/23 04:32	1
13C2 10:2 FTS	47		25 - 150	04/23/23 19:00	04/29/23 04:32	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-3 (13')**

**Lab Sample ID: 500-232605-6**

Date Collected: 04/17/23 11:00

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 93.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.098</b>	<b>J B</b>	0.21	0.047	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluoropentanoic acid (PFPeA)	<0.042		0.21	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorohexanoic acid (PFHxA)	<0.032		0.21	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluoroheptanoic acid (PFHpA)	<0.039		0.21	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.093</b>	<b>J</b>	0.21	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorodecanoic acid (PFDA)	<0.050		0.21	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.21	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorobutanesulfonic acid (PFBS)	<0.039		0.21	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluoropentanesulfonic acid (PFPeS)	<0.038		0.21	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.10</b>	<b>J</b>	0.21	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.051		0.21	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorooctanesulfonic acid (PFOS)	<0.044		0.21	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.21	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NMeFOSA	<0.051		0.21	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
6:2 FTS	<0.028		0.21	0.028	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
8:2 FTS	<0.036		0.21	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 20:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C5 PFPeA	87		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 PFHxA	89		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C4 PFHpA	86		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C4 PFOA	90		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C5 PFNA	88		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 PFDA	84		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 PFUnA	79		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 PFDoA	82		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 PFTeDA	84		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C3 PFBS	79		25 - 150	04/23/23 19:00	04/25/23 20:01	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-3 (13')**  
**Date Collected: 04/17/23 11:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-6**  
**Matrix: Solid**  
**Percent Solids: 93.4**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	87		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C4 PFOS	94		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C8 FOSA	88		10 - 150	04/23/23 19:00	04/25/23 20:01	1
d3-NMeFOSAA	86		25 - 150	04/23/23 19:00	04/25/23 20:01	1
d5-NEtFOSAA	79		25 - 150	04/23/23 19:00	04/25/23 20:01	1
d-N-MeFOSA-M	85		10 - 150	04/23/23 19:00	04/25/23 20:01	1
d-N-EtFOSA-M	79		10 - 150	04/23/23 19:00	04/25/23 20:01	1
d7-N-MeFOSE-M	72		10 - 150	04/23/23 19:00	04/25/23 20:01	1
d9-N-EtFOSE-M	70		10 - 150	04/23/23 19:00	04/25/23 20:01	1
M2-4:2 FTS	73		25 - 150	04/23/23 19:00	04/25/23 20:01	1
M2-6:2 FTS	78		25 - 150	04/23/23 19:00	04/25/23 20:01	1
M2-8:2 FTS	80		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C3 HFPO-DA	84		25 - 150	04/23/23 19:00	04/25/23 20:01	1
13C2 10:2 FTS	65		25 - 150	04/23/23 19:00	04/25/23 20:01	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-4 (3')**  
**Date Collected: 04/17/23 11:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-7**  
**Matrix: Solid**  
**Percent Solids: 80.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.24	B	0.23	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluoropentanoic acid (PFPeA)	0.19	J	0.23	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorohexanoic acid (PFHxA)	0.67		0.23	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluoroheptanoic acid (PFHpA)	0.25		0.23	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorooctanoic acid (PFOA)	0.53		0.23	0.062	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorononanoic acid (PFNA)	0.074	J	0.23	0.026	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorodecanoic acid (PFDA)	<0.056		0.23	0.056	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluoroundecanoic acid (PFUnA)	<0.049		0.23	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.23	0.035	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.23	0.025	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorotetradecanoic acid (PFTeA)	<0.043		0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorobutanesulfonic acid (PFBS)	<0.044		0.23	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluoropentanesulfonic acid (PFPeS)	<0.043		0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.23	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.057		0.23	0.057	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorooctanesulfonic acid (PFOS)	2.6		0.23	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.23	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorodecanesulfonic acid (PFDS)	<0.061		0.23	0.061	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
Perfluorooctanesulfonamide (FOSA)	<0.039		0.23	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NEtFOSA	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NMeFOSA	<0.057		0.23	0.057	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NMeFOSAA	<0.027		0.23	0.027	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NEtFOSAA	<0.056		0.23	0.056	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NMeFOSE	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
NEtFOSE	<0.033		0.23	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
4:2 FTS	<0.060		0.23	0.060	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
6:2 FTS	<0.032		0.23	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
8:2 FTS	<0.041		0.23	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.046		0.23	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
HFPO-DA (GenX)	<0.048		0.23	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
9Cl-PF3ONS	<0.041		0.23	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1
11Cl-PF3OUdS	<0.036		0.23	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	67		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C5 PFPeA	68		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 PFHxA	70		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C4 PFHpA	70		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C4 PFOA	69		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C5 PFNA	75		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 PFDA	70		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 PFUnA	64		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 PFDoA	65		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 PFTeDA	37		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C3 PFBS	65		25 - 150	04/23/23 19:00	04/25/23 20:12	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-4 (3')**  
**Date Collected: 04/17/23 11:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-7**  
**Matrix: Solid**  
**Percent Solids: 80.5**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	70		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C4 PFOS	73		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C8 FOSA	68		10 - 150	04/23/23 19:00	04/25/23 20:12	1
d3-NMeFOSAA	46		25 - 150	04/23/23 19:00	04/25/23 20:12	1
d5-NEtFOSAA	49		25 - 150	04/23/23 19:00	04/25/23 20:12	1
d-N-MeFOSA-M	69		10 - 150	04/23/23 19:00	04/25/23 20:12	1
d-N-EtFOSA-M	68		10 - 150	04/23/23 19:00	04/25/23 20:12	1
d7-N-MeFOSE-M	64		10 - 150	04/23/23 19:00	04/25/23 20:12	1
d9-N-EtFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 20:12	1
M2-4:2 FTS	53		25 - 150	04/23/23 19:00	04/25/23 20:12	1
M2-6:2 FTS	58		25 - 150	04/23/23 19:00	04/25/23 20:12	1
M2-8:2 FTS	62		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C3 HFPO-DA	68		25 - 150	04/23/23 19:00	04/25/23 20:12	1
13C2 10:2 FTS	52		25 - 150	04/23/23 19:00	04/25/23 20:12	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-4 (12')**

**Lab Sample ID: 500-232605-8**

**Date Collected: 04/17/23 11:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.11</b>	<b>J B</b>	0.20	0.045	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluoropentanoic acid (PFPeA)	<0.040		0.20	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluoroheptanoic acid (PFHpA)	<0.037		0.20	0.037	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.13</b>	<b>J</b>	0.20	0.052	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorodecanoic acid (PFDA)	<0.047		0.20	0.047	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluoroundecanoic acid (PFUnA)	<0.041		0.20	0.041	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorotetradecanoic acid (PFTeA)	<0.036		0.20	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorobutanesulfonic acid (PFBS)	<0.037		0.20	0.037	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluoropentanesulfonic acid (PFPeS)	<0.036		0.20	0.036	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.080</b>	<b>J</b>	0.20	0.029	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.048		0.20	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.22</b>		0.20	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorodecanesulfonic acid (PFDS)	<0.051		0.20	0.051	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorododecanesulfonic acid (PFDoS)	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NEtFOSA	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NMeFOSA	<0.048		0.20	0.048	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NEtFOSAA	<0.047		0.20	0.047	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NMeFOSE	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
4:2 FTS	<0.050		0.20	0.050	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
8:2 FTS	<0.034		0.20	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.038		0.20	0.038	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
HFPO-DA (GenX)	<0.040		0.20	0.040	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
9Cl-PF3ONS	<0.034		0.20	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1
11Cl-PF3OUdS	<0.031		0.20	0.031	ug/Kg	✳	04/23/23 19:00	04/25/23 20:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C5 PFPeA	84		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 PFHxA	86		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C4 PFHpA	82		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C4 PFOA	84		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C5 PFNA	83		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 PFDA	81		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 PFUnA	74		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 PFDoA	74		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 PFTeDA	75		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C3 PFBS	70		25 - 150	04/23/23 19:00	04/25/23 20:24	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-4 (12')**  
**Date Collected: 04/17/23 11:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-8**  
**Matrix: Solid**  
**Percent Solids: 93.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	79		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C4 PFOS	82		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C8 FOSA	79		10 - 150	04/23/23 19:00	04/25/23 20:24	1
d3-NMeFOSAA	77		25 - 150	04/23/23 19:00	04/25/23 20:24	1
d5-NEtFOSAA	75		25 - 150	04/23/23 19:00	04/25/23 20:24	1
d-N-MeFOSA-M	78		10 - 150	04/23/23 19:00	04/25/23 20:24	1
d-N-EtFOSA-M	70		10 - 150	04/23/23 19:00	04/25/23 20:24	1
d7-N-MeFOSE-M	65		10 - 150	04/23/23 19:00	04/25/23 20:24	1
d9-N-EtFOSE-M	64		10 - 150	04/23/23 19:00	04/25/23 20:24	1
M2-4:2 FTS	68		25 - 150	04/23/23 19:00	04/25/23 20:24	1
M2-6:2 FTS	66		25 - 150	04/23/23 19:00	04/25/23 20:24	1
M2-8:2 FTS	74		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C3 HFPO-DA	78		25 - 150	04/23/23 19:00	04/25/23 20:24	1
13C2 10:2 FTS	56		25 - 150	04/23/23 19:00	04/25/23 20:24	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-5 (3')**

**Lab Sample ID: 500-232605-9**

**Date Collected: 04/17/23 12:10**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 83.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.25</b>	<b>B</b>	0.23	0.052	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.16</b>	<b>J</b>	0.23	0.047	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.15</b>	<b>J</b>	0.23	0.035	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluoroheptanoic acid (PFHpA)	<0.043		0.23	0.043	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.34</b>		0.23	0.060	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.038</b>	<b>J</b>	0.23	0.025	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorodecanoic acid (PFDA)	<0.055		0.23	0.055	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluoroundecanoic acid (PFUnA)	<0.048		0.23	0.048	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluoropentanesulfonic acid (PFPeS)	<0.042		0.23	0.042	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.18</b>	<b>J</b>	0.23	0.033	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.056		0.23	0.056	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>1.5</b>		0.23	0.049	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.23	0.053	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
Perfluorooctanesulfonamide (FOSA)	<0.038		0.23	0.038	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NEtFOSA	<0.053		0.23	0.053	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NMeFOSA	<0.056		0.23	0.056	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NEtFOSAA	<0.055		0.23	0.055	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NMeFOSE	<0.053		0.23	0.053	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
6:2 FTS	<0.031		0.23	0.031	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
8:2 FTS	<0.040		0.23	0.040	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
HFPO-DA (GenX)	<0.047		0.23	0.047	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
9Cl-PF3ONS	<0.040		0.23	0.040	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✧	04/23/23 19:00	04/25/23 20:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	64		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C5 PFPeA	68		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 PFHxA	71		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C4 PFHpA	70		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C4 PFOA	70		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C5 PFNA	72		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 PFDA	70		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 PFUnA	63		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 PFDoA	66		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 PFTeDA	41		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C3 PFBS	66		25 - 150	04/23/23 19:00	04/25/23 20:35	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-5 (3')**  
**Date Collected: 04/17/23 12:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-9**  
**Matrix: Solid**  
**Percent Solids: 83.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	69		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C4 PFOS	71		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C8 FOSA	65		10 - 150	04/23/23 19:00	04/25/23 20:35	1
d3-NMeFOSAA	42		25 - 150	04/23/23 19:00	04/25/23 20:35	1
d5-NEtFOSAA	46		25 - 150	04/23/23 19:00	04/25/23 20:35	1
d-N-MeFOSA-M	68		10 - 150	04/23/23 19:00	04/25/23 20:35	1
d-N-EtFOSA-M	69		10 - 150	04/23/23 19:00	04/25/23 20:35	1
d7-N-MeFOSE-M	71		10 - 150	04/23/23 19:00	04/25/23 20:35	1
d9-N-EtFOSE-M	70		10 - 150	04/23/23 19:00	04/25/23 20:35	1
M2-4:2 FTS	53		25 - 150	04/23/23 19:00	04/25/23 20:35	1
M2-6:2 FTS	52		25 - 150	04/23/23 19:00	04/25/23 20:35	1
M2-8:2 FTS	66		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C3 HFPO-DA	71		25 - 150	04/23/23 19:00	04/25/23 20:35	1
13C2 10:2 FTS	51		25 - 150	04/23/23 19:00	04/25/23 20:35	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-5 (13')**

**Lab Sample ID: 500-232605-10**

**Date Collected: 04/17/23 12:20**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 92.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.091</b>	<b>J B</b>	0.20	0.046	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.065</b>	<b>J</b>	0.20	0.053	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.16</b>	<b>J</b>	0.20	0.029	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.65</b>		0.20	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
<b>Perfluorooctanesulfonamide (FOSA)</b>	<b>0.068</b>	<b>J</b>	0.20	0.033	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
<b>8:2 FTS</b>	<b>0.095</b>	<b>J</b>	0.20	0.035	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
9CI-PF3ONS	<0.035		0.20	0.035	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1
11CI-PF3OUdS	<0.031		0.20	0.031	ug/Kg	✱	04/23/23 19:00	04/25/23 20:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C5 PFPeA	88		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 PFHxA	93		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C4 PFHpA	90		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C4 PFOA	88		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C5 PFNA	95		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 PFDA	89		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 PFUnA	82		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 PFDoA	86		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 PFTeDA	86		25 - 150	04/23/23 19:00	04/25/23 20:46	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-5 (13')**  
**Date Collected: 04/17/23 12:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-10**  
**Matrix: Solid**  
**Percent Solids: 92.3**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	83		25 - 150	04/23/23 19:00	04/25/23 20:46	1
18O2 PFHxS	87		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C4 PFOS	93		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C8 FOSA	91		10 - 150	04/23/23 19:00	04/25/23 20:46	1
d3-NMeFOSAA	85		25 - 150	04/23/23 19:00	04/25/23 20:46	1
d5-NEtFOSAA	88		25 - 150	04/23/23 19:00	04/25/23 20:46	1
d-N-MeFOSA-M	83		10 - 150	04/23/23 19:00	04/25/23 20:46	1
d-N-EtFOSA-M	82		10 - 150	04/23/23 19:00	04/25/23 20:46	1
d7-N-MeFOSE-M	75		10 - 150	04/23/23 19:00	04/25/23 20:46	1
d9-N-EtFOSE-M	75		10 - 150	04/23/23 19:00	04/25/23 20:46	1
M2-4:2 FTS	80		25 - 150	04/23/23 19:00	04/25/23 20:46	1
M2-6:2 FTS	72		25 - 150	04/23/23 19:00	04/25/23 20:46	1
M2-8:2 FTS	83		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C3 HFPO-DA	85		25 - 150	04/23/23 19:00	04/25/23 20:46	1
13C2 10:2 FTS	68		25 - 150	04/23/23 19:00	04/25/23 20:46	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-6 (3')**

**Lab Sample ID: 500-232605-11**

**Date Collected: 04/17/23 14:15**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 84.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.17	J B	0.23	0.052	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluoropentanoic acid (PFPeA)	0.21	J	0.23	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorohexanoic acid (PFHxA)	0.19	J	0.23	0.035	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluoroheptanoic acid (PFHpA)	0.19	J	0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorooctanoic acid (PFOA)	0.79		0.23	0.060	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorononanoic acid (PFNA)	0.067	J	0.23	0.025	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorodecanoic acid (PFDA)	<0.054		0.23	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluoroundecanoic acid (PFUnA)	<0.047		0.23	0.047	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluoropentanesulfonic acid (PFPeS)	<0.042		0.23	0.042	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorohexanesulfonic acid (PFHxS)	2.9		0.23	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorooctanesulfonic acid (PFOS)	0.34		0.23	0.049	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.23	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
Perfluorooctanesulfonamide (FOSA)	<0.037		0.23	0.037	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NEtFOSA	<0.053		0.23	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NMeFOSA	<0.055		0.23	0.055	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NEtFOSAA	<0.054		0.23	0.054	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NMeFOSE	<0.053		0.23	0.053	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
6:2 FTS	<0.030		0.23	0.030	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
8:2 FTS	<0.039		0.23	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
HFPO-DA (GenX)	<0.046		0.23	0.046	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
9Cl-PF3ONS	<0.039		0.23	0.039	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✳	04/23/23 19:00	04/25/23 20:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	76		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C5 PFPeA	79		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 PFHxA	83		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C4 PFHpA	78		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C4 PFOA	82		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C5 PFNA	83		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 PFDA	76		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 PFUnA	74		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 PFDoA	78		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 PFTeDA	68		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C3 PFBS	72		25 - 150	04/23/23 19:00	04/25/23 20:57	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-6 (3')**  
**Date Collected: 04/17/23 14:15**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-11**  
**Matrix: Solid**  
**Percent Solids: 84.4**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	73		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C4 PFOS	78		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C8 FOSA	82		10 - 150	04/23/23 19:00	04/25/23 20:57	1
d3-NMeFOSAA	70		25 - 150	04/23/23 19:00	04/25/23 20:57	1
d5-NEtFOSAA	73		25 - 150	04/23/23 19:00	04/25/23 20:57	1
d-N-MeFOSA-M	75		10 - 150	04/23/23 19:00	04/25/23 20:57	1
d-N-EtFOSA-M	73		10 - 150	04/23/23 19:00	04/25/23 20:57	1
d7-N-MeFOSE-M	67		10 - 150	04/23/23 19:00	04/25/23 20:57	1
d9-N-EtFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 20:57	1
M2-4:2 FTS	61		25 - 150	04/23/23 19:00	04/25/23 20:57	1
M2-6:2 FTS	60		25 - 150	04/23/23 19:00	04/25/23 20:57	1
M2-8:2 FTS	64		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C3 HFPO-DA	78		25 - 150	04/23/23 19:00	04/25/23 20:57	1
13C2 10:2 FTS	55		25 - 150	04/23/23 19:00	04/25/23 20:57	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-6 (13')**

**Lab Sample ID: 500-232605-12**

**Date Collected: 04/17/23 14:30**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 88.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.11	J B	0.22	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluoropentanoic acid (PFPeA)	0.061	J	0.22	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorohexanoic acid (PFHxA)	0.064	J	0.22	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluoroheptanoic acid (PFHpA)	0.087	J	0.22	0.041	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorooctanoic acid (PFOA)	0.85		0.22	0.057	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorononanoic acid (PFNA)	<0.024		0.22	0.024	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorodecanoic acid (PFDA)	<0.052		0.22	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluoroundecanoic acid (PFUnA)	<0.045		0.22	0.045	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.22	0.032	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorobutanesulfonic acid (PFBS)	<0.041		0.22	0.041	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluoropentanesulfonic acid (PFPeS)	<0.040		0.22	0.040	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		0.22	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		0.22	0.053	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorooctanesulfonic acid (PFOS)	0.16	J	0.22	0.046	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.22	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorodecanesulfonic acid (PFDS)	<0.056		0.22	0.056	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
Perfluorooctanesulfonamide (FOSA)	<0.036		0.22	0.036	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
NEtFOSE	<0.030		0.22	0.030	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
4:2 FTS	<0.055		0.22	0.055	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
6:2 FTS	0.059	J	0.22	0.029	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
8:2 FTS	<0.038		0.22	0.038	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
HFPO-DA (GenX)	<0.044		0.22	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
9Cl-PF3ONS	<0.038		0.22	0.038	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1
11Cl-PF3OUdS	<0.033		0.22	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 21:08	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C5 PFPeA	86		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 PFHxA	87		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C4 PFHpA	86		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C4 PFOA	89		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C5 PFNA	93		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 PFDA	83		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 PFUnA	73		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 PFDoA	85		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 PFTeDA	80		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C3 PFBS	77		25 - 150	04/23/23 19:00	04/25/23 21:08	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-6 (13')**  
**Date Collected: 04/17/23 14:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-12**  
**Matrix: Solid**  
**Percent Solids: 88.7**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	85		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C4 PFOS	90		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C8 FOSA	90		10 - 150	04/23/23 19:00	04/25/23 21:08	1
d3-NMeFOSAA	81		25 - 150	04/23/23 19:00	04/25/23 21:08	1
d5-NEtFOSAA	77		25 - 150	04/23/23 19:00	04/25/23 21:08	1
d-N-MeFOSA-M	81		10 - 150	04/23/23 19:00	04/25/23 21:08	1
d-N-EtFOSA-M	78		10 - 150	04/23/23 19:00	04/25/23 21:08	1
d7-N-MeFOSE-M	71		10 - 150	04/23/23 19:00	04/25/23 21:08	1
d9-N-EtFOSE-M	71		10 - 150	04/23/23 19:00	04/25/23 21:08	1
M2-4:2 FTS	71		25 - 150	04/23/23 19:00	04/25/23 21:08	1
M2-6:2 FTS	69		25 - 150	04/23/23 19:00	04/25/23 21:08	1
M2-8:2 FTS	76		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C3 HFPO-DA	79		25 - 150	04/23/23 19:00	04/25/23 21:08	1
13C2 10:2 FTS	60		25 - 150	04/23/23 19:00	04/25/23 21:08	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-7 (2')**

**Lab Sample ID: 500-232605-13**

Date Collected: 04/17/23 14:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.47	B	0.24	0.056	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluoropentanoic acid (PFPeA)	0.64		0.24	0.050	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorohexanoic acid (PFHxA)	0.58		0.24	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluoroheptanoic acid (PFHpA)	0.20	J	0.24	0.046	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorooctanoic acid (PFOA)	0.44		0.24	0.065	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorononanoic acid (PFNA)	0.91		0.24	0.027	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorodecanoic acid (PFDA)	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorododecanoic acid (PFDoA)	<0.037		0.24	0.037	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.24	0.026	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.24	0.046	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluoropentanesulfonic acid (PFPeS)	0.16	J	0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorohexanesulfonic acid (PFHxS)	2.8		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluoroheptanesulfonic acid (PFHpS)	0.18	J	0.24	0.060	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorooctanesulfonic acid (PFOS)	14		0.24	0.053	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorononanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorodecanesulfonic acid (PFDS)	<0.064		0.24	0.064	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorododecanesulfonic acid (PFDoS)	<0.058	F1	0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.24	0.040	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NEtFOSA	<0.058		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NMeFOSA	<0.060		0.24	0.060	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NEtFOSAA	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NMeFOSE	<0.058		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
4:2 FTS	<0.062		0.24	0.062	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
6:2 FTS	<0.033		0.24	0.033	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
8:2 FTS	<0.043		0.24	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		0.24	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
9CI-PF3ONS	<0.043		0.24	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1
11CI-PF3OUdS	<0.038		0.24	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 21:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	71		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C5 PFPeA	69		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 PFHxA	73		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C4 PFHpA	72		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C4 PFOA	71		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C5 PFNA	71		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 PFDA	71		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 PFUnA	64		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 PFDoA	66		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 PFTeDA	52		25 - 150	04/23/23 19:00	04/25/23 21:41	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-7 (2')**  
**Date Collected: 04/17/23 14:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-13**  
**Matrix: Solid**  
**Percent Solids: 81.7**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	67		25 - 150	04/23/23 19:00	04/25/23 21:41	1
18O2 PFHxS	72		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C4 PFOS	75		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C8 FOSA	72		10 - 150	04/23/23 19:00	04/25/23 21:41	1
d3-NMeFOSAA	51		25 - 150	04/23/23 19:00	04/25/23 21:41	1
d5-NEtFOSAA	56		25 - 150	04/23/23 19:00	04/25/23 21:41	1
d-N-MeFOSA-M	74		10 - 150	04/23/23 19:00	04/25/23 21:41	1
d-N-EtFOSA-M	73		10 - 150	04/23/23 19:00	04/25/23 21:41	1
d7-N-MeFOSE-M	70		10 - 150	04/23/23 19:00	04/25/23 21:41	1
d9-N-EtFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 21:41	1
M2-4:2 FTS	57		25 - 150	04/23/23 19:00	04/25/23 21:41	1
M2-6:2 FTS	62		25 - 150	04/23/23 19:00	04/25/23 21:41	1
M2-8:2 FTS	62		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C3 HFPO-DA	65		25 - 150	04/23/23 19:00	04/25/23 21:41	1
13C2 10:2 FTS	52		25 - 150	04/23/23 19:00	04/25/23 21:41	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-7 (13.5')**

**Lab Sample ID: 500-232605-14**

Date Collected: 04/17/23 15:00

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 92.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.094	J	0.21	0.047	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluoropentanoic acid (PFPeA)	0.11	J	0.21	0.042	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorohexanoic acid (PFHxA)	0.24		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluoroheptanoic acid (PFHpA)	0.081	J	0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorooctanoic acid (PFOA)	0.43		0.21	0.055	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorodecanoic acid (PFDA)	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorobutanesulfonic acid (PFBS)	0.050	J	0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluoropentanesulfonic acid (PFPeS)	0.079	J	0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorohexanesulfonic acid (PFHxS)	2.5		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorooctanesulfonic acid (PFOS)	0.62	I	0.21	0.044	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorododecanesulfonic acid (PFDoS)	<0.048		0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.21	0.034	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NEtFOSA	<0.048		0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NMeFOSA	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NMeFOSE	<0.048		0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
6:2 FTS	<0.028		0.21	0.028	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
8:2 FTS	<0.036		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/25/23 23:21	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C5 PFPeA	88		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C2 PFHxA	89		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C4 PFHpA	86		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C4 PFOA	89		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C5 PFNA	93		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C2 PFDA	90		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C2 PFUnA	81		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C2 PFDoA	85		25 - 150				04/23/23 19:00	04/25/23 23:21	1
13C2 PFTeDA	83		25 - 150				04/23/23 19:00	04/25/23 23:21	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-7 (13.5')**

**Lab Sample ID: 500-232605-14**

**Date Collected: 04/17/23 15:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 92.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	85		25 - 150	04/23/23 19:00	04/25/23 23:21	1
18O2 PFHxS	90		25 - 150	04/23/23 19:00	04/25/23 23:21	1
13C4 PFOS	98		25 - 150	04/23/23 19:00	04/25/23 23:21	1
13C8 FOSA	89		10 - 150	04/23/23 19:00	04/25/23 23:21	1
d3-NMeFOSAA	89		25 - 150	04/23/23 19:00	04/25/23 23:21	1
d5-NEtFOSAA	87		25 - 150	04/23/23 19:00	04/25/23 23:21	1
d-N-MeFOSA-M	83		10 - 150	04/23/23 19:00	04/25/23 23:21	1
d-N-EtFOSA-M	83		10 - 150	04/23/23 19:00	04/25/23 23:21	1
d7-N-MeFOSE-M	68		10 - 150	04/23/23 19:00	04/25/23 23:21	1
d9-N-EtFOSE-M	73		10 - 150	04/23/23 19:00	04/25/23 23:21	1
M2-4:2 FTS	68		25 - 150	04/23/23 19:00	04/25/23 23:21	1
M2-6:2 FTS	75		25 - 150	04/23/23 19:00	04/25/23 23:21	1
M2-8:2 FTS	90		25 - 150	04/23/23 19:00	04/25/23 23:21	1
13C3 HFPO-DA	72		25 - 150	04/23/23 19:00	04/25/23 23:21	1
13C2 10:2 FTS	69		25 - 150	04/23/23 19:00	04/25/23 23:21	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-8 (3')**

**Lab Sample ID: 500-232605-15**

**Date Collected: 04/17/23 15:25**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 89.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.17	J	0.21	0.049	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluoropentanoic acid (PFPeA)	0.089	J	0.21	0.043	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorohexanoic acid (PFHxA)	0.088	J	0.21	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluoroheptanoic acid (PFHpA)	0.040	J	0.21	0.040	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorooctanoic acid (PFOA)	0.16	J	0.21	0.056	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorononanoic acid (PFNA)	0.052	J	0.21	0.023	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorodecanoic acid (PFDA)	<0.051		0.21	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluoroundecanoic acid (PFUnA)	<0.044		0.21	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.21	0.032	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.039		0.21	0.039	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.040		0.21	0.040	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.039		0.21	0.039	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorohexanesulfonic acid (PFHxS)	0.13	J	0.21	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.052		0.21	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorooctanesulfonic acid (PFOS)	0.99		0.21	0.045	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.21	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.055		0.21	0.055	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
Perfluorooctanesulfonamide (FOSA)	<0.035		0.21	0.035	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NEtFOSA	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NMeFOSA	<0.052		0.21	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NEtFOSAA	<0.051		0.21	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NMeFOSE	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
NEtFOSE	<0.030		0.21	0.030	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
4:2 FTS	<0.054		0.21	0.054	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
6:2 FTS	<0.028		0.21	0.028	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
8:2 FTS	<0.037		0.21	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.041		0.21	0.041	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
HFPO-DA (GenX)	<0.043		0.21	0.043	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
9Cl-PF3ONS	<0.037		0.21	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
11Cl-PF3OUdS	<0.033		0.21	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 23:32	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	78		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C5 PFPeA	79		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C2 PFHxA	77		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C4 PFHpA	81		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C4 PFOA	77		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C5 PFNA	82		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C2 PFDA	75		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C2 PFUnA	70		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C2 PFDoA	74		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C2 PFTeDA	64		25 - 150				04/23/23 19:00	04/25/23 23:32	1
13C3 PFBS	72		25 - 150				04/23/23 19:00	04/25/23 23:32	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-8 (3')**  
**Date Collected: 04/17/23 15:25**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-15**  
**Matrix: Solid**  
**Percent Solids: 89.0**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	80		25 - 150	04/23/23 19:00	04/25/23 23:32	1
13C4 PFOS	82		25 - 150	04/23/23 19:00	04/25/23 23:32	1
13C8 FOSA	80		10 - 150	04/23/23 19:00	04/25/23 23:32	1
d3-NMeFOSAA	68		25 - 150	04/23/23 19:00	04/25/23 23:32	1
d5-NEtFOSAA	70		25 - 150	04/23/23 19:00	04/25/23 23:32	1
d-N-MeFOSA-M	78		10 - 150	04/23/23 19:00	04/25/23 23:32	1
d-N-EtFOSA-M	77		10 - 150	04/23/23 19:00	04/25/23 23:32	1
d7-N-MeFOSE-M	73		10 - 150	04/23/23 19:00	04/25/23 23:32	1
d9-N-EtFOSE-M	70		10 - 150	04/23/23 19:00	04/25/23 23:32	1
M2-4:2 FTS	63		25 - 150	04/23/23 19:00	04/25/23 23:32	1
M2-6:2 FTS	63		25 - 150	04/23/23 19:00	04/25/23 23:32	1
M2-8:2 FTS	70		25 - 150	04/23/23 19:00	04/25/23 23:32	1
13C3 HFPO-DA	68		25 - 150	04/23/23 19:00	04/25/23 23:32	1
13C2 10:2 FTS	54		25 - 150	04/23/23 19:00	04/25/23 23:32	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-8 (8')**  
**Date Collected: 04/17/23 15:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-16**  
**Matrix: Solid**  
**Percent Solids: 91.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.11</b>	<b>J</b>	0.21	0.049	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluoropentanoic acid (PFPeA)	<0.044		0.21	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorohexanoic acid (PFHxA)	<0.033		0.21	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluoroheptanoic acid (PFHpA)	<0.041		0.21	0.041	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorooctanoic acid (PFOA)	<0.057		0.21	0.057	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorodecanoic acid (PFDA)	<0.051		0.21	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluoroundecanoic acid (PFUnA)	<0.045		0.21	0.045	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.21	0.032	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorotetradecanoic acid (PFTeA)	<0.039		0.21	0.039	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorobutanesulfonic acid (PFBS)	<0.041		0.21	0.041	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluoropentanesulfonic acid (PFPeS)	<0.039		0.21	0.039	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.093</b>	<b>J</b>	0.21	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.052		0.21	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.061</b>	<b>J</b>	0.21	0.046	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.21	0.031	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorodecanesulfonic acid (PFDS)	<0.055		0.21	0.055	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorododecanesulfonic acid (PFDoS)	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
Perfluorooctanesulfonamide (FOSA)	<0.035		0.21	0.035	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NEtFOSA	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NMeFOSA	<0.052		0.21	0.052	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NMeFOSAA	<0.025		0.21	0.025	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NEtFOSAA	<0.051		0.21	0.051	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NMeFOSE	<0.050		0.21	0.050	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
NEtFOSE	<0.030		0.21	0.030	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
4:2 FTS	<0.054		0.21	0.054	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
6:2 FTS	<0.029		0.21	0.029	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
8:2 FTS	<0.037		0.21	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.21	0.042	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
HFPO-DA (GenX)	<0.044		0.21	0.044	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
9Cl-PF3ONS	<0.037		0.21	0.037	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1
11Cl-PF3OUdS	<0.033		0.21	0.033	ug/Kg	☼	04/23/23 19:00	04/25/23 23:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C5 PFPeA	90		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 PFHxA	99		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C4 PFHpA	92		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C4 PFOA	90		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C5 PFNA	101		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 PFDA	94		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 PFUnA	88		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 PFDoA	88		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 PFTeDA	90		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C3 PFBS	83		25 - 150	04/23/23 19:00	04/25/23 23:44	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-8 (8')**  
**Date Collected: 04/17/23 15:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-16**  
**Matrix: Solid**  
**Percent Solids: 91.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	96		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C4 PFOS	100		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C8 FOSA	101		10 - 150	04/23/23 19:00	04/25/23 23:44	1
d3-NMeFOSAA	100		25 - 150	04/23/23 19:00	04/25/23 23:44	1
d5-NEtFOSAA	95		25 - 150	04/23/23 19:00	04/25/23 23:44	1
d-N-MeFOSA-M	91		10 - 150	04/23/23 19:00	04/25/23 23:44	1
d-N-EtFOSA-M	84		10 - 150	04/23/23 19:00	04/25/23 23:44	1
d7-N-MeFOSE-M	76		10 - 150	04/23/23 19:00	04/25/23 23:44	1
d9-N-EtFOSE-M	79		10 - 150	04/23/23 19:00	04/25/23 23:44	1
M2-4:2 FTS	78		25 - 150	04/23/23 19:00	04/25/23 23:44	1
M2-6:2 FTS	79		25 - 150	04/23/23 19:00	04/25/23 23:44	1
M2-8:2 FTS	123		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C3 HFPO-DA	73		25 - 150	04/23/23 19:00	04/25/23 23:44	1
13C2 10:2 FTS	72		25 - 150	04/23/23 19:00	04/25/23 23:44	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-9 (3')**

**Lab Sample ID: 500-232605-17**

**Date Collected: 04/18/23 08:30**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 76.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.2		0.24	0.056	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorononanoic acid (PFNA)	0.61		0.24	0.027	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorodecanoic acid (PFDA)	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorododecanoic acid (PFDoA)	<0.037		0.24	0.037	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.24	0.026	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluoroheptanesulfonic acid (PFHpS)	2.7		0.24	0.060	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorooctanesulfonic acid (PFOS)	10		0.24	0.053	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluoronanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorodecanesulfonic acid (PFDS)	<0.063		0.24	0.063	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorododecanesulfonic acid (PFDoS)	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
Perfluorooctanesulfonamide (FOSA)	0.048	J	0.24	0.040	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NEtFOSA	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NMeFOSA	<0.060		0.24	0.060	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NEtFOSAA	<0.059		0.24	0.059	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NMeFOSE	<0.057		0.24	0.057	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
4:2 FTS	0.42		0.24	0.062	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
8:2 FTS	<0.043		0.24	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		0.24	0.048	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
9CI-PF3ONS	<0.043		0.24	0.043	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1
11CI-PF3OUdS	<0.038		0.24	0.038	ug/Kg	✱	04/23/23 19:00	04/25/23 23:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	129		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C5 PFNA	134		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C2 PFDA	134		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C2 PFUnA	132		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C2 PFDoA	130		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C2 PFTeDA	123		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C4 PFOS	139		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C8 FOSA	138		10 - 150	04/23/23 19:00	04/25/23 23:55	1
d3-NMeFOSAA	145		25 - 150	04/23/23 19:00	04/25/23 23:55	1
d5-NEtFOSAA	145		25 - 150	04/23/23 19:00	04/25/23 23:55	1
d-N-MeFOSA-M	120		10 - 150	04/23/23 19:00	04/25/23 23:55	1
d-N-EtFOSA-M	123		10 - 150	04/23/23 19:00	04/25/23 23:55	1
d7-N-MeFOSE-M	101		10 - 150	04/23/23 19:00	04/25/23 23:55	1
d9-N-EtFOSE-M	103		10 - 150	04/23/23 19:00	04/25/23 23:55	1
M2-4:2 FTS	100		25 - 150	04/23/23 19:00	04/25/23 23:55	1
M2-8:2 FTS	140		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C3 HFPO-DA	105		25 - 150	04/23/23 19:00	04/25/23 23:55	1
13C2 10:2 FTS	134		25 - 150	04/23/23 19:00	04/25/23 23:55	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-9 (3')**  
**Date Collected: 04/18/23 08:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-17**  
**Matrix: Solid**  
**Percent Solids: 76.7**

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	47		24	5.0	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluorohexanoic acid (PFHxA)	180		24	3.8	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluoroheptanoic acid (PFHpA)	110		24	4.6	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluorooctanoic acid (PFOA)	1300		24	6.5	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluorobutanesulfonic acid (PFBS)	46		24	4.6	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluoropentanesulfonic acid (PFPeS)	97		24	4.5	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Perfluorohexanesulfonic acid (PFHxS)	1700		24	3.5	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
6:2 FTS	62		24	3.3	ug/Kg	✳	04/23/23 19:00	04/26/23 14:39	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	80		25 - 150				04/23/23 19:00	04/26/23 14:39	100
13C2 PFHxA	70		25 - 150				04/23/23 19:00	04/26/23 14:39	100
13C4 PFHpA	74		25 - 150				04/23/23 19:00	04/26/23 14:39	100
13C4 PFOA	73		25 - 150				04/23/23 19:00	04/26/23 14:39	100
13C3 PFBS	76		25 - 150				04/23/23 19:00	04/26/23 14:39	100
18O2 PFHxS	94		25 - 150				04/23/23 19:00	04/26/23 14:39	100
M2-6:2 FTS	67		25 - 150				04/23/23 19:00	04/26/23 14:39	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-9 (13')**

**Lab Sample ID: 500-232605-18**

**Date Collected: 04/18/23 08:40**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.47		0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluoropentanoic acid (PFPeA)	1.5		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorohexanoic acid (PFHxA)	7.7		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluoroheptanoic acid (PFHpA)	1.7		0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorooctanoic acid (PFOA)	2.4		0.21	0.055	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorodecanoic acid (PFDA)	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluoroundecanoic acid (PFUnA)	<0.044		0.21	0.044	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorobutanesulfonic acid (PFBS)	1.4		0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluoropentanesulfonic acid (PFPeS)	2.7		0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorohexanesulfonic acid (PFHxS)	18		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorooctanesulfonic acid (PFOS)	0.077	J	0.21	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.21	0.034	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NMeFOSA	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
6:2 FTS	0.42		0.21	0.028	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
8:2 FTS	<0.036		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
HFPO-DA (GenX)	<0.043		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
9CI-PF3ONS	<0.036		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1
11CI-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 00:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C5 PFPeA	84		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 PFHxA	91		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C4 PFHpA	90		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C4 PFOA	91		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C5 PFNA	95		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 PFDA	90		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 PFUnA	83		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 PFDoA	89		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 PFTeDA	86		25 - 150	04/23/23 19:00	04/26/23 00:06	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-9 (13')**

**Lab Sample ID: 500-232605-18**

**Date Collected: 04/18/23 08:40**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.5**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	79		25 - 150	04/23/23 19:00	04/26/23 00:06	1
18O2 PFHxS	86		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C4 PFOS	94		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C8 FOSA	97		10 - 150	04/23/23 19:00	04/26/23 00:06	1
d3-NMeFOSAA	92		25 - 150	04/23/23 19:00	04/26/23 00:06	1
d5-NEtFOSAA	98		25 - 150	04/23/23 19:00	04/26/23 00:06	1
d-N-MeFOSA-M	91		10 - 150	04/23/23 19:00	04/26/23 00:06	1
d-N-EtFOSA-M	85		10 - 150	04/23/23 19:00	04/26/23 00:06	1
d7-N-MeFOSE-M	76		10 - 150	04/23/23 19:00	04/26/23 00:06	1
d9-N-EtFOSE-M	78		10 - 150	04/23/23 19:00	04/26/23 00:06	1
M2-4:2 FTS	67		25 - 150	04/23/23 19:00	04/26/23 00:06	1
M2-6:2 FTS	73		25 - 150	04/23/23 19:00	04/26/23 00:06	1
M2-8:2 FTS	81		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C3 HFPO-DA	71		25 - 150	04/23/23 19:00	04/26/23 00:06	1
13C2 10:2 FTS	65		25 - 150	04/23/23 19:00	04/26/23 00:06	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (3')**

**Lab Sample ID: 500-232605-19**

**Date Collected: 04/18/23 08:55**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0		0.22	0.050	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluoropentanoic acid (PFPeA)	9.5		0.22	0.044	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluoroheptanoic acid (PFHpA)	18		0.22	0.041	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorononanoic acid (PFNA)	1.8		0.22	0.024	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorodecanoic acid (PFDA)	<0.052		0.22	0.052	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluoroundecanoic acid (PFUnA)	<0.046		0.22	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorododecanoic acid (PFDoA)	<0.033		0.22	0.033	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorobutanesulfonic acid (PFBS)	6.5		0.22	0.041	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluoropentanesulfonic acid (PFPeS)	11		0.22	0.040	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluoroheptanesulfonic acid (PFHpS)	5.2		0.22	0.053	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.22	0.031	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorodecanesulfonic acid (PFDS)	<0.056		0.22	0.056	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
Perfluorooctanesulfonamide (FOSA)	0.34		0.22	0.036	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
NEtFOSE	<0.030		0.22	0.030	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
4:2 FTS	0.089 J		0.22	0.055	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
8:2 FTS	0.71		0.22	0.038	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
HFPO-DA (GenX)	<0.044		0.22	0.044	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
9Cl-PF3ONS	<0.038		0.22	0.038	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1
11Cl-PF3OUdS	<0.034		0.22	0.034	ug/Kg	✳	04/23/23 19:00	04/26/23 00:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	125		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C5 PFPeA	115		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C4 PFHpA	78		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C5 PFNA	123		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C2 PFDA	129		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C2 PFUnA	108		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C2 PFDoA	116		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C2 PFTeDA	120		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C3 PFBS	111		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C4 PFOS	124		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C8 FOSA	134		10 - 150	04/23/23 19:00	04/26/23 00:17	1
d3-NMeFOSAA	119		25 - 150	04/23/23 19:00	04/26/23 00:17	1
d5-NEtFOSAA	122		25 - 150	04/23/23 19:00	04/26/23 00:17	1
d-N-MeFOSA-M	128		10 - 150	04/23/23 19:00	04/26/23 00:17	1
d-N-EtFOSA-M	119		10 - 150	04/23/23 19:00	04/26/23 00:17	1
d7-N-MeFOSE-M	103		10 - 150	04/23/23 19:00	04/26/23 00:17	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (3')**

**Lab Sample ID: 500-232605-19**

**Date Collected: 04/18/23 08:55**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d9-N-EtFOSE-M	104		10 - 150	04/23/23 19:00	04/26/23 00:17	1
M2-4:2 FTS	99		25 - 150	04/23/23 19:00	04/26/23 00:17	1
M2-8:2 FTS	108		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C3 HFPO-DA	95		25 - 150	04/23/23 19:00	04/26/23 00:17	1
13C2 10:2 FTS	83		25 - 150	04/23/23 19:00	04/26/23 00:17	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorohexanoic acid (PFHxA)	27		22	3.4	ug/Kg	☆	04/23/23 19:00	04/26/23 14:49	100
Perfluorooctanoic acid (PFOA)	360		22	5.7	ug/Kg	☆	04/23/23 19:00	04/26/23 14:49	100
Perfluorohexanesulfonic acid (PFHxS)	610		22	3.1	ug/Kg	☆	04/23/23 19:00	04/26/23 14:49	100
Perfluorooctanesulfonic acid (PFOS)	91		22	4.7	ug/Kg	☆	04/23/23 19:00	04/26/23 14:49	100
6:2 FTS	22		22	2.9	ug/Kg	☆	04/23/23 19:00	04/26/23 14:49	100

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFHxA	72		25 - 150	04/23/23 19:00	04/26/23 14:49	100
13C4 PFOA	81		25 - 150	04/23/23 19:00	04/26/23 14:49	100
18O2 PFHxS	70		25 - 150	04/23/23 19:00	04/26/23 14:49	100
13C4 PFOS	70		25 - 150	04/23/23 19:00	04/26/23 14:49	100
M2-6:2 FTS	64		25 - 150	04/23/23 19:00	04/26/23 14:49	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (13')**

**Lab Sample ID: 500-232605-20**

**Date Collected: 04/18/23 09:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.39		0.19	0.045	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluoropentanoic acid (PFPeA)	0.91		0.19	0.040	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorohexanoic acid (PFHxA)	2.0		0.19	0.030	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluoroheptanoic acid (PFHpA)	0.74		0.19	0.037	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorooctanoic acid (PFOA)	15		0.19	0.051	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorononanoic acid (PFNA)	<0.021		0.19	0.021	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorodecanoic acid (PFDA)	<0.047		0.19	0.047	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluoroundecanoic acid (PFUnA)	<0.041		0.19	0.041	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorododecanoic acid (PFDoA)	<0.029		0.19	0.029	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorotridecanoic acid (PFTrDA)	<0.020		0.19	0.020	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorotetradecanoic acid (PFTeA)	<0.036		0.19	0.036	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorobutanesulfonic acid (PFBS)	0.40		0.19	0.037	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluoropentanesulfonic acid (PFPeS)	0.41		0.19	0.036	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.048		0.19	0.048	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorooctanesulfonic acid (PFOS)	<0.042		0.19	0.042	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorononanesulfonic acid (PFNS)	<0.028		0.19	0.028	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorodecanesulfonic acid (PFDS)	<0.050		0.19	0.050	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorododecanesulfonic acid (PFDoS)	<0.046		0.19	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Perfluorooctanesulfonamide (FOSA)	<0.032		0.19	0.032	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NEtFOSA	<0.046		0.19	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NMeFOSA	<0.048		0.19	0.048	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NMeFOSAA	<0.022		0.19	0.022	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NEtFOSAA	<0.047		0.19	0.047	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NMeFOSE	<0.046		0.19	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
NEtFOSE	<0.027		0.19	0.027	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
4:2 FTS	<0.049		0.19	0.049	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
6:2 FTS	3.0		0.19	0.026	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
8:2 FTS	<0.034		0.19	0.034	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.038		0.19	0.038	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
HFPO-DA (GenX)	<0.040		0.19	0.040	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
9Cl-PF3ONS	<0.034		0.19	0.034	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
11Cl-PF3OUdS	<0.030		0.19	0.030	ug/Kg	✳	04/23/23 19:00	04/26/23 00:28	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C5 PFPeA	94		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C2 PFHxA	97		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C4 PFHpA	88		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C4 PFOA	93		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C5 PFNA	104		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C2 PFDA	94		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C2 PFUnA	91		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C2 PFDoA	91		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C2 PFTeDA	94		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C3 PFBS	93		25 - 150				04/23/23 19:00	04/26/23 00:28	1
13C4 PFOS	107		25 - 150				04/23/23 19:00	04/26/23 00:28	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (13')**

**Lab Sample ID: 500-232605-20**

**Date Collected: 04/18/23 09:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.8**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C8 FOSA	105		10 - 150	04/23/23 19:00	04/26/23 00:28	1
d3-NMeFOSAA	99		25 - 150	04/23/23 19:00	04/26/23 00:28	1
d5-NEtFOSAA	101		25 - 150	04/23/23 19:00	04/26/23 00:28	1
d-N-MeFOSA-M	93		10 - 150	04/23/23 19:00	04/26/23 00:28	1
d-N-EtFOSA-M	94		10 - 150	04/23/23 19:00	04/26/23 00:28	1
d7-N-MeFOSE-M	81		10 - 150	04/23/23 19:00	04/26/23 00:28	1
d9-N-EtFOSE-M	82		10 - 150	04/23/23 19:00	04/26/23 00:28	1
M2-4:2 FTS	80		25 - 150	04/23/23 19:00	04/26/23 00:28	1
M2-6:2 FTS	75		25 - 150	04/23/23 19:00	04/26/23 00:28	1
M2-8:2 FTS	80		25 - 150	04/23/23 19:00	04/26/23 00:28	1
13C3 HFPO-DA	84		25 - 150	04/23/23 19:00	04/26/23 00:28	1
13C2 10:2 FTS	67		25 - 150	04/23/23 19:00	04/26/23 00:28	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>19</b>		0.97	0.14	ug/Kg	☼	04/23/23 19:00	05/03/23 23:56	5

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
18O2 PFHxS	77		25 - 150	04/23/23 19:00	05/03/23 23:56	5

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (17')**

**Lab Sample ID: 500-232605-21**

**Date Collected: 04/18/23 09:10**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 84.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.2		0.24	0.054	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluoropentanoic acid (PFPeA)	5.7		0.24	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorohexanoic acid (PFHxA)	17		0.24	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluoroheptanoic acid (PFHpA)	2.0		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorooctanoic acid (PFOA)	3.6		0.24	0.062	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorononanoic acid (PFNA)	0.70		0.24	0.026	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorodecanoic acid (PFDA)	<0.056		0.24	0.056	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluoroundecanoic acid (PFUnA)	<0.049		0.24	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.24	0.035	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.24	0.025	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorotetradecanoic acid (PFTeA)	<0.044		0.24	0.044	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorobutanesulfonic acid (PFBS)	4.4		0.24	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluoropentanesulfonic acid (PFPeS)	4.6		0.24	0.044	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorohexanesulfonic acid (PFHxS)	17		0.24	0.034	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluoroheptanesulfonic acid (PFHpS)	5.0		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorooctanesulfonic acid (PFOS)	1.8 I		0.24	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.24	0.034	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorodecanesulfonic acid (PFDS)	<0.061		0.24	0.061	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.24	0.055	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
Perfluorooctanesulfonamide (FOSA)	<0.039		0.24	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NEtFOSA	<0.055		0.24	0.055	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NMeFOSA	<0.058		0.24	0.058	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NMeFOSAA	<0.027		0.24	0.027	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NEtFOSAA	<0.056		0.24	0.056	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NMeFOSE	<0.055		0.24	0.055	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
NEtFOSE	<0.033		0.24	0.033	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
4:2 FTS	<0.060		0.24	0.060	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
6:2 FTS	0.17 J		0.24	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
8:2 FTS	<0.041		0.24	0.041	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.046		0.24	0.046	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
HFPO-DA (GenX)	<0.048		0.24	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
9CI-PF3ONS	<0.041		0.24	0.041	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1
11CI-PF3OUdS	<0.036		0.24	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 00:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C5 PFPeA	88		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 PFHxA	94		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C4 PFHpA	88		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C4 PFOA	88		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C5 PFNA	97		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 PFDA	92		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 PFUnA	83		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 PFDoA	91		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 PFTeDA	89		25 - 150	04/23/23 19:00	04/26/23 00:39	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-10 (17')**

**Lab Sample ID: 500-232605-21**

**Date Collected: 04/18/23 09:10**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 84.5**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	86		25 - 150	04/23/23 19:00	04/26/23 00:39	1
18O2 PFHxS	97		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C4 PFOS	102		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C8 FOSA	99		10 - 150	04/23/23 19:00	04/26/23 00:39	1
d3-NMeFOSAA	101		25 - 150	04/23/23 19:00	04/26/23 00:39	1
d5-NEtFOSAA	95		25 - 150	04/23/23 19:00	04/26/23 00:39	1
d-N-MeFOSA-M	90		10 - 150	04/23/23 19:00	04/26/23 00:39	1
d-N-EtFOSA-M	85		10 - 150	04/23/23 19:00	04/26/23 00:39	1
d7-N-MeFOSE-M	77		10 - 150	04/23/23 19:00	04/26/23 00:39	1
d9-N-EtFOSE-M	76		10 - 150	04/23/23 19:00	04/26/23 00:39	1
M2-4:2 FTS	78		25 - 150	04/23/23 19:00	04/26/23 00:39	1
M2-6:2 FTS	88		25 - 150	04/23/23 19:00	04/26/23 00:39	1
M2-8:2 FTS	90		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C3 HFPO-DA	71		25 - 150	04/23/23 19:00	04/26/23 00:39	1
13C2 10:2 FTS	74		25 - 150	04/23/23 19:00	04/26/23 00:39	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-11 (3')**

**Lab Sample ID: 500-232605-22**

Date Collected: 04/18/23 09:35

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.26		0.25	0.056	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluoropentanoic acid (PFPeA)	0.49		0.25	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorohexanoic acid (PFHxA)	0.62		0.25	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluoroheptanoic acid (PFHpA)	0.28		0.25	0.047	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorooctanoic acid (PFOA)	1.6		0.25	0.065	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorononanoic acid (PFNA)	0.61		0.25	0.027	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorodecanoic acid (PFDA)	<0.059		0.25	0.059	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluoroundecanoic acid (PFUnA)	<0.052		0.25	0.052	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorododecanoic acid (PFDoA)	<0.037		0.25	0.037	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.25	0.026	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.25	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorobutanesulfonic acid (PFBS)	0.15	J	0.25	0.047	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluoropentanesulfonic acid (PFPeS)	0.20	J	0.25	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorohexanesulfonic acid (PFHxS)	6.6		0.25	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.25	0.060	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorooctanesulfonic acid (PFOS)	14		0.25	0.053	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorononanesulfonic acid (PFNS)	<0.036		0.25	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorodecanesulfonic acid (PFDS)	<0.064		0.25	0.064	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorododecanesulfonic acid (PFDoS)	<0.058		0.25	0.058	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.25	0.040	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NEtFOSA	<0.058		0.25	0.058	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NMeFOSA	<0.060		0.25	0.060	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NMeFOSAA	<0.028		0.25	0.028	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NEtFOSAA	<0.059		0.25	0.059	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NMeFOSE	<0.058		0.25	0.058	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
NEtFOSE	<0.034		0.25	0.034	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
4:2 FTS	<0.063		0.25	0.063	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
6:2 FTS	<0.033		0.25	0.033	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
8:2 FTS	<0.043		0.25	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		0.25	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
HFPO-DA (GenX)	<0.050		0.25	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
9CI-PF3ONS	<0.043		0.25	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
11CI-PF3OUdS	<0.038		0.25	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 01:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	69		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C5 PFPeA	67		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C2 PFHxA	74		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C4 PFHpA	69		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C4 PFOA	70		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C5 PFNA	72		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C2 PFDA	70		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C2 PFUnA	69		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C2 PFDoA	62		25 - 150				04/23/23 19:00	04/26/23 01:13	1
13C2 PFTeDA	37		25 - 150				04/23/23 19:00	04/26/23 01:13	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-11 (3')**

**Lab Sample ID: 500-232605-22**

**Date Collected: 04/18/23 09:35**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 81.3**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	71		25 - 150	04/23/23 19:00	04/26/23 01:13	1
18O2 PFHxS	81		25 - 150	04/23/23 19:00	04/26/23 01:13	1
13C4 PFOS	82		25 - 150	04/23/23 19:00	04/26/23 01:13	1
13C8 FOSA	75		10 - 150	04/23/23 19:00	04/26/23 01:13	1
d3-NMeFOSAA	52		25 - 150	04/23/23 19:00	04/26/23 01:13	1
d5-NEtFOSAA	58		25 - 150	04/23/23 19:00	04/26/23 01:13	1
d-N-MeFOSA-M	75		10 - 150	04/23/23 19:00	04/26/23 01:13	1
d-N-EtFOSA-M	66		10 - 150	04/23/23 19:00	04/26/23 01:13	1
d7-N-MeFOSE-M	69		10 - 150	04/23/23 19:00	04/26/23 01:13	1
d9-N-EtFOSE-M	67		10 - 150	04/23/23 19:00	04/26/23 01:13	1
M2-4:2 FTS	60		25 - 150	04/23/23 19:00	04/26/23 01:13	1
M2-6:2 FTS	62		25 - 150	04/23/23 19:00	04/26/23 01:13	1
M2-8:2 FTS	68		25 - 150	04/23/23 19:00	04/26/23 01:13	1
13C3 HFPO-DA	60		25 - 150	04/23/23 19:00	04/26/23 01:13	1
13C2 10:2 FTS	52		25 - 150	04/23/23 19:00	04/26/23 01:13	1



# Definitions/Glossary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## LCMS

### Prep Batch: 669860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-1	B-1 (2.5')	Total/NA	Solid	SHAKE	
500-232605-2	B-1 (13')	Total/NA	Solid	SHAKE	
500-232605-3	B-2 (3')	Total/NA	Solid	SHAKE	
500-232605-4	B-2 (12')	Total/NA	Solid	SHAKE	
500-232605-5	B-3 (2.5')	Total/NA	Solid	SHAKE	
500-232605-6	B-3 (13')	Total/NA	Solid	SHAKE	
500-232605-7	B-4 (3')	Total/NA	Solid	SHAKE	
500-232605-8	B-4 (12')	Total/NA	Solid	SHAKE	
500-232605-9	B-5 (3')	Total/NA	Solid	SHAKE	
500-232605-10	B-5 (13')	Total/NA	Solid	SHAKE	
500-232605-11	B-6 (3')	Total/NA	Solid	SHAKE	
500-232605-12	B-6 (13')	Total/NA	Solid	SHAKE	
500-232605-13	B-7 (2')	Total/NA	Solid	SHAKE	
MB 320-669860/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-669860/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
500-232605-13 MS	B-7 (2')	Total/NA	Solid	SHAKE	
500-232605-13 MSD	B-7 (2')	Total/NA	Solid	SHAKE	

### Prep Batch: 669862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-14	B-7 (13.5')	Total/NA	Solid	SHAKE	
500-232605-15	B-8 (3')	Total/NA	Solid	SHAKE	
500-232605-16	B-8 (8')	Total/NA	Solid	SHAKE	
500-232605-17	B-9 (3')	Total/NA	Solid	SHAKE	
500-232605-17 - DL	B-9 (3')	Total/NA	Solid	SHAKE	
500-232605-18	B-9 (13')	Total/NA	Solid	SHAKE	
500-232605-19	B-10 (3')	Total/NA	Solid	SHAKE	
500-232605-19 - DL	B-10 (3')	Total/NA	Solid	SHAKE	
500-232605-20 - DL	B-10 (13')	Total/NA	Solid	SHAKE	
500-232605-20	B-10 (13')	Total/NA	Solid	SHAKE	
500-232605-21	B-10 (17')	Total/NA	Solid	SHAKE	
500-232605-22	B-11 (3')	Total/NA	Solid	SHAKE	
MB 320-669862/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-669862/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

### Analysis Batch: 670106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-1	B-1 (2.5')	Total/NA	Solid	537 (modified)	669860
500-232605-2	B-1 (13')	Total/NA	Solid	537 (modified)	669860
500-232605-3	B-2 (3')	Total/NA	Solid	537 (modified)	669860
500-232605-4	B-2 (12')	Total/NA	Solid	537 (modified)	669860
500-232605-6	B-3 (13')	Total/NA	Solid	537 (modified)	669860
500-232605-7	B-4 (3')	Total/NA	Solid	537 (modified)	669860
500-232605-8	B-4 (12')	Total/NA	Solid	537 (modified)	669860
500-232605-9	B-5 (3')	Total/NA	Solid	537 (modified)	669860
500-232605-10	B-5 (13')	Total/NA	Solid	537 (modified)	669860
500-232605-11	B-6 (3')	Total/NA	Solid	537 (modified)	669860
500-232605-12	B-6 (13')	Total/NA	Solid	537 (modified)	669860
500-232605-13	B-7 (2')	Total/NA	Solid	537 (modified)	669860
LCS 320-669860/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	669860
500-232605-13 MS	B-7 (2')	Total/NA	Solid	537 (modified)	669860

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# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## LCMS (Continued)

### Analysis Batch: 670106 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-13 MSD	B-7 (2')	Total/NA	Solid	537 (modified)	669860

### Analysis Batch: 670113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-14	B-7 (13.5')	Total/NA	Solid	537 (modified)	669862
500-232605-15	B-8 (3')	Total/NA	Solid	537 (modified)	669862
500-232605-16	B-8 (8')	Total/NA	Solid	537 (modified)	669862
500-232605-17	B-9 (3')	Total/NA	Solid	537 (modified)	669862
500-232605-18	B-9 (13')	Total/NA	Solid	537 (modified)	669862
500-232605-19	B-10 (3')	Total/NA	Solid	537 (modified)	669862
500-232605-20	B-10 (13')	Total/NA	Solid	537 (modified)	669862
500-232605-21	B-10 (17')	Total/NA	Solid	537 (modified)	669862
500-232605-22	B-11 (3')	Total/NA	Solid	537 (modified)	669862
LCS 320-669862/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	669862

### Analysis Batch: 670560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-17 - DL	B-9 (3')	Total/NA	Solid	537 (modified)	669862
500-232605-19 - DL	B-10 (3')	Total/NA	Solid	537 (modified)	669862
MB 320-669860/1-A	Method Blank	Total/NA	Solid	537 (modified)	669860
MB 320-669862/1-A	Method Blank	Total/NA	Solid	537 (modified)	669862

### Analysis Batch: 671056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-5	B-3 (2.5')	Total/NA	Solid	537 (modified)	669860

### Analysis Batch: 672075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-20 - DL	B-10 (13')	Total/NA	Solid	537 (modified)	669862

## General Chemistry

### Analysis Batch: 670360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-1	B-1 (2.5')	Total/NA	Solid	D 2216	
500-232605-2	B-1 (13')	Total/NA	Solid	D 2216	
500-232605-3	B-2 (3')	Total/NA	Solid	D 2216	
500-232605-4	B-2 (12')	Total/NA	Solid	D 2216	
500-232605-5	B-3 (2.5')	Total/NA	Solid	D 2216	
500-232605-6	B-3 (13')	Total/NA	Solid	D 2216	
500-232605-7	B-4 (3')	Total/NA	Solid	D 2216	
500-232605-8	B-4 (12')	Total/NA	Solid	D 2216	
500-232605-9	B-5 (3')	Total/NA	Solid	D 2216	
500-232605-10	B-5 (13')	Total/NA	Solid	D 2216	
500-232605-11	B-6 (3')	Total/NA	Solid	D 2216	
500-232605-12	B-6 (13')	Total/NA	Solid	D 2216	
500-232605-3 DU	B-2 (3')	Total/NA	Solid	D 2216	

### Analysis Batch: 670370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-13	B-7 (2')	Total/NA	Solid	D 2216	

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# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## General Chemistry (Continued)

### Analysis Batch: 670370 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-14	B-7 (13.5')	Total/NA	Solid	D 2216	
500-232605-15	B-8 (3')	Total/NA	Solid	D 2216	
500-232605-16	B-8 (8')	Total/NA	Solid	D 2216	

### Analysis Batch: 670534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-17	B-9 (3')	Total/NA	Solid	D 2216	
500-232605-18	B-9 (13')	Total/NA	Solid	D 2216	
500-232605-19	B-10 (3')	Total/NA	Solid	D 2216	

### Analysis Batch: 670566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-20	B-10 (13')	Total/NA	Solid	D 2216	
500-232605-21	B-10 (17')	Total/NA	Solid	D 2216	
500-232605-22	B-11 (3')	Total/NA	Solid	D 2216	

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-669860/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	0.0466	J	0.20	0.046	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
9Cl-PF3ONS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:27	1
11Cl-PF3OUdS	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:27	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	84		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C5 PFPeA	98		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 PFHxA	74		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C4 PFHpA	98		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C4 PFOA	88		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C5 PFNA	87		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 PFDA	91		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 PFUnA	84		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 PFDoA	84		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 PFTeDA	83		25 - 150	04/23/23 19:00	04/26/23 13:27	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: MB 320-669860/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFBS	92		25 - 150	04/23/23 19:00	04/26/23 13:27	1
18O2 PFHxS	75		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C4 PFOS	89		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C8 FOSA	91		10 - 150	04/23/23 19:00	04/26/23 13:27	1
d3-NMeFOSAA	87		25 - 150	04/23/23 19:00	04/26/23 13:27	1
d5-NEtFOSAA	94		25 - 150	04/23/23 19:00	04/26/23 13:27	1
d-N-MeFOSA-M	86		10 - 150	04/23/23 19:00	04/26/23 13:27	1
d-N-EtFOSA-M	89		10 - 150	04/23/23 19:00	04/26/23 13:27	1
d7-N-MeFOSE-M	83		10 - 150	04/23/23 19:00	04/26/23 13:27	1
d9-N-EtFOSE-M	79		10 - 150	04/23/23 19:00	04/26/23 13:27	1
M2-4:2 FTS	93		25 - 150	04/23/23 19:00	04/26/23 13:27	1
M2-6:2 FTS	77		25 - 150	04/23/23 19:00	04/26/23 13:27	1
M2-8:2 FTS	100		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C3 HFPO-DA	89		25 - 150	04/23/23 19:00	04/26/23 13:27	1
13C2 10:2 FTS	72		25 - 150	04/23/23 19:00	04/26/23 13:27	1

**Lab Sample ID: LCS 320-669860/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670106**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Perfluorobutanoic acid (PFBA)	2.00	1.92		ug/Kg		96	60 - 135
Perfluoropentanoic acid (PFPeA)	2.00	1.95		ug/Kg		98	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	1.91		ug/Kg		95	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.21		ug/Kg		111	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.12		ug/Kg		106	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.02		ug/Kg		101	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.04		ug/Kg		102	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.09		ug/Kg		105	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.03		ug/Kg		101	60 - 135
Perfluorotridecanoic acid (PFTrDA)	2.00	2.01		ug/Kg		101	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	2.02		ug/Kg		101	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.87		ug/Kg		105	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.08		ug/Kg		111	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.77		ug/Kg		97	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.13		ug/Kg		111	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.76		ug/Kg		94	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	1.84		ug/Kg		96	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	1.92		ug/Kg		100	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.85		ug/Kg		95	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: LCS 320-669860/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670106**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (FOSA)	2.00	2.02		ug/Kg		101	60 - 135
NEtFOSA	2.00	1.97		ug/Kg		98	60 - 135
NMeFOSA	2.00	2.04		ug/Kg		102	60 - 135
NMeFOSAA	2.00	2.18		ug/Kg		109	60 - 135
NEtFOSAA	2.00	2.07		ug/Kg		104	60 - 135
NMeFOSE	2.00	2.07		ug/Kg		104	60 - 135
NEtFOSE	2.00	2.15		ug/Kg		107	60 - 135
4:2 FTS	1.88	2.09		ug/Kg		111	60 - 135
6:2 FTS	1.90	1.92		ug/Kg		101	60 - 135
8:2 FTS	1.92	2.03		ug/Kg		106	60 - 135
4,8-Dioxa-3H-perfluoronanoic acid (ADONA)	1.89	1.89		ug/Kg		100	60 - 135
HFPO-DA (GenX)	2.00	2.32		ug/Kg		116	60 - 135
9Cl-PF3ONS	1.87	1.92		ug/Kg		103	60 - 135
11Cl-PF3OUdS	1.89	1.74		ug/Kg		92	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	89		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFHxA	95		25 - 150
13C4 PFHpA	90		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	94		25 - 150
13C2 PFDA	89		25 - 150
13C2 PFUnA	84		25 - 150
13C2 PFDaA	86		25 - 150
13C2 PFTeDA	81		25 - 150
13C3 PFBS	86		25 - 150
18O2 PFHxS	97		25 - 150
13C4 PFOS	97		25 - 150
13C8 FOSA	94		10 - 150
d3-NMeFOSAA	82		25 - 150
d5-NEtFOSAA	87		25 - 150
d-N-MeFOSA-M	83		10 - 150
d-N-EtFOSA-M	79		10 - 150
d7-N-MeFOSE-M	75		10 - 150
d9-N-EtFOSE-M	74		10 - 150
M2-4:2 FTS	78		25 - 150
M2-6:2 FTS	85		25 - 150
M2-8:2 FTS	91		25 - 150
13C3 HFPO-DA	92		25 - 150
13C2 10:2 FTS	75		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: 500-232605-13 MS**

**Matrix: Solid**

**Analysis Batch: 670106**

**Client Sample ID: B-7 (2')**

**Prep Type: Total/NA**

**Prep Batch: 669860**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Perfluorobutanoic acid (PFBA)	0.47	B	2.39	2.62		ug/Kg	✱	90		70 - 130
Perfluoropentanoic acid (PFPeA)	0.64		2.39	2.90		ug/Kg	✱	95		70 - 130
Perfluorohexanoic acid (PFHxA)	0.58		2.39	3.04		ug/Kg	✱	103		70 - 130
Perfluoroheptanoic acid (PFHpA)	0.20	J	2.39	2.67		ug/Kg	✱	104		70 - 130
Perfluorooctanoic acid (PFOA)	0.44		2.39	3.07		ug/Kg	✱	111		70 - 130
Perfluorononanoic acid (PFNA)	0.91		2.39	3.31		ug/Kg	✱	101		70 - 130
Perfluorodecanoic acid (PFDA)	<0.059		2.39	2.72		ug/Kg	✱	114		70 - 130
Perfluoroundecanoic acid (PFUnA)	<0.051		2.39	2.43		ug/Kg	✱	102		70 - 130
Perfluorododecanoic acid (PFDoA)	<0.037		2.39	2.29		ug/Kg	✱	96		70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<0.026		2.39	2.14		ug/Kg	✱	90		70 - 130
Perfluorotetradecanoic acid (PFTeA)	<0.045		2.39	2.32		ug/Kg	✱	97		70 - 130
Perfluorobutanesulfonic acid (PFBS)	0.13	J	2.12	2.33		ug/Kg	✱	104		70 - 130
Perfluoropentanesulfonic acid (PFPeS)	0.16	J	2.24	2.58		ug/Kg	✱	108		70 - 130
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.18	5.00		ug/Kg	✱	102		70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	0.18	J	2.28	2.58		ug/Kg	✱	106		70 - 130
Perfluorooctanesulfonic acid (PFOS)	14		2.22	15.5	4	ug/Kg	✱	69		70 - 130
Perfluorononanesulfonic acid (PFNS)	<0.035		2.29	2.25		ug/Kg	✱	98		70 - 130
Perfluorodecanesulfonic acid (PFDS)	<0.064		2.30	2.25		ug/Kg	✱	98		70 - 130
Perfluorododecanesulfonic acid (PFDoS)	<0.058	F1	2.31	1.57	F1	ug/Kg	✱	68		70 - 130
Perfluorooctanesulfonamide (FOSA)	<0.040		2.39	2.48		ug/Kg	✱	104		70 - 130
NEtFOSA	<0.058		2.39	2.44		ug/Kg	✱	102		70 - 130
NMeFOSA	<0.060		2.39	2.61		ug/Kg	✱	109		70 - 130
NMeFOSAA	<0.028		2.39	2.35		ug/Kg	✱	98		70 - 130
NEtFOSAA	<0.059		2.39	2.33		ug/Kg	✱	98		70 - 130
NMeFOSE	<0.058		2.39	2.61		ug/Kg	✱	109		70 - 130
NEtFOSE	<0.034		2.39	2.54		ug/Kg	✱	106		70 - 130
4:2 FTS	<0.062		2.24	2.50		ug/Kg	✱	112		70 - 130
6:2 FTS	<0.033		2.27	2.32		ug/Kg	✱	102		70 - 130
8:2 FTS	<0.043		2.29	2.25		ug/Kg	✱	98		70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		2.25	2.19		ug/Kg	✱	97		70 - 130
HFPO-DA (GenX)	<0.050		2.39	2.53		ug/Kg	✱	106		70 - 130
9CI-PF3ONS	<0.043		2.23	2.24		ug/Kg	✱	100		70 - 130
11CI-PF3OUdS	<0.038		2.25	2.21		ug/Kg	✱	98		70 - 130
				<b>MS</b>	<b>MS</b>					
<b>Isotope Dilution</b>				<b>%Recovery</b>	<b>Qualifier</b>					<b>Limits</b>
13C4 PFBA				74						25 - 150
13C5 PFPeA				75						25 - 150
13C2 PFHxA				76						25 - 150

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: 500-232605-13 MS**  
**Matrix: Solid**  
**Analysis Batch: 670106**

**Client Sample ID: B-7 (2')**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

<i>Isotope Dilution</i>	<i>MS</i>	<i>MS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C4 PFHpA	76		25 - 150
13C4 PFOA	73		25 - 150
13C5 PFNA	77		25 - 150
13C2 PFDA	69		25 - 150
13C2 PFUnA	69		25 - 150
13C2 PFDoA	74		25 - 150
13C2 PFTeDA	51		25 - 150
13C3 PFBS	74		25 - 150
18O2 PFHxS	79		25 - 150
13C4 PFOS	83		25 - 150
13C8 FOSA	76		10 - 150
d3-NMeFOSAA	48		25 - 150
d5-NEtFOSAA	53		25 - 150
d-N-MeFOSA-M	75		10 - 150
d-N-EtFOSA-M	80		10 - 150
d7-N-MeFOSE-M	73		10 - 150
d9-N-EtFOSE-M	75		10 - 150
M2-4:2 FTS	57		25 - 150
M2-6:2 FTS	59		25 - 150
M2-8:2 FTS	58		25 - 150
13C3 HFPO-DA	69		25 - 150
13C2 10:2 FTS	52		25 - 150

**Lab Sample ID: 500-232605-13 MSD**  
**Matrix: Solid**  
**Analysis Batch: 670106**

**Client Sample ID: B-7 (2')**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>RPD</i>	<i>Limit</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>		
Perfluorobutanoic acid (PFBA)	0.47	B	2.42	2.69		ug/Kg	☼	91	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	0.64		2.42	3.17		ug/Kg	☼	105	70 - 130	9	30
Perfluorohexanoic acid (PFHxA)	0.58		2.42	2.96		ug/Kg	☼	98	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	0.20	J	2.42	2.91		ug/Kg	☼	112	70 - 130	9	30
Perfluorooctanoic acid (PFOA)	0.44		2.42	2.91		ug/Kg	☼	102	70 - 130	5	30
Perfluorononanoic acid (PFNA)	0.91		2.42	3.42		ug/Kg	☼	104	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<0.059		2.42	2.49		ug/Kg	☼	103	70 - 130	9	30
Perfluoroundecanoic acid (PFUnA)	<0.051		2.42	2.46		ug/Kg	☼	102	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<0.037		2.42	2.48		ug/Kg	☼	102	70 - 130	8	30
Perfluorotridecanoic acid (PFTTrDA)	<0.026		2.42	2.29		ug/Kg	☼	94	70 - 130	6	30
Perfluorotetradecanoic acid (PFTeA)	<0.045		2.42	2.39		ug/Kg	☼	99	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	0.13	J	2.15	2.46		ug/Kg	☼	109	70 - 130	6	30
Perfluoropentanesulfonic acid (PFPeS)	0.16	J	2.28	2.61		ug/Kg	☼	108	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.21	5.13		ug/Kg	☼	106	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	0.18	J	2.31	2.66		ug/Kg	☼	107	70 - 130	3	30

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: 500-232605-13 MSD**

**Matrix: Solid**

**Analysis Batch: 670106**

**Client Sample ID: B-7 (2')**

**Prep Type: Total/NA**

**Prep Batch: 669860**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	14		2.25	15.7	4	ug/Kg	⊛	75	70 - 130	1	30
Perfluorononanesulfonic acid (PFNS)	<0.035		2.33	2.25		ug/Kg	⊛	97	70 - 130	0	30
Perfluorodecanesulfonic acid (PFDS)	<0.064		2.34	2.39		ug/Kg	⊛	102	70 - 130	6	30
Perfluorododecanesulfonic acid (PFDoS)	<0.058	F1	2.35	1.78		ug/Kg	⊛	76	70 - 130	12	30
Perfluorooctanesulfonamide (FOSA)	<0.040		2.42	2.60		ug/Kg	⊛	107	70 - 130	5	30
NEtFOSA	<0.058		2.42	2.49		ug/Kg	⊛	103	70 - 130	2	30
NMeFOSA	<0.060		2.42	2.56		ug/Kg	⊛	106	70 - 130	2	30
NMeFOSAA	<0.028		2.42	2.41		ug/Kg	⊛	100	70 - 130	3	30
NEtFOSAA	<0.059		2.42	2.73		ug/Kg	⊛	113	70 - 130	15	30
NMeFOSE	<0.058		2.42	2.64		ug/Kg	⊛	109	70 - 130	1	30
NEtFOSE	<0.034		2.42	2.72		ug/Kg	⊛	112	70 - 130	7	30
4:2 FTS	<0.062		2.27	2.27		ug/Kg	⊛	100	70 - 130	9	30
6:2 FTS	<0.033		2.31	2.48		ug/Kg	⊛	107	70 - 130	6	30
8:2 FTS	<0.043		2.33	2.38		ug/Kg	⊛	102	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		2.29	2.48		ug/Kg	⊛	108	70 - 130	12	30
HFPO-DA (GenX)	<0.050		2.42	2.43		ug/Kg	⊛	100	70 - 130	4	30
9Cl-PF3ONS	<0.043		2.26	2.29		ug/Kg	⊛	101	70 - 130	2	30
11Cl-PF3OUdS	<0.038		2.29	2.32		ug/Kg	⊛	101	70 - 130	5	30

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	70		25 - 150
13C5 PFPeA	69		25 - 150
13C2 PFHxA	71		25 - 150
13C4 PFHpA	68		25 - 150
13C4 PFOA	68		25 - 150
13C5 PFNA	70		25 - 150
13C2 PFDA	68		25 - 150
13C2 PFUnA	68		25 - 150
13C2 PFDoA	68		25 - 150
13C2 PFTeDA	44		25 - 150
13C3 PFBS	66		25 - 150
18O2 PFHxS	71		25 - 150
13C4 PFOS	72		25 - 150
13C8 FOSA	70		10 - 150
d3-NMeFOSAA	47		25 - 150
d5-NEtFOSAA	47		25 - 150
d-N-MeFOSA-M	72		10 - 150
d-N-EtFOSA-M	69		10 - 150
d7-N-MeFOSE-M	67		10 - 150
d9-N-EtFOSE-M	66		10 - 150
M2-4:2 FTS	60		25 - 150
M2-6:2 FTS	57		25 - 150
M2-8:2 FTS	58		25 - 150
13C3 HFPO-DA	65		25 - 150

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: 500-232605-13 MSD**  
**Matrix: Solid**  
**Analysis Batch: 670106**

**Client Sample ID: B-7 (2')**  
**Prep Type: Total/NA**  
**Prep Batch: 669860**

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C2 10:2 FTS	48		25 - 150

**Lab Sample ID: MB 320-669862/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorotridecanoic acid (PFTTrDA)	<0.021		0.20	0.021	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
9CI-PF3ONS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
11CI-PF3OUdS	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	94		25 - 150	04/23/23 19:00	04/26/23 13:47	1			
13C5 PFPeA	107		25 - 150	04/23/23 19:00	04/26/23 13:47	1			
13C2 PFHxA	90		25 - 150	04/23/23 19:00	04/26/23 13:47	1			
13C4 PFHpA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1			

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: MB 320-669862/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFOA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C5 PFNA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFDA	90		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFUnA	89		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFDoA	89		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFTeDA	94		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C3 PFBS	106		25 - 150	04/23/23 19:00	04/26/23 13:47	1
18O2 PFHxS	81		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C4 PFOS	95		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C8 FOSA	99		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d3-NMeFOSAA	97		25 - 150	04/23/23 19:00	04/26/23 13:47	1
d5-NEtFOSAA	98		25 - 150	04/23/23 19:00	04/26/23 13:47	1
d-N-MeFOSA-M	90		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d-N-EtFOSA-M	92		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d7-N-MeFOSE-M	87		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d9-N-EtFOSE-M	86		10 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-4:2 FTS	82		25 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-6:2 FTS	85		25 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-8:2 FTS	97		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C3 HFPO-DA	92		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 10:2 FTS	81		25 - 150	04/23/23 19:00	04/26/23 13:47	1

**Lab Sample ID: LCS 320-669862/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	2.03		ug/Kg		101	60 - 135
Perfluoropentanoic acid (PFPeA)	2.00	2.01		ug/Kg		100	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	1.94		ug/Kg		97	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.17		ug/Kg		109	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.10		ug/Kg		105	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.04		ug/Kg		102	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.10		ug/Kg		105	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.15		ug/Kg		107	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.02		ug/Kg		101	60 - 135
Perfluorotridecanoic acid (PFTTrDA)	2.00	2.08		ug/Kg		104	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	1.98		ug/Kg		99	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.83		ug/Kg		103	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.08		ug/Kg		111	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.87		ug/Kg		103	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	1.91	1.85		ug/Kg		97	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Lab Sample ID: LCS 320-669862/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	1.86	1.76		ug/Kg		95	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	1.64		ug/Kg		85	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	1.77		ug/Kg		92	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.62		ug/Kg		84	60 - 135
Perfluorooctanesulfonamide (FOSA)	2.00	2.15		ug/Kg		108	60 - 135
NEtFOSA	2.00	2.11		ug/Kg		105	60 - 135
NMeFOSA	2.00	2.19		ug/Kg		109	60 - 135
NMeFOSAA	2.00	2.20		ug/Kg		110	60 - 135
NEtFOSAA	2.00	2.02		ug/Kg		101	60 - 135
NMeFOSE	2.00	2.12		ug/Kg		106	60 - 135
NEtFOSE	2.00	2.13		ug/Kg		106	60 - 135
4:2 FTS	1.88	1.98		ug/Kg		106	60 - 135
6:2 FTS	1.90	1.95		ug/Kg		102	60 - 135
8:2 FTS	1.92	2.05		ug/Kg		107	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	1.73		ug/Kg		92	60 - 135
HFPO-DA (GenX)	2.00	2.32		ug/Kg		116	60 - 135
9Cl-PF3ONS	1.87	1.70		ug/Kg		91	60 - 135
11Cl-PF3OUdS	1.89	1.69		ug/Kg		89	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	89		25 - 150
13C5 PFPeA	88		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	90		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	92		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	80		25 - 150
13C2 PFDoA	81		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	86		25 - 150
18O2 PFHxS	93		25 - 150
13C4 PFOS	101		25 - 150
13C8 FOSA	92		10 - 150
d3-NMeFOSAA	88		25 - 150
d5-NEtFOSAA	94		25 - 150
d-N-MeFOSA-M	85		10 - 150
d-N-EtFOSA-M	79		10 - 150
d7-N-MeFOSE-M	72		10 - 150
d9-N-EtFOSE-M	74		10 - 150
M2-4:2 FTS	77		25 - 150
M2-6:2 FTS	83		25 - 150
M2-8:2 FTS	95		25 - 150
13C3 HFPO-DA	68		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

Lab Sample ID: LCS 320-669862/2-A

Matrix: Solid

Analysis Batch: 670113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 669862

<i>Isotope Dilution</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C2 10:2 FTS	71		25 - 150

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- 14
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# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-1 (2.5')**  
**Date Collected: 04/17/23 09:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-1**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-1 (2.5')**  
**Date Collected: 04/17/23 09:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-1**  
**Matrix: Solid**  
**Percent Solids: 82.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 18:43

**Client Sample ID: B-1 (13')**  
**Date Collected: 04/17/23 09:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-2**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-1 (13')**  
**Date Collected: 04/17/23 09:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-2**  
**Matrix: Solid**  
**Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 18:54

**Client Sample ID: B-2 (3')**  
**Date Collected: 04/17/23 10:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-3**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-2 (3')**  
**Date Collected: 04/17/23 10:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-3**  
**Matrix: Solid**  
**Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 19:05

**Client Sample ID: B-2 (12')**  
**Date Collected: 04/17/23 10:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-4**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

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# Lab Chronicle

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-2 (12')**  
**Date Collected: 04/17/23 10:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-4**  
**Matrix: Solid**  
**Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 19:39

**Client Sample ID: B-3 (2.5')**  
**Date Collected: 04/17/23 10:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-5**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-3 (2.5')**  
**Date Collected: 04/17/23 10:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-5**  
**Matrix: Solid**  
**Percent Solids: 79.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	671056	RS1	EET SAC	04/29/23 04:32

**Client Sample ID: B-3 (13')**  
**Date Collected: 04/17/23 11:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-6**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-3 (13')**  
**Date Collected: 04/17/23 11:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-6**  
**Matrix: Solid**  
**Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:01

**Client Sample ID: B-4 (3')**  
**Date Collected: 04/17/23 11:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-7**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06



# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-4 (3')**  
**Date Collected: 04/17/23 11:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-7**  
**Matrix: Solid**  
**Percent Solids: 80.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:12

**Client Sample ID: B-4 (12')**  
**Date Collected: 04/17/23 11:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-8**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-4 (12')**  
**Date Collected: 04/17/23 11:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-8**  
**Matrix: Solid**  
**Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:24

**Client Sample ID: B-5 (3')**  
**Date Collected: 04/17/23 12:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-9**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-5 (3')**  
**Date Collected: 04/17/23 12:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-9**  
**Matrix: Solid**  
**Percent Solids: 83.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:35

**Client Sample ID: B-5 (13')**  
**Date Collected: 04/17/23 12:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-10**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-5 (13')**  
**Date Collected: 04/17/23 12:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-10**  
**Matrix: Solid**  
**Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:46

**Client Sample ID: B-6 (3')**  
**Date Collected: 04/17/23 14:15**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-11**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-6 (3')**  
**Date Collected: 04/17/23 14:15**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-11**  
**Matrix: Solid**  
**Percent Solids: 84.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 20:57

**Client Sample ID: B-6 (13')**  
**Date Collected: 04/17/23 14:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-12**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670360	H1Z	EET SAC	04/26/23 14:06

**Client Sample ID: B-6 (13')**  
**Date Collected: 04/17/23 14:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-12**  
**Matrix: Solid**  
**Percent Solids: 88.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 21:08

**Client Sample ID: B-7 (2')**  
**Date Collected: 04/17/23 14:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-13**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670370	H1Z	EET SAC	04/26/23 15:35

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-7 (2')**  
**Date Collected: 04/17/23 14:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-13**  
**Matrix: Solid**  
**Percent Solids: 81.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669860	PV	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670106	RS1	EET SAC	04/25/23 21:41

**Client Sample ID: B-7 (13.5')**  
**Date Collected: 04/17/23 15:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-14**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670370	H1Z	EET SAC	04/26/23 15:35

**Client Sample ID: B-7 (13.5')**  
**Date Collected: 04/17/23 15:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-14**  
**Matrix: Solid**  
**Percent Solids: 92.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/25/23 23:21

**Client Sample ID: B-8 (3')**  
**Date Collected: 04/17/23 15:25**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-15**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670370	H1Z	EET SAC	04/26/23 15:35

**Client Sample ID: B-8 (3')**  
**Date Collected: 04/17/23 15:25**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-15**  
**Matrix: Solid**  
**Percent Solids: 89.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/25/23 23:32

**Client Sample ID: B-8 (8')**  
**Date Collected: 04/17/23 15:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-16**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670370	H1Z	EET SAC	04/26/23 15:35

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-8 (8')**  
**Date Collected: 04/17/23 15:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-16**  
**Matrix: Solid**  
**Percent Solids: 91.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/25/23 23:44

**Client Sample ID: B-9 (3')**  
**Date Collected: 04/18/23 08:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-17**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670534	H1Z	EET SAC	04/27/23 11:33

**Client Sample ID: B-9 (3')**  
**Date Collected: 04/18/23 08:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-17**  
**Matrix: Solid**  
**Percent Solids: 76.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/25/23 23:55
Total/NA	Prep	SHAKE	DL		669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)	DL	100	670560	K1S	EET SAC	04/26/23 14:39

**Client Sample ID: B-9 (13')**  
**Date Collected: 04/18/23 08:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-18**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670534	H1Z	EET SAC	04/27/23 11:33

**Client Sample ID: B-9 (13')**  
**Date Collected: 04/18/23 08:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-18**  
**Matrix: Solid**  
**Percent Solids: 93.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 00:06

**Client Sample ID: B-10 (3')**  
**Date Collected: 04/18/23 08:55**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-19**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670534	H1Z	EET SAC	04/27/23 11:33

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Client Sample ID: B-10 (3')

Date Collected: 04/18/23 08:55

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-19

Matrix: Solid

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 00:17
Total/NA	Prep	SHAKE	DL		669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)	DL	100	670560	K1S	EET SAC	04/26/23 14:49

## Client Sample ID: B-10 (13')

Date Collected: 04/18/23 09:00

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670566	TCS	EET SAC	04/27/23 12:35

## Client Sample ID: B-10 (13')

Date Collected: 04/18/23 09:00

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-20

Matrix: Solid

Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)	DL	5	672075	RS1	EET SAC	05/03/23 23:56
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 00:28

## Client Sample ID: B-10 (17')

Date Collected: 04/18/23 09:10

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670566	TCS	EET SAC	04/27/23 12:35

## Client Sample ID: B-10 (17')

Date Collected: 04/18/23 09:10

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-21

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 00:39

## Client Sample ID: B-11 (3')

Date Collected: 04/18/23 09:35

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670566	TCS	EET SAC	04/27/23 12:35

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Client Sample ID: B-11 (3')**

**Lab Sample ID: 500-232605-22**

**Date Collected: 04/18/23 09:35**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 81.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 01:13

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

- 1
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# Accreditation/Certification Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

## Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23

- 1
- 2
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- 16

**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Fredrick, Sandie</u>	Carrier (tracking No.):	COC No: <u>500-112053-46443 1</u>	
Client Contact: <u>Mr. Joey Hahn</u>		Phone: <u>608-364-7997</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>	State of Origin:	Page: <u>Page 1 of 7</u>	
Company: <u>Shannon &amp; Wilson, Inc</u>		PWSID:		Job #:			
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested:		Analysis Requested			
City: <u>Madison</u>		TAT Requested (days):		Total Number of containers			
State, Zip: <u>WI, 53718</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes:			
Phone: <u>608-960-7215</u>		PO #: <u>Purchase Order not required</u>		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AshSo2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
Email: <u>joey.hahn@shawnli.com</u>		WO #:		Other:			
Project Name: <u>Dane County PFAS</u>		Project #: <u>50021461</u>		Special Instructions/Note:			
Site: <u>Dane County</u>		SSOW#:		Special Instructions/Note:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/soil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFAS IDA-WI - PFAS Standard List (33 analytes)
<u>B-1 (2.5')</u>	<u>4/17/23</u>	<u>9:45</u>	<u>G</u>	<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-1 (13')</u>		<u>9:50</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-2 (3')</u>		<u>10:10</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-2 (12')</u>		<u>10:20</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-3 (2.5')</u>		<u>10:50</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-3 (13')</u>		<u>11:00</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-4 (3')</u>		<u>11:40</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-4 (12')</u>		<u>11:45</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-5 (3')</u>		<u>12:10</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-5 (13')</u>		<u>12:20</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>B-6 (3')</u>		<u>14:15</u>		<u>Solid</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>Possible Hazard Identification</b>  <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p>							
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____</p> <p>Relinquished by: <u>Joe Hahn</u> Date: <u>4/20/23</u> Time: <u>13:00</u> Company: <u>SWIV FEP EX</u></p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p>							
<p>Custody Seal No.: <u>2133173</u> Cooler Temperature(s) °C and Other Remarks: <u>4.2</u></p>							





**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Fredrick, Sandie</u>	
Client Contact: <u>Mr. Joey Hahn</u>		Phone: <u>608-354-7999</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>	
Company: <u>Shannon &amp; Wilson, Inc</u>		FWSID: _____		COC No: <u>500-112053-46443.2</u>	
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested: _____		Page: <u>Page 2 of 7</u>	
City: <u>Madison</u>		TAT Requested (days): _____		Job #: _____	
State, Zip: <u>WI, 53718</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____	
Phone: <u>608-960-7215</u>		PO #: _____		M - Hexane N - None O - AshtaeO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Email: <u>joey.hahn@shawnil.com</u>		Purchase Order not required		Total Number of Containers: _____	
Project Name: <u>Dane County PFAS</u>		VO #: _____		Special Instructions/Note: _____	
Site: <u>Dave County</u>		Project #: <u>50021461</u>		Analysis Requested	
SSOW#: _____		SOW#: _____		PFIDA_WI - PFAS Standard List (33 analytes) <input checked="" type="checkbox"/>	
Sample Identification		Sample Date		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
B-6 (13')		4/17/23		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
B-7 (2')		↓		N	
B-7 (13.5')		14:30		X	
B-8 (3')		14:45		X	
B-8 (8')		15:00		X	
B-9 (3')		15:25		X	
B-9 (13')		15:50		X	
B-10 (3')		4/18/23		X	
B-10 <del>13.5'</del> (13')		↓		X	
B-10 (17')		8:30		X	
B-11 (3')		8:40		X	
B-11 (3')		8:55		X	
B-11 (3')		9:00		X	
B-11 (3')		9:10		X	
B-11 (3')		9:35		X	
Possible Hazard Identification		Sample Time		Sample Matrix	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		Preservation Code: _____		(Water, Organic, Inorganic, Other)	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Type (C=comp, G=grab)		Solid	
Empty Kit Relinquished by: _____		Sample Date		Sample Time	
Reinquired by: <u>Joe Hahn</u>		Date: _____		Date: _____	
Reinquired by: _____		Date: _____		Date: _____	
Reinquired by: _____		Date: _____		Date: _____	
Custody Seal Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <u>2188173</u>		Cooler Temperature(s) °C and Other Remarks: <u>HCC</u>	



# Chain of Custody Record

<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Frederick, Sandie</u>	Carrier Tracking No(s):	COC No: <u>500-112053-46443.3</u>	
Client Contact: <u>Mr. Joey Hahn</u>		Phone: <u>608-354-7999</u>		E-Mail: <u>Sandra.Fredrick@et.eurofins.com</u>	State of Origin:	Page: <u>Page 3 of 7</u>	
Company: <u>Shannon &amp; Wilson, Inc</u>		FWSID:		Job #:			
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested:		Analysis Requested			
City: <u>Madison</u>		TAT Requested (days):		Total Number of Containers			
State, Zip: <u>WI, 53718</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes:			
Phone: <u>608-960-7215</u>		PO #: <u>Purchase Order not required</u>		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AskaO2 P - Na2SO3 Q - Na2SO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
Email: <u>joey.hahn@shawnwi.com</u>		WO #:		Other:			
Project Name: <u>Dane County PFAS</u>		Project #: <u>50021461</u>		Special Instructions/Note:			
Site: <u>Dane County</u>		SSOW#:					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, As=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field IDA, WI - PFAS Standard List (33 analytes)
B-11 (10')	4/18/23	9:45	G	Solid	X	X	
B-12 (3')		10:20		Solid	X	X	
B-12 (11')		10:30		Solid	X	X	
B-13 (3')		10:55		Solid	X	X	
B-13 (10')		11:05		Solid	X	X	
B-14 (2')		11:15		Solid	X	X	
B-14 (10')		11:35		Solid	X	X	
B-15 (2')		12:45		Solid	X	X	
B-15 (10')		12:55		Solid	X	X	
B-16 (2')		13:30		Solid	X	X	
B-16 (10')		13:40		Solid	X	X	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:							
Empty Kit Relinquished by:		Time:		Method of Shipment:			
Relinquished by: <u>Joe Hahn</u>		Date: <u>4/20/23</u>		Receiver: <u>[Signature]</u>			
Relinquished by:		Date/Time: <u>4/20/23 13:00</u>		Company: <u>SWT FEDEX</u>			
Relinquished by:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Company:			
Custody Seals Intact: <u>Yes</u>		Custody Seal No.: <u>2133123</u>		Cooler Temperature(s) °C and Other Remarks: <u>4.2</u>			

# Chain of Custody Record

<b>Client Information</b>		Lab PM: Fredrick, Sandie		Carrier Tracking No(s):		COC No: 500-112053-46443.4	
Mr. Joey Hahn		E-Mail: Sandra.Fredrick@et.eurofins.com		State of Origin:		Page: Page 4 of 7	
Shannon & Wilson, Inc.		PWSID		Analysis Requested		Job #:	
Address: 5325 Wall Street, Suite 2355		Due Date Requested:		Total Number of containers		Preservation Codes:	
City: Madison		TAT Requested (days):		Field Filtered Sample (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSC4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: WI, 53718		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Perform MS/MSD (Yes or No)		M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecanehydrate U - Acetone V - MCPAA W - pH 4-5 Y - Trizma Z - other (specify)	
Phone: 608-960-7215		Purchase Order not required		PC_IDA_WI - PFAS Standard List (33 analytes)		Special Instructions/Note:	
Email: joey.hahn@shawni.com		WOC #:		N			
Project #: 50021461		Sample Date		Sample Time			
Site: Dave Country		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, B=soil, T=tissue, A=air)			
		Preservation Code:					
		4/18/23		G		Solid	
		13:45				Solid	
		13:55				Solid	
		14:05				Solid	
		14:10				Solid	
		14:15				Solid	
		14:35				Solid	
		14:45				Solid	
		15:00				Solid	
		15:20				Solid	
		4/19/23				Solid	
		8:10				Solid	
		8:20				Solid	
<b>Possible Hazard Identification</b>		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Joe Hahn		4/20/23 - 13:00		Company: SWI REDEX		Date/Time: 4/20/23 9:55	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 2133173		Cooler Temperature(s) °C and Other Remarks: 42			



# Chain of Custody Record



<b>Client Information</b>		Lab PM: Fredrick, Sandie	Center Tracking No(s):	COC No: 500-112053-46443.5
Client Contact: Mr. Joey Hahn		E-Mail: Sandra.Fredrick@et.eurofins.com	State of Origin:	Page: 5 of 7
Company: Shannon & Wilson, Inc		Job #: _____		
Address: 5325 Wall Street, Suite 2355		Analysis Requested		
City: Madison		Total Number of Containers		
State, Zip: WI, 53718		Preservation Codes:		
Phone: 608-960-7215		A - HCL M - Hexane B - NaOH N - None O - AshNaO2 C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Email: joey.hahn@shanwil.com		Special Instructions/Note:		
Project Name: Dane County PFAS		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		
Site: Dane County		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		
Due Date Requested:		PFC_IDA_WI - PFAS Standard List (33 analytes) <input checked="" type="checkbox"/>		
TAT Requested (days):		N		
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Matrix (W=water, S=solid, O=wastewater, I=ice, T=tissue, A=Air)		
PO #: 608-960-7215		Purchase Order not required		
WD #:		Sample Date		
Project #: 50021461		Sample Time		
SSOW#:		Sample Type (C=Comp, G=grab)		
Sample Identification		Preservation Code		
B-22 (2')	4/19/23	8:45	G	Solid
B-22 (10')		8:50		Solid
B-23 (2')		11:30		Solid
B-23 (10')		11:45		Solid
FD-1				Solid
FD-2				Solid
Equipment Blank	4/18/23	8:00	G	<del>Solid</del> W
Equipment Blank #2	4/19/23	7:45	G	<del>Solid</del> W
Field Blank	4/18/23	7:30	G	Water
				Water
				Water
<b>Possible Hazard Identification</b>				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
Deliverable Requested: I, II, III, IV, Other (specify)				
Empty Kit Relinquished by:				
Reinquired by: Joe Hahn		Date: 4/20/23-13:00		
Reinquired by:		Company: SWI P&E		
Reinquired by:		Date/Time: 4/20/23 9:55		
Reinquired by:		Date/Time:		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 2183173		
Cooler Temperature(s) °C and Other Remarks: H2				



# Login Sample Receipt Checklist

Client: Shannon & Wilson, Inc

Job Number: 500-232605-1

**Login Number: 232605**

**List Number: 2**

**Creator: Oropeza, Salvador**

**List Source: Eurofins Sacramento**

**List Creation: 04/21/23 04:37 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2133173
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

500-232605 Field Sheet



Job: \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSO / OnTrac / Goldstreak / USPS / Other

Tracking #: 6374 2028 6074

Therm. ID: 110 °C

Ice \_\_\_\_\_ Wet \_\_\_\_\_ Gel \_\_\_\_\_ Other \_\_\_\_\_

Cooler Custody Seal: 2133173

Cooler ID: \_\_\_\_\_

Temp Observed: 4.2 °C Corrected: 4.2 °C

From: Temp Blank  Sample

Opening/Processing The Shipment

Yes  No  NA

Cooler compromised/tampered with?

Cooler Temperature is acceptable?

Frozen samples show signs of thaw?

Initials: JE Date: 4/21/23

Unpacking/Labeling The Samples

Yes  No  NA

COC is complete w/o discrepancies?

Samples compromised/tampered with?

Containers are not broken or leaking?

Sample custody seal?

Sample containers have legible labels?

Sample date/times are provided?

Appropriate containers are used?

Sample bottles are completely filled?

Sample preservatives verified?

Is the Field Sampler's name on COC?

Samples require spitting/compositing?

Samples w/o discrepancies?

Zero headspace?

Alkalinity has no headspace?

Perchlorate has headspace?

Multiphasic samples are not present?

Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: SO Date: 4/21/23

Log in Completion

Yes  No  NA

Receipt Temperature on COC?

Samples received within hold time?

NCM Filled?

Log Release checked in TALS?

Initials: SO Date: 4/21/23

Trizma Lot #(s): \_\_\_\_\_

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

**Matrix: Solid**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-232605-1	B-1 (2.5')	78	75	80	79	76	79	74	71
500-232605-2	B-1 (13')	52	81	88	90	89	93	91	84
500-232605-3	B-2 (3')	65	66	68	67	68	65	67	63
500-232605-4	B-2 (12')	86	86	87	90	87	90	82	80
500-232605-5	B-3 (2.5')	69	68	72	77	68	65	62	72
500-232605-6	B-3 (13')	84	87	89	86	90	88	84	79
500-232605-7	B-4 (3')	67	68	70	70	69	75	70	64
500-232605-8	B-4 (12')	79	84	86	82	84	83	81	74
500-232605-9	B-5 (3')	64	68	71	70	70	72	70	63
500-232605-10	B-5 (13')	88	88	93	90	88	95	89	82
500-232605-11	B-6 (3')	76	79	83	78	82	83	76	74
500-232605-12	B-6 (13')	84	86	87	86	89	93	83	73
500-232605-13	B-7 (2')	71	69	73	72	71	71	71	64
500-232605-13 MS	B-7 (2')	74	75	76	76	73	77	69	69
500-232605-13 MSD	B-7 (2')	70	69	71	68	68	70	68	68
500-232605-14	B-7 (13.5')	91	88	89	86	89	93	90	81
500-232605-15	B-8 (3')	78	79	77	81	77	82	75	70
500-232605-16	B-8 (8')	95	90	99	92	90	101	94	88
500-232605-17	B-9 (3')	129					134	134	132
500-232605-17 - DL	B-9 (3')		80	70	74	73			
500-232605-18	B-9 (13')	87	84	91	90	91	95	90	83
500-232605-19	B-10 (3')	125	115		78		123	129	108
500-232605-19 - DL	B-10 (3')			72		81			
500-232605-20	B-10 (13')	96	94	97	88	93	104	94	91
500-232605-20 - DL	B-10 (13')								
500-232605-21	B-10 (17')	95	88	94	88	88	97	92	83
500-232605-22	B-11 (3')	69	67	74	69	70	72	70	69
LCS 320-669860/2-A	Lab Control Sample	89	92	95	90	93	94	89	84
LCS 320-669862/2-A	Lab Control Sample	89	88	91	90	90	92	88	80
MB 320-669860/1-A	Method Blank	84	98	74	98	88	87	91	84
MB 320-669862/1-A	Method Blank	94	107	90	91	91	91	90	89

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-232605-1	B-1 (2.5')	77	52	70	80	79	78	56	62
500-232605-2	B-1 (13')	85	81	79	87	92	93	85	86
500-232605-3	B-2 (3')	64	31	65	70	67	64	40	48
500-232605-4	B-2 (12')	85	78	78	86	82	86	79	80
500-232605-5	B-3 (2.5')	70	30	92	84	70	62	45	54
500-232605-6	B-3 (13')	82	84	79	87	94	88	86	79
500-232605-7	B-4 (3')	65	37	65	70	73	68	46	49
500-232605-8	B-4 (12')	74	75	70	79	82	79	77	75
500-232605-9	B-5 (3')	66	41	66	69	71	65	42	46
500-232605-10	B-5 (13')	86	86	83	87	93	91	85	88
500-232605-11	B-6 (3')	78	68	72	73	78	82	70	73
500-232605-12	B-6 (13')	85	80	77	85	90	90	81	77
500-232605-13	B-7 (2')	66	52	67	72	75	72	51	56
500-232605-13 MS	B-7 (2')	74	51	74	79	83	76	48	53
500-232605-13 MSD	B-7 (2')	68	44	66	71	72	70	47	47

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

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

**Matrix: Solid**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFD <sub>o</sub> A (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFH <sub>x</sub> S (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOs (25-150)	d5NEFOs (25-150)
500-232605-14	B-7 (13.5')	85	83	85	90	98	89	89	87
500-232605-15	B-8 (3')	74	64	72	80	82	80	68	70
500-232605-16	B-8 (8')	88	90	83	96	100	101	100	95
500-232605-17	B-9 (3')	130	123			139	138	145	145
500-232605-17 - DL	B-9 (3')			76	94				
500-232605-18	B-9 (13')	89	86	79	86	94	97	92	98
500-232605-19	B-10 (3')	116	120	111		124	134	119	122
500-232605-19 - DL	B-10 (3')				70	70			
500-232605-20	B-10 (13')	91	94	93		107	105	99	101
500-232605-20 - DL	B-10 (13')				77				
500-232605-21	B-10 (17')	91	89	86	97	102	99	101	95
500-232605-22	B-11 (3')	62	37	71	81	82	75	52	58
LCS 320-669860/2-A	Lab Control Sample	86	81	86	97	97	94	82	87
LCS 320-669862/2-A	Lab Control Sample	81	86	86	93	101	92	88	94
MB 320-669860/1-A	Method Blank	84	83	92	75	89	91	87	94
MB 320-669862/1-A	Method Blank	89	94	106	81	95	99	97	98

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		dMeFOsA (10-150)	dEtFOsA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-232605-1	B-1 (2.5')	69	71	68	68	62	68	64	86
500-232605-2	B-1 (13')	92	87	77	70	74	78	78	84
500-232605-3	B-2 (3')	64	63	65	65	57	59	62	74
500-232605-4	B-2 (12')	73	72	71	73	71	73	85	84
500-232605-5	B-3 (2.5')	70	74	80	76	59	66	56	76
500-232605-6	B-3 (13')	85	79	72	70	73	78	80	84
500-232605-7	B-4 (3')	69	68	64	68	53	58	62	68
500-232605-8	B-4 (12')	78	70	65	64	68	66	74	78
500-232605-9	B-5 (3')	68	69	71	70	53	52	66	71
500-232605-10	B-5 (13')	83	82	75	75	80	72	83	85
500-232605-11	B-6 (3')	75	73	67	68	61	60	64	78
500-232605-12	B-6 (13')	81	78	71	71	71	69	76	79
500-232605-13	B-7 (2')	74	73	70	68	57	62	62	65
500-232605-13 MS	B-7 (2')	75	80	73	75	57	59	58	69
500-232605-13 MSD	B-7 (2')	72	69	67	66	60	57	58	65
500-232605-14	B-7 (13.5')	83	83	68	73	68	75	90	72
500-232605-15	B-8 (3')	78	77	73	70	63	63	70	68
500-232605-16	B-8 (8')	91	84	76	79	78	79	123	73
500-232605-17	B-9 (3')	120	123	101	103	100		140	105
500-232605-17 - DL	B-9 (3')						67		
500-232605-18	B-9 (13')	91	85	76	78	67	73	81	71
500-232605-19	B-10 (3')	128	119	103	104	99		108	95
500-232605-19 - DL	B-10 (3')						64		
500-232605-20	B-10 (13')	93	94	81	82	80	75	80	84
500-232605-20 - DL	B-10 (13')								
500-232605-21	B-10 (17')	90	85	77	76	78	88	90	71
500-232605-22	B-11 (3')	75	66	69	67	60	62	68	60
LCS 320-669860/2-A	Lab Control Sample	83	79	75	74	78	85	91	92
LCS 320-669862/2-A	Lab Control Sample	85	79	72	74	77	83	95	68
MB 320-669860/1-A	Method Blank	86	89	83	79	93	77	100	89
MB 320-669862/1-A	Method Blank	90	92	87	86	82	85	97	92

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

**Matrix: Solid**

**Prep Type: Total/NA**

**Percent Isotope Dilution Recovery (Acceptance Limits)**

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-232605-1	B-1 (2.5')	59
500-232605-2	B-1 (13')	70
500-232605-3	B-2 (3')	50
500-232605-4	B-2 (12')	69
500-232605-5	B-3 (2.5')	47
500-232605-6	B-3 (13')	65
500-232605-7	B-4 (3')	52
500-232605-8	B-4 (12')	56
500-232605-9	B-5 (3')	51
500-232605-10	B-5 (13')	68
500-232605-11	B-6 (3')	55
500-232605-12	B-6 (13')	60
500-232605-13	B-7 (2')	52
500-232605-13 MS	B-7 (2')	52
500-232605-13 MSD	B-7 (2')	48
500-232605-14	B-7 (13.5')	69
500-232605-15	B-8 (3')	54
500-232605-16	B-8 (8')	72
500-232605-17	B-9 (3')	134
500-232605-17 - DL	B-9 (3')	
500-232605-18	B-9 (13')	65
500-232605-19	B-10 (3')	83
500-232605-19 - DL	B-10 (3')	
500-232605-20	B-10 (13')	67
500-232605-20 - DL	B-10 (13')	
500-232605-21	B-10 (17')	74
500-232605-22	B-11 (3')	52
LCS 320-669860/2-A	Lab Control Sample	75
LCS 320-669862/2-A	Lab Control Sample	71
MB 320-669860/1-A	Method Blank	72
MB 320-669862/1-A	Method Blank	81

**Surrogate Legend**

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDaA = 13C2 PFDaA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- PFHxS = 18O2 PFHxS
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- dMeFOSA = d-N-MeFOSA-M

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-1

dEtFOSA = d-N-EtFOSA-M  
NMFM = d7-N-MeFOSE-M  
NEFM = d9-N-EtFOSE-M  
M242FTS = M2-4:2 FTS  
M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
HFPODA = 13C3 HFPO-DA  
M102FTS = 13C2 10:2 FTS

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Joey Hahn  
Shannon & Wilson, Inc  
5325 Wall Street, Suite 2355  
Madison, Wisconsin 53718

Generated 5/15/2023 12:18:58 PM

## JOB DESCRIPTION

Dane County PFAS

## JOB NUMBER

500-232605-2

# Eurofins Chicago

## Job Notes

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## Authorization



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# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Job ID: 500-232605-2

### Laboratory: Eurofins Chicago

#### Narrative

#### Job Narrative 500-232605-2

#### Receipt

The samples were received on 4/21/2023 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

#### LCMS

Method 537 (modified): Results for sample B-11 (10') (500-232605-23) was reported from the analysis of a diluted extract due to high concentration of the target analyte. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The matrix spike (MS) recoveries for preparation batch 320-669862 and analytical batch 320-670113 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Results for sample B-12 (3') (500-232605-24) was reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. B-14 (10') (500-232605-29)

Method 537 (modified): The matrix spike duplicate (MSD) recoveries for preparation batch 320-673237 and analytical batch 320-673652 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Due to the high concentration of Perfluorooctanesulfonic acid (PFOS), the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-673237 and analytical batch 320-673652 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. B-19 (5.5') (500-232605-40) and B-21 (9') (500-232605-44)

Method 537 (modified): Results for samples B-13 (3') (500-232605-26), B-13 (10') (500-232605-27), B-14 (2') (500-232605-28), B-14 (10') (500-232605-29), B-15 (10') (500-232605-31), B-17 (9') (500-232605-35), B-18 (3') (500-232605-36), B-18 (8') (500-232605-37) and B-18 (16') (500-232605-38) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Results for samples B-19 (5.5') (500-232605-40), B-23 (2') (500-232605-47) and FD-1 (500-232605-54) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Due to the high concentration of one or more analytes, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-669862 and analytical batch 320-670113 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): The transition mass ratio for the Perfluorooctanesulfonic acid (PFOS) was below the established ratio limits. This is indicated by an "R" in the raw data. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. (500-233218-A-3-B MS) and (500-233218-A-3-C MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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## Job ID: 500-232605-2 (Continued)

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### Laboratory: Eurofins Chicago (Continued)

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-669872.

Method:3535\_PFC\_28D

Matrix: Aqueous

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-11 (10')

## Lab Sample ID: 500-232605-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.14	J	0.21	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.23		0.21	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.26		0.21	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1		0.21	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.15	J	0.21	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.076	J	0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.092	J	0.21	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.9		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.22		0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.41		0.21	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	54		1.0	0.22	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-12 (3')

## Lab Sample ID: 500-232605-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.4		0.21	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.0		0.21	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.4		0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.8		0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	4.7		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.35		0.21	0.028	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	19		1.0	0.16	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	28		1.0	0.28	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	17		1.0	0.15	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-12 (11')

## Lab Sample ID: 500-232605-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.6		0.20	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	7.8	F1	0.20	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	19		0.20	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.9		0.20	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.0	F1	0.20	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.2		0.20	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.8		0.20	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	15		0.20	0.029	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-13 (3')

## Lab Sample ID: 500-232605-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	17		0.22	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1		0.22	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.49		0.22	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.037	J	0.22	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.4		0.22	0.055	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago



# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-13 (3') (Continued)

## Lab Sample ID: 500-232605-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonamide (FOSA)	8.8		0.22	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
4:2 FTS	1.7		0.22	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.94		0.22	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	100		11	2.3	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	250		11	1.7	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	36		11	2.1	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	700		11	3.0	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	40		11	2.1	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	45		11	2.1	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	420		11	1.6	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	44		11	2.4	ug/Kg	50	✳	537 (modified)	Total/NA
6:2 FTS - DL	110		11	1.5	ug/Kg	50	✳	537 (modified)	Total/NA

## Client Sample ID: B-13 (10')

## Lab Sample ID: 500-232605-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.2		0.22	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	15		0.22	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.066	J	0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.17	J	0.22	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.0		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.12	J	0.22	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.24		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.23		0.22	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
4:2 FTS	0.38		0.22	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	27		1.1	0.17	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-14 (2')

## Lab Sample ID: 500-232605-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.9		0.21	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	6.9		0.21	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	12		0.21	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	14		0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	7.3		0.21	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.61		0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.25		0.21	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.2		0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.9		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.5		0.21	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.14	J	0.21	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.11	J	0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.47		0.21	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.34		0.21	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	2.7		0.21	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	41		2.1	0.56	ug/Kg	10	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-14 (2') (Continued)

Lab Sample ID: 500-232605-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS) - DL	100		2.1	0.31	ug/Kg	10	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	110		2.1	0.45	ug/Kg	10	✳	537 (modified)	Total/NA

## Client Sample ID: B-14 (10')

Lab Sample ID: 500-232605-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.1		0.23	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	13		0.23	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.41		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.081	J	0.23	0.061	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.4		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.23		0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.066	J I	0.23	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
4:2 FTS	0.15	J	0.23	0.059	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	28		1.2	0.18	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-15 (2')

Lab Sample ID: 500-232605-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.053	J	0.22	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.17	J	0.22	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.62		0.22	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.10	J	0.22	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.18	J	0.22	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.22	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.057	J	0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.61		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.063	J	0.22	0.047	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-15 (10')

Lab Sample ID: 500-232605-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.75		0.21	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.3		0.21	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	6.6		0.21	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.5		0.21	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	15		0.21	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.17	J	0.21	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.9		0.21	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.7		0.21	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.55		0.21	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		0.21	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	5.5		0.21	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	46		1.1	0.16	ug/Kg	5	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-16 (2')

## Lab Sample ID: 500-232605-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.055	J	0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.39		0.22	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.043	J	0.22	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.27		0.22	0.059	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.35		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.15	J	0.22	0.048	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-16 (10')

## Lab Sample ID: 500-232605-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.13	J	0.24	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.23	J	0.24	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.95		0.24	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.6		0.24	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.39		0.24	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.091	J	0.24	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.4		0.24	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.21	J	0.24	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	11		0.24	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.46		0.24	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.070	J	0.24	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.57		0.24	0.041	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-17 (2')

## Lab Sample ID: 500-232605-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.12	J	0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.22	J	0.24	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.76		0.24	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.1		0.24	0.064	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.077	J	0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.14	J	0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.5		0.24	0.052	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-17 (9')

## Lab Sample ID: 500-232605-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.25		0.21	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.85		0.21	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.5		0.21	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.77		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	14		0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.96		0.21	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.60		0.21	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.043	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-17 (9') (Continued)

## Lab Sample ID: 500-232605-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorododecanoic acid (PFDoA)	0.054	J	0.21	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.29		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.37		0.21	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.1		0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.30		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.17	J	0.21	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
NMeFOSA	0.084	J	0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
NMeFOSAA	0.075	J	0.21	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
NEtFOSAA	0.050	J	0.21	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	2.3		0.21	0.028	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	52		4.1	0.60	ug/Kg	20	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	280		4.1	0.89	ug/Kg	20	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA) - DL	49		4.1	0.68	ug/Kg	20	✳	537 (modified)	Total/NA
8:2 FTS - DL	28		4.1	0.72	ug/Kg	20	✳	537 (modified)	Total/NA

## Client Sample ID: B-18 (3')

## Lab Sample ID: 500-232605-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.4		0.22	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.0		0.22	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.80		0.22	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3		0.22	0.059	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.2		0.22	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.83		0.22	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.5		0.22	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.083	J	0.22	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.051	J	0.22	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.050	J	0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.2		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.22	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.37		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.44		0.22	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDoS)	0.13	J	0.22	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.67		0.22	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.16	J	0.22	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	1.5		0.22	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	73		2.2	0.48	ug/Kg	10	✳	537 (modified)	Total/NA

## Client Sample ID: B-18 (8')

## Lab Sample ID: 500-232605-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.13	J	0.21	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.31		0.21	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.54		0.21	0.032	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-18 (8') (Continued)

## Lab Sample ID: 500-232605-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.75		0.21	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		0.21	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	10		0.21	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.35		0.21	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.15	J	0.21	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.2		0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	460		10	2.2	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.30		0.21	0.030	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	1.4		0.21	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
NMeFOSA	0.056	J	0.21	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.65		0.21	0.028	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	45		10	1.8	ug/Kg	50	✳	537 (modified)	Total/NA

## Client Sample ID: B-18 (16')

## Lab Sample ID: 500-232605-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.66		0.23	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		0.23	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.5		0.23	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.25		0.23	0.061	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.36		0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.35		0.23	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.27		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.26		0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.3		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.17	J	0.23	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.21	J	0.23	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	160		2.3	0.50	ug/Kg	10	✳	537 (modified)	Total/NA
8:2 FTS - DL	29		2.3	0.40	ug/Kg	10	✳	537 (modified)	Total/NA

## Client Sample ID: B-19 (2')

## Lab Sample ID: 500-232605-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.087	J	0.23	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.26		0.23	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.58		0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.38		0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.22	J	0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.054	J	0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.089	J	0.23	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1	F1	0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.096	J	0.23	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	11		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.090	J	0.23	0.038	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-19 (2') (Continued)

Lab Sample ID: 500-232605-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
8:2 FTS	0.86		0.23	0.040	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-19 (5.5')

Lab Sample ID: 500-232605-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.054	J	0.23	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.072	J	0.23	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.12	J I	0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.21	J	0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.57		0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.28		0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.16	J	0.23	0.055	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.4		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoronanesulfonic acid (PFNS)	0.11	J	0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.38		0.23	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.053	J	0.23	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	18		0.23	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	29		1.1	0.24	ug/Kg	5	✳	537 (modified)	Total/NA

## Client Sample ID: B-20 (3')

Lab Sample ID: 500-232605-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.25		0.23	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.14	J	0.23	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.31		0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.085	J	0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.39		0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.10	J	0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.87		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-20 (10')

Lab Sample ID: 500-232605-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.064	J	0.22	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.31		0.22	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.69		0.22	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.88		0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-21 (2')

Lab Sample ID: 500-232605-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.59		0.26	0.059	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.4		0.26	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.3		0.26	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.70		0.26	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.3		0.26	0.068	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.6		0.26	0.028	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.13	J	0.26	0.061	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.083	J	0.26	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.12	J	0.26	0.047	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-21 (2') (Continued)

Lab Sample ID: 500-232605-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	11		0.26	0.037	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.24	J	0.26	0.063	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	18		0.26	0.055	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-21 (9')

Lab Sample ID: 500-232605-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.058	J	0.23	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.098	J I	0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.17	J	0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.090	J	0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.48		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.88		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-22 (2')

Lab Sample ID: 500-232605-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.6		0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	10		0.24	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	12		0.24	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.1		0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.8		0.24	0.065	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.043	J	0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.0		0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.6		0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.6		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.48		0.24	0.053	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-22 (10')

Lab Sample ID: 500-232605-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.0		0.24	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	16		0.24	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	12		0.24	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.77		0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.068	J	0.24	0.064	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.9		0.24	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.39		0.24	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.27		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: B-23 (2')

Lab Sample ID: 500-232605-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.83		0.22	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.3		0.22	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	9.8		0.22	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.3		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	16		0.22	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.9		0.22	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.45		0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.055	J	0.22	0.033	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-23 (2') (Continued)

Lab Sample ID: 500-232605-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorotridecanoic acid (PFTrDA)	0.023	J	0.22	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.5		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.0		0.22	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	5.5		0.22	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.32		0.22	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.19	J	0.22	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanesulfonic acid (PFDoS)	0.082	J	0.22	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	1.0		0.22	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.088	J	0.22	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.17	J	0.22	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	45		11	2.9	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	240		11	1.6	ug/Kg	50	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	550		11	2.3	ug/Kg	50	✳	537 (modified)	Total/NA

## Client Sample ID: B-23 (10')

Lab Sample ID: 500-232605-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.057	J	0.25	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.056	J	0.25	0.050	ug/Kg	1	✳	537 (modified)	Total/NA

## Client Sample ID: Equipment Blank

Lab Sample ID: 500-232605-51

No Detections.

## Client Sample ID: Equipment Blank #2

Lab Sample ID: 500-232605-52

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.50	J	1.8	0.50	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: Field Blank

Lab Sample ID: 500-232605-53

No Detections.

## Client Sample ID: FD-1

Lab Sample ID: 500-232605-54

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.47		0.20	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		0.20	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	10		0.20	0.032	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.8		0.20	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.4		0.20	0.054	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8		0.20	0.039	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.20	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.074	J	0.20	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.67		0.20	0.028	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	27		1.0	0.15	ug/Kg	5	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

Client Sample ID: FD-2

Lab Sample ID: 500-232605-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.10	J	0.23	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.23		0.23	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.54		0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.36		0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		0.23	0.061	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.29		0.23	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.091	J	0.23	0.042	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.7		0.23	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.12	J	0.23	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.4		0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.061	J	0.23	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	0.39		0.23	0.040	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Method Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
D 2216	Percent Moisture	ASTM	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

#### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Sample Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-232605-23	B-11 (10')	Solid	04/18/23 09:45	04/21/23 09:35
500-232605-24	B-12 (3')	Solid	04/18/23 10:20	04/21/23 09:35
500-232605-25	B-12 (11')	Solid	04/18/23 10:30	04/21/23 09:35
500-232605-26	B-13 (3')	Solid	04/18/23 10:55	04/21/23 09:35
500-232605-27	B-13 (10')	Solid	04/18/23 11:05	04/21/23 09:35
500-232605-28	B-14 (2')	Solid	04/18/23 11:15	04/21/23 09:35
500-232605-29	B-14 (10')	Solid	04/18/23 11:35	04/21/23 09:35
500-232605-30	B-15 (2')	Solid	04/18/23 12:45	04/21/23 09:35
500-232605-31	B-15 (10')	Solid	04/18/23 12:55	04/21/23 09:35
500-232605-32	B-16 (2')	Solid	04/18/23 13:30	04/21/23 09:35
500-232605-33	B-16 (10')	Solid	04/18/23 13:40	04/21/23 09:35
500-232605-34	B-17 (2')	Solid	04/18/23 13:45	04/21/23 09:35
500-232605-35	B-17 (9')	Solid	04/18/23 13:55	04/21/23 09:35
500-232605-36	B-18 (3')	Solid	04/18/23 14:05	04/21/23 09:35
500-232605-37	B-18 (8')	Solid	04/18/23 14:10	04/21/23 09:35
500-232605-38	B-18 (16')	Solid	04/18/23 14:15	04/21/23 09:35
500-232605-39	B-19 (2')	Solid	04/18/23 14:35	04/21/23 09:35
500-232605-40	B-19 (5.5')	Solid	04/18/23 14:45	04/21/23 09:35
500-232605-41	B-20 (3')	Solid	04/18/23 15:00	04/21/23 09:35
500-232605-42	B-20 (10')	Solid	04/18/23 15:20	04/21/23 09:35
500-232605-43	B-21 (2')	Solid	04/19/23 08:10	04/21/23 09:35
500-232605-44	B-21 (9')	Solid	04/19/23 08:20	04/21/23 09:35
500-232605-45	B-22 (2')	Solid	04/19/23 08:45	04/21/23 09:35
500-232605-46	B-22 (10')	Solid	04/19/23 08:50	04/21/23 09:35
500-232605-47	B-23 (2')	Solid	04/19/23 11:30	04/21/23 09:35
500-232605-48	B-23 (10')	Solid	04/19/23 11:45	04/21/23 09:35
500-232605-51	Equipment Blank	Water	04/18/23 08:00	04/21/23 09:35
500-232605-52	Equipment Blank #2	Water	04/19/23 07:45	04/21/23 09:35
500-232605-53	Field Blank	Water	04/18/23 07:30	04/21/23 09:35
500-232605-54	FD-1	Solid	04/18/23 00:00	04/21/23 09:35
500-232605-55	FD-2	Solid	04/18/23 00:00	04/21/23 09:35

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-11 (10')**

**Lab Sample ID: 500-232605-23**

Date Collected: 04/18/23 09:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 90.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.14	J	0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluoropentanoic acid (PFPeA)	0.23		0.21	0.042	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorohexanoic acid (PFHxA)	0.26		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorooctanoic acid (PFOA)	2.2		0.21	0.055	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorononanoic acid (PFNA)	1.1		0.21	0.023	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorodecanoic acid (PFDA)	0.15	J	0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorobutanesulfonic acid (PFBS)	0.076	J	0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluoropentanesulfonic acid (PFPeS)	0.092	J	0.21	0.038	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorohexanesulfonic acid (PFHxS)	4.9		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluoroheptanesulfonic acid (PFHpS)	0.22		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.21	0.034	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NMeFOSA	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
6:2 FTS	<0.028		0.21	0.028	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
8:2 FTS	0.41		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 01:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C5 PFPeA	93		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C2 PFHxA	97		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C4 PFHpA	94		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C4 PFOA	94		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C5 PFNA	88		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C2 PFDA	94		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C2 PFUnA	86		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C2 PFDoA	89		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C2 PFTrDA	90		25 - 150				04/23/23 19:00	04/26/23 01:24	1
13C3 PFBS	85		25 - 150				04/23/23 19:00	04/26/23 01:24	1
18O2 PFHxS	95		25 - 150				04/23/23 19:00	04/26/23 01:24	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-11 (10')**

**Lab Sample ID: 500-232605-23**

**Date Collected: 04/18/23 09:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 90.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	92		25 - 150	04/23/23 19:00	04/26/23 01:24	1
13C8 FOSA	94		10 - 150	04/23/23 19:00	04/26/23 01:24	1
d3-NMeFOSAA	92		25 - 150	04/23/23 19:00	04/26/23 01:24	1
d5-NEtFOSAA	89		25 - 150	04/23/23 19:00	04/26/23 01:24	1
d-N-MeFOSA-M	93		10 - 150	04/23/23 19:00	04/26/23 01:24	1
d-N-EtFOSA-M	88		10 - 150	04/23/23 19:00	04/26/23 01:24	1
d7-N-MeFOSE-M	78		10 - 150	04/23/23 19:00	04/26/23 01:24	1
d9-N-EtFOSE-M	79		10 - 150	04/23/23 19:00	04/26/23 01:24	1
M2-4:2 FTS	76		25 - 150	04/23/23 19:00	04/26/23 01:24	1
M2-6:2 FTS	77		25 - 150	04/23/23 19:00	04/26/23 01:24	1
M2-8:2 FTS	85		25 - 150	04/23/23 19:00	04/26/23 01:24	1
13C3 HFPO-DA	74		25 - 150	04/23/23 19:00	04/26/23 01:24	1
13C2 10:2 FTS	66		25 - 150	04/23/23 19:00	04/26/23 01:24	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>54</b>		1.0	0.22	ug/Kg	☼	04/23/23 19:00	04/26/23 14:28	5
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>			
13C4 PFOS	81		25 - 150	04/23/23 19:00	04/26/23 14:28	5			

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-12 (3')**

**Lab Sample ID: 500-232605-24**

Date Collected: 04/18/23 10:20

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.4		0.21	0.048	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluoropentanoic acid (PFPeA)	8.0		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluoroheptanoic acid (PFHpA)	7.4		0.21	0.040	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorononanoic acid (PFNA)	<0.023		0.21	0.023	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorodecanoic acid (PFDA)	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluoroundecanoic acid (PFUnA)	<0.044		0.21	0.044	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorotetradecanoic acid (PFTeA)	<0.039		0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorobutanesulfonic acid (PFBS)	5.8		0.21	0.040	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluoropentanesulfonic acid (PFPeS)	4.7		0.21	0.039	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorooctanesulfonic acid (PFOS)	<0.045		0.21	0.045	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.21	0.030	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
Perfluorooctanesulfonamide (FOSA)	<0.035		0.21	0.035	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NMeFOSA	<0.051		0.21	0.051	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
6:2 FTS	0.35		0.21	0.028	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
8:2 FTS	<0.037		0.21	0.037	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.041		0.21	0.041	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
HFPO-DA (GenX)	<0.043		0.21	0.043	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
9CI-PF3ONS	<0.037		0.21	0.037	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1
11CI-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✱	04/23/23 19:00	04/26/23 01:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	78		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C5 PFPeA	83		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C4 PFHpA	77		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C5 PFNA	86		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C2 PFDA	81		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C2 PFUnA	76		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C2 PFDoA	69		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C2 PFTeDA	63		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C3 PFBS	75		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C4 PFOS	82		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C8 FOSA	87		10 - 150	04/23/23 19:00	04/26/23 01:35	1
d3-NMeFOSAA	75		25 - 150	04/23/23 19:00	04/26/23 01:35	1
d5-NEtFOSAA	77		25 - 150	04/23/23 19:00	04/26/23 01:35	1
d-N-MeFOSA-M	83		10 - 150	04/23/23 19:00	04/26/23 01:35	1

Eurofins Chicago

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-12 (3')**

**Lab Sample ID: 500-232605-24**

**Date Collected: 04/18/23 10:20**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.3**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d-N-EtFOSA-M	78		10 - 150	04/23/23 19:00	04/26/23 01:35	1
d7-N-MeFOSE-M	69		10 - 150	04/23/23 19:00	04/26/23 01:35	1
d9-N-EtFOSE-M	67		10 - 150	04/23/23 19:00	04/26/23 01:35	1
M2-4:2 FTS	62		25 - 150	04/23/23 19:00	04/26/23 01:35	1
M2-6:2 FTS	58		25 - 150	04/23/23 19:00	04/26/23 01:35	1
M2-8:2 FTS	73		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C3 HFPO-DA	65		25 - 150	04/23/23 19:00	04/26/23 01:35	1
13C2 10:2 FTS	51		25 - 150	04/23/23 19:00	04/26/23 01:35	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorohexanoic acid (PFHxA)	19		1.0	0.16	ug/Kg	☼	04/23/23 19:00	05/03/23 00:38	5
Perfluorooctanoic acid (PFOA)	28		1.0	0.28	ug/Kg	☼	04/23/23 19:00	05/03/23 00:38	5
Perfluorohexanesulfonic acid (PFHxS)	17		1.0	0.15	ug/Kg	☼	04/23/23 19:00	05/03/23 00:38	5

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFHxA	95		25 - 150	04/23/23 19:00	05/03/23 00:38	5
13C4 PFOA	82		25 - 150	04/23/23 19:00	05/03/23 00:38	5
18O2 PFHxS	93		25 - 150	04/23/23 19:00	05/03/23 00:38	5

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-12 (11')**

**Lab Sample ID: 500-232605-25**

Date Collected: 04/18/23 10:30

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.6		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluoropentanoic acid (PFPeA)	7.8	F1	0.20	0.041	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorohexanoic acid (PFHxA)	19		0.20	0.031	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluoroheptanoic acid (PFHpA)	5.9		0.20	0.038	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorooctanoic acid (PFOA)	8.0	F1	0.20	0.052	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorodecanoic acid (PFDA)	<0.047		0.20	0.047	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorobutanesulfonic acid (PFBS)	3.2		0.20	0.038	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluoropentanesulfonic acid (PFPeS)	3.8		0.20	0.037	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorohexanesulfonic acid (PFHxS)	15		0.20	0.029	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.048		0.20	0.048	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorodecanesulfonic acid (PFDS)	<0.051		0.20	0.051	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorododecanesulfonic acid (PFDoS)	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NEtFOSA	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NMeFOSA	<0.048		0.20	0.048	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NEtFOSAA	<0.047		0.20	0.047	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NMeFOSE	<0.046		0.20	0.046	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
4:2 FTS	<0.050		0.20	0.050	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
9Cl-PF3ONS	<0.035		0.20	0.035	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1
11Cl-PF3OUdS	<0.031		0.20	0.031	ug/Kg	✳	04/23/23 19:00	04/26/23 01:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C5 PFPeA	89		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 PFHxA	90		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C4 PFHpA	87		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C4 PFOA	96		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C5 PFNA	99		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 PFDA	92		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 PFUnA	88		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 PFDoA	89		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 PFTeDA	87		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C3 PFBS	90		25 - 150	04/23/23 19:00	04/26/23 01:46	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-12 (11')**

**Lab Sample ID: 500-232605-25**

**Date Collected: 04/18/23 10:30**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 94.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	95		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C4 PFOS	102		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C8 FOSA	103		10 - 150	04/23/23 19:00	04/26/23 01:46	1
d3-NMeFOSAA	96		25 - 150	04/23/23 19:00	04/26/23 01:46	1
d5-NEtFOSAA	102		25 - 150	04/23/23 19:00	04/26/23 01:46	1
d-N-MeFOSA-M	94		10 - 150	04/23/23 19:00	04/26/23 01:46	1
d-N-EtFOSA-M	88		10 - 150	04/23/23 19:00	04/26/23 01:46	1
d7-N-MeFOSE-M	79		10 - 150	04/23/23 19:00	04/26/23 01:46	1
d9-N-EtFOSE-M	79		10 - 150	04/23/23 19:00	04/26/23 01:46	1
M2-4:2 FTS	77		25 - 150	04/23/23 19:00	04/26/23 01:46	1
M2-6:2 FTS	78		25 - 150	04/23/23 19:00	04/26/23 01:46	1
M2-8:2 FTS	88		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C3 HFPO-DA	71		25 - 150	04/23/23 19:00	04/26/23 01:46	1
13C2 10:2 FTS	67		25 - 150	04/23/23 19:00	04/26/23 01:46	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-13 (3')**

**Lab Sample ID: 500-232605-26**

Date Collected: 04/18/23 10:55

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	17		0.22	0.052	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorononanoic acid (PFNA)	1.1		0.22	0.025	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorodecanoic acid (PFDA)	0.49		0.22	0.054	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluoroundecanoic acid (PFUnA)	<0.047		0.22	0.047	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorododecanoic acid (PFDoA)	0.037	J	0.22	0.034	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorotridecanoic acid (PFTTrDA)	<0.024		0.22	0.024	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorotetradecanoic acid (PFTTeA)	<0.041		0.22	0.041	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluoroheptanesulfonic acid (PFHpsS)	1.4		0.22	0.055	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorononanesulfonic acid (PFNS)	<0.032		0.22	0.032	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.058		0.22	0.058	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.22	0.053	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
Perfluorooctanesulfonamide (FOSA)	8.8		0.22	0.037	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NEtFOSA	<0.053		0.22	0.053	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NMeFOSA	<0.055		0.22	0.055	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NMeFOSAA	<0.026		0.22	0.026	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NEtFOSAA	<0.054		0.22	0.054	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NMeFOSE	<0.053		0.22	0.053	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
4:2 FTS	1.7		0.22	0.057	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
8:2 FTS	0.94		0.22	0.039	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.22	0.044	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
HFPO-DA (GenX)	<0.046		0.22	0.046	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
9Cl-PF3ONS	<0.039		0.22	0.039	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1
11Cl-PF3OUdS	<0.035		0.22	0.035	ug/Kg	✱	05/09/23 05:07	05/12/23 18:32	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	135		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C5 PFNA	119		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C2 PFDA	122		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C2 PFUnA	119		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C2 PFDoA	107		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C2 PFTTeDA	112		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C4 PFOS	124		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C8 FOSA	120		10 - 150	05/09/23 05:07	05/12/23 18:32	1
d3-NMeFOSAA	122		25 - 150	05/09/23 05:07	05/12/23 18:32	1
d5-NEtFOSAA	126		25 - 150	05/09/23 05:07	05/12/23 18:32	1
d-N-MeFOSA-M	92		10 - 150	05/09/23 05:07	05/12/23 18:32	1
d-N-EtFOSA-M	88		10 - 150	05/09/23 05:07	05/12/23 18:32	1
d7-N-MeFOSE-M	101		10 - 150	05/09/23 05:07	05/12/23 18:32	1
d9-N-EtFOSE-M	108		10 - 150	05/09/23 05:07	05/12/23 18:32	1
M2-4:2 FTS	62		25 - 150	05/09/23 05:07	05/12/23 18:32	1
M2-8:2 FTS	84		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C3 HFPO-DA	125		25 - 150	05/09/23 05:07	05/12/23 18:32	1
13C2 10:2 FTS	105		25 - 150	05/09/23 05:07	05/12/23 18:32	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-13 (3')**

**Lab Sample ID: 500-232605-26**

Date Collected: 04/18/23 10:55

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 83.9

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	100		11	2.3	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluorohexanoic acid (PFHxA)	250		11	1.7	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluoroheptanoic acid (PFHpA)	36		11	2.1	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluorooctanoic acid (PFOA)	700		11	3.0	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluorobutanesulfonic acid (PFBS)	40		11	2.1	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluoropentanesulfonic acid (PFPeS)	45		11	2.1	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluorohexanesulfonic acid (PFHxS)	420		11	1.6	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Perfluorooctanesulfonic acid (PFOS)	44		11	2.4	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
6:2 FTS	110		11	1.5	ug/Kg	☼	05/09/23 05:07	05/11/23 19:45	50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	66		25 - 150				05/09/23 05:07	05/11/23 19:45	50
13C2 PFHxA	75		25 - 150				05/09/23 05:07	05/11/23 19:45	50
13C4 PFHpA	75		25 - 150				05/09/23 05:07	05/11/23 19:45	50
13C4 PFOA	76		25 - 150				05/09/23 05:07	05/11/23 19:45	50
13C3 PFBS	65		25 - 150				05/09/23 05:07	05/11/23 19:45	50
18O2 PFHxS	76		25 - 150				05/09/23 05:07	05/11/23 19:45	50
13C4 PFOS	62		25 - 150				05/09/23 05:07	05/11/23 19:45	50
M2-6:2 FTS	51		25 - 150				05/09/23 05:07	05/11/23 19:45	50

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-13 (10')**

**Lab Sample ID: 500-232605-27**

**Date Collected: 04/18/23 11:05**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 86.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.2		0.22	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluoropentanoic acid (PFPeA)	15		0.22	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluoroheptanoic acid (PFHpA)	0.066	J	0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorooctanoic acid (PFOA)	0.17	J	0.22	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorononanoic acid (PFNA)	<0.024		0.22	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorodecanoic acid (PFDA)	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluoroundecanoic acid (PFUnA)	<0.046		0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorododecanoic acid (PFDoA)	<0.033		0.22	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorobutanesulfonic acid (PFBS)	4.0		0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluoropentanesulfonic acid (PFPeS)	0.12	J	0.22	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorohexanesulfonic acid (PFHxS)	0.24		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorooctanesulfonic acid (PFOS)	0.23		0.22	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorononanesulfonic acid (PFNS)	<0.032		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorodecanesulfonic acid (PFDS)	<0.057		0.22	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
Perfluorooctanesulfonamide (FOSA)	<0.036		0.22	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
4:2 FTS	0.38		0.22	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
6:2 FTS	<0.029		0.22	0.029	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
8:2 FTS	<0.038		0.22	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.043		0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
HFPO-DA (GenX)	<0.045		0.22	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
9CI-PF3ONS	<0.038		0.22	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1
11CI-PF3OUdS	<0.034		0.22	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 08:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C5 PFPeA	103		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C4 PFHpA	94		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C4 PFOA	88		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C5 PFNA	95		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C2 PFDA	90		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C2 PFUnA	91		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C2 PFDoA	90		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C2 PFTeDA	96		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C3 PFBS	101		25 - 150	05/09/23 05:07	05/11/23 08:41	1
18O2 PFHxS	88		25 - 150	05/09/23 05:07	05/11/23 08:41	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-13 (10')**

**Lab Sample ID: 500-232605-27**

**Date Collected: 04/18/23 11:05**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 86.2**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C4 PFOS	92		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C8 FOSA	106		10 - 150	05/09/23 05:07	05/11/23 08:41	1
d3-NMeFOSAA	100		25 - 150	05/09/23 05:07	05/11/23 08:41	1
d5-NEtFOSAA	102		25 - 150	05/09/23 05:07	05/11/23 08:41	1
d-N-MeFOSA-M	80		10 - 150	05/09/23 05:07	05/11/23 08:41	1
d-N-EtFOSA-M	81		10 - 150	05/09/23 05:07	05/11/23 08:41	1
d7-N-MeFOSE-M	89		10 - 150	05/09/23 05:07	05/11/23 08:41	1
d9-N-EtFOSE-M	91		10 - 150	05/09/23 05:07	05/11/23 08:41	1
M2-4:2 FTS	62		25 - 150	05/09/23 05:07	05/11/23 08:41	1
M2-6:2 FTS	59		25 - 150	05/09/23 05:07	05/11/23 08:41	1
M2-8:2 FTS	65		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C3 HFPO-DA	91		25 - 150	05/09/23 05:07	05/11/23 08:41	1
13C2 10:2 FTS	73		25 - 150	05/09/23 05:07	05/11/23 08:41	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Perfluorohexanoic acid (PFHxA)	27		1.1	0.17	ug/Kg	☼	05/09/23 05:07	05/11/23 18:13	5
<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>			
13C2 PFHxA	101		25 - 150	05/09/23 05:07	05/11/23 18:13	5			

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-14 (2')**

**Lab Sample ID: 500-232605-28**

Date Collected: 04/18/23 11:15

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 87.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.9		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluoropentanoic acid (PFPeA)	6.9		0.21	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorohexanoic acid (PFHxA)	12		0.21	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluoroheptanoic acid (PFHpA)	14		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorononanoic acid (PFNA)	7.3		0.21	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorodecanoic acid (PFDA)	0.61		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluoroundecanoic acid (PFUnA)	0.25		0.21	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorotetradecanoic acid (PFTeA)	<0.039		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorobutanesulfonic acid (PFBS)	2.2		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluoropentanesulfonic acid (PFPeS)	3.9		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluoroheptanesulfonic acid (PFHpS)	1.5		0.21	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorononanesulfonic acid (PFNS)	0.14	J	0.21	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorodecanesulfonic acid (PFDS)	0.11	J	0.21	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorododecanesulfonic acid (PFDoS)	<0.050		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
Perfluorooctanesulfonamide (FOSA)	0.47		0.21	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NEtFOSA	<0.050		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NMeFOSA	<0.052		0.21	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NEtFOSAA	<0.051		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NMeFOSE	<0.050		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
NEtFOSE	<0.030		0.21	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
4:2 FTS	<0.054		0.21	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
6:2 FTS	0.34		0.21	0.029	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
8:2 FTS	2.7		0.21	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.041		0.21	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
HFPO-DA (GenX)	<0.043		0.21	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
9Cl-PF3ONS	<0.037		0.21	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1
11Cl-PF3OUdS	<0.033		0.21	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 08:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C5 PFPeA	93		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 PFHxA	95		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C4 PFHpA	97		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C5 PFNA	89		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 PFDA	88		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 PFUnA	88		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 PFDoA	82		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 PFTrDA	88		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C3 PFBS	92		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C4 PFOS	103		25 - 150	05/09/23 05:07	05/11/23 08:51	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-14 (2')**

**Lab Sample ID: 500-232605-28**

**Date Collected: 04/18/23 11:15**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 FOSA	96		10 - 150	05/09/23 05:07	05/11/23 08:51	1
d3-NMeFOSAA	108		25 - 150	05/09/23 05:07	05/11/23 08:51	1
d5-NEtFOSAA	108		25 - 150	05/09/23 05:07	05/11/23 08:51	1
d-N-MeFOSA-M	79		10 - 150	05/09/23 05:07	05/11/23 08:51	1
d-N-EtFOSA-M	77		10 - 150	05/09/23 05:07	05/11/23 08:51	1
d7-N-MeFOSE-M	80		10 - 150	05/09/23 05:07	05/11/23 08:51	1
d9-N-EtFOSE-M	82		10 - 150	05/09/23 05:07	05/11/23 08:51	1
M2-4:2 FTS	60		25 - 150	05/09/23 05:07	05/11/23 08:51	1
M2-6:2 FTS	57		25 - 150	05/09/23 05:07	05/11/23 08:51	1
M2-8:2 FTS	73		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C3 HFPO-DA	87		25 - 150	05/09/23 05:07	05/11/23 08:51	1
13C2 10:2 FTS	71		25 - 150	05/09/23 05:07	05/11/23 08:51	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorooctanoic acid (PFOA)	41		2.1	0.56	ug/Kg	☼	05/09/23 05:07	05/11/23 19:04	10
Perfluorohexanesulfonic acid (PFHxS)	100		2.1	0.31	ug/Kg	☼	05/09/23 05:07	05/11/23 19:04	10
Perfluorooctanesulfonic acid (PFOS)	110		2.1	0.45	ug/Kg	☼	05/09/23 05:07	05/11/23 19:04	10

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOA	101		25 - 150	05/09/23 05:07	05/11/23 19:04	10
18O2 PFHxS	99		25 - 150	05/09/23 05:07	05/11/23 19:04	10
13C4 PFOS	104		25 - 150	05/09/23 05:07	05/11/23 19:04	10

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-14 (10')**

**Lab Sample ID: 500-232605-29**

**Date Collected: 04/18/23 11:35**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 85.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.1		0.23	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluoropentanoic acid (PFPeA)	13		0.23	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluoroheptanoic acid (PFHpA)	0.41		0.23	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorooctanoic acid (PFOA)	0.081	J	0.23	0.061	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorononanoic acid (PFNA)	<0.026		0.23	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorodecanoic acid (PFDA)	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluoroundecanoic acid (PFUnA)	<0.049		0.23	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.23	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorotetradecanoic acid (PFTeA)	<0.043		0.23	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorobutanesulfonic acid (PFBS)	4.4		0.23	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluoropentanesulfonic acid (PFPeS)	0.23		0.23	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorohexanesulfonic acid (PFHxS)	0.066	J I	0.23	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.057		0.23	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorooctanesulfonic acid (PFOS)	<0.050		0.23	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.23	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorodecanesulfonic acid (PFDS)	<0.060		0.23	0.060	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
Perfluorooctanesulfonamide (FOSA)	<0.038		0.23	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NEtFOSA	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NMeFOSA	<0.057		0.23	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NMeFOSAA	<0.027		0.23	0.027	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NEtFOSAA	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NMeFOSE	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
4:2 FTS	0.15	J	0.23	0.059	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
6:2 FTS	<0.031		0.23	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
8:2 FTS	<0.041		0.23	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.045		0.23	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
HFPO-DA (GenX)	<0.048		0.23	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
9Cl-PF3ONS	<0.041		0.23	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
11Cl-PF3OUdS	<0.036		0.23	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 09:01	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	108		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C5 PFPeA	110		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C4 PFHpA	106		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C4 PFOA	101		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C5 PFNA	105		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C2 PFDA	106		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C2 PFUnA	104		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C2 PFDoA	98		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C2 PFTeDA	109		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C3 PFBS	112		25 - 150				05/09/23 05:07	05/11/23 09:01	1
18O2 PFHxS	99		25 - 150				05/09/23 05:07	05/11/23 09:01	1
13C4 PFOS	105		25 - 150				05/09/23 05:07	05/11/23 09:01	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-14 (10')**

**Lab Sample ID: 500-232605-29**

**Date Collected: 04/18/23 11:35**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 85.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 FOSA	114		10 - 150	05/09/23 05:07	05/11/23 09:01	1
d3-NMeFOSAA	115		25 - 150	05/09/23 05:07	05/11/23 09:01	1
d5-NEtFOSAA	123		25 - 150	05/09/23 05:07	05/11/23 09:01	1
d-N-MeFOSA-M	99		10 - 150	05/09/23 05:07	05/11/23 09:01	1
d-N-EtFOSA-M	93		10 - 150	05/09/23 05:07	05/11/23 09:01	1
d7-N-MeFOSE-M	97		10 - 150	05/09/23 05:07	05/11/23 09:01	1
d9-N-EtFOSE-M	97		10 - 150	05/09/23 05:07	05/11/23 09:01	1
M2-4:2 FTS	72		25 - 150	05/09/23 05:07	05/11/23 09:01	1
M2-6:2 FTS	67		25 - 150	05/09/23 05:07	05/11/23 09:01	1
M2-8:2 FTS	74		25 - 150	05/09/23 05:07	05/11/23 09:01	1
13C3 HFPO-DA	100		25 - 150	05/09/23 05:07	05/11/23 09:01	1
13C2 10:2 FTS	87		25 - 150	05/09/23 05:07	05/11/23 09:01	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorohexanoic acid (PFHxA)	28		1.2	0.18	ug/Kg	☼	05/09/23 05:07	05/11/23 18:23	5

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFHxA	111		25 - 150	05/09/23 05:07	05/11/23 18:23	5

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-15 (2')**

**Lab Sample ID: 500-232605-30**

Date Collected: 04/18/23 12:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.053	J	0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluoropentanoic acid (PFPeA)	0.17	J	0.22	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorohexanoic acid (PFHxA)	0.62		0.22	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluoroheptanoic acid (PFHpA)	0.10	J	0.22	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorooctanoic acid (PFOA)	0.18	J	0.22	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorononanoic acid (PFNA)	<0.024		0.22	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorodecanoic acid (PFDA)	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluoroundecanoic acid (PFUnA)	<0.046		0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorododecanoic acid (PFDoA)	<0.033		0.22	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorotetradecanoic acid (PFTeA)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.22	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluoropentanesulfonic acid (PFPeS)	0.057	J	0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorohexanesulfonic acid (PFHxS)	0.61		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.054		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorooctanesulfonic acid (PFOS)	0.063	J	0.22	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorononanesulfonic acid (PFNS)	<0.032		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorodecanesulfonic acid (PFDS)	<0.057		0.22	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorododecanesulfonic acid (PFDoS)	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
Perfluorooctanesulfonamide (FOSA)	<0.036		0.22	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NEtFOSA	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NMeFOSA	<0.054		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NEtFOSAA	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NMeFOSE	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
4:2 FTS	<0.056		0.22	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
6:2 FTS	<0.030		0.22	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
8:2 FTS	<0.039		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.043		0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
HFPO-DA (GenX)	<0.045		0.22	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
9CI-PF3ONS	<0.039		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1
11CI-PF3OUdS	<0.034		0.22	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	106		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C5 PFPeA	103		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 PFHxA	102		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C4 PFHpA	113		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C4 PFOA	104		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C5 PFNA	108		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 PFDA	106		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 PFUnA	107		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 PFDoA	97		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 PFTeDA	102		25 - 150	05/09/23 05:07	05/11/23 09:12	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-15 (2')**  
**Date Collected: 04/18/23 12:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-30**  
**Matrix: Solid**  
**Percent Solids: 82.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	100		25 - 150	05/09/23 05:07	05/11/23 09:12	1
18O2 PFHxS	100		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C4 PFOS	107		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C8 FOSA	116		10 - 150	05/09/23 05:07	05/11/23 09:12	1
d3-NMeFOSAA	132		25 - 150	05/09/23 05:07	05/11/23 09:12	1
d5-NEtFOSAA	126		25 - 150	05/09/23 05:07	05/11/23 09:12	1
d-N-MeFOSA-M	83		10 - 150	05/09/23 05:07	05/11/23 09:12	1
d-N-EtFOSA-M	83		10 - 150	05/09/23 05:07	05/11/23 09:12	1
d7-N-MeFOSE-M	97		10 - 150	05/09/23 05:07	05/11/23 09:12	1
d9-N-EtFOSE-M	97		10 - 150	05/09/23 05:07	05/11/23 09:12	1
M2-4:2 FTS	67		25 - 150	05/09/23 05:07	05/11/23 09:12	1
M2-6:2 FTS	70		25 - 150	05/09/23 05:07	05/11/23 09:12	1
M2-8:2 FTS	73		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C3 HFPO-DA	104		25 - 150	05/09/23 05:07	05/11/23 09:12	1
13C2 10:2 FTS	87		25 - 150	05/09/23 05:07	05/11/23 09:12	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-15 (10')**

**Lab Sample ID: 500-232605-31**

Date Collected: 04/18/23 12:55

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.75		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluoropentanoic acid (PFPeA)	4.3		0.21	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorohexanoic acid (PFHxA)	6.6		0.21	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluoroheptanoic acid (PFHpA)	5.5		0.21	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorooctanoic acid (PFOA)	15		0.21	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorononanoic acid (PFNA)	0.17	J	0.21	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorodecanoic acid (PFDA)	<0.052		0.21	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluoroundecanoic acid (PFUnA)	<0.045		0.21	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.21	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorobutanesulfonic acid (PFBS)	1.9		0.21	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluoropentanesulfonic acid (PFPeS)	3.7		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluoroheptanesulfonic acid (PFHpS)	0.55		0.21	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorooctanesulfonic acid (PFOS)	2.2		0.21	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.21	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorodecanesulfonic acid (PFDS)	<0.056		0.21	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Perfluorooctanesulfonamide (FOSA)	<0.035		0.21	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NEtFOSA	<0.051		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NMeFOSA	<0.053		0.21	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NMeFOSAA	<0.025		0.21	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NEtFOSAA	<0.052		0.21	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NMeFOSE	<0.051		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
NEtFOSE	<0.030		0.21	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
4:2 FTS	<0.055		0.21	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
6:2 FTS	5.5		0.21	0.029	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
8:2 FTS	<0.038		0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.21	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
HFPO-DA (GenX)	<0.044		0.21	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
9Cl-PF3ONS	<0.038		0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
11Cl-PF3OUdS	<0.033		0.21	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 09:22	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C5 PFPeA	84		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C2 PFHxA	90		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C4 PFHpA	92		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C4 PFOA	93		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C5 PFNA	84		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C2 PFDA	80		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C2 PFUnA	75		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C2 PFDoA	73		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C2 PFTrDA	86		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C3 PFBS	84		25 - 150				05/09/23 05:07	05/11/23 09:22	1
13C4 PFOS	82		25 - 150				05/09/23 05:07	05/11/23 09:22	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-15 (10')**

**Lab Sample ID: 500-232605-31**

**Date Collected: 04/18/23 12:55**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 85.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 FOSA	85		10 - 150	05/09/23 05:07	05/11/23 09:22	1
d3-NMeFOSAA	98		25 - 150	05/09/23 05:07	05/11/23 09:22	1
d5-NEtFOSAA	93		25 - 150	05/09/23 05:07	05/11/23 09:22	1
d-N-MeFOSA-M	69		10 - 150	05/09/23 05:07	05/11/23 09:22	1
d-N-EtFOSA-M	65		10 - 150	05/09/23 05:07	05/11/23 09:22	1
d7-N-MeFOSE-M	72		10 - 150	05/09/23 05:07	05/11/23 09:22	1
d9-N-EtFOSE-M	66		10 - 150	05/09/23 05:07	05/11/23 09:22	1
M2-4:2 FTS	57		25 - 150	05/09/23 05:07	05/11/23 09:22	1
M2-6:2 FTS	60		25 - 150	05/09/23 05:07	05/11/23 09:22	1
M2-8:2 FTS	59		25 - 150	05/09/23 05:07	05/11/23 09:22	1
13C3 HFPO-DA	83		25 - 150	05/09/23 05:07	05/11/23 09:22	1
13C2 10:2 FTS	62		25 - 150	05/09/23 05:07	05/11/23 09:22	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>46</b>		1.1	0.16	ug/Kg	☼	05/09/23 05:07	05/11/23 18:33	5

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	99		25 - 150	05/09/23 05:07	05/11/23 18:33	5

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-16 (2')**

**Lab Sample ID: 500-232605-32**

**Date Collected: 04/18/23 13:30**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 84.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.055</b>	<b>J</b>	0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.39</b>		0.22	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.043</b>	<b>J</b>	0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.27</b>		0.22	0.059	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorononanoic acid (PFNA)	<0.025		0.22	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorodecanoic acid (PFDA)	<0.054		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluoroundecanoic acid (PFUnA)	<0.047		0.22	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.22	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.22	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.35</b>		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.055		0.22	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.15</b>	<b>J</b>	0.22	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorononanesulfonic acid (PFNS)	<0.032		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.058		0.22	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
Perfluorooctanesulfonamide (FOSA)	<0.037		0.22	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NEtFOSA	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NMeFOSA	<0.055		0.22	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NMeFOSAA	<0.026		0.22	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NEtFOSAA	<0.054		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NMeFOSE	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
4:2 FTS	<0.057		0.22	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
6:2 FTS	<0.030		0.22	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
8:2 FTS	<0.039		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.22	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
HFPO-DA (GenX)	<0.046		0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
9Cl-PF3ONS	<0.039		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1
11Cl-PF3OUdS	<0.035		0.22	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 09:32	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C5 PFPeA	93		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 PFHxA	94		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C4 PFHpA	98		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C4 PFOA	93		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C5 PFNA	99		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 PFDA	96		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 PFUnA	91		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 PFDoA	85		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 PFTeDA	90		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C3 PFBS	92		25 - 150	05/09/23 05:07	05/11/23 09:32	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-16 (2')**  
**Date Collected: 04/18/23 13:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-32**  
**Matrix: Solid**  
**Percent Solids: 84.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	90		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C4 PFOS	96		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C8 FOSA	101		10 - 150	05/09/23 05:07	05/11/23 09:32	1
d3-NMeFOSAA	98		25 - 150	05/09/23 05:07	05/11/23 09:32	1
d5-NEtFOSAA	99		25 - 150	05/09/23 05:07	05/11/23 09:32	1
d-N-MeFOSA-M	73		10 - 150	05/09/23 05:07	05/11/23 09:32	1
d-N-EtFOSA-M	74		10 - 150	05/09/23 05:07	05/11/23 09:32	1
d7-N-MeFOSE-M	85		10 - 150	05/09/23 05:07	05/11/23 09:32	1
d9-N-EtFOSE-M	83		10 - 150	05/09/23 05:07	05/11/23 09:32	1
M2-4:2 FTS	57		25 - 150	05/09/23 05:07	05/11/23 09:32	1
M2-6:2 FTS	59		25 - 150	05/09/23 05:07	05/11/23 09:32	1
M2-8:2 FTS	65		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C3 HFPO-DA	96		25 - 150	05/09/23 05:07	05/11/23 09:32	1
13C2 10:2 FTS	66		25 - 150	05/09/23 05:07	05/11/23 09:32	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-16 (10')**

**Lab Sample ID: 500-232605-33**

Date Collected: 04/18/23 13:40

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.13	J	0.24	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluoropentanoic acid (PFPeA)	0.23	J	0.24	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorohexanoic acid (PFHxA)	0.95		0.24	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.24	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorooctanoic acid (PFOA)	3.6		0.24	0.062	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorononanoic acid (PFNA)	0.39		0.24	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorodecanoic acid (PFDA)	<0.057		0.24	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluoroundecanoic acid (PFUnA)	<0.049		0.24	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.24	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.24	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorotetradecanoic acid (PFTeA)	<0.044		0.24	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.24	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluoropentanesulfonic acid (PFPeS)	0.091	J	0.24	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorohexanesulfonic acid (PFHxS)	7.4		0.24	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluoroheptanesulfonic acid (PFHpS)	0.21	J	0.24	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorooctanesulfonic acid (PFOS)	11		0.24	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.24	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorodecanesulfonic acid (PFDS)	<0.061		0.24	0.061	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.24	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
Perfluorooctanesulfonamide (FOSA)	0.46		0.24	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NEtFOSA	<0.055		0.24	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NMeFOSA	<0.058		0.24	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NMeFOSAA	<0.027		0.24	0.027	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NEtFOSAA	<0.057		0.24	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NMeFOSE	<0.055		0.24	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
NEtFOSE	<0.033		0.24	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
4:2 FTS	<0.060		0.24	0.060	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
6:2 FTS	0.070	J	0.24	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
8:2 FTS	0.57		0.24	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.046		0.24	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
HFPO-DA (GenX)	<0.048		0.24	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
9Cl-PF3ONS	<0.041		0.24	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1
11Cl-PF3OUdS	<0.037		0.24	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 09:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	86		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C5 PFPeA	81		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C2 PFHxA	84		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C4 PFHpA	93		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C4 PFOA	93		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C5 PFNA	89		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C2 PFDA	89		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C2 PFUnA	87		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C2 PFDoA	81		25 - 150	05/09/23 05:07	05/11/23 09:42	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-16 (10')**

**Lab Sample ID: 500-232605-33**

**Date Collected: 04/18/23 13:40**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 78.6**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFTeDA	86		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C3 PFBS	82		25 - 150	05/09/23 05:07	05/11/23 09:42	1
18O2 PFHxS	94		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C4 PFOS	97		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C8 FOSA	95		10 - 150	05/09/23 05:07	05/11/23 09:42	1
d3-NMeFOSAA	93		25 - 150	05/09/23 05:07	05/11/23 09:42	1
d5-NEtFOSAA	104		25 - 150	05/09/23 05:07	05/11/23 09:42	1
d-N-MeFOSA-M	65		10 - 150	05/09/23 05:07	05/11/23 09:42	1
d-N-EtFOSA-M	64		10 - 150	05/09/23 05:07	05/11/23 09:42	1
d7-N-MeFOSE-M	79		10 - 150	05/09/23 05:07	05/11/23 09:42	1
d9-N-EtFOSE-M	78		10 - 150	05/09/23 05:07	05/11/23 09:42	1
M2-4:2 FTS	55		25 - 150	05/09/23 05:07	05/11/23 09:42	1
M2-6:2 FTS	58		25 - 150	05/09/23 05:07	05/11/23 09:42	1
M2-8:2 FTS	63		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C3 HFPO-DA	87		25 - 150	05/09/23 05:07	05/11/23 09:42	1
13C2 10:2 FTS	68		25 - 150	05/09/23 05:07	05/11/23 09:42	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-17 (2')**

**Lab Sample ID: 500-232605-34**

Date Collected: 04/18/23 13:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 82.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.12	J	0.24	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluoropentanoic acid (PFPeA)	0.22	J	0.24	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorohexanoic acid (PFHxA)	0.76		0.24	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.24	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorooctanoic acid (PFOA)	1.1		0.24	0.064	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorononanoic acid (PFNA)	0.077	J	0.24	0.027	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorodecanoic acid (PFDA)	<0.058		0.24	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorododecanoic acid (PFDoA)	<0.036		0.24	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.24	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.24	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluoropentanesulfonic acid (PFPeS)	0.14	J	0.24	0.045	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorohexanesulfonic acid (PFHxS)	3.2		0.24	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.060		0.24	0.060	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorooctanesulfonic acid (PFOS)	1.5		0.24	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorononanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorodecanesulfonic acid (PFDS)	<0.063		0.24	0.063	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorododecanesulfonic acid (PFDoS)	<0.057		0.24	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.24	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NEtFOSA	<0.057		0.24	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NMeFOSA	<0.060		0.24	0.060	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NEtFOSAA	<0.058		0.24	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NMeFOSE	<0.057		0.24	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
4:2 FTS	<0.062		0.24	0.062	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
6:2 FTS	<0.033		0.24	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
8:2 FTS	<0.043		0.24	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.047		0.24	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
9CI-PF3ONS	<0.043		0.24	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1
11CI-PF3OUdS	<0.038		0.24	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C5 PFPeA	98		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 PFHxA	93		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C4 PFHpA	101		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C4 PFOA	94		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C5 PFNA	100		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 PFDA	93		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 PFUnA	93		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 PFDoA	83		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 PFTeDA	90		25 - 150	05/09/23 05:07	05/11/23 10:13	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-17 (2')**  
**Date Collected: 04/18/23 13:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-34**  
**Matrix: Solid**  
**Percent Solids: 82.2**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	90		25 - 150	05/09/23 05:07	05/11/23 10:13	1
18O2 PFHxS	95		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C4 PFOS	94		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C8 FOSA	103		10 - 150	05/09/23 05:07	05/11/23 10:13	1
d3-NMeFOSAA	99		25 - 150	05/09/23 05:07	05/11/23 10:13	1
d5-NEtFOSAA	106		25 - 150	05/09/23 05:07	05/11/23 10:13	1
d-N-MeFOSA-M	82		10 - 150	05/09/23 05:07	05/11/23 10:13	1
d-N-EtFOSA-M	82		10 - 150	05/09/23 05:07	05/11/23 10:13	1
d7-N-MeFOSE-M	83		10 - 150	05/09/23 05:07	05/11/23 10:13	1
d9-N-EtFOSE-M	88		10 - 150	05/09/23 05:07	05/11/23 10:13	1
M2-4:2 FTS	61		25 - 150	05/09/23 05:07	05/11/23 10:13	1
M2-6:2 FTS	58		25 - 150	05/09/23 05:07	05/11/23 10:13	1
M2-8:2 FTS	59		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C3 HFPO-DA	99		25 - 150	05/09/23 05:07	05/11/23 10:13	1
13C2 10:2 FTS	69		25 - 150	05/09/23 05:07	05/11/23 10:13	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-17 (9')**

**Lab Sample ID: 500-232605-35**

Date Collected: 04/18/23 13:55

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.25		0.21	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluoropentanoic acid (PFPeA)	0.85		0.21	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorohexanoic acid (PFHxA)	1.5		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluoroheptanoic acid (PFHpA)	0.77		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorooctanoic acid (PFOA)	14		0.21	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorononanoic acid (PFNA)	0.96		0.21	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorodecanoic acid (PFDA)	0.60		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorododecanoic acid (PFDoA)	0.054	J	0.21	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorotridecanoic acid (PFTTrDA)	<0.022		0.21	0.022	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorobutanesulfonic acid (PFBS)	0.29		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluoropentanesulfonic acid (PFPeS)	0.37		0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluoroheptanesulfonic acid (PFHpS)	3.1		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorononanesulfonic acid (PFNS)	0.30		0.21	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorodecanesulfonic acid (PFDS)	0.17	J	0.21	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NMeFOSA	0.084	J	0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NMeFOSAA	0.075	J	0.21	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NEtFOSAA	0.050	J	0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
6:2 FTS	2.3		0.21	0.028	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C5 PFPeA	88		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 PFHxA	86		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C4 PFHpA	94		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C4 PFOA	94		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C5 PFNA	70		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 PFDA	81		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 PFUnA	73		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 PFDoA	71		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 PFTeDA	71		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C3 PFBS	83		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C4 PFOS	77		25 - 150	05/09/23 05:07	05/11/23 10:23	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-17 (9')**

**Lab Sample ID: 500-232605-35**

**Date Collected: 04/18/23 13:55**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 89.6**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
d3-NMeFOSAA	84		25 - 150	05/09/23 05:07	05/11/23 10:23	1
d5-NEtFOSAA	89		25 - 150	05/09/23 05:07	05/11/23 10:23	1
d-N-MeFOSA-M	69		10 - 150	05/09/23 05:07	05/11/23 10:23	1
d-N-EtFOSA-M	62		10 - 150	05/09/23 05:07	05/11/23 10:23	1
d7-N-MeFOSE-M	71		10 - 150	05/09/23 05:07	05/11/23 10:23	1
d9-N-EtFOSE-M	72		10 - 150	05/09/23 05:07	05/11/23 10:23	1
M2-4:2 FTS	50		25 - 150	05/09/23 05:07	05/11/23 10:23	1
M2-6:2 FTS	49		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C3 HFPO-DA	87		25 - 150	05/09/23 05:07	05/11/23 10:23	1
13C2 10:2 FTS	53		25 - 150	05/09/23 05:07	05/11/23 10:23	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Perfluorohexanesulfonic acid (PFHxS)	52		4.1	0.60	ug/Kg	☼	05/09/23 05:07	05/11/23 19:34	20
Perfluorooctanesulfonic acid (PFOS)	280		4.1	0.89	ug/Kg	☼	05/09/23 05:07	05/11/23 19:34	20
Perfluorooctanesulfonamide (FOSA)	49		4.1	0.68	ug/Kg	☼	05/09/23 05:07	05/11/23 19:34	20
8:2 FTS	28		4.1	0.72	ug/Kg	☼	05/09/23 05:07	05/11/23 19:34	20
<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>			
13C4 PFOA	94		25 - 150	05/09/23 05:07	05/11/23 19:34	20			
18O2 PFHxS	79		25 - 150	05/09/23 05:07	05/11/23 19:34	20			
13C4 PFOS	83		25 - 150	05/09/23 05:07	05/11/23 19:34	20			
13C8 FOSA	96		10 - 150	05/09/23 05:07	05/11/23 19:34	20			
M2-8:2 FTS	51		25 - 150	05/09/23 05:07	05/11/23 19:34	20			

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (3')**

**Lab Sample ID: 500-232605-36**

Date Collected: 04/18/23 14:05

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.4		0.22	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluoropentanoic acid (PFPeA)	1.9		0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorohexanoic acid (PFHxA)	1.0		0.22	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluoroheptanoic acid (PFHpA)	0.80		0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorooctanoic acid (PFOA)	1.3		0.22	0.059	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorononanoic acid (PFNA)	1.2		0.22	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorodecanoic acid (PFDA)	0.83		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluoroundecanoic acid (PFUnA)	1.5		0.22	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorododecanoic acid (PFDoA)	0.083	J	0.22	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorotridecanoic acid (PFTTrDA)	<0.024		0.22	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorotetradecanoic acid (PFTTeA)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorobutanesulfonic acid (PFBS)	0.051	J	0.22	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluoropentanesulfonic acid (PFPeS)	0.050	J	0.22	0.041	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorohexanesulfonic acid (PFHxS)	4.2		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.22	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorononanesulfonic acid (PFNS)	0.37		0.22	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorodecanesulfonic acid (PFDS)	0.44		0.22	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorododecanesulfonic acid (PFDoS)	0.13	J	0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
Perfluorooctanesulfonamide (FOSA)	0.67		0.22	0.037	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NEtFOSA	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NMeFOSA	<0.055		0.22	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NMeFOSAA	<0.026		0.22	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NEtFOSAA	<0.054		0.22	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NMeFOSE	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
4:2 FTS	<0.057		0.22	0.057	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
6:2 FTS	0.16	J	0.22	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
8:2 FTS	1.5		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.22	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
HFPO-DA (GenX)	<0.046		0.22	0.046	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
9Cl-PF3ONS	<0.039		0.22	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1
11Cl-PF3OUdS	<0.035		0.22	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 10:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	73		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C5 PFPeA	89		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C2 PFHxA	90		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C4 PFHpA	98		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C4 PFOA	93		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C5 PFNA	90		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C2 PFDA	91		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C2 PFUnA	93		25 - 150	05/09/23 05:07	05/11/23 10:33	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (3')**

**Lab Sample ID: 500-232605-36**

**Date Collected: 04/18/23 14:05**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 82.4**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C2 PFDoA	91		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C2 PFTeDA	81		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C3 PFBS	88		25 - 150	05/09/23 05:07	05/11/23 10:33	1
18O2 PFHxS	89		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C4 PFOS	103		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C8 FOSA	114		10 - 150	05/09/23 05:07	05/11/23 10:33	1
d3-NMeFOSAA	112		25 - 150	05/09/23 05:07	05/11/23 10:33	1
d5-NEtFOSAA	116		25 - 150	05/09/23 05:07	05/11/23 10:33	1
d-N-MeFOSA-M	108		10 - 150	05/09/23 05:07	05/11/23 10:33	1
d-N-EtFOSA-M	102		10 - 150	05/09/23 05:07	05/11/23 10:33	1
d7-N-MeFOSE-M	79		10 - 150	05/09/23 05:07	05/11/23 10:33	1
d9-N-EtFOSE-M	83		10 - 150	05/09/23 05:07	05/11/23 10:33	1
M2-4:2 FTS	58		25 - 150	05/09/23 05:07	05/11/23 10:33	1
M2-6:2 FTS	65		25 - 150	05/09/23 05:07	05/11/23 10:33	1
M2-8:2 FTS	77		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C3 HFPO-DA	90		25 - 150	05/09/23 05:07	05/11/23 10:33	1
13C2 10:2 FTS	106		25 - 150	05/09/23 05:07	05/11/23 10:33	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>73</b>		2.2	0.48	ug/Kg	☆	05/09/23 05:07	05/11/23 19:14	10
<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C4 PFOS	91		25 - 150				05/09/23 05:07	05/11/23 19:14	10

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (8')**  
**Date Collected: 04/18/23 14:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-37**  
**Matrix: Solid**  
**Percent Solids: 92.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.13	J	0.21	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluoropentanoic acid (PFPeA)	0.31		0.21	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorohexanoic acid (PFHxA)	0.54		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluoroheptanoic acid (PFHpA)	0.75		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorooctanoic acid (PFOA)	2.6		0.21	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorononanoic acid (PFNA)	10		0.21	0.023	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorodecanoic acid (PFDA)	0.35		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.21	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.21	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorotridecanoic acid (PFTrDA)	<0.022		0.21	0.022	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorobutanesulfonic acid (PFBS)	<0.039		0.21	0.039	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluoropentanesulfonic acid (PFPeS)	0.15	J	0.21	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorohexanesulfonic acid (PFHxS)	11		0.21	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluoroheptanesulfonic acid (PFHpS)	3.2		0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorooctanesulfonic acid (PFOS)	460		10	2.2	ug/Kg	✳	05/09/23 05:07	05/11/23 19:55	50
Perfluorononanesulfonic acid (PFNS)	0.30		0.21	0.030	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorodecanesulfonic acid (PFDS)	<0.054		0.21	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorododecanesulfonic acid (PFDoS)	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
Perfluorooctanesulfonamide (FOSA)	1.4		0.21	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NEtFOSA	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NMeFOSA	0.056	J	0.21	0.051	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NMeFOSAA	<0.024		0.21	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NEtFOSAA	<0.050		0.21	0.050	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NMeFOSE	<0.049		0.21	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
NEtFOSE	<0.029		0.21	0.029	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
4:2 FTS	<0.053		0.21	0.053	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
6:2 FTS	0.65		0.21	0.028	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
8:2 FTS	45		10	1.8	ug/Kg	✳	05/09/23 05:07	05/11/23 19:55	50
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.21	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
HFPO-DA (GenX)	<0.042		0.21	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
9Cl-PF3ONS	<0.036		0.21	0.036	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1
11Cl-PF3OUdS	<0.032		0.21	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 10:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C5 PFPeA	97		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C2 PFHxA	98		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C4 PFHpA	109		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C4 PFOA	106		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C5 PFNA	82		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C2 PFDA	105		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C2 PFUnA	101		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C2 PFDoA	97		25 - 150	05/09/23 05:07	05/11/23 10:43	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (8')**  
**Date Collected: 04/18/23 14:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-37**  
**Matrix: Solid**  
**Percent Solids: 92.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFTeDA	96		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C3 PFBS	91		25 - 150	05/09/23 05:07	05/11/23 10:43	1
18O2 PFHxS	109		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C4 PFOS	84		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C4 PFOS	118		25 - 150	05/09/23 05:07	05/11/23 19:55	50
13C8 FOSA	112		10 - 150	05/09/23 05:07	05/11/23 10:43	1
d3-NMeFOSAA	119		25 - 150	05/09/23 05:07	05/11/23 10:43	1
d5-NEtFOSAA	128		25 - 150	05/09/23 05:07	05/11/23 10:43	1
d-N-MeFOSA-M	79		10 - 150	05/09/23 05:07	05/11/23 10:43	1
d-N-EtFOSA-M	78		10 - 150	05/09/23 05:07	05/11/23 10:43	1
d7-N-MeFOSE-M	96		10 - 150	05/09/23 05:07	05/11/23 10:43	1
d9-N-EtFOSE-M	95		10 - 150	05/09/23 05:07	05/11/23 10:43	1
M2-4:2 FTS	61		25 - 150	05/09/23 05:07	05/11/23 10:43	1
M2-6:2 FTS	70		25 - 150	05/09/23 05:07	05/11/23 10:43	1
M2-8:2 FTS	81		25 - 150	05/09/23 05:07	05/11/23 10:43	1
M2-8:2 FTS	81		25 - 150	05/09/23 05:07	05/11/23 19:55	50
13C3 HFPO-DA	100		25 - 150	05/09/23 05:07	05/11/23 10:43	1
13C2 10:2 FTS	79		25 - 150	05/09/23 05:07	05/11/23 10:43	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (16')**

**Lab Sample ID: 500-232605-38**

Date Collected: 04/18/23 14:15

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.66		0.23	0.053	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluoropentanoic acid (PFPeA)	1.8		0.23	0.047	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorohexanoic acid (PFHxA)	4.5		0.23	0.036	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluoroheptanoic acid (PFHpA)	1.1		0.23	0.044	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorooctanoic acid (PFOA)	0.25		0.23	0.061	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorononanoic acid (PFNA)	0.36		0.23	0.025	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorodecanoic acid (PFDA)	0.35		0.23	0.055	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluoroundecanoic acid (PFUnA)	<0.048		0.23	0.048	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorododecanoic acid (PFDoA)	<0.035		0.23	0.035	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorotetradecanoic acid (PFTeA)	<0.043		0.23	0.043	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorobutanesulfonic acid (PFBS)	0.27		0.23	0.044	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluoropentanesulfonic acid (PFPeS)	0.26		0.23	0.043	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorohexanesulfonic acid (PFHxS)	1.3		0.23	0.033	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.057		0.23	0.057	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorodecanesulfonic acid (PFDS)	<0.060		0.23	0.060	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorododecanesulfonic acid (PFDoS)	<0.054		0.23	0.054	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Perfluorooctanesulfonamide (FOSA)	0.17	J	0.23	0.038	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NEtFOSA	<0.054		0.23	0.054	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NMeFOSA	<0.057		0.23	0.057	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NMeFOSAA	<0.027		0.23	0.027	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NEtFOSAA	<0.055		0.23	0.055	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NMeFOSE	<0.054		0.23	0.054	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
4:2 FTS	<0.059		0.23	0.059	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
6:2 FTS	0.21	J	0.23	0.031	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.045		0.23	0.045	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
HFPO-DA (GenX)	<0.047		0.23	0.047	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
9CI-PF3ONS	<0.040		0.23	0.040	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
11CI-PF3OUdS	<0.036		0.23	0.036	ug/Kg	✱	05/09/23 05:07	05/11/23 10:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	109		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C5 PFPeA	109		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C2 PFHxA	112		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C4 PFHpA	113		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C4 PFOA	104		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C5 PFNA	91		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C2 PFDA	108		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C2 PFUnA	99		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C2 PFDoA	89		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C2 PFTeDA	90		25 - 150				05/09/23 05:07	05/11/23 10:53	1
13C3 PFBS	105		25 - 150				05/09/23 05:07	05/11/23 10:53	1
18O2 PFHxS	104		25 - 150				05/09/23 05:07	05/11/23 10:53	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-18 (16')**

**Lab Sample ID: 500-232605-38**

**Date Collected: 04/18/23 14:15**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 80.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	103		25 - 150	05/09/23 05:07	05/11/23 10:53	1
13C8 FOSA	115		10 - 150	05/09/23 05:07	05/11/23 10:53	1
d3-NMeFOSAA	125		25 - 150	05/09/23 05:07	05/11/23 10:53	1
d5-NEtFOSAA	120		25 - 150	05/09/23 05:07	05/11/23 10:53	1
d-N-MeFOSA-M	77		10 - 150	05/09/23 05:07	05/11/23 10:53	1
d-N-EtFOSA-M	77		10 - 150	05/09/23 05:07	05/11/23 10:53	1
d7-N-MeFOSE-M	91		10 - 150	05/09/23 05:07	05/11/23 10:53	1
d9-N-EtFOSE-M	88		10 - 150	05/09/23 05:07	05/11/23 10:53	1
M2-4:2 FTS	73		25 - 150	05/09/23 05:07	05/11/23 10:53	1
M2-6:2 FTS	70		25 - 150	05/09/23 05:07	05/11/23 10:53	1
M2-8:2 FTS	88		25 - 150	05/09/23 05:07	05/11/23 10:53	1
13C3 HFPO-DA	106		25 - 150	05/09/23 05:07	05/11/23 10:53	1
13C2 10:2 FTS	78		25 - 150	05/09/23 05:07	05/11/23 10:53	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>160</b>		2.3	0.50	ug/Kg	☼	05/09/23 05:07	05/11/23 19:24	10
<b>8:2 FTS</b>	<b>29</b>		2.3	0.40	ug/Kg	☼	05/09/23 05:07	05/11/23 19:24	10
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	125		25 - 150				05/09/23 05:07	05/11/23 19:24	10
M2-8:2 FTS	83		25 - 150				05/09/23 05:07	05/11/23 19:24	10

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-19 (2')**

**Lab Sample ID: 500-232605-39**

Date Collected: 04/18/23 14:35

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.087	J	0.23	0.052	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluoropentanoic acid (PFPeA)	0.26		0.23	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorohexanoic acid (PFHxA)	0.58		0.23	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluoroheptanoic acid (PFHpA)	0.38		0.23	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorooctanoic acid (PFOA)	2.2		0.23	0.060	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorononanoic acid (PFNA)	0.22	J	0.23	0.025	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorodecanoic acid (PFDA)	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluoroundecanoic acid (PFUnA)	<0.048		0.23	0.048	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorobutanesulfonic acid (PFBS)	0.054	J	0.23	0.043	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluoropentanesulfonic acid (PFPeS)	0.089	J	0.23	0.042	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorohexanesulfonic acid (PFHxS)	4.1	F1	0.23	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluoroheptanesulfonic acid (PFHpS)	0.096	J	0.23	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorooctanesulfonic acid (PFOS)	11		0.23	0.049	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorododecanesulfonic acid (PFDoS)	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
Perfluorooctanesulfonamide (FOSA)	0.090	J	0.23	0.038	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NEtFOSA	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NMeFOSA	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NEtFOSAA	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NMeFOSE	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
6:2 FTS	<0.031		0.23	0.031	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
8:2 FTS	0.86		0.23	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
HFPO-DA (GenX)	<0.047		0.23	0.047	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
9Cl-PF3ONS	<0.040		0.23	0.040	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✳	05/09/23 05:07	05/11/23 11:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C5 PFPeA	95		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C2 PFHxA	92		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C4 PFHpA	106		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C4 PFOA	97		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C5 PFNA	101		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C2 PFDA	93		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C2 PFUnA	89		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C2 PFDoA	83		25 - 150	05/09/23 05:07	05/11/23 11:03	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-19 (2')**

**Lab Sample ID: 500-232605-39**

**Date Collected: 04/18/23 14:35**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 80.1**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFTeDA	88		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C3 PFBS	93		25 - 150	05/09/23 05:07	05/11/23 11:03	1
18O2 PFHxS	102		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C4 PFOS	106		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C8 FOSA	104		10 - 150	05/09/23 05:07	05/11/23 11:03	1
d3-NMeFOSAA	93		25 - 150	05/09/23 05:07	05/11/23 11:03	1
d5-NEtFOSAA	93		25 - 150	05/09/23 05:07	05/11/23 11:03	1
d-N-MeFOSA-M	77		10 - 150	05/09/23 05:07	05/11/23 11:03	1
d-N-EtFOSA-M	76		10 - 150	05/09/23 05:07	05/11/23 11:03	1
d7-N-MeFOSE-M	86		10 - 150	05/09/23 05:07	05/11/23 11:03	1
d9-N-EtFOSE-M	86		10 - 150	05/09/23 05:07	05/11/23 11:03	1
M2-4:2 FTS	62		25 - 150	05/09/23 05:07	05/11/23 11:03	1
M2-6:2 FTS	61		25 - 150	05/09/23 05:07	05/11/23 11:03	1
M2-8:2 FTS	62		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C3 HFPO-DA	97		25 - 150	05/09/23 05:07	05/11/23 11:03	1
13C2 10:2 FTS	66		25 - 150	05/09/23 05:07	05/11/23 11:03	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-19 (5.5')**

**Lab Sample ID: 500-232605-40**

Date Collected: 04/18/23 14:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.054	J	0.23	0.052	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluoropentanoic acid (PFPeA)	0.072	J	0.23	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorohexanoic acid (PFHxA)	0.12	J I	0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluoroheptanoic acid (PFHpA)	0.21	J	0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorooctanoic acid (PFOA)	0.57		0.23	0.060	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorononanoic acid (PFNA)	0.28		0.23	0.025	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorodecanoic acid (PFDA)	0.16	J	0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluoroundecanoic acid (PFUnA)	<0.048		0.23	0.048	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluoropentanesulfonic acid (PFPeS)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorohexanesulfonic acid (PFHxS)	1.4		0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorononanesulfonic acid (PFNS)	0.11	J	0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorododecanesulfonic acid (PFDoS)	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
Perfluorooctanesulfonamide (FOSA)	0.38		0.23	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NEtFOSA	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NMeFOSA	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NEtFOSAA	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NMeFOSE	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
6:2 FTS	0.053	J	0.23	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
8:2 FTS	18		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
HFPO-DA (GenX)	<0.047		0.23	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
9Cl-PF3ONS	<0.040		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 12:35	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	103		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C5 PFPeA	98		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C2 PFHxA	98		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C4 PFHpA	105		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C4 PFOA	103		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C5 PFNA	106		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C2 PFDA	109		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C2 PFUnA	109		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C2 PFDoA	103		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C2 PFTeDA	106		25 - 150				05/09/23 05:14	05/11/23 12:35	1
13C3 PFBS	95		25 - 150				05/09/23 05:14	05/11/23 12:35	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-19 (5.5')**

**Lab Sample ID: 500-232605-40**

**Date Collected: 04/18/23 14:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 81.7**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
18O2 PFHxS	100		25 - 150	05/09/23 05:14	05/11/23 12:35	1
13C4 PFOS	120		25 - 150	05/09/23 05:14	05/11/23 12:35	1
13C8 FOSA	116		10 - 150	05/09/23 05:14	05/11/23 12:35	1
d3-NMeFOSAA	128		25 - 150	05/09/23 05:14	05/11/23 12:35	1
d5-NEtFOSAA	130		25 - 150	05/09/23 05:14	05/11/23 12:35	1
d-N-MeFOSA-M	83		10 - 150	05/09/23 05:14	05/11/23 12:35	1
d-N-EtFOSA-M	81		10 - 150	05/09/23 05:14	05/11/23 12:35	1
d7-N-MeFOSE-M	91		10 - 150	05/09/23 05:14	05/11/23 12:35	1
d9-N-EtFOSE-M	95		10 - 150	05/09/23 05:14	05/11/23 12:35	1
M2-4:2 FTS	64		25 - 150	05/09/23 05:14	05/11/23 12:35	1
M2-6:2 FTS	62		25 - 150	05/09/23 05:14	05/11/23 12:35	1
M2-8:2 FTS	78		25 - 150	05/09/23 05:14	05/11/23 12:35	1
13C3 HFPO-DA	104		25 - 150	05/09/23 05:14	05/11/23 12:35	1
13C2 10:2 FTS	88		25 - 150	05/09/23 05:14	05/11/23 12:35	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>29</b>		1.1	0.24	ug/Kg	☆	05/09/23 05:14	05/12/23 19:03	5
<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>			
13C4 PFOS	98		25 - 150	05/09/23 05:14	05/12/23 19:03	5			

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-20 (3')**

**Lab Sample ID: 500-232605-41**

Date Collected: 04/18/23 15:00

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.25		0.23	0.052	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluoropentanoic acid (PFPeA)	0.14	J	0.23	0.046	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorohexanoic acid (PFHxA)	0.31		0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluoroheptanoic acid (PFHpA)	0.085	J	0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorooctanoic acid (PFOA)	0.39		0.23	0.060	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorononanoic acid (PFNA)	0.10	J	0.23	0.025	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorodecanoic acid (PFDA)	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluoroundecanoic acid (PFUnA)	<0.047		0.23	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluoropentanesulfonic acid (PFPeS)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorohexanesulfonic acid (PFHxS)	0.87		0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorooctanesulfonic acid (PFOS)	2.5		0.23	0.049	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.23	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
Perfluorooctanesulfonamide (FOSA)	<0.037		0.23	0.037	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NEtFOSA	<0.053		0.23	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NMeFOSA	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NEtFOSAA	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NMeFOSE	<0.053		0.23	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
6:2 FTS	<0.031		0.23	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
8:2 FTS	<0.040		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
HFPO-DA (GenX)	<0.046		0.23	0.046	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
9Cl-PF3ONS	<0.040		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 12:45	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	96		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C5 PFPeA	93		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C2 PFHxA	90		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C4 PFHpA	100		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C4 PFOA	89		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C5 PFNA	95		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C2 PFDA	93		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C2 PFUnA	96		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C2 PFDoA	86		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C2 PFTeDA	85		25 - 150				05/09/23 05:14	05/11/23 12:45	1
13C3 PFBS	89		25 - 150				05/09/23 05:14	05/11/23 12:45	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-20 (3')**  
**Date Collected: 04/18/23 15:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-41**  
**Matrix: Solid**  
**Percent Solids: 82.9**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	85		25 - 150	05/09/23 05:14	05/11/23 12:45	1
13C4 PFOS	95		25 - 150	05/09/23 05:14	05/11/23 12:45	1
13C8 FOSA	95		10 - 150	05/09/23 05:14	05/11/23 12:45	1
d3-NMeFOSAA	100		25 - 150	05/09/23 05:14	05/11/23 12:45	1
d5-NEtFOSAA	100		25 - 150	05/09/23 05:14	05/11/23 12:45	1
d-N-MeFOSA-M	87		10 - 150	05/09/23 05:14	05/11/23 12:45	1
d-N-EtFOSA-M	84		10 - 150	05/09/23 05:14	05/11/23 12:45	1
d7-N-MeFOSE-M	83		10 - 150	05/09/23 05:14	05/11/23 12:45	1
d9-N-EtFOSE-M	85		10 - 150	05/09/23 05:14	05/11/23 12:45	1
M2-4:2 FTS	58		25 - 150	05/09/23 05:14	05/11/23 12:45	1
M2-6:2 FTS	59		25 - 150	05/09/23 05:14	05/11/23 12:45	1
M2-8:2 FTS	68		25 - 150	05/09/23 05:14	05/11/23 12:45	1
13C3 HFPO-DA	92		25 - 150	05/09/23 05:14	05/11/23 12:45	1
13C2 10:2 FTS	70		25 - 150	05/09/23 05:14	05/11/23 12:45	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-20 (10')**

**Lab Sample ID: 500-232605-42**

**Date Collected: 04/18/23 15:20**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.064</b>	<b>J</b>	0.22	0.050	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluoropentanoic acid (PFPeA)	<0.044		0.22	0.044	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorohexanoic acid (PFHxA)	<0.033		0.22	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluoroheptanoic acid (PFHpA)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.31</b>		0.22	0.057	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorononanoic acid (PFNA)	<0.024		0.22	0.024	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorodecanoic acid (PFDA)	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluoroundecanoic acid (PFUnA)	<0.045		0.22	0.045	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorododecanoic acid (PFDoA)	<0.032		0.22	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorotridecanoic acid (PFTrDA)	<0.023		0.22	0.023	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorobutanesulfonic acid (PFBS)	<0.041		0.22	0.041	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluoropentanesulfonic acid (PFPeS)	<0.040		0.22	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.69</b>		0.22	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.88</b>		0.22	0.046	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorononanesulfonic acid (PFNS)	<0.031		0.22	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorodecanesulfonic acid (PFDS)	<0.056		0.22	0.056	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
Perfluorooctanesulfonamide (FOSA)	<0.036		0.22	0.036	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
NEtFOSE	<0.030		0.22	0.030	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
4:2 FTS	<0.055		0.22	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
6:2 FTS	<0.029		0.22	0.029	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
8:2 FTS	<0.038		0.22	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
HFPO-DA (GenX)	<0.044		0.22	0.044	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
9Cl-PF3ONS	<0.038		0.22	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
11Cl-PF3OUdS	<0.033		0.22	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 12:55	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	61		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C5 PFPeA	59		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C2 PFHxA	61		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C4 PFHpA	63		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C4 PFOA	61		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C5 PFNA	61		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C2 PFDA	60		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C2 PFUnA	57		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C2 PFDoA	58		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C2 PFTeDA	62		25 - 150				05/09/23 05:14	05/11/23 12:55	1
13C3 PFBS	57		25 - 150				05/09/23 05:14	05/11/23 12:55	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-20 (10')**

**Lab Sample ID: 500-232605-42**

**Date Collected: 04/18/23 15:20**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 87.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	57		25 - 150	05/09/23 05:14	05/11/23 12:55	1
13C4 PFOS	59		25 - 150	05/09/23 05:14	05/11/23 12:55	1
13C8 FOSA	66		10 - 150	05/09/23 05:14	05/11/23 12:55	1
d3-NMeFOSAA	74		25 - 150	05/09/23 05:14	05/11/23 12:55	1
d5-NEtFOSAA	73		25 - 150	05/09/23 05:14	05/11/23 12:55	1
d-N-MeFOSA-M	43		10 - 150	05/09/23 05:14	05/11/23 12:55	1
d-N-EtFOSA-M	43		10 - 150	05/09/23 05:14	05/11/23 12:55	1
d7-N-MeFOSE-M	57		10 - 150	05/09/23 05:14	05/11/23 12:55	1
d9-N-EtFOSE-M	58		10 - 150	05/09/23 05:14	05/11/23 12:55	1
M2-4:2 FTS	37		25 - 150	05/09/23 05:14	05/11/23 12:55	1
M2-6:2 FTS	38		25 - 150	05/09/23 05:14	05/11/23 12:55	1
M2-8:2 FTS	44		25 - 150	05/09/23 05:14	05/11/23 12:55	1
13C3 HFPO-DA	62		25 - 150	05/09/23 05:14	05/11/23 12:55	1
13C2 10:2 FTS	46		25 - 150	05/09/23 05:14	05/11/23 12:55	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-21 (2')**

**Lab Sample ID: 500-232605-43**

Date Collected: 04/19/23 08:10

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 74.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.59		0.26	0.059	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluoropentanoic acid (PFPeA)	1.4		0.26	0.052	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorohexanoic acid (PFHxA)	1.3		0.26	0.040	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluoroheptanoic acid (PFHpA)	0.70		0.26	0.049	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorooctanoic acid (PFOA)	3.3		0.26	0.068	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorononanoic acid (PFNA)	1.6		0.26	0.028	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorodecanoic acid (PFDA)	0.13	J	0.26	0.061	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluoroundecanoic acid (PFUnA)	<0.054		0.26	0.054	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorododecanoic acid (PFDoA)	<0.038		0.26	0.038	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorotridecanoic acid (PFTrDA)	<0.027		0.26	0.027	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorotetradecanoic acid (PFTeA)	<0.047		0.26	0.047	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorobutanesulfonic acid (PFBS)	0.083	J	0.26	0.049	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluoropentanesulfonic acid (PFPeS)	0.12	J	0.26	0.047	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorohexanesulfonic acid (PFHxS)	11		0.26	0.037	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluoroheptanesulfonic acid (PFHpS)	0.24	J	0.26	0.063	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorooctanesulfonic acid (PFOS)	18		0.26	0.055	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorononanesulfonic acid (PFNS)	<0.037		0.26	0.037	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorodecanesulfonic acid (PFDS)	<0.066		0.26	0.066	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorododecanesulfonic acid (PFDoS)	<0.060		0.26	0.060	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
Perfluorooctanesulfonamide (FOSA)	<0.042		0.26	0.042	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NEtFOSA	<0.060		0.26	0.060	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NMeFOSA	<0.063		0.26	0.063	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NMeFOSAA	<0.029		0.26	0.029	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NEtFOSAA	<0.061		0.26	0.061	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NMeFOSE	<0.060		0.26	0.060	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
NEtFOSE	<0.036		0.26	0.036	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
4:2 FTS	<0.065		0.26	0.065	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
6:2 FTS	<0.034		0.26	0.034	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
8:2 FTS	<0.045		0.26	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.050		0.26	0.050	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
HFPO-DA (GenX)	<0.052		0.26	0.052	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
9CI-PF3ONS	<0.045		0.26	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1
11CI-PF3OUdS	<0.040		0.26	0.040	ug/Kg	✱	05/09/23 05:14	05/11/23 13:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C5 PFPeA	92		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 PFHxA	95		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C4 PFHpA	99		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C4 PFOA	94		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C5 PFNA	90		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 PFDA	89		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 PFUnA	89		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 PFDoA	79		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 PFTeDA	75		25 - 150	05/09/23 05:14	05/11/23 13:06	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-21 (2')**  
**Date Collected: 04/19/23 08:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-43**  
**Matrix: Solid**  
**Percent Solids: 74.3**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	86		25 - 150	05/09/23 05:14	05/11/23 13:06	1
18O2 PFHxS	96		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C4 PFOS	97		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C8 FOSA	91		10 - 150	05/09/23 05:14	05/11/23 13:06	1
d3-NMeFOSAA	103		25 - 150	05/09/23 05:14	05/11/23 13:06	1
d5-NEtFOSAA	105		25 - 150	05/09/23 05:14	05/11/23 13:06	1
d-N-MeFOSA-M	78		10 - 150	05/09/23 05:14	05/11/23 13:06	1
d-N-EtFOSA-M	80		10 - 150	05/09/23 05:14	05/11/23 13:06	1
d7-N-MeFOSE-M	78		10 - 150	05/09/23 05:14	05/11/23 13:06	1
d9-N-EtFOSE-M	76		10 - 150	05/09/23 05:14	05/11/23 13:06	1
M2-4:2 FTS	58		25 - 150	05/09/23 05:14	05/11/23 13:06	1
M2-6:2 FTS	61		25 - 150	05/09/23 05:14	05/11/23 13:06	1
M2-8:2 FTS	64		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C3 HFPO-DA	91		25 - 150	05/09/23 05:14	05/11/23 13:06	1
13C2 10:2 FTS	60		25 - 150	05/09/23 05:14	05/11/23 13:06	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-21 (9')**

**Lab Sample ID: 500-232605-44**

Date Collected: 04/19/23 08:20

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.052		0.23	0.052	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.058</b>	<b>J</b>	0.23	0.046	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.098</b>	<b>J I</b>	0.23	0.035	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluoroheptanoic acid (PFHpA)	<0.043		0.23	0.043	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.17</b>	<b>J</b>	0.23	0.060	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.090</b>	<b>J</b>	0.23	0.025	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorodecanoic acid (PFDA)	<0.054		0.23	0.054	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluoroundecanoic acid (PFUnA)	<0.047		0.23	0.047	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorotridecanoic acid (PFTeDA)	<0.024		0.23	0.024	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluoropentanesulfonic acid (PFPeS)	<0.042		0.23	0.042	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.48</b>		0.23	0.033	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.055		0.23	0.055	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.88</b>		0.23	0.049	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorododecanesulfonic acid (PFDoS)	<0.053		0.23	0.053	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
Perfluorooctanesulfonamide (FOSA)	<0.037		0.23	0.037	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NEtFOSA	<0.053		0.23	0.053	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NMeFOSA	<0.055		0.23	0.055	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NEtFOSAA	<0.054		0.23	0.054	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NMeFOSE	<0.053		0.23	0.053	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
6:2 FTS	<0.030		0.23	0.030	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
8:2 FTS	<0.039		0.23	0.039	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		0.23	0.044	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
HFPO-DA (GenX)	<0.046		0.23	0.046	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
9Cl-PF3ONS	<0.039		0.23	0.039	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1
11Cl-PF3OUdS	<0.035		0.23	0.035	ug/Kg	☼	05/09/23 05:14	05/11/23 13:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	94		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C5 PFPeA	91		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 PFHxA	92		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C4 PFHpA	101		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C4 PFOA	93		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C5 PFNA	93		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 PFDA	84		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 PFUnA	82		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 PFDoA	83		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 PFTeDA	91		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C3 PFBS	96		25 - 150	05/09/23 05:14	05/11/23 13:16	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-21 (9')**  
**Date Collected: 04/19/23 08:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-44**  
**Matrix: Solid**  
**Percent Solids: 81.6**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	95		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C4 PFOS	86		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C8 FOSA	97		10 - 150	05/09/23 05:14	05/11/23 13:16	1
d3-NMeFOSAA	93		25 - 150	05/09/23 05:14	05/11/23 13:16	1
d5-NEtFOSAA	95		25 - 150	05/09/23 05:14	05/11/23 13:16	1
d-N-MeFOSA-M	77		10 - 150	05/09/23 05:14	05/11/23 13:16	1
d-N-EtFOSA-M	75		10 - 150	05/09/23 05:14	05/11/23 13:16	1
d7-N-MeFOSE-M	86		10 - 150	05/09/23 05:14	05/11/23 13:16	1
d9-N-EtFOSE-M	87		10 - 150	05/09/23 05:14	05/11/23 13:16	1
M2-4:2 FTS	61		25 - 150	05/09/23 05:14	05/11/23 13:16	1
M2-6:2 FTS	59		25 - 150	05/09/23 05:14	05/11/23 13:16	1
M2-8:2 FTS	55		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C3 HFPO-DA	97		25 - 150	05/09/23 05:14	05/11/23 13:16	1
13C2 10:2 FTS	68		25 - 150	05/09/23 05:14	05/11/23 13:16	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-22 (2')**

**Lab Sample ID: 500-232605-45**

Date Collected: 04/19/23 08:45

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.6		0.24	0.056	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluoropentanoic acid (PFPeA)	10		0.24	0.050	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorohexanoic acid (PFHxA)	12		0.24	0.038	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluoroheptanoic acid (PFHpA)	5.1		0.24	0.046	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorooctanoic acid (PFOA)	1.8		0.24	0.065	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorononanoic acid (PFNA)	0.043	J	0.24	0.027	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorodecanoic acid (PFDA)	<0.059		0.24	0.059	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorododecanoic acid (PFDoA)	<0.037		0.24	0.037	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.24	0.026	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorobutanesulfonic acid (PFBS)	4.0		0.24	0.046	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluoropentanesulfonic acid (PFPeS)	3.6		0.24	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorohexanesulfonic acid (PFHxS)	6.6		0.24	0.035	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.060		0.24	0.060	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorooctanesulfonic acid (PFOS)	0.48		0.24	0.053	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorononanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorodecanesulfonic acid (PFDS)	<0.064		0.24	0.064	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorododecanesulfonic acid (PFDoS)	<0.057		0.24	0.057	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.24	0.040	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NEtFOSA	<0.057		0.24	0.057	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NMeFOSA	<0.060		0.24	0.060	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NEtFOSAA	<0.059		0.24	0.059	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NMeFOSE	<0.057		0.24	0.057	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
4:2 FTS	<0.062		0.24	0.062	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
6:2 FTS	<0.033		0.24	0.033	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
8:2 FTS	<0.043		0.24	0.043	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		0.24	0.048	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
9CI-PF3ONS	<0.043		0.24	0.043	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1
11CI-PF3OUdS	<0.038		0.24	0.038	ug/Kg	✱	05/09/23 05:14	05/11/23 13:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	104		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C5 PFPeA	109		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 PFHxA	112		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C4 PFHpA	115		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C4 PFOA	99		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C5 PFNA	102		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 PFDA	102		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 PFUnA	101		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 PFDoA	92		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 PFTeDA	96		25 - 150	05/09/23 05:14	05/11/23 13:26	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-22 (2')**  
**Date Collected: 04/19/23 08:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-45**  
**Matrix: Solid**  
**Percent Solids: 78.8**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	105		25 - 150	05/09/23 05:14	05/11/23 13:26	1
18O2 PFHxS	103		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C4 PFOS	98		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C8 FOSA	104		10 - 150	05/09/23 05:14	05/11/23 13:26	1
d3-NMeFOSAA	113		25 - 150	05/09/23 05:14	05/11/23 13:26	1
d5-NEtFOSAA	118		25 - 150	05/09/23 05:14	05/11/23 13:26	1
d-N-MeFOSA-M	79		10 - 150	05/09/23 05:14	05/11/23 13:26	1
d-N-EtFOSA-M	81		10 - 150	05/09/23 05:14	05/11/23 13:26	1
d7-N-MeFOSE-M	88		10 - 150	05/09/23 05:14	05/11/23 13:26	1
d9-N-EtFOSE-M	92		10 - 150	05/09/23 05:14	05/11/23 13:26	1
M2-4:2 FTS	68		25 - 150	05/09/23 05:14	05/11/23 13:26	1
M2-6:2 FTS	65		25 - 150	05/09/23 05:14	05/11/23 13:26	1
M2-8:2 FTS	69		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C3 HFPO-DA	106		25 - 150	05/09/23 05:14	05/11/23 13:26	1
13C2 10:2 FTS	72		25 - 150	05/09/23 05:14	05/11/23 13:26	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-22 (10')**

**Lab Sample ID: 500-232605-46**

Date Collected: 04/19/23 08:50

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 76.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.0		0.24	0.056	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluoropentanoic acid (PFPeA)	16		0.24	0.050	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorohexanoic acid (PFHxA)	12		0.24	0.038	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluoroheptanoic acid (PFHpA)	0.77		0.24	0.046	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorooctanoic acid (PFOA)	0.068	J	0.24	0.064	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorononanoic acid (PFNA)	<0.027		0.24	0.027	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorodecanoic acid (PFDA)	<0.058		0.24	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluoroundecanoic acid (PFUnA)	<0.051		0.24	0.051	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorododecanoic acid (PFDoA)	<0.036		0.24	0.036	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorotridecanoic acid (PFTrDA)	<0.025		0.24	0.025	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.24	0.045	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorobutanesulfonic acid (PFBS)	2.9		0.24	0.046	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluoropentanesulfonic acid (PFPeS)	0.39		0.24	0.045	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorohexanesulfonic acid (PFHxS)	0.27		0.24	0.035	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.059		0.24	0.059	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorooctanesulfonic acid (PFOS)	<0.052		0.24	0.052	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorononanesulfonic acid (PFNS)	<0.035		0.24	0.035	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorodecanesulfonic acid (PFDS)	<0.063		0.24	0.063	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorododecanesulfonic acid (PFDoS)	<0.057		0.24	0.057	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
Perfluorooctanesulfonamide (FOSA)	<0.040		0.24	0.040	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NEtFOSA	<0.057		0.24	0.057	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NMeFOSA	<0.059		0.24	0.059	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NMeFOSAA	<0.028		0.24	0.028	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NEtFOSAA	<0.058		0.24	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NMeFOSE	<0.057		0.24	0.057	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
NEtFOSE	<0.034		0.24	0.034	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
4:2 FTS	<0.062		0.24	0.062	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
6:2 FTS	<0.033		0.24	0.033	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
8:2 FTS	<0.042		0.24	0.042	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.047		0.24	0.047	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
HFPO-DA (GenX)	<0.050		0.24	0.050	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
9Cl-PF3ONS	<0.042		0.24	0.042	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1
11Cl-PF3OUdS	<0.038		0.24	0.038	ug/Kg	☼	05/09/23 05:14	05/11/23 13:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	102		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C5 PFPeA	106		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 PFHxA	108		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C4 PFHpA	104		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C4 PFOA	95		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C5 PFNA	97		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 PFDA	103		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 PFUnA	105		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 PFDoA	95		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 PFTeDA	101		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C3 PFBS	103		25 - 150	05/09/23 05:14	05/11/23 13:36	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-22 (10')**

**Lab Sample ID: 500-232605-46**

**Date Collected: 04/19/23 08:50**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 76.3**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	97		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C4 PFOS	98		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C8 FOSA	103		10 - 150	05/09/23 05:14	05/11/23 13:36	1
d3-NMeFOSAA	112		25 - 150	05/09/23 05:14	05/11/23 13:36	1
d5-NEtFOSAA	114		25 - 150	05/09/23 05:14	05/11/23 13:36	1
d-N-MeFOSA-M	84		10 - 150	05/09/23 05:14	05/11/23 13:36	1
d-N-EtFOSA-M	86		10 - 150	05/09/23 05:14	05/11/23 13:36	1
d7-N-MeFOSE-M	89		10 - 150	05/09/23 05:14	05/11/23 13:36	1
d9-N-EtFOSE-M	91		10 - 150	05/09/23 05:14	05/11/23 13:36	1
M2-4:2 FTS	66		25 - 150	05/09/23 05:14	05/11/23 13:36	1
M2-6:2 FTS	62		25 - 150	05/09/23 05:14	05/11/23 13:36	1
M2-8:2 FTS	77		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C3 HFPO-DA	104		25 - 150	05/09/23 05:14	05/11/23 13:36	1
13C2 10:2 FTS	79		25 - 150	05/09/23 05:14	05/11/23 13:36	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-23 (2')**

**Lab Sample ID: 500-232605-47**

Date Collected: 04/19/23 11:30

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.83		0.22	0.050	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluoropentanoic acid (PFPeA)	4.3		0.22	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorohexanoic acid (PFHxA)	9.8		0.22	0.034	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluoroheptanoic acid (PFHpA)	7.3		0.22	0.041	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorononanoic acid (PFNA)	16		0.22	0.024	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorodecanoic acid (PFDA)	1.9		0.22	0.052	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluoroundecanoic acid (PFUnA)	0.45		0.22	0.046	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorododecanoic acid (PFDoA)	0.055	J	0.22	0.033	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorotridecanoic acid (PFTrDA)	0.023	J	0.22	0.023	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorotetradecanoic acid (PFTeA)	<0.040		0.22	0.040	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorobutanesulfonic acid (PFBS)	3.5		0.22	0.041	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluoropentanesulfonic acid (PFPeS)	6.0		0.22	0.040	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluoroheptanesulfonic acid (PFHpS)	5.5		0.22	0.053	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorononanesulfonic acid (PFNS)	0.32		0.22	0.032	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorodecanesulfonic acid (PFDS)	0.19	J	0.22	0.057	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorododecanesulfonic acid (PFDoS)	0.082	J	0.22	0.051	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
Perfluorooctanesulfonamide (FOSA)	1.0		0.22	0.036	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NMeFOSAA	<0.025		0.22	0.025	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NEtFOSAA	<0.052		0.22	0.052	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NMeFOSE	<0.051		0.22	0.051	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
NEtFOSE	<0.031		0.22	0.031	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
4:2 FTS	<0.056		0.22	0.056	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
6:2 FTS	0.088	J	0.22	0.029	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
8:2 FTS	0.17	J	0.22	0.038	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
HFPO-DA (GenX)	<0.045		0.22	0.045	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
9Cl-PF3ONS	<0.038		0.22	0.038	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1
11Cl-PF3OUdS	<0.034		0.22	0.034	ug/Kg	✱	05/09/23 05:14	05/11/23 13:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C5 PFPeA	94		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 PFHxA	97		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C4 PFHpA	90		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C5 PFNA	75		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 PFDA	92		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 PFUnA	90		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 PFDoA	82		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 PFTeDA	91		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C3 PFBS	91		25 - 150	05/09/23 05:14	05/11/23 13:46	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-23 (2')**

**Lab Sample ID: 500-232605-47**

**Date Collected: 04/19/23 11:30**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 84.7**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	78		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C8 FOSA	99		10 - 150	05/09/23 05:14	05/11/23 13:46	1
d3-NMeFOSAA	94		25 - 150	05/09/23 05:14	05/11/23 13:46	1
d5-NEtFOSAA	102		25 - 150	05/09/23 05:14	05/11/23 13:46	1
d-N-MeFOSA-M	88		10 - 150	05/09/23 05:14	05/11/23 13:46	1
d-N-EtFOSA-M	87		10 - 150	05/09/23 05:14	05/11/23 13:46	1
d7-N-MeFOSE-M	85		10 - 150	05/09/23 05:14	05/11/23 13:46	1
d9-N-EtFOSE-M	85		10 - 150	05/09/23 05:14	05/11/23 13:46	1
M2-4:2 FTS	60		25 - 150	05/09/23 05:14	05/11/23 13:46	1
M2-6:2 FTS	58		25 - 150	05/09/23 05:14	05/11/23 13:46	1
M2-8:2 FTS	72		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C3 HFPO-DA	91		25 - 150	05/09/23 05:14	05/11/23 13:46	1
13C2 10:2 FTS	68		25 - 150	05/09/23 05:14	05/11/23 13:46	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorooctanoic acid (PFOA)	45		11	2.9	ug/Kg	☼	05/09/23 05:14	05/12/23 19:23	50
Perfluorohexanesulfonic acid (PFHxS)	240		11	1.6	ug/Kg	☼	05/09/23 05:14	05/12/23 19:23	50
Perfluorooctanesulfonic acid (PFOS)	550		11	2.3	ug/Kg	☼	05/09/23 05:14	05/12/23 19:23	50

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOA	93		25 - 150	05/09/23 05:14	05/12/23 19:23	50
18O2 PFHxS	80		25 - 150	05/09/23 05:14	05/12/23 19:23	50
13C4 PFOS	83		25 - 150	05/09/23 05:14	05/12/23 19:23	50

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-23 (10')**

**Lab Sample ID: 500-232605-48**

**Date Collected: 04/19/23 11:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 80.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.057	J	0.25	0.057	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluoropentanoic acid (PFPeA)	0.056	J	0.25	0.050	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorohexanoic acid (PFHxA)	<0.038		0.25	0.038	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluoroheptanoic acid (PFHpA)	<0.047		0.25	0.047	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorooctanoic acid (PFOA)	<0.065		0.25	0.065	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorononanoic acid (PFNA)	<0.027		0.25	0.027	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorodecanoic acid (PFDA)	<0.059		0.25	0.059	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluoroundecanoic acid (PFUnA)	<0.052		0.25	0.052	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorododecanoic acid (PFDoA)	<0.037		0.25	0.037	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorotridecanoic acid (PFTrDA)	<0.026		0.25	0.026	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorotetradecanoic acid (PFTeA)	<0.045		0.25	0.045	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorobutanesulfonic acid (PFBS)	<0.047		0.25	0.047	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluoropentanesulfonic acid (PFPeS)	<0.045		0.25	0.045	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorohexanesulfonic acid (PFHxS)	<0.036		0.25	0.036	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.060		0.25	0.060	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorooctanesulfonic acid (PFOS)	<0.053		0.25	0.053	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorononanesulfonic acid (PFNS)	<0.036		0.25	0.036	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorodecanesulfonic acid (PFDS)	<0.064		0.25	0.064	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorododecanesulfonic acid (PFDoS)	<0.058		0.25	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
Perfluorooctanesulfonamide (FOSA)	<0.041		0.25	0.041	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NEtFOSA	<0.058		0.25	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NMeFOSA	<0.060		0.25	0.060	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NMeFOSAA	<0.028		0.25	0.028	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NEtFOSAA	<0.059		0.25	0.059	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NMeFOSE	<0.058		0.25	0.058	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
NEtFOSE	<0.034		0.25	0.034	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
4:2 FTS	<0.063		0.25	0.063	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
6:2 FTS	<0.033		0.25	0.033	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
8:2 FTS	<0.043		0.25	0.043	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.048		0.25	0.048	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
HFPO-DA (GenX)	<0.050		0.25	0.050	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
9Cl-PF3ONS	<0.043		0.25	0.043	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1
11Cl-PF3OUdS	<0.038		0.25	0.038	ug/Kg	☼	05/09/23 05:14	05/11/23 14:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C5 PFPeA	95		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 PFHxA	94		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C4 PFHpA	98		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C4 PFOA	94		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C5 PFNA	97		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 PFDA	93		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 PFUnA	95		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 PFDoA	92		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 PFTeDA	97		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C3 PFBS	91		25 - 150	05/09/23 05:14	05/11/23 14:18	1
18O2 PFHxS	92		25 - 150	05/09/23 05:14	05/11/23 14:18	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-23 (10')**

**Lab Sample ID: 500-232605-48**

**Date Collected: 04/19/23 11:45**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 80.4**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	95		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C8 FOSA	105		10 - 150	05/09/23 05:14	05/11/23 14:18	1
d3-NMeFOSAA	96		25 - 150	05/09/23 05:14	05/11/23 14:18	1
d5-NEtFOSAA	94		25 - 150	05/09/23 05:14	05/11/23 14:18	1
d-N-MeFOSA-M	75		10 - 150	05/09/23 05:14	05/11/23 14:18	1
d-N-EtFOSA-M	78		10 - 150	05/09/23 05:14	05/11/23 14:18	1
d7-N-MeFOSE-M	86		10 - 150	05/09/23 05:14	05/11/23 14:18	1
d9-N-EtFOSE-M	91		10 - 150	05/09/23 05:14	05/11/23 14:18	1
M2-4:2 FTS	62		25 - 150	05/09/23 05:14	05/11/23 14:18	1
M2-6:2 FTS	60		25 - 150	05/09/23 05:14	05/11/23 14:18	1
M2-8:2 FTS	60		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C3 HFPO-DA	97		25 - 150	05/09/23 05:14	05/11/23 14:18	1
13C2 10:2 FTS	70		25 - 150	05/09/23 05:14	05/11/23 14:18	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Equipment Blank**

**Lab Sample ID: 500-232605-51**

**Date Collected: 04/18/23 08:00**

**Matrix: Water**

**Date Received: 04/21/23 09:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.7	2.2	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluoropentanoic acid (PFPeA)	<0.46		1.9	0.46	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorohexanoic acid (PFHxA)	<0.54		1.9	0.54	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.9	0.23	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorooctanoic acid (PFOA)	<0.80		1.9	0.80	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.9	0.51	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorotetradecanoic acid (PFTeA)	<0.68		1.9	0.68	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluoropentanesulfonic acid (PFPeS)	<0.28		1.9	0.28	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorohexanesulfonic acid (PFHxS)	<0.53		1.9	0.53	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.18		1.9	0.18	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorooctanesulfonic acid (PFOS)	<0.51		1.9	0.51	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorododecanesulfonic acid (PFDoS)	<0.91		1.9	0.91	ng/L		04/25/23 06:45	04/27/23 13:26	1
Perfluorooctanesulfonamide (FOSA)	<0.92		1.9	0.92	ng/L		04/25/23 06:45	04/27/23 13:26	1
NEtFOSA	<0.81		1.9	0.81	ng/L		04/25/23 06:45	04/27/23 13:26	1
NMeFOSA	<0.40		1.9	0.40	ng/L		04/25/23 06:45	04/27/23 13:26	1
NMeFOSAA	<1.1		4.7	1.1	ng/L		04/25/23 06:45	04/27/23 13:26	1
NEtFOSAA	<1.2		4.7	1.2	ng/L		04/25/23 06:45	04/27/23 13:26	1
NMeFOSE	<1.3		3.7	1.3	ng/L		04/25/23 06:45	04/27/23 13:26	1
NEtFOSE	<0.80		1.9	0.80	ng/L		04/25/23 06:45	04/27/23 13:26	1
4:2 FTS	<0.22		1.9	0.22	ng/L		04/25/23 06:45	04/27/23 13:26	1
6:2 FTS	<2.3		4.7	2.3	ng/L		04/25/23 06:45	04/27/23 13:26	1
8:2 FTS	<0.43		1.9	0.43	ng/L		04/25/23 06:45	04/27/23 13:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.9	0.37	ng/L		04/25/23 06:45	04/27/23 13:26	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		04/25/23 06:45	04/27/23 13:26	1
9Cl-PF3ONS	<0.22		1.9	0.22	ng/L		04/25/23 06:45	04/27/23 13:26	1
11Cl-PF3OUdS	<0.30		1.9	0.30	ng/L		04/25/23 06:45	04/27/23 13:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C5 PFPeA	102		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 PFHxA	102		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C4 PFHpA	106		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C4 PFOA	103		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C5 PFNA	100		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 PFDA	112		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 PFUnA	101		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 PFDoA	98		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 PFTeDA	107		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C3 PFBS	92		25 - 150	04/25/23 06:45	04/27/23 13:26	1
18O2 PFHxS	91		25 - 150	04/25/23 06:45	04/27/23 13:26	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Equipment Blank**

**Lab Sample ID: 500-232605-51**

**Date Collected: 04/18/23 08:00**

**Matrix: Water**

**Date Received: 04/21/23 09:35**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	92		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C8 FOSA	97		10 - 150	04/25/23 06:45	04/27/23 13:26	1
d3-NMeFOSAA	99		25 - 150	04/25/23 06:45	04/27/23 13:26	1
d5-NEtFOSAA	99		25 - 150	04/25/23 06:45	04/27/23 13:26	1
d-N-MeFOSA-M	86		10 - 150	04/25/23 06:45	04/27/23 13:26	1
d-N-EtFOSA-M	80		10 - 150	04/25/23 06:45	04/27/23 13:26	1
d7-N-MeFOSE-M	90		10 - 150	04/25/23 06:45	04/27/23 13:26	1
d9-N-EtFOSE-M	90		10 - 150	04/25/23 06:45	04/27/23 13:26	1
M2-4:2 FTS	91		25 - 150	04/25/23 06:45	04/27/23 13:26	1
M2-6:2 FTS	95		25 - 150	04/25/23 06:45	04/27/23 13:26	1
M2-8:2 FTS	99		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C3 HFPO-DA	96		25 - 150	04/25/23 06:45	04/27/23 13:26	1
13C2 10:2 FTS	104		25 - 150	04/25/23 06:45	04/27/23 13:26	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Equipment Blank #2**

**Lab Sample ID: 500-232605-52**

Date Collected: 04/19/23 07:45

Matrix: Water

Date Received: 04/21/23 09:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.6	2.2	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluoropentanoic acid (PFPeA)	<0.45		1.8	0.45	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorohexanoic acid (PFHxA)	<0.53		1.8	0.53	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.8	0.23	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorooctanoic acid (PFOA)	<0.78		1.8	0.78	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorononanoic acid (PFNA)	<0.25		1.8	0.25	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorodecanoic acid (PFDA)	<0.29		1.8	0.29	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.8	0.51	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluoropentanesulfonic acid (PFPeS)	<0.28		1.8	0.28	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorohexanesulfonic acid (PFHxS)	<0.53		1.8	0.53	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.18		1.8	0.18	ng/L		04/25/23 06:45	04/27/23 13:36	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.50</b>	<b>J</b>	1.8	0.50	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.8	0.30	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorododecanesulfonic acid (PFDoS)	<0.89		1.8	0.89	ng/L		04/25/23 06:45	04/27/23 13:36	1
Perfluorooctanesulfonamide (FOSA)	<0.90		1.8	0.90	ng/L		04/25/23 06:45	04/27/23 13:36	1
NEtFOSA	<0.80		1.8	0.80	ng/L		04/25/23 06:45	04/27/23 13:36	1
NMeFOSA	<0.40		1.8	0.40	ng/L		04/25/23 06:45	04/27/23 13:36	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		04/25/23 06:45	04/27/23 13:36	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		04/25/23 06:45	04/27/23 13:36	1
NMeFOSE	<1.3		3.7	1.3	ng/L		04/25/23 06:45	04/27/23 13:36	1
NEtFOSE	<0.78		1.8	0.78	ng/L		04/25/23 06:45	04/27/23 13:36	1
4:2 FTS	<0.22		1.8	0.22	ng/L		04/25/23 06:45	04/27/23 13:36	1
6:2 FTS	<2.3		4.6	2.3	ng/L		04/25/23 06:45	04/27/23 13:36	1
8:2 FTS	<0.42		1.8	0.42	ng/L		04/25/23 06:45	04/27/23 13:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		04/25/23 06:45	04/27/23 13:36	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		04/25/23 06:45	04/27/23 13:36	1
9Cl-PF3ONS	<0.22		1.8	0.22	ng/L		04/25/23 06:45	04/27/23 13:36	1
11Cl-PF3OUdS	<0.30		1.8	0.30	ng/L		04/25/23 06:45	04/27/23 13:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C5 PFPeA	107		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 PFHxA	106		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C4 PFHpA	106		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C4 PFOA	104		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C5 PFNA	104		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 PFDA	110		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 PFUnA	101		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 PFDoA	100		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 PFTeDA	109		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C3 PFBS	92		25 - 150	04/25/23 06:45	04/27/23 13:36	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Equipment Blank #2**

**Lab Sample ID: 500-232605-52**

**Date Collected: 04/19/23 07:45**

**Matrix: Water**

**Date Received: 04/21/23 09:35**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	94		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C4 PFOS	92		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C8 FOSA	97		10 - 150	04/25/23 06:45	04/27/23 13:36	1
d3-NMeFOSAA	97		25 - 150	04/25/23 06:45	04/27/23 13:36	1
d5-NEtFOSAA	105		25 - 150	04/25/23 06:45	04/27/23 13:36	1
d-N-MeFOSA-M	79		10 - 150	04/25/23 06:45	04/27/23 13:36	1
d-N-EtFOSA-M	71		10 - 150	04/25/23 06:45	04/27/23 13:36	1
d7-N-MeFOSE-M	85		10 - 150	04/25/23 06:45	04/27/23 13:36	1
d9-N-EtFOSE-M	89		10 - 150	04/25/23 06:45	04/27/23 13:36	1
M2-4:2 FTS	98		25 - 150	04/25/23 06:45	04/27/23 13:36	1
M2-6:2 FTS	93		25 - 150	04/25/23 06:45	04/27/23 13:36	1
M2-8:2 FTS	102		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C3 HFPO-DA	103		25 - 150	04/25/23 06:45	04/27/23 13:36	1
13C2 10:2 FTS	107		25 - 150	04/25/23 06:45	04/27/23 13:36	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Field Blank**

**Lab Sample ID: 500-232605-53**

**Date Collected: 04/18/23 07:30**

**Matrix: Water**

**Date Received: 04/21/23 09:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.5	2.2	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluoropentanoic acid (PFPeA)	<0.44		1.8	0.44	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorohexanoic acid (PFHxA)	<0.53		1.8	0.53	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.8	0.23	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorooctanoic acid (PFOA)	<0.77		1.8	0.77	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorononanoic acid (PFNA)	<0.25		1.8	0.25	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorodecanoic acid (PFDA)	<0.28		1.8	0.28	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorododecanoic acid (PFDoA)	<0.50		1.8	0.50	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorotetradecanoic acid (PFTeA)	<0.66		1.8	0.66	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluoropentanesulfonic acid (PFPeS)	<0.27		1.8	0.27	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorohexanesulfonic acid (PFHxS)	<0.52		1.8	0.52	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.17		1.8	0.17	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorooctanesulfonic acid (PFOS)	<0.49		1.8	0.49	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorodecanesulfonic acid (PFDS)	<0.29		1.8	0.29	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorododecanesulfonic acid (PFDoS)	<0.88		1.8	0.88	ng/L		04/25/23 06:45	04/27/23 13:46	1
Perfluorooctanesulfonamide (FOSA)	<0.89		1.8	0.89	ng/L		04/25/23 06:45	04/27/23 13:46	1
NEtFOSA	<0.79		1.8	0.79	ng/L		04/25/23 06:45	04/27/23 13:46	1
NMeFOSA	<0.39		1.8	0.39	ng/L		04/25/23 06:45	04/27/23 13:46	1
NMeFOSAA	<1.1		4.5	1.1	ng/L		04/25/23 06:45	04/27/23 13:46	1
NEtFOSAA	<1.2		4.5	1.2	ng/L		04/25/23 06:45	04/27/23 13:46	1
NMeFOSE	<1.3		3.6	1.3	ng/L		04/25/23 06:45	04/27/23 13:46	1
NEtFOSE	<0.77		1.8	0.77	ng/L		04/25/23 06:45	04/27/23 13:46	1
4:2 FTS	<0.22		1.8	0.22	ng/L		04/25/23 06:45	04/27/23 13:46	1
6:2 FTS	<2.3		4.5	2.3	ng/L		04/25/23 06:45	04/27/23 13:46	1
8:2 FTS	<0.42		1.8	0.42	ng/L		04/25/23 06:45	04/27/23 13:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.36		1.8	0.36	ng/L		04/25/23 06:45	04/27/23 13:46	1
HFPO-DA (GenX)	<1.4		3.6	1.4	ng/L		04/25/23 06:45	04/27/23 13:46	1
9Cl-PF3ONS	<0.22		1.8	0.22	ng/L		04/25/23 06:45	04/27/23 13:46	1
11Cl-PF3OUdS	<0.29		1.8	0.29	ng/L		04/25/23 06:45	04/27/23 13:46	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	102		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C5 PFPeA	101		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C2 PFHxA	102		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C4 PFHpA	101		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C4 PFOA	104		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C5 PFNA	101		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C2 PFDA	112		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C2 PFUnA	99		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C2 PFDoA	97		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C2 PFTeDA	101		25 - 150				04/25/23 06:45	04/27/23 13:46	1
13C3 PFBS	93		25 - 150				04/25/23 06:45	04/27/23 13:46	1
18O2 PFHxS	87		25 - 150				04/25/23 06:45	04/27/23 13:46	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: Field Blank**

**Lab Sample ID: 500-232605-53**

**Date Collected: 04/18/23 07:30**

**Matrix: Water**

**Date Received: 04/21/23 09:35**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	89		25 - 150	04/25/23 06:45	04/27/23 13:46	1
13C8 FOSA	93		10 - 150	04/25/23 06:45	04/27/23 13:46	1
d3-NMeFOSAA	97		25 - 150	04/25/23 06:45	04/27/23 13:46	1
d5-NEtFOSAA	97		25 - 150	04/25/23 06:45	04/27/23 13:46	1
d-N-MeFOSA-M	88		10 - 150	04/25/23 06:45	04/27/23 13:46	1
d-N-EtFOSA-M	80		10 - 150	04/25/23 06:45	04/27/23 13:46	1
d7-N-MeFOSE-M	89		10 - 150	04/25/23 06:45	04/27/23 13:46	1
d9-N-EtFOSE-M	89		10 - 150	04/25/23 06:45	04/27/23 13:46	1
M2-4:2 FTS	102		25 - 150	04/25/23 06:45	04/27/23 13:46	1
M2-6:2 FTS	100		25 - 150	04/25/23 06:45	04/27/23 13:46	1
M2-8:2 FTS	95		25 - 150	04/25/23 06:45	04/27/23 13:46	1
13C3 HFPO-DA	99		25 - 150	04/25/23 06:45	04/27/23 13:46	1
13C2 10:2 FTS	101		25 - 150	04/25/23 06:45	04/27/23 13:46	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: FD-1**

**Lab Sample ID: 500-232605-54**

**Date Collected: 04/18/23 00:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.47		0.20	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluoropentanoic acid (PFPeA)	1.8		0.20	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorohexanoic acid (PFHxA)	10		0.20	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluoroheptanoic acid (PFHpA)	2.8		0.20	0.039	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorooctanoic acid (PFOA)	3.4		0.20	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorodecanoic acid (PFDA)	<0.049		0.20	0.049	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluoroundecanoic acid (PFUnA)	<0.043		0.20	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorododecanoic acid (PFDoA)	<0.031		0.20	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorotetradecanoic acid (PFTeA)	<0.038		0.20	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorobutanesulfonic acid (PFBS)	1.8		0.20	0.039	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.20	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.050		0.20	0.050	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorooctanesulfonic acid (PFOS)	0.074 J		0.20	0.044	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorononanesulfonic acid (PFNS)	<0.030		0.20	0.030	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorodecanesulfonic acid (PFDS)	<0.053		0.20	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorododecanesulfonic acid (PFDoS)	<0.048		0.20	0.048	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
Perfluorooctanesulfonamide (FOSA)	<0.034		0.20	0.034	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NEtFOSA	<0.048		0.20	0.048	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NMeFOSA	<0.050		0.20	0.050	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NEtFOSAA	<0.049		0.20	0.049	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NMeFOSE	<0.048		0.20	0.048	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
NEtFOSE	<0.029		0.20	0.029	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
4:2 FTS	<0.052		0.20	0.052	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
6:2 FTS	0.67		0.20	0.028	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
8:2 FTS	<0.036		0.20	0.036	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.040		0.20	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
HFPO-DA (GenX)	<0.042		0.20	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
9Cl-PF3ONS	<0.036		0.20	0.036	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
11Cl-PF3OUdS	<0.032		0.20	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 14:28	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	106		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C5 PFPeA	105		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C2 PFHxA	117		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C4 PFHpA	117		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C4 PFOA	107		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C5 PFNA	107		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C2 PFDA	111		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C2 PFUnA	115		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C2 PFDoA	111		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C2 PFTrDA	112		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C3 PFBS	106		25 - 150				05/09/23 05:14	05/11/23 14:28	1
13C4 PFOS	105		25 - 150				05/09/23 05:14	05/11/23 14:28	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: FD-1**

**Lab Sample ID: 500-232605-54**

**Date Collected: 04/18/23 00:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 93.6**

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

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C8 FOSA	123		10 - 150	05/09/23 05:14	05/11/23 14:28	1
d3-NMeFOSAA	135		25 - 150	05/09/23 05:14	05/11/23 14:28	1
d5-NEtFOSAA	143		25 - 150	05/09/23 05:14	05/11/23 14:28	1
d-N-MeFOSA-M	95		10 - 150	05/09/23 05:14	05/11/23 14:28	1
d-N-EtFOSA-M	91		10 - 150	05/09/23 05:14	05/11/23 14:28	1
d7-N-MeFOSE-M	99		10 - 150	05/09/23 05:14	05/11/23 14:28	1
d9-N-EtFOSE-M	102		10 - 150	05/09/23 05:14	05/11/23 14:28	1
M2-4:2 FTS	69		25 - 150	05/09/23 05:14	05/11/23 14:28	1
M2-6:2 FTS	68		25 - 150	05/09/23 05:14	05/11/23 14:28	1
M2-8:2 FTS	73		25 - 150	05/09/23 05:14	05/11/23 14:28	1
13C3 HFPO-DA	100		25 - 150	05/09/23 05:14	05/11/23 14:28	1
13C2 10:2 FTS	91		25 - 150	05/09/23 05:14	05/11/23 14:28	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>27</b>		1.0	0.15	ug/Kg	☼	05/09/23 05:14	05/12/23 19:13	5
<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
18O2 PFHxS	102		25 - 150				05/09/23 05:14	05/12/23 19:13	5

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: FD-2**

**Lab Sample ID: 500-232605-55**

Date Collected: 04/18/23 00:00

Matrix: Solid

Date Received: 04/21/23 09:35

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.10	J	0.23	0.053	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluoropentanoic acid (PFPeA)	0.23		0.23	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorohexanoic acid (PFHxA)	0.54		0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluoroheptanoic acid (PFHpA)	0.36		0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorooctanoic acid (PFOA)	2.2		0.23	0.061	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorononanoic acid (PFNA)	0.29		0.23	0.025	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorodecanoic acid (PFDA)	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluoroundecanoic acid (PFUnA)	<0.048		0.23	0.048	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorododecanoic acid (PFDoA)	<0.034		0.23	0.034	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorotridecanoic acid (PFTrDA)	<0.024		0.23	0.024	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorotetradecanoic acid (PFTeA)	<0.042		0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorobutanesulfonic acid (PFBS)	<0.043		0.23	0.043	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluoropentanesulfonic acid (PFPeS)	0.091	J	0.23	0.042	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorohexanesulfonic acid (PFHxS)	4.7		0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluoroheptanesulfonic acid (PFHpS)	0.12	J	0.23	0.056	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorooctanesulfonic acid (PFOS)	8.4		0.23	0.049	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorononanesulfonic acid (PFNS)	<0.033		0.23	0.033	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorodecanesulfonic acid (PFDS)	<0.059		0.23	0.059	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorododecanesulfonic acid (PFDoS)	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
Perfluorooctanesulfonamide (FOSA)	0.061	J	0.23	0.038	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NEtFOSA	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NMeFOSA	<0.056		0.23	0.056	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NMeFOSAA	<0.026		0.23	0.026	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NEtFOSAA	<0.055		0.23	0.055	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NMeFOSE	<0.054		0.23	0.054	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
NEtFOSE	<0.032		0.23	0.032	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
4:2 FTS	<0.058		0.23	0.058	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
6:2 FTS	<0.031		0.23	0.031	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
8:2 FTS	0.39		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.045		0.23	0.045	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
HFPO-DA (GenX)	<0.047		0.23	0.047	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
9CI-PF3ONS	<0.040		0.23	0.040	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1
11CI-PF3OUdS	<0.035		0.23	0.035	ug/Kg	✳	05/09/23 05:14	05/11/23 14:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C5 PFPeA	88		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 PFHxA	91		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C4 PFHpA	100		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C4 PFOA	93		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C5 PFNA	92		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 PFDA	89		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 PFUnA	91		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 PFDoA	86		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 PFTeDA	88		25 - 150	05/09/23 05:14	05/11/23 14:38	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: FD-2**

**Lab Sample ID: 500-232605-55**

**Date Collected: 04/18/23 00:00**

**Matrix: Solid**

**Date Received: 04/21/23 09:35**

**Percent Solids: 80.6**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	91		25 - 150	05/09/23 05:14	05/11/23 14:38	1
18O2 PFHxS	93		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C4 PFOS	98		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C8 FOSA	103		10 - 150	05/09/23 05:14	05/11/23 14:38	1
d3-NMeFOSAA	95		25 - 150	05/09/23 05:14	05/11/23 14:38	1
d5-NEtFOSAA	102		25 - 150	05/09/23 05:14	05/11/23 14:38	1
d-N-MeFOSA-M	85		10 - 150	05/09/23 05:14	05/11/23 14:38	1
d-N-EtFOSA-M	80		10 - 150	05/09/23 05:14	05/11/23 14:38	1
d7-N-MeFOSE-M	83		10 - 150	05/09/23 05:14	05/11/23 14:38	1
d9-N-EtFOSE-M	87		10 - 150	05/09/23 05:14	05/11/23 14:38	1
M2-4:2 FTS	59		25 - 150	05/09/23 05:14	05/11/23 14:38	1
M2-6:2 FTS	59		25 - 150	05/09/23 05:14	05/11/23 14:38	1
M2-8:2 FTS	64		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C3 HFPO-DA	90		25 - 150	05/09/23 05:14	05/11/23 14:38	1
13C2 10:2 FTS	78		25 - 150	05/09/23 05:14	05/11/23 14:38	1

# Definitions/Glossary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Qualifiers

### LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

## LCMS

### Prep Batch: 669862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-23	B-11 (10')	Total/NA	Solid	SHAKE	
500-232605-23 - DL	B-11 (10')	Total/NA	Solid	SHAKE	
500-232605-24	B-12 (3')	Total/NA	Solid	SHAKE	
500-232605-24 - DL	B-12 (3')	Total/NA	Solid	SHAKE	
500-232605-25	B-12 (11')	Total/NA	Solid	SHAKE	
MB 320-669862/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-669862/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
500-232605-25 MS	B-12 (11')	Total/NA	Solid	SHAKE	
500-232605-25 MSD	B-12 (11')	Total/NA	Solid	SHAKE	

### Prep Batch: 669872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-51	Equipment Blank	Total/NA	Water	3535	
500-232605-52	Equipment Blank #2	Total/NA	Water	3535	
500-232605-53	Field Blank	Total/NA	Water	3535	
MB 320-669872/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-669872/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-669872/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 670113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-23	B-11 (10')	Total/NA	Solid	537 (modified)	669862
500-232605-24	B-12 (3')	Total/NA	Solid	537 (modified)	669862
500-232605-25	B-12 (11')	Total/NA	Solid	537 (modified)	669862
LCS 320-669862/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	669862
500-232605-25 MS	B-12 (11')	Total/NA	Solid	537 (modified)	669862
500-232605-25 MSD	B-12 (11')	Total/NA	Solid	537 (modified)	669862

### Analysis Batch: 670228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-669872/1-A	Method Blank	Total/NA	Water	537 (modified)	669872
LCS 320-669872/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	669872
LCSD 320-669872/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	669872

### Analysis Batch: 670371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-51	Equipment Blank	Total/NA	Water	537 (modified)	669872
500-232605-52	Equipment Blank #2	Total/NA	Water	537 (modified)	669872
500-232605-53	Field Blank	Total/NA	Water	537 (modified)	669872

### Analysis Batch: 670560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-23 - DL	B-11 (10')	Total/NA	Solid	537 (modified)	669862
MB 320-669862/1-A	Method Blank	Total/NA	Solid	537 (modified)	669862

### Analysis Batch: 671783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-24 - DL	B-12 (3')	Total/NA	Solid	537 (modified)	669862

# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## LCMS

### Prep Batch: 673237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-26 - DL	B-13 (3')	Total/NA	Solid	SHAKE	
500-232605-26	B-13 (3')	Total/NA	Solid	SHAKE	
500-232605-27 - DL	B-13 (10')	Total/NA	Solid	SHAKE	
500-232605-27	B-13 (10')	Total/NA	Solid	SHAKE	
500-232605-28	B-14 (2')	Total/NA	Solid	SHAKE	
500-232605-28 - DL	B-14 (2')	Total/NA	Solid	SHAKE	
500-232605-29 - DL	B-14 (10')	Total/NA	Solid	SHAKE	
500-232605-29	B-14 (10')	Total/NA	Solid	SHAKE	
500-232605-30	B-15 (2')	Total/NA	Solid	SHAKE	
500-232605-31	B-15 (10')	Total/NA	Solid	SHAKE	
500-232605-31 - DL	B-15 (10')	Total/NA	Solid	SHAKE	
500-232605-32	B-16 (2')	Total/NA	Solid	SHAKE	
500-232605-33	B-16 (10')	Total/NA	Solid	SHAKE	
500-232605-34	B-17 (2')	Total/NA	Solid	SHAKE	
500-232605-35 - DL	B-17 (9')	Total/NA	Solid	SHAKE	
500-232605-35	B-17 (9')	Total/NA	Solid	SHAKE	
500-232605-36	B-18 (3')	Total/NA	Solid	SHAKE	
500-232605-36 - DL	B-18 (3')	Total/NA	Solid	SHAKE	
500-232605-37	B-18 (8')	Total/NA	Solid	SHAKE	
500-232605-38 - DL	B-18 (16')	Total/NA	Solid	SHAKE	
500-232605-38	B-18 (16')	Total/NA	Solid	SHAKE	
500-232605-39	B-19 (2')	Total/NA	Solid	SHAKE	
MB 320-673237/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-673237/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
500-232605-39 MS	B-19 (2')	Total/NA	Solid	SHAKE	
500-232605-39 MSD	B-19 (2')	Total/NA	Solid	SHAKE	

### Prep Batch: 673238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-40	B-19 (5.5')	Total/NA	Solid	SHAKE	
500-232605-40 - DL	B-19 (5.5')	Total/NA	Solid	SHAKE	
500-232605-41	B-20 (3')	Total/NA	Solid	SHAKE	
500-232605-42	B-20 (10')	Total/NA	Solid	SHAKE	
500-232605-43	B-21 (2')	Total/NA	Solid	SHAKE	
500-232605-44	B-21 (9')	Total/NA	Solid	SHAKE	
500-232605-45	B-22 (2')	Total/NA	Solid	SHAKE	
500-232605-46	B-22 (10')	Total/NA	Solid	SHAKE	
500-232605-47	B-23 (2')	Total/NA	Solid	SHAKE	
500-232605-47 - DL	B-23 (2')	Total/NA	Solid	SHAKE	
500-232605-48	B-23 (10')	Total/NA	Solid	SHAKE	
500-232605-54	FD-1	Total/NA	Solid	SHAKE	
500-232605-54 - DL	FD-1	Total/NA	Solid	SHAKE	
500-232605-55	FD-2	Total/NA	Solid	SHAKE	
MB 320-673238/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-673238/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

### Analysis Batch: 673652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-27	B-13 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-28	B-14 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-29	B-14 (10')	Total/NA	Solid	537 (modified)	673237

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# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## LCMS (Continued)

### Analysis Batch: 673652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-30	B-15 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-31	B-15 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-32	B-16 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-33	B-16 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-34	B-17 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-35	B-17 (9')	Total/NA	Solid	537 (modified)	673237
500-232605-36	B-18 (3')	Total/NA	Solid	537 (modified)	673237
500-232605-37	B-18 (8')	Total/NA	Solid	537 (modified)	673237
500-232605-38	B-18 (16')	Total/NA	Solid	537 (modified)	673237
500-232605-39	B-19 (2')	Total/NA	Solid	537 (modified)	673237
MB 320-673237/1-A	Method Blank	Total/NA	Solid	537 (modified)	673237
LCS 320-673237/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	673237
500-232605-39 MS	B-19 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-39 MSD	B-19 (2')	Total/NA	Solid	537 (modified)	673237

### Analysis Batch: 673658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-40	B-19 (5.5')	Total/NA	Solid	537 (modified)	673238
500-232605-41	B-20 (3')	Total/NA	Solid	537 (modified)	673238
500-232605-42	B-20 (10')	Total/NA	Solid	537 (modified)	673238
500-232605-43	B-21 (2')	Total/NA	Solid	537 (modified)	673238
500-232605-44	B-21 (9')	Total/NA	Solid	537 (modified)	673238
500-232605-45	B-22 (2')	Total/NA	Solid	537 (modified)	673238
500-232605-46	B-22 (10')	Total/NA	Solid	537 (modified)	673238
500-232605-47	B-23 (2')	Total/NA	Solid	537 (modified)	673238
500-232605-48	B-23 (10')	Total/NA	Solid	537 (modified)	673238
500-232605-54	FD-1	Total/NA	Solid	537 (modified)	673238
500-232605-55	FD-2	Total/NA	Solid	537 (modified)	673238
MB 320-673238/1-A	Method Blank	Total/NA	Solid	537 (modified)	673238
LCS 320-673238/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	673238

### Analysis Batch: 673927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-26 - DL	B-13 (3')	Total/NA	Solid	537 (modified)	673237
500-232605-27 - DL	B-13 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-28 - DL	B-14 (2')	Total/NA	Solid	537 (modified)	673237
500-232605-29 - DL	B-14 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-31 - DL	B-15 (10')	Total/NA	Solid	537 (modified)	673237
500-232605-35 - DL	B-17 (9')	Total/NA	Solid	537 (modified)	673237
500-232605-36 - DL	B-18 (3')	Total/NA	Solid	537 (modified)	673237
500-232605-37	B-18 (8')	Total/NA	Solid	537 (modified)	673237
500-232605-38 - DL	B-18 (16')	Total/NA	Solid	537 (modified)	673237

### Analysis Batch: 674357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-26	B-13 (3')	Total/NA	Solid	537 (modified)	673238
500-232605-40 - DL	B-19 (5.5')	Total/NA	Solid	537 (modified)	673238
500-232605-47 - DL	B-23 (2')	Total/NA	Solid	537 (modified)	673238
500-232605-54 - DL	FD-1	Total/NA	Solid	537 (modified)	673238

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# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## General Chemistry

### Analysis Batch: 670023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-23	B-11 (10')	Total/NA	Solid	D 2216	
500-232605-24	B-12 (3')	Total/NA	Solid	D 2216	
500-232605-25	B-12 (11')	Total/NA	Solid	D 2216	
500-232605-26	B-13 (3')	Total/NA	Solid	D 2216	
500-232605-27	B-13 (10')	Total/NA	Solid	D 2216	
500-232605-28	B-14 (2')	Total/NA	Solid	D 2216	
500-232605-29	B-14 (10')	Total/NA	Solid	D 2216	
500-232605-30	B-15 (2')	Total/NA	Solid	D 2216	
500-232605-31	B-15 (10')	Total/NA	Solid	D 2216	
500-232605-32	B-16 (2')	Total/NA	Solid	D 2216	
500-232605-33	B-16 (10')	Total/NA	Solid	D 2216	
500-232605-34	B-17 (2')	Total/NA	Solid	D 2216	
500-232605-35	B-17 (9')	Total/NA	Solid	D 2216	
500-232605-36	B-18 (3')	Total/NA	Solid	D 2216	
500-232605-37	B-18 (8')	Total/NA	Solid	D 2216	
500-232605-38	B-18 (16')	Total/NA	Solid	D 2216	
500-232605-39	B-19 (2')	Total/NA	Solid	D 2216	

### Analysis Batch: 670134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-40	B-19 (5.5')	Total/NA	Solid	D 2216	
500-232605-41	B-20 (3')	Total/NA	Solid	D 2216	
500-232605-42	B-20 (10')	Total/NA	Solid	D 2216	
500-232605-43	B-21 (2')	Total/NA	Solid	D 2216	
500-232605-44	B-21 (9')	Total/NA	Solid	D 2216	
500-232605-45	B-22 (2')	Total/NA	Solid	D 2216	
500-232605-46	B-22 (10')	Total/NA	Solid	D 2216	
500-232605-47	B-23 (2')	Total/NA	Solid	D 2216	
500-232605-48	B-23 (10')	Total/NA	Solid	D 2216	
500-232605-40 DU	B-19 (5.5')	Total/NA	Solid	D 2216	

### Analysis Batch: 670534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232605-54	FD-1	Total/NA	Solid	D 2216	
500-232605-55	FD-2	Total/NA	Solid	D 2216	
500-232605-55 DU	FD-2	Total/NA	Solid	D 2216	

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-669862/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
9Cl-PF3ONS	<0.035		0.20	0.035	ug/Kg		04/23/23 19:00	04/26/23 13:47	1
11Cl-PF3OUdS	<0.031		0.20	0.031	ug/Kg		04/23/23 19:00	04/26/23 13:47	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	94		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C5 PFPeA	107		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFHxA	90		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C4 PFHpA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C4 PFOA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C5 PFNA	91		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFDA	90		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFUnA	89		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFDoA	89		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 PFTeDA	94		25 - 150	04/23/23 19:00	04/26/23 13:47	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-669862/1-A**  
**Matrix: Solid**  
**Analysis Batch: 670560**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFBS	106		25 - 150	04/23/23 19:00	04/26/23 13:47	1
18O2 PFHxS	81		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C4 PFOS	95		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C8 FOSA	99		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d3-NMeFOSAA	97		25 - 150	04/23/23 19:00	04/26/23 13:47	1
d5-NEtFOSAA	98		25 - 150	04/23/23 19:00	04/26/23 13:47	1
d-N-MeFOSA-M	90		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d-N-EtFOSA-M	92		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d7-N-MeFOSE-M	87		10 - 150	04/23/23 19:00	04/26/23 13:47	1
d9-N-EtFOSE-M	86		10 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-4:2 FTS	82		25 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-6:2 FTS	85		25 - 150	04/23/23 19:00	04/26/23 13:47	1
M2-8:2 FTS	97		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C3 HFPO-DA	92		25 - 150	04/23/23 19:00	04/26/23 13:47	1
13C2 10:2 FTS	81		25 - 150	04/23/23 19:00	04/26/23 13:47	1

**Lab Sample ID: LCS 320-669862/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Perfluorobutanoic acid (PFBA)	2.00	2.03		ug/Kg		101	60 - 135
Perfluoropentanoic acid (PFPeA)	2.00	2.01		ug/Kg		100	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	1.94		ug/Kg		97	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.17		ug/Kg		109	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.10		ug/Kg		105	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.04		ug/Kg		102	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.10		ug/Kg		105	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.15		ug/Kg		107	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.02		ug/Kg		101	60 - 135
Perfluorotridecanoic acid (PFTrDA)	2.00	2.08		ug/Kg		104	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	1.98		ug/Kg		99	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.83		ug/Kg		103	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.08		ug/Kg		111	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.87		ug/Kg		103	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	1.91	1.85		ug/Kg		97	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.76		ug/Kg		95	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	1.64		ug/Kg		85	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	1.77		ug/Kg		92	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.62		ug/Kg		84	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCS 320-669862/2-A**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (FOSA)	2.00	2.15		ug/Kg		108	60 - 135
NEtFOSA	2.00	2.11		ug/Kg		105	60 - 135
NMeFOSA	2.00	2.19		ug/Kg		109	60 - 135
NMeFOSAA	2.00	2.20		ug/Kg		110	60 - 135
NEtFOSAA	2.00	2.02		ug/Kg		101	60 - 135
NMeFOSE	2.00	2.12		ug/Kg		106	60 - 135
NEtFOSE	2.00	2.13		ug/Kg		106	60 - 135
4:2 FTS	1.88	1.98		ug/Kg		106	60 - 135
6:2 FTS	1.90	1.95		ug/Kg		102	60 - 135
8:2 FTS	1.92	2.05		ug/Kg		107	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	1.73		ug/Kg		92	60 - 135
HFPO-DA (GenX)	2.00	2.32		ug/Kg		116	60 - 135
9Cl-PF3ONS	1.87	1.70		ug/Kg		91	60 - 135
11Cl-PF3OUdS	1.89	1.69		ug/Kg		89	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	89		25 - 150
13C5 PFPeA	88		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	90		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	92		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	80		25 - 150
13C2 PFDoA	81		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	86		25 - 150
18O2 PFHxS	93		25 - 150
13C4 PFOS	101		25 - 150
13C8 FOSA	92		10 - 150
d3-NMeFOSAA	88		25 - 150
d5-NEtFOSAA	94		25 - 150
d-N-MeFOSA-M	85		10 - 150
d-N-EtFOSA-M	79		10 - 150
d7-N-MeFOSE-M	72		10 - 150
d9-N-EtFOSE-M	74		10 - 150
M2-4:2 FTS	77		25 - 150
M2-6:2 FTS	83		25 - 150
M2-8:2 FTS	95		25 - 150
13C3 HFPO-DA	68		25 - 150
13C2 10:2 FTS	71		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

Lab Sample ID: 500-232605-25 MS

Matrix: Solid

Analysis Batch: 670113

Client Sample ID: B-12 (11')

Prep Type: Total/NA

Prep Batch: 669862

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Perfluorobutanoic acid (PFBA)	1.6		2.12	3.85		ug/Kg	✱	107	70 - 130
Perfluoropentanoic acid (PFPeA)	7.8	F1	2.12	10.5	F1	ug/Kg	✱	132	70 - 130
Perfluorohexanoic acid (PFHxA)	19		2.12	20.8	4	ug/Kg	✱	107	70 - 130
Perfluoroheptanoic acid (PFHpA)	5.9		2.12	8.32		ug/Kg	✱	114	70 - 130
Perfluorooctanoic acid (PFOA)	8.0	F1	2.12	11.9	F1	ug/Kg	✱	183	70 - 130
Perfluorononanoic acid (PFNA)	<0.022		2.12	2.23		ug/Kg	✱	105	70 - 130
Perfluorodecanoic acid (PFDA)	<0.047		2.12	2.29		ug/Kg	✱	108	70 - 130
Perfluoroundecanoic acid (PFUnA)	<0.042		2.12	2.18		ug/Kg	✱	103	70 - 130
Perfluorododecanoic acid (PFDoA)	<0.030		2.12	2.21		ug/Kg	✱	104	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<0.021		2.12	2.34		ug/Kg	✱	111	70 - 130
Perfluorotetradecanoic acid (PFTeA)	<0.037		2.12	2.21		ug/Kg	✱	104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	3.2		1.88	5.65		ug/Kg	✱	128	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	3.8		1.99	6.04		ug/Kg	✱	112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	15		1.93	18.7	4	ug/Kg	✱	201	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<0.048		2.02	2.19		ug/Kg	✱	108	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<0.043		1.97	1.90		ug/Kg	✱	96	70 - 130
Perfluorononanesulfonic acid (PFNS)	<0.029		2.04	1.98		ug/Kg	✱	97	70 - 130
Perfluorodecanesulfonic acid (PFDS)	<0.051		2.04	2.07		ug/Kg	✱	101	70 - 130
Perfluorododecanesulfonic acid (PFDoS)	<0.046		2.05	1.96		ug/Kg	✱	95	70 - 130
Perfluorooctanesulfonamide (FOSA)	<0.033		2.12	2.15		ug/Kg	✱	102	70 - 130
NEtFOSA	<0.046		2.12	2.12		ug/Kg	✱	100	70 - 130
NMeFOSA	<0.048		2.12	2.38		ug/Kg	✱	112	70 - 130
NMeFOSAA	<0.023		2.12	2.25		ug/Kg	✱	106	70 - 130
NEtFOSAA	<0.047		2.12	2.39		ug/Kg	✱	113	70 - 130
NMeFOSE	<0.046		2.12	2.24		ug/Kg	✱	106	70 - 130
NEtFOSE	<0.028		2.12	2.27		ug/Kg	✱	107	70 - 130
4:2 FTS	<0.050		1.99	2.14		ug/Kg	✱	108	70 - 130
6:2 FTS	<0.027		2.01	2.04		ug/Kg	✱	101	70 - 130
8:2 FTS	<0.035		2.03	2.28		ug/Kg	✱	112	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		2.00	2.15		ug/Kg	✱	108	70 - 130
HFPO-DA (GenX)	<0.041		2.12	2.42		ug/Kg	✱	114	70 - 130
9CI-PF3ONS	<0.035		1.98	1.91		ug/Kg	✱	97	70 - 130
11CI-PF3OUdS	<0.031		2.00	1.96		ug/Kg	✱	98	70 - 130
		<b>MS MS</b>							
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
13C4 PFBA	93		25 - 150						
13C5 PFPeA	88		25 - 150						
13C2 PFHxA	92		25 - 150						

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: 500-232605-25 MS**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: B-12 (11')**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

<i>Isotope Dilution</i>	<i>MS</i>	<i>MS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C4 PFHpA	92		25 - 150
13C4 PFOA	91		25 - 150
13C5 PFNA	91		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	83		25 - 150
13C2 PFDaA	78		25 - 150
13C2 PFTeDA	84		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	91		25 - 150
13C4 PFOS	91		25 - 150
13C8 FOSA	94		10 - 150
d3-NMeFOSAA	88		25 - 150
d5-NEtFOSAA	84		25 - 150
d-N-MeFOSA-M	85		10 - 150
d-N-EtFOSA-M	88		10 - 150
d7-N-MeFOSE-M	76		10 - 150
d9-N-EtFOSE-M	76		10 - 150
M2-4:2 FTS	75		25 - 150
M2-6:2 FTS	80		25 - 150
M2-8:2 FTS	82		25 - 150
13C3 HFPO-DA	72		25 - 150
13C2 10:2 FTS	61		25 - 150

**Lab Sample ID: 500-232605-25 MSD**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: B-12 (11')**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>RPD</i>	<i>Limit</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>		
Perfluorobutanoic acid (PFBA)	1.6		2.08	3.61		ug/Kg	✳	97	70 - 130	6	30
Perfluoropentanoic acid (PFPeA)	7.8	F1	2.08	9.71		ug/Kg	✳	94	70 - 130	8	30
Perfluorohexanoic acid (PFHxA)	19		2.08	18.2	4	ug/Kg	✳	-21	70 - 130	14	30
Perfluoroheptanoic acid (PFHpA)	5.9		2.08	7.47		ug/Kg	✳	75	70 - 130	11	30
Perfluorooctanoic acid (PFOA)	8.0	F1	2.08	10.1		ug/Kg	✳	97	70 - 130	17	30
Perfluorononanoic acid (PFNA)	<0.022		2.08	2.06		ug/Kg	✳	99	70 - 130	8	30
Perfluorodecanoic acid (PFDA)	<0.047		2.08	2.37		ug/Kg	✳	114	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<0.042		2.08	2.35		ug/Kg	✳	113	70 - 130	7	30
Perfluorododecanoic acid (PFDaA)	<0.030		2.08	2.15		ug/Kg	✳	103	70 - 130	3	30
Perfluorotridecanoic acid (PFTTrDA)	<0.021		2.08	2.11		ug/Kg	✳	101	70 - 130	10	30
Perfluorotetradecanoic acid (PFTeA)	<0.037		2.08	2.14		ug/Kg	✳	103	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	3.2		1.85	5.11		ug/Kg	✳	101	70 - 130	10	30
Perfluoropentanesulfonic acid (PFPeS)	3.8		1.96	5.37		ug/Kg	✳	79	70 - 130	12	30
Perfluorohexanesulfonic acid (PFHxS)	15		1.90	15.1	4	ug/Kg	✳	16	70 - 130	21	30
Perfluoroheptanesulfonic acid (PFHpS)	<0.048		1.99	1.99		ug/Kg	✳	100	70 - 130	9	30

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: 500-232605-25 MSD**

**Matrix: Solid**

**Analysis Batch: 670113**

**Client Sample ID: B-12 (11')**

**Prep Type: Total/NA**

**Prep Batch: 669862**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	<0.043		1.94	1.78		ug/Kg	⊛	92	70 - 130	6	30
Perfluorononanesulfonic acid (PFNS)	<0.029		2.00	1.86		ug/Kg	⊛	93	70 - 130	7	30
Perfluorodecanesulfonic acid (PFDS)	<0.051		2.01	1.85		ug/Kg	⊛	92	70 - 130	11	30
Perfluorododecanesulfonic acid (PFDoS)	<0.046		2.02	1.88		ug/Kg	⊛	93	70 - 130	4	30
Perfluorooctanesulfonamide (FOSA)	<0.033		2.08	2.23		ug/Kg	⊛	107	70 - 130	4	30
NEtFOSA	<0.046		2.08	2.18		ug/Kg	⊛	105	70 - 130	3	30
NMeFOSA	<0.048		2.08	2.31		ug/Kg	⊛	111	70 - 130	3	30
NMeFOSAA	<0.023		2.08	2.03		ug/Kg	⊛	97	70 - 130	11	30
NEtFOSAA	<0.047		2.08	2.33		ug/Kg	⊛	112	70 - 130	2	30
NMeFOSE	<0.046		2.08	2.28		ug/Kg	⊛	109	70 - 130	2	30
NEtFOSE	<0.028		2.08	2.29		ug/Kg	⊛	110	70 - 130	1	30
4:2 FTS	<0.050		1.95	2.17		ug/Kg	⊛	111	70 - 130	1	30
6:2 FTS	<0.027		1.98	2.04		ug/Kg	⊛	103	70 - 130	0	30
8:2 FTS	<0.035		2.00	2.08		ug/Kg	⊛	104	70 - 130	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		1.97	2.00		ug/Kg	⊛	102	70 - 130	7	30
HFPO-DA (GenX)	<0.041		2.08	2.26		ug/Kg	⊛	109	70 - 130	7	30
9Cl-PF3ONS	<0.035		1.95	1.81		ug/Kg	⊛	93	70 - 130	5	30
11Cl-PF3OUdS	<0.031		1.97	1.84		ug/Kg	⊛	94	70 - 130	6	30

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	89		25 - 150
13C5 PFPeA	84		25 - 150
13C2 PFHxA	85		25 - 150
13C4 PFHpA	84		25 - 150
13C4 PFOA	85		25 - 150
13C5 PFNA	94		25 - 150
13C2 PFDA	81		25 - 150
13C2 PFUnA	75		25 - 150
13C2 PFDoA	80		25 - 150
13C2 PFTeDA	83		25 - 150
13C3 PFBS	82		25 - 150
18O2 PFHxS	89		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	90		10 - 150
d3-NMeFOSAA	90		25 - 150
d5-NEtFOSAA	82		25 - 150
d-N-MeFOSA-M	87		10 - 150
d-N-EtFOSA-M	86		10 - 150
d7-N-MeFOSE-M	73		10 - 150
d9-N-EtFOSE-M	71		10 - 150
M2-4:2 FTS	74		25 - 150
M2-6:2 FTS	77		25 - 150
M2-8:2 FTS	85		25 - 150
13C3 HFPO-DA	71		25 - 150

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: 500-232605-25 MSD**  
**Matrix: Solid**  
**Analysis Batch: 670113**

**Client Sample ID: B-12 (11')**  
**Prep Type: Total/NA**  
**Prep Batch: 669862**

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C2 10:2 FTS	60		25 - 150

**Lab Sample ID: MB 320-669872/1-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorotridecanoic acid (PFTTrDA)	<1.3		2.0	1.3	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorotetradecanoic acid (PFTTeA)	<0.73		2.0	0.73	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.19		2.0	0.19	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		04/25/23 06:45	04/26/23 11:32	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		04/25/23 06:45	04/26/23 11:32	1
NEtFOSA	<0.87		2.0	0.87	ng/L		04/25/23 06:45	04/26/23 11:32	1
NMeFOSA	<0.43		2.0	0.43	ng/L		04/25/23 06:45	04/26/23 11:32	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		04/25/23 06:45	04/26/23 11:32	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		04/25/23 06:45	04/26/23 11:32	1
NMeFOSE	<1.4		4.0	1.4	ng/L		04/25/23 06:45	04/26/23 11:32	1
NEtFOSE	<0.85		2.0	0.85	ng/L		04/25/23 06:45	04/26/23 11:32	1
4:2 FTS	<0.24		2.0	0.24	ng/L		04/25/23 06:45	04/26/23 11:32	1
6:2 FTS	<2.5		5.0	2.5	ng/L		04/25/23 06:45	04/26/23 11:32	1
8:2 FTS	<0.46		2.0	0.46	ng/L		04/25/23 06:45	04/26/23 11:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		04/25/23 06:45	04/26/23 11:32	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		04/25/23 06:45	04/26/23 11:32	1
9CI-PF3ONS	<0.24		2.0	0.24	ng/L		04/25/23 06:45	04/26/23 11:32	1
11CI-PF3OUdS	<0.32		2.0	0.32	ng/L		04/25/23 06:45	04/26/23 11:32	1

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	89		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C5 PFPeA	93		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 PFHxA	94		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C4 PFHpA	92		25 - 150	04/25/23 06:45	04/26/23 11:32	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-669872/1-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFOA	93		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C5 PFNA	93		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 PFDA	102		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 PFUnA	94		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 PFDoA	94		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 PFTeDA	93		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C3 PFBS	84		25 - 150	04/25/23 06:45	04/26/23 11:32	1
18O2 PFHxS	85		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C4 PFOS	87		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C8 FOSA	87		10 - 150	04/25/23 06:45	04/26/23 11:32	1
d3-NMeFOSAA	98		25 - 150	04/25/23 06:45	04/26/23 11:32	1
d5-NEtFOSAA	96		25 - 150	04/25/23 06:45	04/26/23 11:32	1
d-N-MeFOSA-M	81		10 - 150	04/25/23 06:45	04/26/23 11:32	1
d-N-EtFOSA-M	77		10 - 150	04/25/23 06:45	04/26/23 11:32	1
d7-N-MeFOSE-M	82		10 - 150	04/25/23 06:45	04/26/23 11:32	1
d9-N-EtFOSE-M	80		10 - 150	04/25/23 06:45	04/26/23 11:32	1
M2-4:2 FTS	91		25 - 150	04/25/23 06:45	04/26/23 11:32	1
M2-6:2 FTS	85		25 - 150	04/25/23 06:45	04/26/23 11:32	1
M2-8:2 FTS	94		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C3 HFPO-DA	85		25 - 150	04/25/23 06:45	04/26/23 11:32	1
13C2 10:2 FTS	93		25 - 150	04/25/23 06:45	04/26/23 11:32	1

**Lab Sample ID: LCS 320-669872/2-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	40.0	41.7		ng/L		104	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	39.2		ng/L		98	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	42.8		ng/L		107	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	41.9		ng/L		105	60 - 135
Perfluorononanoic acid (PFNA)	40.0	44.2		ng/L		110	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	44.9		ng/L		112	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	43.2		ng/L		108	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	44.5		ng/L		111	60 - 135
Perfluorotridecanoic acid (PFTTrDA)	40.0	41.6		ng/L		104	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	37.6		ng/L		94	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.5	37.4		ng/L		105	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.6	44.9		ng/L		119	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.5	38.4		ng/L		105	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	38.2	42.2		ng/L		111	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCS 320-669872/2-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	38.5		ng/L		103	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.5	43.6		ng/L		113	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	41.4		ng/L		107	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.2		ng/L		88	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	46.9		ng/L		117	60 - 135
NEtFOSA	40.0	44.5		ng/L		111	60 - 135
NMeFOSA	40.0	41.4		ng/L		103	60 - 135
NMeFOSAA	40.0	43.5		ng/L		109	60 - 135
NEtFOSAA	40.0	38.6		ng/L		96	60 - 135
NMeFOSE	40.0	43.9		ng/L		110	60 - 135
NEtFOSE	40.0	44.8		ng/L		112	60 - 135
4:2 FTS	37.5	43.7		ng/L		116	60 - 135
6:2 FTS	38.1	44.6		ng/L		117	60 - 135
8:2 FTS	38.4	42.1		ng/L		110	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	50.1		ng/L		133	60 - 135
HFPO-DA (GenX)	40.0	43.1		ng/L		108	60 - 135
9Cl-PF3ONS	37.4	43.8		ng/L		117	60 - 135
11Cl-PF3OUdS	37.8	44.3		ng/L		117	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	96		25 - 150
13C5 PFPeA	98		25 - 150
13C2 PFHxA	97		25 - 150
13C4 PFHpA	101		25 - 150
13C4 PFOA	102		25 - 150
13C5 PFNA	96		25 - 150
13C2 PFDA	106		25 - 150
13C2 PFUnA	98		25 - 150
13C2 PFDoA	96		25 - 150
13C2 PFTeDA	100		25 - 150
13C3 PFBS	89		25 - 150
18O2 PFHxS	91		25 - 150
13C4 PFOS	88		25 - 150
13C8 FOSA	83		10 - 150
d3-NMeFOSAA	92		25 - 150
d5-NEtFOSAA	96		25 - 150
d-N-MeFOSA-M	70		10 - 150
d-N-EtFOSA-M	67		10 - 150
d7-N-MeFOSE-M	78		10 - 150
d9-N-EtFOSE-M	77		10 - 150
M2-4:2 FTS	98		25 - 150
M2-6:2 FTS	96		25 - 150
M2-8:2 FTS	99		25 - 150
13C3 HFPO-DA	89		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCS 320-669872/2-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C2 10:2 FTS	96		25 - 150

**Lab Sample ID: LCSD 320-669872/3-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	42.1		ng/L		105	60 - 135	1	30
Perfluoropentanoic acid (PFPeA)	40.0	43.9		ng/L		110	60 - 135	5	30
Perfluorohexanoic acid (PFHxA)	40.0	40.2		ng/L		101	60 - 135	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.4		ng/L		104	60 - 135	3	30
Perfluorooctanoic acid (PFOA)	40.0	41.4		ng/L		104	60 - 135	1	30
Perfluorononanoic acid (PFNA)	40.0	45.0		ng/L		112	60 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	45.6		ng/L		114	60 - 135	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	44.1		ng/L		110	60 - 135	2	30
Perfluorododecanoic acid (PFDoA)	40.0	42.3		ng/L		106	60 - 135	5	30
Perfluorotridecanoic acid (PFTrDA)	40.0	42.5		ng/L		106	60 - 135	2	30
Perfluorotetradecanoic acid (PFTeA)	40.0	37.1		ng/L		93	60 - 135	1	30
Perfluorobutanesulfonic acid (PFBS)	35.5	37.3		ng/L		105	60 - 135	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	45.3		ng/L		120	60 - 135	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	38.7		ng/L		106	60 - 135	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	41.2		ng/L		108	60 - 135	3	30
Perfluorooctanesulfonic acid (PFOS)	37.2	36.7		ng/L		99	60 - 135	5	30
Perfluorononanesulfonic acid (PFNS)	38.5	40.6		ng/L		105	60 - 135	7	30
Perfluorodecanesulfonic acid (PFDS)	38.6	39.1		ng/L		101	60 - 135	6	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	35.7		ng/L		92	60 - 135	4	30
Perfluorooctanesulfonamide (FOSA)	40.0	44.1		ng/L		110	60 - 135	6	30
NEtFOSA	40.0	48.2		ng/L		121	60 - 135	8	30
NMeFOSA	40.0	43.0		ng/L		108	60 - 135	4	30
NMeFOSAA	40.0	43.0		ng/L		107	60 - 135	1	30
NEtFOSAA	40.0	41.6		ng/L		104	60 - 135	7	30
NMeFOSE	40.0	43.2		ng/L		108	60 - 135	2	30
NEtFOSE	40.0	42.2		ng/L		105	60 - 135	6	30
4:2 FTS	37.5	44.3		ng/L		118	60 - 135	2	30
6:2 FTS	38.1	42.6		ng/L		112	60 - 135	5	30
8:2 FTS	38.4	41.1		ng/L		107	60 - 135	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	50.2		ng/L		133	60 - 135	0	30
HFPO-DA (GenX)	40.0	42.1		ng/L		105	60 - 135	2	30

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCSD 320-669872/3-A**  
**Matrix: Water**  
**Analysis Batch: 670228**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 669872**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9CI-PF3ONS	37.4	42.2		ng/L		113	60 - 135	4	30
11CI-PF3OUdS	37.8	44.4		ng/L		117	60 - 135	0	30
<b>LCSD LCSD</b>									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C4 PFBA	102		25 - 150						
13C5 PFPeA	98		25 - 150						
13C2 PFHxA	97		25 - 150						
13C4 PFHpA	106		25 - 150						
13C4 PFOA	102		25 - 150						
13C5 PFNA	97		25 - 150						
13C2 PFDA	109		25 - 150						
13C2 PFUnA	98		25 - 150						
13C2 PFDoA	102		25 - 150						
13C2 PFTeDA	106		25 - 150						
13C3 PFBS	90		25 - 150						
18O2 PFHxS	93		25 - 150						
13C4 PFOS	91		25 - 150						
13C8 FOSA	90		10 - 150						
d3-NMeFOSAA	93		25 - 150						
d5-NEtFOSAA	96		25 - 150						
d-N-MeFOSA-M	79		10 - 150						
d-N-EtFOSA-M	71		10 - 150						
d7-N-MeFOSE-M	87		10 - 150						
d9-N-EtFOSE-M	88		10 - 150						
M2-4:2 FTS	98		25 - 150						
M2-6:2 FTS	96		25 - 150						
M2-8:2 FTS	102		25 - 150						
13C3 HFPO-DA	91		25 - 150						
13C2 10:2 FTS	102		25 - 150						

**Lab Sample ID: MB 320-673237/1-A**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorotridecanoic acid (PFTTrDA)	<0.021		0.20	0.021	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		05/09/23 05:07	05/11/23 08:11	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-673237/1-A**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
9CI-PF3ONS	<0.035		0.20	0.035	ug/Kg		05/09/23 05:07	05/11/23 08:11	1
11CI-PF3OUdS	<0.031		0.20	0.031	ug/Kg		05/09/23 05:07	05/11/23 08:11	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C5 PFPeA	97		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C2 PFHxA	99		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C4 PFHpA	108		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C4 PFOA	97		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C5 PFNA	104		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C2 PFDA	101		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C2 PFUnA	100		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C2 PFDoA	92		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C2 PFTeDA	106		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C3 PFBS	96		25 - 150	05/09/23 05:07	05/11/23 08:11	1
18O2 PFHxS	97		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C4 PFOS	105		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C8 FOSA	111		10 - 150	05/09/23 05:07	05/11/23 08:11	1
d3-NMeFOSAA	132		25 - 150	05/09/23 05:07	05/11/23 08:11	1
d5-NEtFOSAA	134		25 - 150	05/09/23 05:07	05/11/23 08:11	1
d-N-MeFOSA-M	63		10 - 150	05/09/23 05:07	05/11/23 08:11	1
d-N-EtFOSA-M	58		10 - 150	05/09/23 05:07	05/11/23 08:11	1
d7-N-MeFOSE-M	88		10 - 150	05/09/23 05:07	05/11/23 08:11	1
d9-N-EtFOSE-M	85		10 - 150	05/09/23 05:07	05/11/23 08:11	1
M2-4:2 FTS	68		25 - 150	05/09/23 05:07	05/11/23 08:11	1
M2-6:2 FTS	63		25 - 150	05/09/23 05:07	05/11/23 08:11	1
M2-8:2 FTS	73		25 - 150	05/09/23 05:07	05/11/23 08:11	1
13C3 HFPO-DA	100		25 - 150	05/09/23 05:07	05/11/23 08:11	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-673237/1-A**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 10:2 FTS	81		25 - 150	05/09/23 05:07	05/11/23 08:11	1

**Lab Sample ID: LCS 320-673237/2-A**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	2.00	2.09		ug/Kg		105	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	2.40		ug/Kg		120	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.20		ug/Kg		110	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.24		ug/Kg		112	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.22		ug/Kg		111	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.31		ug/Kg		115	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.04		ug/Kg		102	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.22		ug/Kg		111	60 - 135
Perfluorotridecanoic acid (PFTrDA)	2.00	2.39		ug/Kg		119	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	1.91		ug/Kg		96	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.96		ug/Kg		110	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.15		ug/Kg		114	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	2.02		ug/Kg		111	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.03		ug/Kg		106	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.94		ug/Kg		104	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	2.18		ug/Kg		113	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	2.13		ug/Kg		110	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.17		ug/Kg		112	60 - 135
Perfluorooctanesulfonamide (FOSA)	2.00	2.20		ug/Kg		110	60 - 135
NEtFOSA	2.00	2.07		ug/Kg		104	60 - 135
NMeFOSA	2.00	1.81		ug/Kg		90	60 - 135
NMeFOSAA	2.00	2.10		ug/Kg		105	60 - 135
NEtFOSAA	2.00	2.18		ug/Kg		109	60 - 135
NMeFOSE	2.00	2.10		ug/Kg		105	60 - 135
NEtFOSE	2.00	2.26		ug/Kg		113	60 - 135
4:2 FTS	1.88	2.24		ug/Kg		119	60 - 135
6:2 FTS	1.90	2.12		ug/Kg		112	60 - 135
8:2 FTS	1.92	2.18		ug/Kg		113	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	2.22		ug/Kg		117	60 - 135
HFPO-DA (GenX)	2.00	2.03		ug/Kg		102	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCS 320-673237/2-A**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
9CI-PF3ONS	1.87	2.17		ug/Kg		116	60 - 135
11CI-PF3OUdS	1.89	2.16		ug/Kg		114	60 - 135
		LCS %Recovery	LCS Qualifier	Limits			
<i>13C4 PFBA</i>		105		25 - 150			
<i>13C5 PFPeA</i>		103		25 - 150			
<i>13C2 PFHxA</i>		100		25 - 150			
<i>13C4 PFHpA</i>		113		25 - 150			
<i>13C4 PFOA</i>		105		25 - 150			
<i>13C5 PFNA</i>		104		25 - 150			
<i>13C2 PFDA</i>		108		25 - 150			
<i>13C2 PFUnA</i>		113		25 - 150			
<i>13C2 PFDoA</i>		113		25 - 150			
<i>13C2 PFTeDA</i>		122		25 - 150			
<i>13C3 PFBS</i>		104		25 - 150			
<i>18O2 PFHxS</i>		105		25 - 150			
<i>13C4 PFOS</i>		111		25 - 150			
<i>13C8 FOSA</i>		133		10 - 150			
<i>d3-NMeFOSAA</i>		143		25 - 150			
<i>d5-NEtFOSAA</i>		146		25 - 150			
<i>d-N-MeFOSA-M</i>		90		10 - 150			
<i>d-N-EtFOSA-M</i>		82		10 - 150			
<i>d7-N-MeFOSE-M</i>		104		10 - 150			
<i>d9-N-EtFOSE-M</i>		104		10 - 150			
<i>M2-4:2 FTS</i>		70		25 - 150			
<i>M2-6:2 FTS</i>		74		25 - 150			
<i>M2-8:2 FTS</i>		82		25 - 150			
<i>13C3 HFPO-DA</i>		103		25 - 150			
<i>13C2 10:2 FTS</i>		98		25 - 150			

**Lab Sample ID: 500-232605-39 MS**  
**Matrix: Solid**  
**Analysis Batch: 673652**

**Client Sample ID: B-19 (2')**  
**Prep Type: Total/NA**  
**Prep Batch: 673237**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.087	J	2.28	2.60		ug/Kg	⊛	110	70 - 130
Perfluoropentanoic acid (PFPeA)	0.26		2.28	2.64		ug/Kg	⊛	104	70 - 130
Perfluorohexanoic acid (PFHxA)	0.58		2.28	3.08		ug/Kg	⊛	110	70 - 130
Perfluoroheptanoic acid (PFHpA)	0.38		2.28	2.72		ug/Kg	⊛	103	70 - 130
Perfluorooctanoic acid (PFOA)	2.2		2.28	4.29		ug/Kg	⊛	91	70 - 130
Perfluorononanoic acid (PFNA)	0.22	J	2.28	2.66		ug/Kg	⊛	107	70 - 130
Perfluorodecanoic acid (PFDA)	<0.055		2.28	2.40		ug/Kg	⊛	105	70 - 130
Perfluoroundecanoic acid (PFUnA)	<0.048		2.28	2.39		ug/Kg	⊛	105	70 - 130
Perfluorododecanoic acid (PFDoA)	<0.034		2.28	2.51		ug/Kg	⊛	110	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<0.024		2.28	2.64		ug/Kg	⊛	115	70 - 130
Perfluorotetradecanoic acid (PFTeA)	<0.042		2.28	2.28		ug/Kg	⊛	100	70 - 130

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: 500-232605-39 MS**

**Matrix: Solid**

**Analysis Batch: 673652**

**Client Sample ID: B-19 (2')**

**Prep Type: Total/NA**

**Prep Batch: 673237**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	0.054	J	2.03	2.25		ug/Kg	☼	108	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	0.089	J	2.15	2.46		ug/Kg	☼	111	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	4.1	F1	2.08	6.36		ug/Kg	☼	106	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	0.096	J	2.18	2.42		ug/Kg	☼	107	70 - 130
Perfluorooctanesulfonic acid (PFOS)	11		2.12	12.3	4	ug/Kg	☼	79	70 - 130
Perfluorononanesulfonic acid (PFNS)	<0.033		2.20	2.07		ug/Kg	☼	94	70 - 130
Perfluorodecanesulfonic acid (PFDS)	<0.059		2.20	1.95		ug/Kg	☼	89	70 - 130
Perfluorododecanesulfonic acid (PFDoS)	<0.054		2.21	2.01		ug/Kg	☼	91	70 - 130
Perfluorooctanesulfonamide (FOSA)	0.090	J	2.28	2.53		ug/Kg	☼	107	70 - 130
NEtFOSA	<0.054		2.28	2.36		ug/Kg	☼	103	70 - 130
NMeFOSA	<0.056		2.28	2.26		ug/Kg	☼	99	70 - 130
NMeFOSAA	<0.026		2.28	2.41		ug/Kg	☼	106	70 - 130
NEtFOSAA	<0.055		2.28	2.35		ug/Kg	☼	103	70 - 130
NMeFOSE	<0.054		2.28	2.31		ug/Kg	☼	101	70 - 130
NEtFOSE	<0.032		2.28	2.59		ug/Kg	☼	114	70 - 130
4:2 FTS	<0.058		2.14	2.55		ug/Kg	☼	119	70 - 130
6:2 FTS	<0.031		2.17	2.44		ug/Kg	☼	112	70 - 130
8:2 FTS	0.86		2.19	3.22		ug/Kg	☼	108	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		2.15	2.58		ug/Kg	☼	120	70 - 130
HFPO-DA (GenX)	<0.047		2.28	2.37		ug/Kg	☼	104	70 - 130
9CI-PF3ONS	<0.040		2.13	2.31		ug/Kg	☼	108	70 - 130
11CI-PF3OUdS	<0.035		2.15	1.92		ug/Kg	☼	89	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C4 PFBA	97		25 - 150
13C5 PFPeA	91		25 - 150
13C2 PFHxA	92		25 - 150
13C4 PFHpA	99		25 - 150
13C4 PFOA	96		25 - 150
13C5 PFNA	93		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	83		25 - 150
13C2 PFDoA	80		25 - 150
13C2 PFTeDA	85		25 - 150
13C3 PFBS	91		25 - 150
18O2 PFHxS	92		25 - 150
13C4 PFOS	92		25 - 150
13C8 FOSA	102		10 - 150
d3-NMeFOSAA	87		25 - 150
d5-NEtFOSAA	85		25 - 150
d-N-MeFOSA-M	76		10 - 150

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: 500-232605-39 MS**

**Matrix: Solid**

**Analysis Batch: 673652**

**Client Sample ID: B-19 (2')**

**Prep Type: Total/NA**

**Prep Batch: 673237**

<i>Isotope Dilution</i>	<i>MS %Recovery</i>	<i>MS Qualifier</i>	<i>Limits</i>
<i>d-N-EtFOSA-M</i>	77		10 - 150
<i>d7-N-MeFOSE-M</i>	84		10 - 150
<i>d9-N-EtFOSE-M</i>	82		10 - 150
<i>M2-4:2 FTS</i>	56		25 - 150
<i>M2-6:2 FTS</i>	60		25 - 150
<i>M2-8:2 FTS</i>	60		25 - 150
<i>13C3 HFPO-DA</i>	94		25 - 150
<i>13C2 10:2 FTS</i>	67		25 - 150

**Lab Sample ID: 500-232605-39 MSD**

**Matrix: Solid**

**Analysis Batch: 673652**

**Client Sample ID: B-19 (2')**

**Prep Type: Total/NA**

**Prep Batch: 673237**

<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MSD Result</b>	<b>MSD Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
Perfluorobutanoic acid (PFBA)	0.087	J	2.30	2.67		ug/Kg	⊛	112	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	0.26		2.30	2.86		ug/Kg	⊛	113	70 - 130	8	30
Perfluorohexanoic acid (PFHxA)	0.58		2.30	3.10		ug/Kg	⊛	110	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	0.38		2.30	2.97		ug/Kg	⊛	113	70 - 130	9	30
Perfluorooctanoic acid (PFOA)	2.2		2.30	4.07		ug/Kg	⊛	81	70 - 130	5	30
Perfluorononanoic acid (PFNA)	0.22	J	2.30	2.81		ug/Kg	⊛	113	70 - 130	6	30
Perfluorodecanoic acid (PFDA)	<0.055		2.30	2.70		ug/Kg	⊛	117	70 - 130	12	30
Perfluoroundecanoic acid (PFUnA)	<0.048		2.30	2.54		ug/Kg	⊛	111	70 - 130	6	30
Perfluorododecanoic acid (PFDoA)	<0.034		2.30	2.79		ug/Kg	⊛	121	70 - 130	11	30
Perfluorotridecanoic acid (PFTrDA)	<0.024		2.30	2.75		ug/Kg	⊛	120	70 - 130	4	30
Perfluorotetradecanoic acid (PFTeA)	<0.042		2.30	2.39		ug/Kg	⊛	104	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	0.054	J	2.04	2.28		ug/Kg	⊛	109	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	0.089	J	2.16	2.59		ug/Kg	⊛	116	70 - 130	5	30
Perfluorohexanesulfonic acid (PFHxS)	4.1	F1	2.10	5.44	F1	ug/Kg	⊛	62	70 - 130	16	30
Perfluoroheptanesulfonic acid (PFHpS)	0.096	J	2.19	2.35		ug/Kg	⊛	103	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	11		2.14	10.9	4	ug/Kg	⊛	15	70 - 130	12	30
Perfluorononanesulfonic acid (PFNS)	<0.033		2.21	2.14		ug/Kg	⊛	97	70 - 130	4	30
Perfluorodecanesulfonic acid (PFDS)	<0.059		2.22	2.04		ug/Kg	⊛	92	70 - 130	5	30
Perfluorododecanesulfonic acid (PFDoS)	<0.054		2.23	2.05		ug/Kg	⊛	92	70 - 130	2	30
Perfluorooctanesulfonamide (FOSA)	0.090	J	2.30	2.78		ug/Kg	⊛	117	70 - 130	9	30
NEtFOSA	<0.054		2.30	2.56		ug/Kg	⊛	111	70 - 130	8	30
NMeFOSA	<0.056		2.30	2.32		ug/Kg	⊛	101	70 - 130	3	30
NMeFOSAA	<0.026		2.30	2.71		ug/Kg	⊛	118	70 - 130	12	30
NEtFOSAA	<0.055		2.30	2.55		ug/Kg	⊛	111	70 - 130	8	30
NMeFOSE	<0.054		2.30	2.59		ug/Kg	⊛	113	70 - 130	11	30

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

Lab Sample ID: 500-232605-39 MSD

Matrix: Solid

Analysis Batch: 673652

Client Sample ID: B-19 (2')

Prep Type: Total/NA

Prep Batch: 673237

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
NETFOSE	<0.032		2.30	2.56		ug/Kg	⊛	111	70 - 130	1	30
4:2 FTS	<0.058		2.16	2.56		ug/Kg	⊛	118	70 - 130	0	30
6:2 FTS	<0.031		2.19	2.67		ug/Kg	⊛	122	70 - 130	9	30
8:2 FTS	0.86		2.21	3.43		ug/Kg	⊛	116	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.044		2.17	2.54		ug/Kg	⊛	117	70 - 130	2	30
HFPO-DA (GenX)	<0.047		2.30	2.49		ug/Kg	⊛	108	70 - 130	5	30
9CI-PF3ONS	<0.040		2.15	2.35		ug/Kg	⊛	109	70 - 130	2	30
11CI-PF3OUdS	<0.035		2.17	2.07		ug/Kg	⊛	95	70 - 130	8	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C4 PFBA	101		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	99		25 - 150
13C4 PFHpA	102		25 - 150
13C4 PFOA	102		25 - 150
13C5 PFNA	99		25 - 150
13C2 PFDA	96		25 - 150
13C2 PFUnA	92		25 - 150
13C2 PFDoA	89		25 - 150
13C2 PFTeDA	95		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	107		25 - 150
13C8 FOSA	102		10 - 150
d3-NMeFOSAA	101		25 - 150
d5-NEtFOSAA	108		25 - 150
d-N-MeFOSA-M	85		10 - 150
d-N-EtFOSA-M	78		10 - 150
d7-N-MeFOSE-M	84		10 - 150
d9-N-EtFOSE-M	85		10 - 150
M2-4:2 FTS	63		25 - 150
M2-6:2 FTS	63		25 - 150
M2-8:2 FTS	67		25 - 150
13C3 HFPO-DA	99		25 - 150
13C2 10:2 FTS	78		25 - 150

Lab Sample ID: MB 320-673238/1-A

Matrix: Solid

Analysis Batch: 673658

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 673238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		05/09/23 05:14	05/11/23 12:15	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-673238/1-A**  
**Matrix: Solid**  
**Analysis Batch: 673658**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 673238**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorotridecanoic acid (PFTrDA)	<0.021		0.20	0.021	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
9Cl-PF3ONS	<0.035		0.20	0.035	ug/Kg		05/09/23 05:14	05/11/23 12:15	1
11Cl-PF3OUdS	<0.031		0.20	0.031	ug/Kg		05/09/23 05:14	05/11/23 12:15	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C5 PFPeA	96		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 PFHxA	97		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C4 PFHpA	103		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C4 PFOA	93		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C5 PFNA	99		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 PFDA	97		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 PFUnA	102		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 PFDoA	100		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 PFTeDA	101		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C3 PFBS	96		25 - 150	05/09/23 05:14	05/11/23 12:15	1
18O2 PFHxS	94		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C4 PFOS	101		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C8 FOSA	112		10 - 150	05/09/23 05:14	05/11/23 12:15	1
d3-NMeFOSAA	126		25 - 150	05/09/23 05:14	05/11/23 12:15	1
d5-NEtFOSAA	125		25 - 150	05/09/23 05:14	05/11/23 12:15	1
d-N-MeFOSA-M	81		10 - 150	05/09/23 05:14	05/11/23 12:15	1
d-N-EtFOSA-M	77		10 - 150	05/09/23 05:14	05/11/23 12:15	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: MB 320-673238/1-A**  
**Matrix: Solid**  
**Analysis Batch: 673658**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 673238**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d7-N-MeFOSE-M	96		10 - 150	05/09/23 05:14	05/11/23 12:15	1
d9-N-EtFOSE-M	88		10 - 150	05/09/23 05:14	05/11/23 12:15	1
M2-4:2 FTS	67		25 - 150	05/09/23 05:14	05/11/23 12:15	1
M2-6:2 FTS	63		25 - 150	05/09/23 05:14	05/11/23 12:15	1
M2-8:2 FTS	74		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C3 HFPO-DA	96		25 - 150	05/09/23 05:14	05/11/23 12:15	1
13C2 10:2 FTS	92		25 - 150	05/09/23 05:14	05/11/23 12:15	1

**Lab Sample ID: LCS 320-673238/2-A**  
**Matrix: Solid**  
**Analysis Batch: 673658**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 673238**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Perfluorobutanoic acid (PFBA)	2.00	2.22		ug/Kg		111	60 - 135
Perfluoropentanoic acid (PFPeA)	2.00	2.27		ug/Kg		113	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	2.34		ug/Kg		117	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.21		ug/Kg		111	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.17		ug/Kg		109	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.20		ug/Kg		110	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.22		ug/Kg		111	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.16		ug/Kg		108	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.23		ug/Kg		112	60 - 135
Perfluorotridecanoic acid (PFTrDA)	2.00	2.37		ug/Kg		119	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	2.05		ug/Kg		103	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	2.08		ug/Kg		117	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.20		ug/Kg		117	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	2.01		ug/Kg		110	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.04		ug/Kg		107	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.95		ug/Kg		105	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	2.03		ug/Kg		106	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	1.92		ug/Kg		100	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.83		ug/Kg		94	60 - 135
Perfluorooctanesulfonamide (FOSA)	2.00	2.24		ug/Kg		112	60 - 135
NEtFOSA	2.00	2.18		ug/Kg		109	60 - 135
NMeFOSA	2.00	2.06		ug/Kg		103	60 - 135
NMeFOSAA	2.00	2.26		ug/Kg		113	60 - 135
NEtFOSAA	2.00	2.12		ug/Kg		106	60 - 135
NMeFOSE	2.00	2.11		ug/Kg		106	60 - 135
NEtFOSE	2.00	2.22		ug/Kg		111	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Lab Sample ID: LCS 320-673238/2-A**  
**Matrix: Solid**  
**Analysis Batch: 673658**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 673238**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4:2 FTS	1.88	2.37		ug/Kg		126	60 - 135
6:2 FTS	1.90	2.10		ug/Kg		111	60 - 135
8:2 FTS	1.92	2.05		ug/Kg		107	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	2.38		ug/Kg		126	60 - 135
HFPO-DA (GenX)	2.00	2.27		ug/Kg		113	60 - 135
9CI-PF3ONS	1.87	2.18		ug/Kg		117	60 - 135
11CI-PF3OUdS	1.89	1.84		ug/Kg		97	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	108		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	102		25 - 150
13C4 PFHpA	110		25 - 150
13C4 PFOA	105		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	101		25 - 150
13C2 PFUnA	95		25 - 150
13C2 PFDoA	94		25 - 150
13C2 PFTeDA	101		25 - 150
13C3 PFBS	102		25 - 150
18O2 PFHxS	101		25 - 150
13C4 PFOS	103		25 - 150
13C8 FOSA	110		10 - 150
d3-NMeFOSAA	116		25 - 150
d5-NEtFOSAA	121		25 - 150
d-N-MeFOSA-M	84		10 - 150
d-N-EtFOSA-M	78		10 - 150
d7-N-MeFOSE-M	90		10 - 150
d9-N-EtFOSE-M	90		10 - 150
M2-4:2 FTS	69		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	75		25 - 150
13C3 HFPO-DA	99		25 - 150
13C2 10:2 FTS	76		25 - 150

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-11 (10')**

**Date Collected: 04/18/23 09:45**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-11 (10')**

**Date Collected: 04/18/23 09:45**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-23**

**Matrix: Solid**

**Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 01:24
Total/NA	Prep	SHAKE	DL		669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)	DL	5	670560	K1S	EET SAC	04/26/23 14:28

**Client Sample ID: B-12 (3')**

**Date Collected: 04/18/23 10:20**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-12 (3')**

**Date Collected: 04/18/23 10:20**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-24**

**Matrix: Solid**

**Percent Solids: 87.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 01:35
Total/NA	Prep	SHAKE	DL		669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)	DL	5	671783	RS1	EET SAC	05/03/23 00:38

**Client Sample ID: B-12 (11')**

**Date Collected: 04/18/23 10:30**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-25**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-12 (11')**

**Date Collected: 04/18/23 10:30**

**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-25**

**Matrix: Solid**

**Percent Solids: 94.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			669862	FX	EET SAC	04/23/23 19:00
Total/NA	Analysis	537 (modified)		1	670113	RS1	EET SAC	04/26/23 01:46

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-13 (3')**  
**Date Collected: 04/18/23 10:55**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-26**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-13 (3')**  
**Date Collected: 04/18/23 10:55**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-26**  
**Matrix: Solid**  
**Percent Solids: 83.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	50	673927	K1S	EET SAC	05/11/23 19:45
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	674357	D1R	EET SAC	05/12/23 18:32

**Client Sample ID: B-13 (10')**  
**Date Collected: 04/18/23 11:05**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-27**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-13 (10')**  
**Date Collected: 04/18/23 11:05**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-27**  
**Matrix: Solid**  
**Percent Solids: 86.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 08:41
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	5	673927	K1S	EET SAC	05/11/23 18:13

**Client Sample ID: B-14 (2')**  
**Date Collected: 04/18/23 11:15**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-28**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-14 (2')**  
**Date Collected: 04/18/23 11:15**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-28**  
**Matrix: Solid**  
**Percent Solids: 87.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 08:51
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	10	673927	K1S	EET SAC	05/11/23 19:04

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-14 (10')**  
Date Collected: 04/18/23 11:35  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-29**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-14 (10')**  
Date Collected: 04/18/23 11:35  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-29**  
Matrix: Solid  
Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 09:01
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	5	673927	K1S	EET SAC	05/11/23 18:23

**Client Sample ID: B-15 (2')**  
Date Collected: 04/18/23 12:45  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-30**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-15 (2')**  
Date Collected: 04/18/23 12:45  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-30**  
Matrix: Solid  
Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 09:12

**Client Sample ID: B-15 (10')**  
Date Collected: 04/18/23 12:55  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-31**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-15 (10')**  
Date Collected: 04/18/23 12:55  
Date Received: 04/21/23 09:35

**Lab Sample ID: 500-232605-31**  
Matrix: Solid  
Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 09:22
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	5	673927	K1S	EET SAC	05/11/23 18:33

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-16 (2')**  
**Date Collected: 04/18/23 13:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-32**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-16 (2')**  
**Date Collected: 04/18/23 13:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-32**  
**Matrix: Solid**  
**Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 09:32

**Client Sample ID: B-16 (10')**  
**Date Collected: 04/18/23 13:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-33**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-16 (10')**  
**Date Collected: 04/18/23 13:40**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-33**  
**Matrix: Solid**  
**Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 09:42

**Client Sample ID: B-17 (2')**  
**Date Collected: 04/18/23 13:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-34**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

**Client Sample ID: B-17 (2')**  
**Date Collected: 04/18/23 13:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-34**  
**Matrix: Solid**  
**Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 10:13

**Client Sample ID: B-17 (9')**  
**Date Collected: 04/18/23 13:55**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-35**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

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# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-17 (9')

Date Collected: 04/18/23 13:55

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-35

Matrix: Solid

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 10:23
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	20	673927	K1S	EET SAC	05/11/23 19:34

## Client Sample ID: B-18 (3')

Date Collected: 04/18/23 14:05

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-36

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

## Client Sample ID: B-18 (3')

Date Collected: 04/18/23 14:05

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-36

Matrix: Solid

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 10:33
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	10	673927	K1S	EET SAC	05/11/23 19:14

## Client Sample ID: B-18 (8')

Date Collected: 04/18/23 14:10

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-37

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

## Client Sample ID: B-18 (8')

Date Collected: 04/18/23 14:10

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-37

Matrix: Solid

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 10:43
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		50	673927	K1S	EET SAC	05/11/23 19:55

## Client Sample ID: B-18 (16')

Date Collected: 04/18/23 14:15

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-38

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: B-18 (16')

Date Collected: 04/18/23 14:15

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-38

Matrix: Solid

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 10:53
Total/NA	Prep	SHAKE	DL		673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)	DL	10	673927	K1S	EET SAC	05/11/23 19:24

## Client Sample ID: B-19 (2')

Date Collected: 04/18/23 14:35

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-39

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670023	H1Z	EET SAC	04/25/23 13:02

## Client Sample ID: B-19 (2')

Date Collected: 04/18/23 14:35

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-39

Matrix: Solid

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673237	EJR	EET SAC	05/09/23 05:07
Total/NA	Analysis	537 (modified)		1	673652	K1S	EET SAC	05/11/23 11:03

## Client Sample ID: B-19 (5.5')

Date Collected: 04/18/23 14:45

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-40

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

## Client Sample ID: B-19 (5.5')

Date Collected: 04/18/23 14:45

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-40

Matrix: Solid

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 12:35
Total/NA	Prep	SHAKE	DL		673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)	DL	5	674357	D1R	EET SAC	05/12/23 19:03

## Client Sample ID: B-20 (3')

Date Collected: 04/18/23 15:00

Date Received: 04/21/23 09:35

## Lab Sample ID: 500-232605-41

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51



# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-20 (3')**  
**Date Collected: 04/18/23 15:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-41**  
**Matrix: Solid**  
**Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 12:45

**Client Sample ID: B-20 (10')**  
**Date Collected: 04/18/23 15:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-42**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

**Client Sample ID: B-20 (10')**  
**Date Collected: 04/18/23 15:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-42**  
**Matrix: Solid**  
**Percent Solids: 87.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 12:55

**Client Sample ID: B-21 (2')**  
**Date Collected: 04/19/23 08:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-43**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

**Client Sample ID: B-21 (2')**  
**Date Collected: 04/19/23 08:10**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-43**  
**Matrix: Solid**  
**Percent Solids: 74.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 13:06

**Client Sample ID: B-21 (9')**  
**Date Collected: 04/19/23 08:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-44**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-21 (9')**  
**Date Collected: 04/19/23 08:20**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-44**  
**Matrix: Solid**  
**Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 13:16

**Client Sample ID: B-22 (2')**  
**Date Collected: 04/19/23 08:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-45**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

**Client Sample ID: B-22 (2')**  
**Date Collected: 04/19/23 08:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-45**  
**Matrix: Solid**  
**Percent Solids: 78.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 13:26

**Client Sample ID: B-22 (10')**  
**Date Collected: 04/19/23 08:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-46**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

**Client Sample ID: B-22 (10')**  
**Date Collected: 04/19/23 08:50**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-46**  
**Matrix: Solid**  
**Percent Solids: 76.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 13:36

**Client Sample ID: B-23 (2')**  
**Date Collected: 04/19/23 11:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-47**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Client Sample ID: B-23 (2')**  
**Date Collected: 04/19/23 11:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-47**  
**Matrix: Solid**  
**Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 13:46
Total/NA	Prep	SHAKE	DL		673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)	DL	50	674357	D1R	EET SAC	05/12/23 19:23

**Client Sample ID: B-23 (10')**  
**Date Collected: 04/19/23 11:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-48**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670134	H1Z	EET SAC	04/25/23 16:51

**Client Sample ID: B-23 (10')**  
**Date Collected: 04/19/23 11:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-48**  
**Matrix: Solid**  
**Percent Solids: 80.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 14:18

**Client Sample ID: Equipment Blank**  
**Date Collected: 04/18/23 08:00**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-51**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			669872	EJR	EET SAC	04/25/23 06:45
Total/NA	Analysis	537 (modified)		1	670371	S1M	EET SAC	04/27/23 13:26

**Client Sample ID: Equipment Blank #2**  
**Date Collected: 04/19/23 07:45**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-52**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			669872	EJR	EET SAC	04/25/23 06:45
Total/NA	Analysis	537 (modified)		1	670371	S1M	EET SAC	04/27/23 13:36

**Client Sample ID: Field Blank**  
**Date Collected: 04/18/23 07:30**  
**Date Received: 04/21/23 09:35**

**Lab Sample ID: 500-232605-53**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			669872	EJR	EET SAC	04/25/23 06:45
Total/NA	Analysis	537 (modified)		1	670371	S1M	EET SAC	04/27/23 13:46

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Client Sample ID: FD-1

Date Collected: 04/18/23 00:00

Date Received: 04/21/23 09:35

Lab Sample ID: 500-232605-54

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670534	H1Z	EET SAC	04/27/23 11:33

## Client Sample ID: FD-1

Date Collected: 04/18/23 00:00

Date Received: 04/21/23 09:35

Lab Sample ID: 500-232605-54

Matrix: Solid

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 14:28
Total/NA	Prep	SHAKE	DL		673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)	DL	5	674357	D1R	EET SAC	05/12/23 19:13

## Client Sample ID: FD-2

Date Collected: 04/18/23 00:00

Date Received: 04/21/23 09:35

Lab Sample ID: 500-232605-55

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	670534	H1Z	EET SAC	04/27/23 11:33

## Client Sample ID: FD-2

Date Collected: 04/18/23 00:00

Date Received: 04/21/23 09:35

Lab Sample ID: 500-232605-55

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			673238	EJR	EET SAC	05/09/23 05:14
Total/NA	Analysis	537 (modified)		1	673658	K1S	EET SAC	05/11/23 14:38

### Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

# Accreditation/Certification Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23

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**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Fredrick, Sandie</u>	Carrier Tracking No(s):	COC No: <u>500-112053-46443 1</u>	
Client Contact: <u>Mr. Joey Hahn</u>		Phone: <u>608-364-7997</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>	State of Origin:	Page: <u>1 of 7</u>	
Company: <u>Shannon &amp; Wilson, Inc</u>		PWSID:		Job #:			
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested:		Analysis Requested			
City: <u>Madison</u>		TAT Requested (days):		Total Number of Containers			
State, Zip: <u>WI, 53718</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes:			
Phone: <u>608-960-7215</u>		PO #: <u>Purchase Order not required</u>		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Email: <u>joey.hahn@shawn.com</u>		WO #:		M - Hexane N - None O - AsH2O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
Project Name: <u>Dane County PFAS</u>		Project #: <u>50021461</u>		Special Instructions/Note:			
Site: <u>Dane County</u>		SSOW#:		Special Instructions/Note:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/soil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFAS IDA-WI - PFAS Standard List (33 analytes)
B-1 (2.5')	4/17/23	9:45	G	Solid	X	X	
B-1 (13')		9:50		Solid	X	X	
B-2 (3')		10:10		Solid	X	X	
B-2 (12')		10:20		Solid	X	X	
B-3 (2.5')		10:50		Solid	X	X	
B-3 (13')		11:00		Solid	X	X	
B-4 (3')		11:40		Solid	X	X	
B-4 (12')		11:45		Solid	X	X	
B-5 (3')		12:10		Solid	X	X	
B-5 (13')		12:20		Solid	X	X	
B-6 (3')		14:15		Solid	X	X	
<p><b>Possible Hazard Identification</b>  <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by:</p> <p>Relinquished by: <u>Joe Hahn</u> Date: <u>4/20/23 - 13:00</u> Company: <u>SWIV FEP EX</u></p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seal No.: <u>21331A3</u> Cooler Temperature(s) °C and Other Remarks: <u>4.2</u></p>							

**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Fredrick, Sandie</u>	Carrier Tracking No(s):	COC No: <u>500-112053-46443.2</u>
Mr. Joey Hahn		Phone: <u>608-354-7999</u>		E-Mail: <u>Sandra.Fredrick@et.eurofins.com</u>	State of Origin:	Page: <u>2 of 7</u>
Shannon & Wilson, Inc		FWSID:		Job #:		
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested:		Analysis Requested		
City: <u>Madison</u>		TAT Requested (days):		Total Number of Containers		
State, Zip: <u>WI, 53718</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes:		
Phone: <u>608-960-7215</u>		Purchase Order not required		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - Ashteo2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Email: <u>joey.hahn@shanwil.com</u>		VO #:		Other:		
Project Name: <u>Dane County PFAS</u>		Project #: <u>50021461</u>		Special Instructions/Note:		
Site: <u>Dave County</u>		SSOW#:				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PF <sub>6</sub> IDA <sub>1</sub> WI - PFAS Standard List (33 analytes)
B-6 (13')	4/17/23	14:30	G	Solid		X	X	
B-7 (2')		14:45		Solid		X	X	
B-7 (13.5')		15:00		Solid		X	X	
B-8 (3')		15:25		Solid		X	X	
B-8 (8')		15:50		Solid		X	X	
B-9 (3')	4/18/23	8:30		Solid		X	X	
B-9 (13')		8:40		Solid		X	X	
B-10 (3')		8:55		Solid		X	X	
B-10 <del>sewer</del> (13')		9:00		Solid		X	X	
B-10 (17')		9:10		Solid		X	X	
B-11 (3')		9:35		Solid		X	X	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Radiological  
 Deliverable Requested, I, II, III, IV, Other (specify)

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_

Reinquired by: Joe Hahn Date/Time: 4/20/23 - 13:00 Company: SWI FEDEX  
 Reinquired by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Reinquired by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seal No.: 2188173 Cooler Temperature(s) °C and Other Remarks: HCC



**Chain of Custody Record**

<b>Client Information</b>		Sampler: <u>Joe Hahn</u>		Lab PM: <u>Frederick, Sandie</u>	Carrier Tracking No(s):	COC No: <u>500-112053-46443.3</u>
Client Contact: <u>Mr. Joey Hahn</u>		Phone: <u>608-354-7999</u>		E-Mail: <u>Sandra.Fredrick@et.eurofins.com</u>	State of Origin:	Page: <u>Page 3 of 7</u>
Company: <u>Shannon &amp; Wilson, Inc</u>		FWSID:		Job #:		
Address: <u>5325 Wall Street, Suite 2355</u>		Due Date Requested:		Analysis Requested		
City: <u>Madison</u>		TAT Requested (days):		Total Number of Containers		
State, Zip: <u>WI, 53718</u>		Compliance Project: <u>Δ Yes Δ No</u>		Preservation Codes:		
Phone: <u>608-960-7215</u>		Purchase Order not required		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsksO2 P - Na2SO3 Q - Na2SO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCA4 W - pH 4-5 Y - Trizma Z - other (specify)		
Email: <u>joey.hahn@shawnwi.com</u>		WO #:		Other:		
Project Name: <u>Dane County PFAS</u>		Project #: <u>50021461</u>		Special Instructions/Note:		
Site: <u>Dane County</u>		SSOW#:				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, As=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field IDA, WI - PFAS Standard List (33 analytes)	Special Instructions/Note
B-11 (10')	4/18/23	9:45	G	Solid	X	X		
B-12 (3')		10:20		Solid	X	X		
B-12 (11')		10:30		Solid	X	X		
B-13 (3')		10:55		Solid	X	X		
B-13 (10')		11:05		Solid	X	X		
B-14 (2')		11:15		Solid	X	X		
B-14 (10')		11:35		Solid	X	X		
B-15 (2')		12:45		Solid	X	X		
B-15 (10')		12:55		Solid	X	X		
B-16 (2')		13:30		Solid	X	X		
B-16 (10')		13:40		Solid	X	X		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: Joe Hahn Date/Time: 4/20/23-13:00 Company: SWT FEDEX

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seal No.: 2133123 Cooler Temperature(s) °C and Other Remarks: 4.2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/OC Requirements:

Method of Shipment: \_\_\_\_\_

Received by: [Signature] Date/Time: 4/20/23 9:35 Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_





# Chain of Custody Record

<b>Client Information</b>		Lab PM: Fredrick, Sandie		Carrier Tracking No(s):		COC No: 500-112053-46443.4					
Mr. Joey Hahn		E-Mail: Sandra.Fredrick@et.eurofins.com		State of Origin:		Page: Page 4 of 7					
Shannon & Wilson, Inc.		PWSID		Job #:							
Address: 5325 Wall Street, Suite 2355		Due Date Requested:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Total Number of Containers:							
City: Madison		TAT Requested (days):									
State, Zip: WI, 53718		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Phone: 608-960-7215		PO #: Purchase Order not required									
Email: joey.hahn@shawni.com		WOC #:									
Project Name: Dane County PFAS		Project #: 50021461		<b>Preservation Codes:</b> A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSC4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecanehydrate U - Acetone V - MCPAA W - pH 4-5 Y - Trizma Z - other (specify)							
Site: Dave Country		SSOW#:									
<b>Sample Identification</b>		Sample Date						Sample Time		Sample Type (C=Comp, G=grab)	
B-17 (2')		4/18/23						13:45		G	
B-17 (9')								13:55			
B-18 (3')								14:05			
B-18 (8')								14:10			
B-18 (10')								14:15			
B-19 (2')								14:35			
B-19 (5.5')								14:45			
B-20 (3')				15:00							
B-20 (10')				15:20							
B-21 (2')		4/19/23		8:10							
B-21 (9')				8:20							
<b>Possible Hazard Identification</b>		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab Archive For: _____ Months							
<b>Deliverable Requested:</b> I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Special Instructions/QC Requirements:							
Relinquished by: Joe Hahn		Date/Time: 4/20/23 - 13:00		Method of Shipment:							
Relinquished by: [Signature]		Date/Time: 4/20/23 9:55		Received by: [Signature]							
Relinquished by: [Signature]		Date/Time: [Signature]		Received by: [Signature]							
Relinquished by: [Signature]		Date/Time: [Signature]		Received by: [Signature]							
Custody Seal No.: 2133173		Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 42							

# Chain of Custody Record

<b>Client Information</b>		Lab PM: Fredrick, Sandie	Center Tracking No(s):	COC No: 500-112053-46443.5
Client Contact: Mr. Joey Hahn		E-Mail: Sandra.Fredrick@et.eurofins.com	State of Origin:	Page: 5 of 7
Company: Shannon & Wilson, Inc		Job #: _____		
Address: 5325 Wall Street, Suite 2355		Analysis Requested		
City: Madison		Total Number of Containers: _____		
State, Zip: WI, 53718		Special Instructions/Note: _____		
Phone: 608-960-7215		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____		
Email: joey.hahn@shanwil.com		Special Instructions/Note: _____		
Project Name: Dane County PFAS		Special Instructions/Note: _____		
Site: Dane County		Special Instructions/Note: _____		
Due Date Requested: _____		Special Instructions/Note: _____		
TAT Requested (days): _____		Special Instructions/Note: _____		
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Special Instructions/Note: _____		
PO #: _____		Special Instructions/Note: _____		
Purchase Order not required		Special Instructions/Note: _____		
WD #: _____		Special Instructions/Note: _____		
Project #: 50021461		Special Instructions/Note: _____		
SSOW#: _____		Special Instructions/Note: _____		
Sample Identification		Special Instructions/Note: _____		
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, BT=tissue, A=Air)
B-22 (2')	4/19/23	8:45	G	Solid
B-22 (10')		8:50		Solid
B-23 (2')		11:30		Solid
B-23 (10')		11:45		Solid
FD-1				Solid
FD-2				Solid
Equipment Blank	4/18/23	8:00	G	Water
Equipment Blank #2	4/19/23	7:45	G	Water
Field Blank	4/18/23	7:30	G	Water
Possible Hazard Identification		Special Instructions/Note: _____		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: _____		
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note: _____		
Empty Kit Relinquished by:		Special Instructions/Note: _____		
Relinquished by: Joe Hahn	Date/Time: 4/20/23-13:00	Special Instructions/Note: _____		
Relinquished by:	Date/Time:	Special Instructions/Note: _____		
Relinquished by:	Date/Time:	Special Instructions/Note: _____		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.: 2183173	Special Instructions/Note: _____		
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/Note: _____		
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months		Special Instructions/Note: _____		
Special Instructions/OC Requirements:		Special Instructions/Note: _____		
Method of Shipment:		Special Instructions/Note: _____		
Received by: Joe Hahn	Date/Time: 4/20/23 9:55	Special Instructions/Note: _____		
Received by:	Date/Time:	Special Instructions/Note: _____		
Received by:	Date/Time:	Special Instructions/Note: _____		
Cooler Temperature(s) °C and Other Remarks: H2		Special Instructions/Note: _____		

## Login Sample Receipt Checklist

Client: Shannon & Wilson, Inc

Job Number: 500-232605-2

**Login Number: 232605**

**List Number: 2**

**Creator: Oropeza, Salvador**

**List Source: Eurofins Sacramento**

**List Creation: 04/21/23 04:37 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2133173
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-232605-23	B-11 (10')	92	93	97	94	94	88	94	86
500-232605-23 - DL	B-11 (10')								
500-232605-24	B-12 (3')	78	83		77		86	81	76
500-232605-24 - DL	B-12 (3')			95		82			
500-232605-25	B-12 (11')	93	89	90	87	96	99	92	88
500-232605-25 MS	B-12 (11')	93	88	92	92	91	91	88	83
500-232605-25 MSD	B-12 (11')	89	84	85	84	85	94	81	75
500-232605-26 - DL	B-13 (3')		66	75	75	76			
500-232605-26	B-13 (3')	135					119	122	119
500-232605-27	B-13 (10')	103	103		94	88	95	90	91
500-232605-27 - DL	B-13 (10')			101					
500-232605-28	B-14 (2')	89	93	95	97		89	88	88
500-232605-28 - DL	B-14 (2')					101			
500-232605-29	B-14 (10')	108	110		106	101	105	106	104
500-232605-29 - DL	B-14 (10')			111					
500-232605-30	B-15 (2')	106	103	102	113	104	108	106	107
500-232605-31	B-15 (10')	81	84	90	92	93	84	80	75
500-232605-31 - DL	B-15 (10')								
500-232605-32	B-16 (2')	97	93	94	98	93	99	96	91
500-232605-33	B-16 (10')	86	81	84	93	93	89	89	87
500-232605-34	B-17 (2')	97	98	93	101	94	100	93	93
500-232605-35	B-17 (9')	88	88	86	94	94	70	81	73
500-232605-35 - DL	B-17 (9')					94			
500-232605-36	B-18 (3')	73	89	90	98	93	90	91	93
500-232605-36 - DL	B-18 (3')								
500-232605-37	B-18 (8')	100	97	98	109	106	82	105	101
500-232605-37	B-18 (8')								
500-232605-38	B-18 (16')	109	109	112	113	104	91	108	99
500-232605-38 - DL	B-18 (16')								
500-232605-39	B-19 (2')	98	95	92	106	97	101	93	89
500-232605-39 MS	B-19 (2')	97	91	92	99	96	93	88	83
500-232605-39 MSD	B-19 (2')	101	94	99	102	102	99	96	92
500-232605-40	B-19 (5.5')	103	98	98	105	103	106	109	109
500-232605-40 - DL	B-19 (5.5')								
500-232605-41	B-20 (3')	96	93	90	100	89	95	93	96
500-232605-42	B-20 (10')	61	59	61	63	61	61	60	57
500-232605-43	B-21 (2')	91	92	95	99	94	90	89	89
500-232605-44	B-21 (9')	94	91	92	101	93	93	84	82
500-232605-45	B-22 (2')	104	109	112	115	99	102	102	101
500-232605-46	B-22 (10')	102	106	108	104	95	97	103	105
500-232605-47	B-23 (2')	88	94	97	90		75	92	90
500-232605-47 - DL	B-23 (2')					93			
500-232605-48	B-23 (10')	93	95	94	98	94	97	93	95
500-232605-54	FD-1	106	105	117	117	107	107	111	115
500-232605-54 - DL	FD-1								
500-232605-55	FD-2	91	88	91	100	93	92	89	91
LCS 320-669862/2-A	Lab Control Sample	89	88	91	90	90	92	88	80
LCS 320-673237/2-A	Lab Control Sample	105	103	100	113	105	104	108	113
LCS 320-673238/2-A	Lab Control Sample	108	100	102	110	105	103	101	95

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
MB 320-669862/1-A	Method Blank	94	107	90	91	91	91	90	89
MB 320-673237/1-A	Method Blank	103	97	99	108	97	104	101	100
MB 320-673238/1-A	Method Blank	96	96	97	103	93	99	97	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-232605-23	B-11 (10')	89	90	85	95	92	94	92	89
500-232605-23 - DL	B-11 (10')					81			
500-232605-24	B-12 (3')	69	63	75		82	87	75	77
500-232605-24 - DL	B-12 (3')				93				
500-232605-25	B-12 (11')	89	87	90	95	102	103	96	102
500-232605-25 MS	B-12 (11')	78	84	84	91	91	94	88	84
500-232605-25 MSD	B-12 (11')	80	83	82	89	96	90	90	82
500-232605-26 - DL	B-13 (3')			65	76	62			
500-232605-26	B-13 (3')	107	112			124	120	122	126
500-232605-27	B-13 (10')	90	96	101	88	92	106	100	102
500-232605-27 - DL	B-13 (10')								
500-232605-28	B-14 (2')	82	88	92		103	96	108	108
500-232605-28 - DL	B-14 (2')				99	104			
500-232605-29	B-14 (10')	98	109	112	99	105	114	115	123
500-232605-29 - DL	B-14 (10')								
500-232605-30	B-15 (2')	97	102	100	100	107	116	132	126
500-232605-31	B-15 (10')	73	86	84		82	85	98	93
500-232605-31 - DL	B-15 (10')				99				
500-232605-32	B-16 (2')	85	90	92	90	96	101	98	99
500-232605-33	B-16 (10')	81	86	82	94	97	95	93	104
500-232605-34	B-17 (2')	83	90	90	95	94	103	99	106
500-232605-35	B-17 (9')	71	71	83		77		84	89
500-232605-35 - DL	B-17 (9')				79	83	96		
500-232605-36	B-18 (3')	91	81	88	89	103	114	112	116
500-232605-36 - DL	B-18 (3')					91			
500-232605-37	B-18 (8')	97	96	91	109	84	112	119	128
500-232605-37	B-18 (8')					118			
500-232605-38	B-18 (16')	89	90	105	104	103	115	125	120
500-232605-38 - DL	B-18 (16')					125			
500-232605-39	B-19 (2')	83	88	93	102	106	104	93	93
500-232605-39 MS	B-19 (2')	80	85	91	92	92	102	87	85
500-232605-39 MSD	B-19 (2')	89	95	97	102	107	102	101	108
500-232605-40	B-19 (5.5')	103	106	95	100	120	116	128	130
500-232605-40 - DL	B-19 (5.5')					98			
500-232605-41	B-20 (3')	86	85	89	85	95	95	100	100
500-232605-42	B-20 (10')	58	62	57	57	59	66	74	73
500-232605-43	B-21 (2')	79	75	86	96	97	91	103	105
500-232605-44	B-21 (9')	83	91	96	95	86	97	93	95
500-232605-45	B-22 (2')	92	96	105	103	98	104	113	118
500-232605-46	B-22 (10')	95	101	103	97	98	103	112	114
500-232605-47	B-23 (2')	82	91	91		78	99	94	102
500-232605-47 - DL	B-23 (2')				80	83			
500-232605-48	B-23 (10')	92	97	91	92	95	105	96	94
500-232605-54	FD-1	111	112	106		105	123	135	143

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

**Matrix: Solid**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFD <sub>o</sub> A (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-232605-54 - DL	FD-1				102				
500-232605-55	FD-2	86	88	91	93	98	103	95	102
LCS 320-669862/2-A	Lab Control Sample	81	86	86	93	101	92	88	94
LCS 320-673237/2-A	Lab Control Sample	113	122	104	105	111	133	143	146
LCS 320-673238/2-A	Lab Control Sample	94	101	102	101	103	110	116	121
MB 320-669862/1-A	Method Blank	89	94	106	81	95	99	97	98
MB 320-673237/1-A	Method Blank	92	106	96	97	105	111	132	134
MB 320-673238/1-A	Method Blank	100	101	96	94	101	112	126	125

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-232605-23	B-11 (10')	93	88	78	79	76	77	85	74
500-232605-23 - DL	B-11 (10')								
500-232605-24	B-12 (3')	83	78	69	67	62	58	73	65
500-232605-24 - DL	B-12 (3')								
500-232605-25	B-12 (11')	94	88	79	79	77	78	88	71
500-232605-25 MS	B-12 (11')	85	88	76	76	75	80	82	72
500-232605-25 MSD	B-12 (11')	87	86	73	71	74	77	85	71
500-232605-26 - DL	B-13 (3')						51		
500-232605-26	B-13 (3')	92	88	101	108	62		84	125
500-232605-27	B-13 (10')	80	81	89	91	62	59	65	91
500-232605-27 - DL	B-13 (10')								
500-232605-28	B-14 (2')	79	77	80	82	60	57	73	87
500-232605-28 - DL	B-14 (2')								
500-232605-29	B-14 (10')	99	93	97	97	72	67	74	100
500-232605-29 - DL	B-14 (10')								
500-232605-30	B-15 (2')	83	83	97	97	67	70	73	104
500-232605-31	B-15 (10')	69	65	72	66	57	60	59	83
500-232605-31 - DL	B-15 (10')								
500-232605-32	B-16 (2')	73	74	85	83	57	59	65	96
500-232605-33	B-16 (10')	65	64	79	78	55	58	63	87
500-232605-34	B-17 (2')	82	82	83	88	61	58	59	99
500-232605-35	B-17 (9')	69	62	71	72	50	49		87
500-232605-35 - DL	B-17 (9')							51	
500-232605-36	B-18 (3')	108	102	79	83	58	65	77	90
500-232605-36 - DL	B-18 (3')								
500-232605-37	B-18 (8')	79	78	96	95	61	70	81	100
500-232605-37	B-18 (8')							81	
500-232605-38	B-18 (16')	77	77	91	88	73	70	88	106
500-232605-38 - DL	B-18 (16')							83	
500-232605-39	B-19 (2')	77	76	86	86	62	61	62	97
500-232605-39 MS	B-19 (2')	76	77	84	82	56	60	60	94
500-232605-39 MSD	B-19 (2')	85	78	84	85	63	63	67	99
500-232605-40	B-19 (5.5')	83	81	91	95	64	62	78	104
500-232605-40 - DL	B-19 (5.5')								
500-232605-41	B-20 (3')	87	84	83	85	58	59	68	92
500-232605-42	B-20 (10')	43	43	57	58	37	38	44	62
500-232605-43	B-21 (2')	78	80	78	76	58	61	64	91
500-232605-44	B-21 (9')	77	75	86	87	61	59	55	97
500-232605-45	B-22 (2')	79	81	88	92	68	65	69	106

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-232605-46	B-22 (10')	84	86	89	91	66	62	77	104
500-232605-47	B-23 (2')	88	87	85	85	60	58	72	91
500-232605-47 - DL	B-23 (2')								
500-232605-48	B-23 (10')	75	78	86	91	62	60	60	97
500-232605-54	FD-1	95	91	99	102	69	68	73	100
500-232605-54 - DL	FD-1								
500-232605-55	FD-2	85	80	83	87	59	59	64	90
LCS 320-669862/2-A	Lab Control Sample	85	79	72	74	77	83	95	68
LCS 320-673237/2-A	Lab Control Sample	90	82	104	104	70	74	82	103
LCS 320-673238/2-A	Lab Control Sample	84	78	90	90	69	74	75	99
MB 320-669862/1-A	Method Blank	90	92	87	86	82	85	97	92
MB 320-673237/1-A	Method Blank	63	58	88	85	68	63	73	100
MB 320-673238/1-A	Method Blank	81	77	96	88	67	63	74	96

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-232605-23	B-11 (10')	66
500-232605-23 - DL	B-11 (10')	
500-232605-24	B-12 (3')	51
500-232605-24 - DL	B-12 (3')	
500-232605-25	B-12 (11')	67
500-232605-25 MS	B-12 (11')	61
500-232605-25 MSD	B-12 (11')	60
500-232605-26 - DL	B-13 (3')	
500-232605-26	B-13 (3')	105
500-232605-27	B-13 (10')	73
500-232605-27 - DL	B-13 (10')	
500-232605-28	B-14 (2')	71
500-232605-28 - DL	B-14 (2')	
500-232605-29	B-14 (10')	87
500-232605-29 - DL	B-14 (10')	
500-232605-30	B-15 (2')	87
500-232605-31	B-15 (10')	62
500-232605-31 - DL	B-15 (10')	
500-232605-32	B-16 (2')	66
500-232605-33	B-16 (10')	68
500-232605-34	B-17 (2')	69
500-232605-35	B-17 (9')	53
500-232605-35 - DL	B-17 (9')	
500-232605-36	B-18 (3')	106
500-232605-36 - DL	B-18 (3')	
500-232605-37	B-18 (8')	79
500-232605-37	B-18 (8')	
500-232605-38	B-18 (16')	78
500-232605-38 - DL	B-18 (16')	
500-232605-39	B-19 (2')	66
500-232605-39 MS	B-19 (2')	67
500-232605-39 MSD	B-19 (2')	78
500-232605-40	B-19 (5.5')	88
500-232605-40 - DL	B-19 (5.5')	

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

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

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-232605-41	B-20 (3')	70
500-232605-42	B-20 (10')	46
500-232605-43	B-21 (2')	60
500-232605-44	B-21 (9')	68
500-232605-45	B-22 (2')	72
500-232605-46	B-22 (10')	79
500-232605-47	B-23 (2')	68
500-232605-47 - DL	B-23 (2')	
500-232605-48	B-23 (10')	70
500-232605-54	FD-1	91
500-232605-54 - DL	FD-1	
500-232605-55	FD-2	78
LCS 320-669862/2-A	Lab Control Sample	71
LCS 320-673237/2-A	Lab Control Sample	98
LCS 320-673238/2-A	Lab Control Sample	76
MB 320-669862/1-A	Method Blank	81
MB 320-673237/1-A	Method Blank	81
MB 320-673238/1-A	Method Blank	92

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 PFDaA = 13C2 PFDaA  
 PFTDA = 13C2 PFTeDA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 PFOSA = 13C8 FOSA  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 dMeFOSA = d-N-MeFOSA-M  
 dEtFOSA = d-N-EtFOSA-M  
 NMFm = d7-N-MeFOSE-M  
 NEFM = d9-N-EtFOSE-M  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 HFPODA = 13C3 HFPO-DA  
 M102FTS = 13C2 10:2 FTS



# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-232605-2

**Method: 537 (modified) - Fluorinated Alkyl Substances**

**Matrix: Water**

**Prep Type: Total/NA**

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-232605-51	Equipment Blank	100	102	102	106	103	100	112	101
500-232605-52	Equipment Blank #2	103	107	106	106	104	104	110	101
500-232605-53	Field Blank	102	101	102	101	104	101	112	99
LCS 320-669872/2-A	Lab Control Sample	96	98	97	101	102	96	106	98
LCSD 320-669872/3-A	Lab Control Sample Dup	102	98	97	106	102	97	109	98
MB 320-669872/1-A	Method Blank	89	93	94	92	93	93	102	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-232605-51	Equipment Blank	98	107	92	91	92	97	99	99
500-232605-52	Equipment Blank #2	100	109	92	94	92	97	97	105
500-232605-53	Field Blank	97	101	93	87	89	93	97	97
LCS 320-669872/2-A	Lab Control Sample	96	100	89	91	88	83	92	96
LCSD 320-669872/3-A	Lab Control Sample Dup	102	106	90	93	91	90	93	96
MB 320-669872/1-A	Method Blank	94	93	84	85	87	87	98	96

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-232605-51	Equipment Blank	86	80	90	90	91	95	99	96
500-232605-52	Equipment Blank #2	79	71	85	89	98	93	102	103
500-232605-53	Field Blank	88	80	89	89	102	100	95	99
LCS 320-669872/2-A	Lab Control Sample	70	67	78	77	98	96	99	89
LCSD 320-669872/3-A	Lab Control Sample Dup	79	71	87	88	98	96	102	91
MB 320-669872/1-A	Method Blank	81	77	82	80	91	85	94	85

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-232605-51	Equipment Blank	104
500-232605-52	Equipment Blank #2	107
500-232605-53	Field Blank	101
LCS 320-669872/2-A	Lab Control Sample	96
LCSD 320-669872/3-A	Lab Control Sample Dup	102
MB 320-669872/1-A	Method Blank	93

#### Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDaA = 13C2 PFDaA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- PFHxS = 18O2 PFHxS
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-232605-2

d5NEFOS = d5-NEtFOSAA  
dMeFOSA = d-N-MeFOSA-M  
dEtFOSA = d-N-EtFOSA-M  
NMFM = d7-N-MeFOSE-M  
NEFM = d9-N-EtFOSE-M  
M242FTS = M2-4:2 FTS  
M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
HFPODA = 13C3 HFPO-DA  
M102FTS = 13C2 10:2 FTS

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Corey Pagels  
Shannon & Wilson, Inc  
5325 Wall Street, Suite 2355  
Madison, Wisconsin 53718

Generated 6/6/2023 9:12:00 AM

## JOB DESCRIPTION

Dane County PFAS

## JOB NUMBER

500-233239-1

# Eurofins Chicago

## Job Notes

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## Authorization



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# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Job ID: 500-233239-1**

**Laboratory: Eurofins Chicago**

## Narrative

### Job Narrative 500-233239-1

#### Receipt

The samples were received on 5/4/2023 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

#### LCMS

Method 537 (modified): Results for samples MW-2 (500-233239-2), MW-4 (500-233239-4), PZ-1 (500-233239-5) and FIELD DUPLICATE (500-233239-9) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-676252 recovered above the upper control limit for 11CI-PF3OUdS and NEtFOSE. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported: MW-1 (500-233239-1), MW-2 (500-233239-2), MW-4 (500-233239-4), PZ-1 (500-233239-5) and (CCV 320-676252/9).

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-676474 recovered above the upper control limit for 11CI-PF3OUdS and/or 4,8-Dioxa-3H-perfluorononanoic acid (ADONA). The sample associated with this CCV was non-detects for the affected analytes; therefore, the data have been reported: MW-3 (500-233239-3), (CCV 320-676474/1) and (CCV 320-676474/8).

Method 537 (modified): Results for sample MW-3 (500-233239-3) were reported from the analysis of a diluted extract due to high concentration and matrix interference of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte: MW-4 (500-233239-4).

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte: MW-1 (500-233239-1) and FIELD BLANK (500-233239-8).

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 320-674233 and analytical batch 320-677091 recovered outside control limits for the following analyte: NEtFOSE. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-677091 recovered above the upper control limit for NEtFOSE and 11CI-PF3OUdS. The sample associated with this CCV was non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TRIP BLANK (500-233239-6) and (CCV 320-677091/1).

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-677091 recovered above the upper control limit for 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) and 11CI-PF3OUdS. The samples associated with this CCV was non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TRIP BLANK (500-233239-6) and (CCV 320-677091/8).

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-674233 and analytical batch 320-677091 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 537 (modified): The low level continuing calibration verification (CCVL) associated with batch 320-677076 recovered above the upper control limit for NEtFOSE. The sample associated with this CCV was non-detect for the affected analyte; therefore, the data have been reported: TRIP BLANK (500-233239-6) and (CCVL 320-677076/2).

# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Job ID: 500-233239-1 (Continued)

### Laboratory: Eurofins Chicago (Continued)

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-677076 recovered above the upper control limit for NEtFOSE, 4,8-Dioxa-3H-perfluorononanoic acid (ADONA), 9Cl-PF3ONS and 11Cl-PF3OUdS. The sample associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TRIP BLANK (500-233239-6) and (CCVIS 320-677076/3).

Method 537 (modified): The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: MW-3 (500-233239-3). This analyte has been qualified; however, the peak did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range. The client was contacted and gave permission to report.

Method 537 (modified): The following field blank (FB) sample was re-extracted outside of holding time due to detections above the reporting limit (RL) for Perfluorohexanesulfonic acid (PFHxS) and Perfluorooctanesulfonic acid (PFOS): FIELD BLANK (500-233239-8). Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Organic Prep

Method 3535: The following sample was received in a 1L bottle: TRIP BLANK (500-233239-6). The sample was transferred into new 250 mL bottle and was used to create a matrix sample and matrix sample duplicate. After transferring into a new container, the samples were fortified with IDA and then extracted.

preparation batch 320-674233

Method: 3535\_PFC\_28D

Matrix: Aqueous

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-679359.

Method: 3535\_PFC\_28D

Matrix: Aqueous

Method 3535: The following sample was re-prepared outside of preparation holding time due to needing to confirm the sample results: FIELD BLANK (500-233239-8).

preparation batch 320-679359

Method: 3535\_PFC\_28D

Matrix: Aqueous

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Client Sample ID: MW-1

## Lab Sample ID: 500-233239-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	17		1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	53		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	30		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	100		1.8	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.5		1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.4		1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	250		1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.66	J	1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.0	I	1.8	0.49	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: MW-2

## Lab Sample ID: 500-233239-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	24		1.8	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.2	J	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	17		1.8	0.17	ng/L	1		537 (modified)	Total/NA
6:2 FTS	18		4.5	2.2	ng/L	1		537 (modified)	Total/NA
8:2 FTS	17		1.8	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	470		220	110	ng/L	50		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	1400		89	22	ng/L	50		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	2000		89	26	ng/L	50		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	670		89	11	ng/L	50		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	760		89	38	ng/L	50		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1200		89	8.9	ng/L	50		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	850		89	13	ng/L	50		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	6900		89	25	ng/L	50		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	940		89	24	ng/L	50		537 (modified)	Total/NA

## Client Sample ID: MW-3

## Lab Sample ID: 500-233239-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1100		460	220	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4600		180	45	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4800		180	53	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3200		180	23	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	17000		180	78	ng/L	100		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	130	J	180	25	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1700		180	18	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2000		180	28	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	41000	E	180	52	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	63	J	180	17	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	280		180	50	ng/L	100		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago



# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Client Sample ID: MW-4

## Lab Sample ID: 500-233239-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	310		1.8	0.25	ng/L	1		537 (modified)	Total/NA
4:2 FTS	2.1		1.8	0.22	ng/L	1		537 (modified)	Total/NA
6:2 FTS	240		4.6	2.3	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	1900		460	220	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	7900		180	45	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	11000		180	53	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	2800		180	23	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	11000		180	78	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	3700		180	18	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	2300		180	28	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	30000		180	52	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	1400		180	17	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	2400		180	50	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: PZ-1

## Lab Sample ID: 500-233239-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
6:2 FTS	300		4.7	2.4	ng/L	1		537 (modified)	Total/NA
8:2 FTS	13		1.9	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	730		470	230	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	4400		190	46	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	4700		190	55	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	2100		190	24	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	3400		190	80	ng/L	100		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA) - DL	3700		190	25	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1900		190	19	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	1900		190	28	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	14000		190	54	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	840		190	18	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	29000		190	51	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 500-233239-6

No Detections.

## Client Sample ID: EQUIPMENT BLANK

## Lab Sample ID: 500-233239-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.66	J	1.9	0.53	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: FIELD BLANK

## Lab Sample ID: 500-233239-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.52	J	1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.66	J	1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.87	J	1.8	0.78	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Client Sample ID: FIELD BLANK (Continued)

Lab Sample ID: 500-233239-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.24	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1	I	1.8	0.49	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: FIELD DUPLICATE

Lab Sample ID: 500-233239-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	25		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.2	J	1.8	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	17		1.8	0.18	ng/L	1		537 (modified)	Total/NA
6:2 FTS	17		4.6	2.3	ng/L	1		537 (modified)	Total/NA
8:2 FTS	18		1.8	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	510		230	110	ng/L	50		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	1400		92	23	ng/L	50		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	2100		92	27	ng/L	50		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	600		92	12	ng/L	50		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	700		92	39	ng/L	50		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1100		92	9.2	ng/L	50		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	860		92	14	ng/L	50		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	6400		92	26	ng/L	50		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1000		92	25	ng/L	50		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Method Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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# Sample Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-233239-1	MW-1	Water	05/02/23 11:45	05/04/23 09:40
500-233239-2	MW-2	Water	05/02/23 14:00	05/04/23 09:40
500-233239-3	MW-3	Water	05/02/23 17:20	05/04/23 09:40
500-233239-4	MW-4	Water	05/02/23 15:35	05/04/23 09:40
500-233239-5	PZ-1	Water	05/02/23 10:10	05/04/23 09:40
500-233239-6	TRIP BLANK	Water	05/02/23 00:00	05/04/23 09:40
500-233239-7	EQUIPMENT BLANK	Water	05/02/23 12:45	05/04/23 09:40
500-233239-8	FIELD BLANK	Water	05/02/23 07:30	05/04/23 09:40
500-233239-9	FIELD DUPLICATE	Water	05/02/23 00:00	05/04/23 09:40

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# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-1**  
Date Collected: 05/02/23 11:45  
Date Received: 05/04/23 09:40

**Lab Sample ID: 500-233239-1**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	10		4.6	2.2	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluoropentanoic acid (PFPeA)	17		1.8	0.45	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorohexanoic acid (PFHxA)	53		1.8	0.53	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluoroheptanoic acid (PFHpA)	30		1.8	0.23	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorooctanoic acid (PFOA)	100		1.8	0.78	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorononanoic acid (PFNA)	<0.25		1.8	0.25	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorodecanoic acid (PFDA)	<0.28		1.8	0.28	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorododecanoic acid (PFDoA)	<0.50		1.8	0.50	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorobutanesulfonic acid (PFBS)	6.5		1.8	0.18	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluoropentanesulfonic acid (PFPeS)	6.4		1.8	0.27	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorohexanesulfonic acid (PFHxS)	250		1.8	0.52	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluoroheptanesulfonic acid (PFHpS)	0.66	J	1.8	0.17	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorooctanesulfonic acid (PFOS)	9.0	I	1.8	0.49	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorodecanesulfonic acid (PFDS)	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorododecanesulfonic acid (PFDoS)	<0.89		1.8	0.89	ng/L		05/12/23 05:41	05/20/23 01:41	1
Perfluorooctanesulfonamide (FOSA)	<0.90		1.8	0.90	ng/L		05/12/23 05:41	05/20/23 01:41	1
NEtFOSA	<0.80		1.8	0.80	ng/L		05/12/23 05:41	05/20/23 01:41	1
NMeFOSA	<0.39		1.8	0.39	ng/L		05/12/23 05:41	05/20/23 01:41	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		05/12/23 05:41	05/20/23 01:41	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		05/12/23 05:41	05/20/23 01:41	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/12/23 05:41	05/20/23 01:41	1
NEtFOSE	<0.78	*+	1.8	0.78	ng/L		05/12/23 05:41	05/20/23 01:41	1
4:2 FTS	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 01:41	1
6:2 FTS	<2.3		4.6	2.3	ng/L		05/12/23 05:41	05/20/23 01:41	1
8:2 FTS	<0.42		1.8	0.42	ng/L		05/12/23 05:41	05/20/23 01:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		05/12/23 05:41	05/20/23 01:41	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		05/12/23 05:41	05/20/23 01:41	1
9CI-PF3ONS	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 01:41	1
11CI-PF3OUdS	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 01:41	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C5 PFPeA	83		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C2 PFHxA	99		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C4 PFHpA	106		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C4 PFOA	100		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C5 PFNA	83		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C2 PFDA	80		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C2 PFUnA	108		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C2 PFDoA	101		25 - 150				05/12/23 05:41	05/20/23 01:41	1
13C2 PFTeDA	84		25 - 150				05/12/23 05:41	05/20/23 01:41	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-233239-1**

**Date Collected: 05/02/23 11:45**

**Matrix: Water**

**Date Received: 05/04/23 09:40**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	92		25 - 150	05/12/23 05:41	05/20/23 01:41	1
18O2 PFHxS	104		25 - 150	05/12/23 05:41	05/20/23 01:41	1
13C4 PFOS	84		25 - 150	05/12/23 05:41	05/20/23 01:41	1
13C8 FOSA	88		10 - 150	05/12/23 05:41	05/20/23 01:41	1
d3-NMeFOSAA	91		25 - 150	05/12/23 05:41	05/20/23 01:41	1
d5-NEtFOSAA	90		25 - 150	05/12/23 05:41	05/20/23 01:41	1
d-N-MeFOSA-M	84		10 - 150	05/12/23 05:41	05/20/23 01:41	1
d-N-EtFOSA-M	84		10 - 150	05/12/23 05:41	05/20/23 01:41	1
d7-N-MeFOSE-M	76		10 - 150	05/12/23 05:41	05/20/23 01:41	1
d9-N-EtFOSE-M	70		10 - 150	05/12/23 05:41	05/20/23 01:41	1
M2-4:2 FTS	86		25 - 150	05/12/23 05:41	05/20/23 01:41	1
M2-6:2 FTS	78		25 - 150	05/12/23 05:41	05/20/23 01:41	1
M2-8:2 FTS	78		25 - 150	05/12/23 05:41	05/20/23 01:41	1
13C3 HFPO-DA	92		25 - 150	05/12/23 05:41	05/20/23 01:41	1
13C2 10:2 FTS	82		25 - 150	05/12/23 05:41	05/20/23 01:41	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-2**  
**Date Collected: 05/02/23 14:00**  
**Date Received: 05/04/23 09:40**

**Lab Sample ID: 500-233239-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	24		1.8	0.24	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorodecanoic acid (PFDA)	1.2	J	1.8	0.28	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluoroundecanoic acid (PFUnA)	<0.98		1.8	0.98	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorododecanoic acid (PFDoA)	<0.49		1.8	0.49	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorotetradecanoic acid (PFTeA)	<0.65		1.8	0.65	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluoroheptanesulfonic acid (PFHps)	17		1.8	0.17	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluoronananesulfonic acid (PFNS)	<0.33		1.8	0.33	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorodecanesulfonic acid (PFDS)	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorododecanesulfonic acid (PFDoS)	<0.87		1.8	0.87	ng/L		05/12/23 05:41	05/20/23 01:51	1
Perfluorooctanesulfonamide (FOSA)	<0.87		1.8	0.87	ng/L		05/12/23 05:41	05/20/23 01:51	1
NEtFOSA	<0.78		1.8	0.78	ng/L		05/12/23 05:41	05/20/23 01:51	1
NMeFOSA	<0.38		1.8	0.38	ng/L		05/12/23 05:41	05/20/23 01:51	1
NMeFOSAA	<1.1		4.5	1.1	ng/L		05/12/23 05:41	05/20/23 01:51	1
NEtFOSAA	<1.2		4.5	1.2	ng/L		05/12/23 05:41	05/20/23 01:51	1
NMeFOSE	<1.2		3.6	1.2	ng/L		05/12/23 05:41	05/20/23 01:51	1
NEtFOSE	<0.76	+	1.8	0.76	ng/L		05/12/23 05:41	05/20/23 01:51	1
4:2 FTS	<0.21		1.8	0.21	ng/L		05/12/23 05:41	05/20/23 01:51	1
6:2 FTS	18		4.5	2.2	ng/L		05/12/23 05:41	05/20/23 01:51	1
8:2 FTS	17		1.8	0.41	ng/L		05/12/23 05:41	05/20/23 01:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.36		1.8	0.36	ng/L		05/12/23 05:41	05/20/23 01:51	1
HFPO-DA (GenX)	<1.3		3.6	1.3	ng/L		05/12/23 05:41	05/20/23 01:51	1
9Cl-PF3ONS	<0.21		1.8	0.21	ng/L		05/12/23 05:41	05/20/23 01:51	1
11Cl-PF3OUdS	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 01:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	98		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C2 PFDA	86		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C2 PFUnA	106		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C2 PFDoA	82		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C2 PFTeDA	76		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C4 PFOS	92		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C8 FOSA	89		10 - 150	05/12/23 05:41	05/20/23 01:51	1
d3-NMeFOSAA	90		25 - 150	05/12/23 05:41	05/20/23 01:51	1
d5-NEtFOSAA	91		25 - 150	05/12/23 05:41	05/20/23 01:51	1
d-N-MeFOSA-M	80		10 - 150	05/12/23 05:41	05/20/23 01:51	1
d-N-EtFOSA-M	79		10 - 150	05/12/23 05:41	05/20/23 01:51	1
d7-N-MeFOSE-M	80		10 - 150	05/12/23 05:41	05/20/23 01:51	1
d9-N-EtFOSE-M	61		10 - 150	05/12/23 05:41	05/20/23 01:51	1
M2-4:2 FTS	80		25 - 150	05/12/23 05:41	05/20/23 01:51	1
M2-6:2 FTS	80		25 - 150	05/12/23 05:41	05/20/23 01:51	1
M2-8:2 FTS	89		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C3 HFPO-DA	117		25 - 150	05/12/23 05:41	05/20/23 01:51	1
13C2 10:2 FTS	95		25 - 150	05/12/23 05:41	05/20/23 01:51	1

## Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	470		220	110	ng/L		05/12/23 05:41	05/21/23 02:34	50

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-2**

**Lab Sample ID: 500-233239-2**

**Date Collected: 05/02/23 14:00**

**Matrix: Water**

**Date Received: 05/04/23 09:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1400		89	22	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluorohexanoic acid (PFHxA)	2000		89	26	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluoroheptanoic acid (PFHpA)	670		89	11	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluorooctanoic acid (PFOA)	760		89	38	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluorobutanesulfonic acid (PFBS)	1200		89	8.9	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluoropentanesulfonic acid (PFPeS)	850		89	13	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluorohexanesulfonic acid (PFHxS)	6900		89	25	ng/L		05/12/23 05:41	05/21/23 02:34	50
Perfluorooctanesulfonic acid (PFOS)	940		89	24	ng/L		05/12/23 05:41	05/21/23 02:34	50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	86		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C5 PFPeA	79		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C2 PFHxA	106		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C4 PFHpA	100		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C4 PFOA	97		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C3 PFBS	90		25 - 150	05/12/23 05:41	05/21/23 02:34	50
18O2 PFHxS	104		25 - 150	05/12/23 05:41	05/21/23 02:34	50
13C4 PFOS	90		25 - 150	05/12/23 05:41	05/21/23 02:34	50



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-3**  
Date Collected: 05/02/23 17:20  
Date Received: 05/04/23 09:40

**Lab Sample ID: 500-233239-3**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1100		460	220	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluoropentanoic acid (PFPeA)	4600		180	45	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorohexanoic acid (PFHxA)	4800		180	53	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluoroheptanoic acid (PFHpA)	3200		180	23	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorooctanoic acid (PFOA)	17000		180	78	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorononanoic acid (PFNA)	130	J	180	25	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorodecanoic acid (PFDA)	<28		180	28	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluoroundecanoic acid (PFUnA)	<100		180	100	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorododecanoic acid (PFDoA)	<51		180	51	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorotridecanoic acid (PFTrDA)	<120		180	120	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorotetradecanoic acid (PFTeA)	<67		180	67	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorobutanesulfonic acid (PFBS)	1700		180	18	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluoropentanesulfonic acid (PFPeS)	2000		180	28	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorohexanesulfonic acid (PFHxS)	41000	E	180	52	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluoroheptanesulfonic acid (PFHpS)	63	J	180	17	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorooctanesulfonic acid (PFOS)	280		180	50	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorononanesulfonic acid (PFNS)	<34		180	34	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorodecanesulfonic acid (PFDS)	<29		180	29	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorododecanesulfonic acid (PFDoS)	<89		180	89	ng/L		05/12/23 05:41	05/21/23 02:54	100
Perfluorooctanesulfonamide (FOSA)	<90		180	90	ng/L		05/12/23 05:41	05/21/23 02:54	100
NEtFOSA	<80		180	80	ng/L		05/12/23 05:41	05/21/23 02:54	100
NMeFOSA	<40		180	40	ng/L		05/12/23 05:41	05/21/23 02:54	100
NMeFOSAA	<110		460	110	ng/L		05/12/23 05:41	05/21/23 02:54	100
NEtFOSAA	<120		460	120	ng/L		05/12/23 05:41	05/21/23 02:54	100
NMeFOSE	<130		370	130	ng/L		05/12/23 05:41	05/21/23 02:54	100
NEtFOSE	<78	*+	180	78	ng/L		05/12/23 05:41	05/21/23 02:54	100
4:2 FTS	<22		180	22	ng/L		05/12/23 05:41	05/21/23 02:54	100
6:2 FTS	<230		460	230	ng/L		05/12/23 05:41	05/21/23 02:54	100
8:2 FTS	<42		180	42	ng/L		05/12/23 05:41	05/21/23 02:54	100
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<37		180	37	ng/L		05/12/23 05:41	05/21/23 02:54	100
HFPO-DA (GenX)	<140		370	140	ng/L		05/12/23 05:41	05/21/23 02:54	100
9CI-PF3ONS	<22		180	22	ng/L		05/12/23 05:41	05/21/23 02:54	100
11CI-PF3OUdS	<29		180	29	ng/L		05/12/23 05:41	05/21/23 02:54	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	64		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C5 PFPeA	53		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C2 PFHxA	78		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C4 PFHpA	77		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C4 PFOA	73		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C5 PFNA	58		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C2 PFDA	59		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C2 PFUnA	75		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C2 PFDoA	61		25 - 150				05/12/23 05:41	05/21/23 02:54	100
13C2 PFTeDA	59		25 - 150				05/12/23 05:41	05/21/23 02:54	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-3**  
**Date Collected: 05/02/23 17:20**  
**Date Received: 05/04/23 09:40**

**Lab Sample ID: 500-233239-3**  
**Matrix: Water**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	67		25 - 150	05/12/23 05:41	05/21/23 02:54	100
18O2 PFHxS	138		25 - 150	05/12/23 05:41	05/21/23 02:54	100
13C4 PFOS	57		25 - 150	05/12/23 05:41	05/21/23 02:54	100
13C8 FOSA	54		10 - 150	05/12/23 05:41	05/21/23 02:54	100
d3-NMeFOSAA	69		25 - 150	05/12/23 05:41	05/21/23 02:54	100
d5-NEtFOSAA	67		25 - 150	05/12/23 05:41	05/21/23 02:54	100
d-N-MeFOSA-M	55		10 - 150	05/12/23 05:41	05/21/23 02:54	100
d-N-EtFOSA-M	59		10 - 150	05/12/23 05:41	05/21/23 02:54	100
d7-N-MeFOSE-M	50		10 - 150	05/12/23 05:41	05/21/23 02:54	100
d9-N-EtFOSE-M	44		10 - 150	05/12/23 05:41	05/21/23 02:54	100
M2-4:2 FTS	59		25 - 150	05/12/23 05:41	05/21/23 02:54	100
M2-6:2 FTS	45		25 - 150	05/12/23 05:41	05/21/23 02:54	100
M2-8:2 FTS	65		25 - 150	05/12/23 05:41	05/21/23 02:54	100
13C3 HFPO-DA	73		25 - 150	05/12/23 05:41	05/21/23 02:54	100
13C2 10:2 FTS	59		25 - 150	05/12/23 05:41	05/21/23 02:54	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-4**

**Lab Sample ID: 500-233239-4**

Date Collected: 05/02/23 15:35

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorononanoic acid (PFNA)</b>	<b>310</b>		1.8	0.25	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorodecanoic acid (PFDA)	<0.28		1.8	0.28	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.8	0.51	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorodecanesulfonic acid (PFDS)	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorododecanesulfonic acid (PFDoS)	<0.89		1.8	0.89	ng/L		05/12/23 05:41	05/20/23 02:12	1
Perfluorooctanesulfonamide (FOSA)	<0.90		1.8	0.90	ng/L		05/12/23 05:41	05/20/23 02:12	1
NEtFOSA	<0.80		1.8	0.80	ng/L		05/12/23 05:41	05/20/23 02:12	1
NMeFOSA	<0.40		1.8	0.40	ng/L		05/12/23 05:41	05/20/23 02:12	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		05/12/23 05:41	05/20/23 02:12	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		05/12/23 05:41	05/20/23 02:12	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/12/23 05:41	05/20/23 02:12	1
NEtFOSE	<0.78	+	1.8	0.78	ng/L		05/12/23 05:41	05/20/23 02:12	1
<b>4:2 FTS</b>	<b>2.1</b>		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 02:12	1
<b>6:2 FTS</b>	<b>240</b>		4.6	2.3	ng/L		05/12/23 05:41	05/20/23 02:12	1
8:2 FTS	<0.42		1.8	0.42	ng/L		05/12/23 05:41	05/20/23 02:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		05/12/23 05:41	05/20/23 02:12	1
9CI-PF3ONS	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 02:12	1
11CI-PF3OUdS	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 02:12	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C5 PFNA	145		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C2 PFDA	126		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C2 PFDoA	143		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C2 PFTeDA	127		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C4 PFOS	137		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C8 FOSA	128		10 - 150				05/12/23 05:41	05/20/23 02:12	1
d3-NMeFOSAA	145		25 - 150				05/12/23 05:41	05/20/23 02:12	1
d5-NEtFOSAA	138		25 - 150				05/12/23 05:41	05/20/23 02:12	1
d-N-MeFOSA-M	115		10 - 150				05/12/23 05:41	05/20/23 02:12	1
d-N-EtFOSA-M	113		10 - 150				05/12/23 05:41	05/20/23 02:12	1
d7-N-MeFOSE-M	121		10 - 150				05/12/23 05:41	05/20/23 02:12	1
d9-N-EtFOSE-M	98		10 - 150				05/12/23 05:41	05/20/23 02:12	1
M2-4:2 FTS	78		25 - 150				05/12/23 05:41	05/20/23 02:12	1
M2-6:2 FTS	71		25 - 150				05/12/23 05:41	05/20/23 02:12	1
M2-8:2 FTS	114		25 - 150				05/12/23 05:41	05/20/23 02:12	1
13C2 10:2 FTS	125		25 - 150				05/12/23 05:41	05/20/23 02:12	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>1900</b>		460	220	ng/L		05/12/23 05:41	05/21/23 03:04	100
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>7900</b>		180	45	ng/L		05/12/23 05:41	05/21/23 03:04	100
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>11000</b>		180	53	ng/L		05/12/23 05:41	05/21/23 03:04	100
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>2800</b>		180	23	ng/L		05/12/23 05:41	05/21/23 03:04	100
<b>Perfluorooctanoic acid (PFOA)</b>	<b>11000</b>		180	78	ng/L		05/12/23 05:41	05/21/23 03:04	100
Perfluoroundecanoic acid (PFUnA)	<100		180	100	ng/L		05/12/23 05:41	05/21/23 03:04	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: MW-4**

**Lab Sample ID: 500-233239-4**

Date Collected: 05/02/23 15:35

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	3700		180	18	ng/L		05/12/23 05:41	05/21/23 03:04	100
Perfluoropentanesulfonic acid (PFPeS)	2300		180	28	ng/L		05/12/23 05:41	05/21/23 03:04	100
Perfluorohexanesulfonic acid (PFHxS)	30000		180	52	ng/L		05/12/23 05:41	05/21/23 03:04	100
Perfluoroheptanesulfonic acid (PFHpS)	1400		180	17	ng/L		05/12/23 05:41	05/21/23 03:04	100
Perfluorooctanesulfonic acid (PFOS)	2400 I		180	50	ng/L		05/12/23 05:41	05/21/23 03:04	100
HFPO-DA (GenX)	<140		370	140	ng/L		05/12/23 05:41	05/21/23 03:04	100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C5 PFPeA	73		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C2 PFHxA	108		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C4 PFHpA	114		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C4 PFOA	91		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C2 PFUnA	85		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C3 PFBS	99		25 - 150	05/12/23 05:41	05/21/23 03:04	100
18O2 PFHxS	134		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C4 PFOS	99		25 - 150	05/12/23 05:41	05/21/23 03:04	100
13C3 HFPO-DA	87		25 - 150	05/12/23 05:41	05/21/23 03:04	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: PZ-1**

**Lab Sample ID: 500-233239-5**

**Date Collected: 05/02/23 10:10**

**Matrix: Water**

**Date Received: 05/04/23 09:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorododecanoic acid (PFDoA)	<0.52		1.9	0.52	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorotetradecanoic acid (PFTeA)	<0.69		1.9	0.69	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorododecanesulfonic acid (PFDoS)	<0.91		1.9	0.91	ng/L		05/12/23 05:41	05/20/23 02:22	1
Perfluorooctanesulfonamide (FOSA)	<0.92		1.9	0.92	ng/L		05/12/23 05:41	05/20/23 02:22	1
NEtFOSA	<0.82		1.9	0.82	ng/L		05/12/23 05:41	05/20/23 02:22	1
NMeFOSA	<0.41		1.9	0.41	ng/L		05/12/23 05:41	05/20/23 02:22	1
NMeFOSAA	<1.1		4.7	1.1	ng/L		05/12/23 05:41	05/20/23 02:22	1
NEtFOSAA	<1.2		4.7	1.2	ng/L		05/12/23 05:41	05/20/23 02:22	1
NMeFOSE	<1.3		3.8	1.3	ng/L		05/12/23 05:41	05/20/23 02:22	1
NEtFOSE	<0.80	++	1.9	0.80	ng/L		05/12/23 05:41	05/20/23 02:22	1
4:2 FTS	<0.23		1.9	0.23	ng/L		05/12/23 05:41	05/20/23 02:22	1
<b>6:2 FTS</b>	<b>300</b>		4.7	2.4	ng/L		05/12/23 05:41	05/20/23 02:22	1
<b>8:2 FTS</b>	<b>13</b>		1.9	0.43	ng/L		05/12/23 05:41	05/20/23 02:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.38		1.9	0.38	ng/L		05/12/23 05:41	05/20/23 02:22	1
9CI-PF3ONS	<0.23		1.9	0.23	ng/L		05/12/23 05:41	05/20/23 02:22	1
11CI-PF3OUdS	<0.30		1.9	0.30	ng/L		05/12/23 05:41	05/20/23 02:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	85		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C2 PFDA	109		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C2 PFUnA	125		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C2 PFDoA	130		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C2 PFTeDA	93		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C4 PFOS	84		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C8 FOSA	116		10 - 150	05/12/23 05:41	05/20/23 02:22	1
d3-NMeFOSAA	120		25 - 150	05/12/23 05:41	05/20/23 02:22	1
d5-NEtFOSAA	118		25 - 150	05/12/23 05:41	05/20/23 02:22	1
d-N-MeFOSA-M	100		10 - 150	05/12/23 05:41	05/20/23 02:22	1
d-N-EtFOSA-M	102		10 - 150	05/12/23 05:41	05/20/23 02:22	1
d7-N-MeFOSE-M	96		10 - 150	05/12/23 05:41	05/20/23 02:22	1
d9-N-EtFOSE-M	82		10 - 150	05/12/23 05:41	05/20/23 02:22	1
M2-4:2 FTS	85		25 - 150	05/12/23 05:41	05/20/23 02:22	1
M2-6:2 FTS	74		25 - 150	05/12/23 05:41	05/20/23 02:22	1
M2-8:2 FTS	98		25 - 150	05/12/23 05:41	05/20/23 02:22	1
13C2 10:2 FTS	108		25 - 150	05/12/23 05:41	05/20/23 02:22	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	730		470	230	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluoropentanoic acid (PFPeA)	4400		190	46	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluorohexanoic acid (PFHxA)	4700		190	55	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluoroheptanoic acid (PFHpA)	2100		190	24	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluorooctanoic acid (PFOA)	3400		190	80	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluorononanoic acid (PFNA)	3700		190	25	ng/L		05/12/23 05:41	05/21/23 03:15	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: PZ-1**

**Lab Sample ID: 500-233239-5**

Date Collected: 05/02/23 10:10

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	1900		190	19	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluoropentanesulfonic acid (PFPeS)	1900		190	28	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluorohexanesulfonic acid (PFHxS)	14000		190	54	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluoroheptanesulfonic acid (PFHpS)	840		190	18	ng/L		05/12/23 05:41	05/21/23 03:15	100
Perfluorooctanesulfonic acid (PFOS)	29000		190	51	ng/L		05/12/23 05:41	05/21/23 03:15	100
HFPO-DA (GenX)	<140		380	140	ng/L		05/12/23 05:41	05/21/23 03:15	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	82		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C5 PFPeA	67		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C2 PFHxA	103		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C4 PFHpA	100		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C4 PFOA	87		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C3 PFBS	85		25 - 150				05/12/23 05:41	05/21/23 03:15	100
18O2 PFHxS	99		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C4 PFOS	76		25 - 150				05/12/23 05:41	05/21/23 03:15	100
13C3 HFPO-DA	79		25 - 150				05/12/23 05:41	05/21/23 03:15	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 500-233239-6**

Date Collected: 05/02/23 00:00

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.1		4.5	2.1	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoropentanoic acid (PFPeA)	<0.44	F1	1.8	0.44	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorohexanoic acid (PFHxA)	<0.52		1.8	0.52	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoroheptanoic acid (PFHpA)	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorooctanoic acid (PFOA)	<0.76		1.8	0.76	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorononanoic acid (PFNA)	<0.24	F1	1.8	0.24	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorodecanoic acid (PFDA)	<0.28		1.8	0.28	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoroundecanoic acid (PFUnA)	<0.98		1.8	0.98	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorododecanoic acid (PFDoA)	<0.49		1.8	0.49	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorotetradecanoic acid (PFTeA)	<0.65		1.8	0.65	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoropentanesulfonic acid (PFPeS)	<0.27	F1	1.8	0.27	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoroheptanesulfonic acid (PFHxS)	<0.51		1.8	0.51	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.17	F1	1.8	0.17	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorooctanesulfonic acid (PFOS)	<0.48		1.8	0.48	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorononanesulfonic acid (PFNS)	<0.33	F1	1.8	0.33	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorodecanesulfonic acid (PFDS)	<0.29	F1	1.8	0.29	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorododecanesulfonic acid (PFDoS)	<0.87		1.8	0.87	ng/L		05/12/23 05:41	05/24/23 05:27	1
Perfluorooctanesulfonamide (FOSA)	<0.88		1.8	0.88	ng/L		05/12/23 05:41	05/24/23 05:27	1
NEtFOSA	<0.78		1.8	0.78	ng/L		05/12/23 05:41	05/24/23 05:27	1
NMeFOSA	<0.38		1.8	0.38	ng/L		05/12/23 05:41	05/24/23 05:27	1
NMeFOSAA	<1.1		4.5	1.1	ng/L		05/12/23 05:41	05/24/23 05:27	1
NEtFOSAA	<1.2	F1	4.5	1.2	ng/L		05/12/23 05:41	05/24/23 05:27	1
NMeFOSE	<1.3	F1	3.6	1.3	ng/L		05/12/23 05:41	05/24/23 05:27	1
NEtFOSE	<0.76	F1 *+	1.8	0.76	ng/L		05/12/23 05:41	05/24/23 05:27	1
4:2 FTS	<0.21	F1	1.8	0.21	ng/L		05/12/23 05:41	05/24/23 05:27	1
6:2 FTS	<2.2	F1	4.5	2.2	ng/L		05/12/23 05:41	05/24/23 05:27	1
8:2 FTS	<0.41		1.8	0.41	ng/L		05/12/23 05:41	05/24/23 05:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.36	F1	1.8	0.36	ng/L		05/12/23 05:41	05/24/23 05:27	1
HFPO-DA (GenX)	<1.3		3.6	1.3	ng/L		05/12/23 05:41	05/24/23 05:27	1
9Cl-PF3ONS	<0.21	F1	1.8	0.21	ng/L		05/12/23 05:41	05/24/23 05:27	1
11Cl-PF3OUdS	<0.29	F1	1.8	0.29	ng/L		05/12/23 05:41	05/24/23 05:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	82		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C5 PFPeA	71		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 PFHxA	99		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C4 PFHpA	113		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C4 PFOA	99		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C5 PFNA	84		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 PFDA	85		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 PFUnA	106		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 PFDoA	96		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 PFTeDA	85		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C3 PFBS	85		25 - 150	05/12/23 05:41	05/24/23 05:27	1
18O2 PFHxS	102		25 - 150	05/12/23 05:41	05/24/23 05:27	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 500-233239-6**

**Date Collected: 05/02/23 00:00**

**Matrix: Water**

**Date Received: 05/04/23 09:40**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	83		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C8 FOSA	78		10 - 150	05/12/23 05:41	05/24/23 05:27	1
d3-NMeFOSAA	97		25 - 150	05/12/23 05:41	05/24/23 05:27	1
d5-NEtFOSAA	89		25 - 150	05/12/23 05:41	05/24/23 05:27	1
d-N-MeFOSA-M	75		10 - 150	05/12/23 05:41	05/24/23 05:27	1
d-N-EtFOSA-M	79		10 - 150	05/12/23 05:41	05/24/23 05:27	1
d7-N-MeFOSE-M	80		10 - 150	05/12/23 05:41	05/24/23 05:27	1
d9-N-EtFOSE-M	58		10 - 150	05/12/23 05:41	05/24/23 05:27	1
M2-4:2 FTS	93		25 - 150	05/12/23 05:41	05/24/23 05:27	1
M2-6:2 FTS	80		25 - 150	05/12/23 05:41	05/24/23 05:27	1
M2-8:2 FTS	65		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C3 HFPO-DA	103		25 - 150	05/12/23 05:41	05/24/23 05:27	1
13C2 10:2 FTS	93		25 - 150	05/12/23 05:41	05/24/23 05:27	1



# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: EQUIPMENT BLANK**

**Lab Sample ID: 500-233239-7**

Date Collected: 05/02/23 12:45

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.7	2.2	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluoropentanoic acid (PFPeA)	<0.46		1.9	0.46	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorohexanoic acid (PFHxA)	<0.54		1.9	0.54	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.9	0.23	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorooctanoic acid (PFOA)	<0.80		1.9	0.80	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.9	0.51	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorotetradecanoic acid (PFTeA)	<0.68		1.9	0.68	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluoropentanesulfonic acid (PFPeS)	<0.28		1.9	0.28	ng/L		05/12/23 05:41	05/20/23 03:24	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.66</b>	<b>J</b>	1.9	0.53	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.18		1.9	0.18	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorooctanesulfonic acid (PFOS)	<0.51		1.9	0.51	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorododecanesulfonic acid (PFDoS)	<0.91		1.9	0.91	ng/L		05/12/23 05:41	05/20/23 03:24	1
Perfluorooctanesulfonamide (FOSA)	<0.92		1.9	0.92	ng/L		05/12/23 05:41	05/20/23 03:24	1
NETFOSA	<0.81		1.9	0.81	ng/L		05/12/23 05:41	05/20/23 03:24	1
NMeFOSA	<0.40		1.9	0.40	ng/L		05/12/23 05:41	05/20/23 03:24	1
NMeFOSAA	<1.1		4.7	1.1	ng/L		05/12/23 05:41	05/20/23 03:24	1
NETFOSAA	<1.2		4.7	1.2	ng/L		05/12/23 05:41	05/20/23 03:24	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/12/23 05:41	05/20/23 03:24	1
NETFOSE	<0.80	*+	1.9	0.80	ng/L		05/12/23 05:41	05/20/23 03:24	1
4:2 FTS	<0.22		1.9	0.22	ng/L		05/12/23 05:41	05/20/23 03:24	1
6:2 FTS	<2.3		4.7	2.3	ng/L		05/12/23 05:41	05/20/23 03:24	1
8:2 FTS	<0.43		1.9	0.43	ng/L		05/12/23 05:41	05/20/23 03:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.9	0.37	ng/L		05/12/23 05:41	05/20/23 03:24	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		05/12/23 05:41	05/20/23 03:24	1
9CI-PF3ONS	<0.22		1.9	0.22	ng/L		05/12/23 05:41	05/20/23 03:24	1
11CI-PF3OUdS	<0.30		1.9	0.30	ng/L		05/12/23 05:41	05/20/23 03:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C5 PFPeA	81		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 PFHxA	108		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C4 PFHpA	113		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C4 PFOA	104		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C5 PFNA	92		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 PFDA	90		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 PFUnA	115		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 PFDoA	102		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 PFTeDA	99		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C3 PFBS	97		25 - 150	05/12/23 05:41	05/20/23 03:24	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: EQUIPMENT BLANK**

**Lab Sample ID: 500-233239-7**

Date Collected: 05/02/23 12:45

Matrix: Water

Date Received: 05/04/23 09:40

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	105		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C4 PFOS	96		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C8 FOSA	88		10 - 150	05/12/23 05:41	05/20/23 03:24	1
d3-NMeFOSAA	96		25 - 150	05/12/23 05:41	05/20/23 03:24	1
d5-NEtFOSAA	103		25 - 150	05/12/23 05:41	05/20/23 03:24	1
d-N-MeFOSA-M	78		10 - 150	05/12/23 05:41	05/20/23 03:24	1
d-N-EtFOSA-M	80		10 - 150	05/12/23 05:41	05/20/23 03:24	1
d7-N-MeFOSE-M	88		10 - 150	05/12/23 05:41	05/20/23 03:24	1
d9-N-EtFOSE-M	70		10 - 150	05/12/23 05:41	05/20/23 03:24	1
M2-4:2 FTS	88		25 - 150	05/12/23 05:41	05/20/23 03:24	1
M2-6:2 FTS	72		25 - 150	05/12/23 05:41	05/20/23 03:24	1
M2-8:2 FTS	85		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C3 HFPO-DA	99		25 - 150	05/12/23 05:41	05/20/23 03:24	1
13C2 10:2 FTS	86		25 - 150	05/12/23 05:41	05/20/23 03:24	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: FIELD BLANK**

**Lab Sample ID: 500-233239-8**

Date Collected: 05/02/23 07:30

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.6	2.2	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.52</b>	<b>J</b>	1.8	0.45	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.66</b>	<b>J</b>	1.8	0.53	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.8	0.23	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.87</b>	<b>J</b>	1.8	0.78	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorononanoic acid (PFNA)	<0.25		1.8	0.25	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorodecanoic acid (PFDA)	<0.28		1.8	0.28	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorododecanoic acid (PFDoA)	<0.50		1.8	0.50	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.24</b>	<b>J</b>	1.8	0.18	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluoropentanesulfonic acid (PFPeS)	<0.27		1.8	0.27	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.7</b>		1.8	0.52	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.17		1.8	0.17	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.1</b>	<b>I</b>	1.8	0.49	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorodecanesulfonic acid (PFDS)	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorododecanesulfonic acid (PFDoS)	<0.89		1.8	0.89	ng/L		05/12/23 05:41	05/20/23 03:34	1
Perfluorooctanesulfonamide (FOSA)	<0.90		1.8	0.90	ng/L		05/12/23 05:41	05/20/23 03:34	1
NEtFOSA	<0.79		1.8	0.79	ng/L		05/12/23 05:41	05/20/23 03:34	1
NMeFOSA	<0.39		1.8	0.39	ng/L		05/12/23 05:41	05/20/23 03:34	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		05/12/23 05:41	05/20/23 03:34	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		05/12/23 05:41	05/20/23 03:34	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/12/23 05:41	05/20/23 03:34	1
NEtFOSE	<0.78	*+	1.8	0.78	ng/L		05/12/23 05:41	05/20/23 03:34	1
4:2 FTS	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 03:34	1
6:2 FTS	<2.3		4.6	2.3	ng/L		05/12/23 05:41	05/20/23 03:34	1
8:2 FTS	<0.42		1.8	0.42	ng/L		05/12/23 05:41	05/20/23 03:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		05/12/23 05:41	05/20/23 03:34	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		05/12/23 05:41	05/20/23 03:34	1
9CI-PF3ONS	<0.22		1.8	0.22	ng/L		05/12/23 05:41	05/20/23 03:34	1
11CI-PF3OUdS	<0.29		1.8	0.29	ng/L		05/12/23 05:41	05/20/23 03:34	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	96		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C5 PFPeA	85		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C2 PFHxA	110		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C4 PFHpA	117		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C4 PFOA	103		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C5 PFNA	92		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C2 PFDA	89		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C2 PFUnA	113		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C2 PFDoA	104		25 - 150				05/12/23 05:41	05/20/23 03:34	1
13C2 PFTeDA	105		25 - 150				05/12/23 05:41	05/20/23 03:34	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: FIELD BLANK**

**Lab Sample ID: 500-233239-8**

**Date Collected: 05/02/23 07:30**

**Matrix: Water**

**Date Received: 05/04/23 09:40**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	104		25 - 150	05/12/23 05:41	05/20/23 03:34	1
18O2 PFHxS	105		25 - 150	05/12/23 05:41	05/20/23 03:34	1
13C4 PFOS	100		25 - 150	05/12/23 05:41	05/20/23 03:34	1
13C8 FOSA	94		10 - 150	05/12/23 05:41	05/20/23 03:34	1
d3-NMeFOSAA	104		25 - 150	05/12/23 05:41	05/20/23 03:34	1
d5-NEtFOSAA	112		25 - 150	05/12/23 05:41	05/20/23 03:34	1
d-N-MeFOSA-M	87		10 - 150	05/12/23 05:41	05/20/23 03:34	1
d-N-EtFOSA-M	91		10 - 150	05/12/23 05:41	05/20/23 03:34	1
d7-N-MeFOSE-M	91		10 - 150	05/12/23 05:41	05/20/23 03:34	1
d9-N-EtFOSE-M	75		10 - 150	05/12/23 05:41	05/20/23 03:34	1
M2-4:2 FTS	83		25 - 150	05/12/23 05:41	05/20/23 03:34	1
M2-6:2 FTS	76		25 - 150	05/12/23 05:41	05/20/23 03:34	1
M2-8:2 FTS	81		25 - 150	05/12/23 05:41	05/20/23 03:34	1
13C3 HFPO-DA	102		25 - 150	05/12/23 05:41	05/20/23 03:34	1
13C2 10:2 FTS	95		25 - 150	05/12/23 05:41	05/20/23 03:34	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - RE**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	98		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C5 PFPeA	99		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 PFHxA	95		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C4 PFHpA	103		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C4 PFOA	98		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C5 PFNA	103		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 PFDA	98		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 PFUnA	89		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 PFDoA	84		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 PFTeDA	83		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C3 PFBS	95		25 - 150	06/01/23 04:42	06/02/23 19:29	1
18O2 PFHxS	99		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C4 PFOS	97		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C8 FOSA	97		10 - 150	06/01/23 04:42	06/02/23 19:29	1
d3-NMeFOSAA	85		25 - 150	06/01/23 04:42	06/02/23 19:29	1
d5-NEtFOSAA	82		25 - 150	06/01/23 04:42	06/02/23 19:29	1
d-N-MeFOSA-M	79		10 - 150	06/01/23 04:42	06/02/23 19:29	1
d-N-EtFOSA-M	74		10 - 150	06/01/23 04:42	06/02/23 19:29	1
d7-N-MeFOSE-M	80		10 - 150	06/01/23 04:42	06/02/23 19:29	1
d9-N-EtFOSE-M	81		10 - 150	06/01/23 04:42	06/02/23 19:29	1
M2-4:2 FTS	70		25 - 150	06/01/23 04:42	06/02/23 19:29	1
M2-6:2 FTS	75		25 - 150	06/01/23 04:42	06/02/23 19:29	1
M2-8:2 FTS	87		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C3 HFPO-DA	108		25 - 150	06/01/23 04:42	06/02/23 19:29	1
13C2 10:2 FTS	100		25 - 150	06/01/23 04:42	06/02/23 19:29	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: FIELD DUPLICATE**

**Lab Sample ID: 500-233239-9**

Date Collected: 05/02/23 00:00

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	25		1.8	0.25	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorodecanoic acid (PFDA)	1.2	J	1.8	0.29	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.8	0.51	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.8	1.2	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluoroheptanesulfonic acid (PFHps)	17		1.8	0.18	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluoronananesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.8	0.30	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorododecanesulfonic acid (PFDoS)	<0.90		1.8	0.90	ng/L		05/12/23 05:43	05/20/23 03:44	1
Perfluorooctanesulfonamide (FOSA)	<0.91		1.8	0.91	ng/L		05/12/23 05:43	05/20/23 03:44	1
NEtFOSA	<0.80		1.8	0.80	ng/L		05/12/23 05:43	05/20/23 03:44	1
NMeFOSA	<0.40		1.8	0.40	ng/L		05/12/23 05:43	05/20/23 03:44	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		05/12/23 05:43	05/20/23 03:44	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		05/12/23 05:43	05/20/23 03:44	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/12/23 05:43	05/20/23 03:44	1
NEtFOSE	<0.79	+	1.8	0.79	ng/L		05/12/23 05:43	05/20/23 03:44	1
4:2 FTS	<0.22		1.8	0.22	ng/L		05/12/23 05:43	05/20/23 03:44	1
6:2 FTS	17		4.6	2.3	ng/L		05/12/23 05:43	05/20/23 03:44	1
8:2 FTS	18		1.8	0.42	ng/L		05/12/23 05:43	05/20/23 03:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		05/12/23 05:43	05/20/23 03:44	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		05/12/23 05:43	05/20/23 03:44	1
9Cl-PF3ONS	<0.22		1.8	0.22	ng/L		05/12/23 05:43	05/20/23 03:44	1
11Cl-PF3OUdS	<0.30		1.8	0.30	ng/L		05/12/23 05:43	05/20/23 03:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	100		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C2 PFDA	89		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C2 PFUnA	114		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C2 PFDoA	96		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C2 PFTeDA	80		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C4 PFOS	93		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C8 FOSA	94		10 - 150	05/12/23 05:43	05/20/23 03:44	1
d3-NMeFOSAA	101		25 - 150	05/12/23 05:43	05/20/23 03:44	1
d5-NEtFOSAA	104		25 - 150	05/12/23 05:43	05/20/23 03:44	1
d-N-MeFOSA-M	87		10 - 150	05/12/23 05:43	05/20/23 03:44	1
d-N-EtFOSA-M	78		10 - 150	05/12/23 05:43	05/20/23 03:44	1
d7-N-MeFOSE-M	85		10 - 150	05/12/23 05:43	05/20/23 03:44	1
d9-N-EtFOSE-M	64		10 - 150	05/12/23 05:43	05/20/23 03:44	1
M2-4:2 FTS	77		25 - 150	05/12/23 05:43	05/20/23 03:44	1
M2-6:2 FTS	81		25 - 150	05/12/23 05:43	05/20/23 03:44	1
M2-8:2 FTS	87		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C3 HFPO-DA	125		25 - 150	05/12/23 05:43	05/20/23 03:44	1
13C2 10:2 FTS	85		25 - 150	05/12/23 05:43	05/20/23 03:44	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	510		230	110	ng/L		05/12/23 05:43	05/21/23 02:44	50

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

**Client Sample ID: FIELD DUPLICATE**

**Lab Sample ID: 500-233239-9**

Date Collected: 05/02/23 00:00

Matrix: Water

Date Received: 05/04/23 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1400		92	23	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluorohexanoic acid (PFHxA)	2100		92	27	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluoroheptanoic acid (PFHpA)	600		92	12	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluorooctanoic acid (PFOA)	700		92	39	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluorobutanesulfonic acid (PFBS)	1100		92	9.2	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluoropentanesulfonic acid (PFPeS)	860		92	14	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluorohexanesulfonic acid (PFHxS)	6400		92	26	ng/L		05/12/23 05:43	05/21/23 02:44	50
Perfluorooctanesulfonic acid (PFOS)	1000		92	25	ng/L		05/12/23 05:43	05/21/23 02:44	50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C5 PFPeA	81		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C2 PFHxA	111		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C4 PFHpA	112		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C4 PFOA	108		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C3 PFBS	103		25 - 150	05/12/23 05:43	05/21/23 02:44	50
18O2 PFHxS	114		25 - 150	05/12/23 05:43	05/21/23 02:44	50
13C4 PFOS	91		25 - 150	05/12/23 05:43	05/21/23 02:44	50

# Definitions/Glossary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## LCMS

### Prep Batch: 674233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-1	MW-1	Total/NA	Water	3535	
500-233239-2	MW-2	Total/NA	Water	3535	
500-233239-2 - DL	MW-2	Total/NA	Water	3535	
500-233239-3	MW-3	Total/NA	Water	3535	
500-233239-4 - DL	MW-4	Total/NA	Water	3535	
500-233239-4	MW-4	Total/NA	Water	3535	
500-233239-5 - DL	PZ-1	Total/NA	Water	3535	
500-233239-5	PZ-1	Total/NA	Water	3535	
500-233239-6	TRIP BLANK	Total/NA	Water	3535	
500-233239-7	EQUIPMENT BLANK	Total/NA	Water	3535	
500-233239-8	FIELD BLANK	Total/NA	Water	3535	
500-233239-9	FIELD DUPLICATE	Total/NA	Water	3535	
500-233239-9 - DL	FIELD DUPLICATE	Total/NA	Water	3535	
MB 320-674233/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-674233/2-A	Lab Control Sample	Total/NA	Water	3535	
500-233239-6 MS	TRIP BLANK	Total/NA	Water	3535	
500-233239-6 MSD	TRIP BLANK	Total/NA	Water	3535	

### Analysis Batch: 676252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-1	MW-1	Total/NA	Water	537 (modified)	674233
500-233239-2	MW-2	Total/NA	Water	537 (modified)	674233
500-233239-4	MW-4	Total/NA	Water	537 (modified)	674233
500-233239-5	PZ-1	Total/NA	Water	537 (modified)	674233
500-233239-7	EQUIPMENT BLANK	Total/NA	Water	537 (modified)	674233
500-233239-8	FIELD BLANK	Total/NA	Water	537 (modified)	674233
500-233239-9	FIELD DUPLICATE	Total/NA	Water	537 (modified)	674233
MB 320-674233/1-A	Method Blank	Total/NA	Water	537 (modified)	674233

### Analysis Batch: 676474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-2 - DL	MW-2	Total/NA	Water	537 (modified)	674233
500-233239-3	MW-3	Total/NA	Water	537 (modified)	674233
500-233239-4 - DL	MW-4	Total/NA	Water	537 (modified)	674233
500-233239-5 - DL	PZ-1	Total/NA	Water	537 (modified)	674233
500-233239-9 - DL	FIELD DUPLICATE	Total/NA	Water	537 (modified)	674233

### Analysis Batch: 677091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-6	TRIP BLANK	Total/NA	Water	537 (modified)	674233
LCS 320-674233/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	674233
500-233239-6 MS	TRIP BLANK	Total/NA	Water	537 (modified)	674233
500-233239-6 MSD	TRIP BLANK	Total/NA	Water	537 (modified)	674233

### Prep Batch: 679359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-8 - RE	FIELD BLANK	Total/NA	Water	3535	
MB 320-679359/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-679359/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-679359/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

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# QC Association Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## LCMS

### Analysis Batch: 679893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233239-8 - RE	FIELD BLANK	Total/NA	Water	537 (modified)	679359
MB 320-679359/1-A	Method Blank	Total/NA	Water	537 (modified)	679359
LCS 320-679359/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	679359
LCSD 320-679359/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	679359

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-674233/1-A**  
**Matrix: Water**  
**Analysis Batch: 676252**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorotridecanoic acid (PFTrDA)	<1.3		2.0	1.3	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.19		2.0	0.19	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		05/12/23 05:41	05/20/23 01:21	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		05/12/23 05:41	05/20/23 01:21	1
NEtFOSA	<0.87		2.0	0.87	ng/L		05/12/23 05:41	05/20/23 01:21	1
NMeFOSA	<0.43		2.0	0.43	ng/L		05/12/23 05:41	05/20/23 01:21	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		05/12/23 05:41	05/20/23 01:21	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		05/12/23 05:41	05/20/23 01:21	1
NMeFOSE	<1.4		4.0	1.4	ng/L		05/12/23 05:41	05/20/23 01:21	1
NEtFOSE	<0.85		2.0	0.85	ng/L		05/12/23 05:41	05/20/23 01:21	1
4:2 FTS	<0.24		2.0	0.24	ng/L		05/12/23 05:41	05/20/23 01:21	1
6:2 FTS	<2.5		5.0	2.5	ng/L		05/12/23 05:41	05/20/23 01:21	1
8:2 FTS	<0.46		2.0	0.46	ng/L		05/12/23 05:41	05/20/23 01:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		05/12/23 05:41	05/20/23 01:21	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		05/12/23 05:41	05/20/23 01:21	1
9Cl-PF3ONS	<0.24		2.0	0.24	ng/L		05/12/23 05:41	05/20/23 01:21	1
11Cl-PF3OUdS	<0.32		2.0	0.32	ng/L		05/12/23 05:41	05/20/23 01:21	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	93		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C5 PFPeA	90		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 PFHxA	109		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C4 PFHpA	117		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C4 PFOA	102		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C5 PFNA	88		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 PFDA	85		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 PFUnA	111		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 PFDoA	116		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 PFTeDA	94		25 - 150	05/12/23 05:41	05/20/23 01:21	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: MB 320-674233/1-A**  
**Matrix: Water**  
**Analysis Batch: 676252**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFBS	102		25 - 150	05/12/23 05:41	05/20/23 01:21	1
18O2 PFHxS	103		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C4 PFOS	90		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C8 FOSA	89		10 - 150	05/12/23 05:41	05/20/23 01:21	1
d3-NMeFOSAA	106		25 - 150	05/12/23 05:41	05/20/23 01:21	1
d5-NEtFOSAA	108		25 - 150	05/12/23 05:41	05/20/23 01:21	1
d-N-MeFOSA-M	75		10 - 150	05/12/23 05:41	05/20/23 01:21	1
d-N-EtFOSA-M	77		10 - 150	05/12/23 05:41	05/20/23 01:21	1
d7-N-MeFOSE-M	86		10 - 150	05/12/23 05:41	05/20/23 01:21	1
d9-N-EtFOSE-M	67		10 - 150	05/12/23 05:41	05/20/23 01:21	1
M2-4:2 FTS	85		25 - 150	05/12/23 05:41	05/20/23 01:21	1
M2-6:2 FTS	73		25 - 150	05/12/23 05:41	05/20/23 01:21	1
M2-8:2 FTS	77		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C3 HFPO-DA	93		25 - 150	05/12/23 05:41	05/20/23 01:21	1
13C2 10:2 FTS	90		25 - 150	05/12/23 05:41	05/20/23 01:21	1

**Lab Sample ID: LCS 320-674233/2-A**  
**Matrix: Water**  
**Analysis Batch: 677091**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Perfluorobutanoic acid (PFBA)	40.0	42.6		ng/L		106	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	51.5		ng/L		129	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	40.3		ng/L		101	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	40.6		ng/L		101	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	42.4		ng/L		106	60 - 135
Perfluorononanoic acid (PFNA)	40.0	49.7		ng/L		124	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	45.1		ng/L		113	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	46.0		ng/L		115	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	40.5		ng/L		101	60 - 135
Perfluorotridecanoic acid (PFTrDA)	40.0	37.3		ng/L		93	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	43.1		ng/L		108	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.5	39.2		ng/L		110	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.6	48.4		ng/L		129	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.5	41.4		ng/L		114	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	38.2	46.0		ng/L		121	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.2	39.7		ng/L		107	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.5	46.2		ng/L		120	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	44.9		ng/L		116	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.8	41.4		ng/L		107	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: LCS 320-674233/2-A**  
**Matrix: Water**  
**Analysis Batch: 677091**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (FOSA)	40.0	46.1		ng/L		115	60 - 135
NEtFOSA	40.0	47.3		ng/L		118	60 - 135
NMeFOSA	40.0	42.8		ng/L		107	60 - 135
NMeFOSAA	40.0	49.4		ng/L		123	60 - 135
NEtFOSAA	40.0	52.4		ng/L		131	60 - 135
NMeFOSE	40.0	49.5		ng/L		124	60 - 135
NEtFOSE	40.0	68.6	*+	ng/L		172	60 - 135
4:2 FTS	37.5	45.5		ng/L		121	60 - 135
6:2 FTS	38.1	47.7		ng/L		125	60 - 135
8:2 FTS	38.4	41.2		ng/L		107	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	47.7		ng/L		126	60 - 135
HFPO-DA (GenX)	40.0	43.0		ng/L		107	60 - 135
9Cl-PF3ONS	37.4	45.4		ng/L		122	60 - 135
11Cl-PF3OUdS	37.8	48.6		ng/L		129	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	92		25 - 150
13C5 PFPeA	69		25 - 150
13C2 PFHxA	103		25 - 150
13C4 PFHpA	120		25 - 150
13C4 PFOA	106		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	87		25 - 150
13C2 PFUnA	100		25 - 150
13C2 PFDa	116		25 - 150
13C2 PFTeDA	93		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	96		25 - 150
13C4 PFOS	94		25 - 150
13C8 FOSA	83		10 - 150
d3-NMeFOSAA	101		25 - 150
d5-NEtFOSAA	88		25 - 150
d-N-MeFOSA-M	80		10 - 150
d-N-EtFOSA-M	77		10 - 150
d7-N-MeFOSE-M	81		10 - 150
d9-N-EtFOSE-M	53		10 - 150
M2-4:2 FTS	101		25 - 150
M2-6:2 FTS	82		25 - 150
M2-8:2 FTS	81		25 - 150
13C3 HFPO-DA	111		25 - 150
13C2 10:2 FTS	92		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: 500-233239-6 MS**

**Matrix: Water**

**Analysis Batch: 677091**

**Client Sample ID: TRIP BLANK**

**Prep Type: Total/NA**

**Prep Batch: 674233**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Perfluorobutanoic acid (PFBA)	<2.1		35.8	38.5		ng/L		107	70 - 130
Perfluoropentanoic acid (PFPeA)	<0.44	F1	35.8	51.7	F1	ng/L		144	70 - 130
Perfluorohexanoic acid (PFHxA)	<0.52		35.8	39.4		ng/L		110	70 - 130
Perfluoroheptanoic acid (PFHpA)	<0.22		35.8	38.7		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	<0.76		35.8	42.4		ng/L		118	70 - 130
Perfluorononanoic acid (PFNA)	<0.24	F1	35.8	47.5	F1	ng/L		133	70 - 130
Perfluorodecanoic acid (PFDA)	<0.28		35.8	40.0		ng/L		112	70 - 130
Perfluoroundecanoic acid (PFUnA)	<0.98		35.8	44.0		ng/L		123	70 - 130
Perfluorododecanoic acid (PFDoA)	<0.49		35.8	39.9		ng/L		111	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<1.2		35.8	35.9		ng/L		100	70 - 130
Perfluorotetradecanoic acid (PFTeA)	<0.65		35.8	39.6		ng/L		110	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<0.18		31.8	37.7		ng/L		118	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<0.27	F1	33.7	46.4	F1	ng/L		138	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<0.51		32.7	36.5		ng/L		112	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<0.17	F1	34.2	43.0		ng/L		126	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<0.48		33.3	36.1		ng/L		108	70 - 130
Perfluorononanesulfonic acid (PFNS)	<0.33	F1	34.5	42.7		ng/L		124	70 - 130
Perfluorodecanesulfonic acid (PFDS)	<0.29	F1	34.5	47.5	F1	ng/L		138	70 - 130
Perfluorododecanesulfonic acid (PFDoS)	<0.87		34.7	38.8		ng/L		112	70 - 130
Perfluorooctanesulfonamide (FOSA)	<0.88		35.8	42.6		ng/L		119	70 - 130
NEtFOSA	<0.78		35.8	40.0		ng/L		112	70 - 130
NMeFOSA	<0.38		35.8	39.4		ng/L		110	70 - 130
NMeFOSAA	<1.1		35.8	40.9		ng/L		114	70 - 130
NEtFOSAA	<1.2	F1	35.8	41.0		ng/L		115	70 - 130
NMeFOSE	<1.3	F1	35.8	43.2		ng/L		121	70 - 130
NEtFOSE	<0.76	F1 *+	35.8	52.7	F1	ng/L		147	70 - 130
4:2 FTS	<0.21	F1	33.6	44.9	F1	ng/L		134	70 - 130
6:2 FTS	<2.2	F1	34.1	42.5		ng/L		125	70 - 130
8:2 FTS	<0.41		34.4	40.2		ng/L		117	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.36	F1	33.8	51.8	F1	ng/L		153	70 - 130
HFPO-DA (GenX)	<1.3		35.8	40.1		ng/L		112	70 - 130
9CI-PF3ONS	<0.21	F1	33.5	44.2	F1	ng/L		132	70 - 130
11CI-PF3OUdS	<0.29	F1	33.8	51.3	F1	ng/L		152	70 - 130
		<b>MS MS</b>							
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
13C4 PFBA	88		25 - 150						
13C5 PFPeA	70		25 - 150						
13C2 PFHxA	106		25 - 150						

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: 500-233239-6 MS**  
**Matrix: Water**  
**Analysis Batch: 677091**

**Client Sample ID: TRIP BLANK**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C4 PFHpA	123		25 - 150
13C4 PFOA	102		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	102		25 - 150
13C2 PFDoA	107		25 - 150
13C2 PFTeDA	91		25 - 150
13C3 PFBS	91		25 - 150
18O2 PFHxS	100		25 - 150
13C4 PFOS	90		25 - 150
13C8 FOSA	81		10 - 150
d3-NMeFOSAA	103		25 - 150
d5-NEtFOSAA	99		25 - 150
d-N-MeFOSA-M	79		10 - 150
d-N-EtFOSA-M	79		10 - 150
d7-N-MeFOSE-M	82		10 - 150
d9-N-EtFOSE-M	62		10 - 150
M2-4:2 FTS	94		25 - 150
M2-6:2 FTS	83		25 - 150
M2-8:2 FTS	80		25 - 150
13C3 HFPO-DA	110		25 - 150
13C2 10:2 FTS	97		25 - 150

**Lab Sample ID: 500-233239-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 677091**

**Client Sample ID: TRIP BLANK**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD MSD</i>		<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>		<i>RPD</i>	<i>Limit</i>
				<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>		
Perfluorobutanoic acid (PFBA)	<2.1		35.9	38.8		ng/L		108	70 - 130	1	30	
Perfluoropentanoic acid (PFPeA)	<0.44	F1	35.9	51.4	F1	ng/L		143	70 - 130	1	30	
Perfluorohexanoic acid (PFHxA)	<0.52		35.9	39.3		ng/L		110	70 - 130	0	30	
Perfluoroheptanoic acid (PFHpA)	<0.22		35.9	42.1		ng/L		117	70 - 130	8	30	
Perfluorooctanoic acid (PFOA)	<0.76		35.9	41.3		ng/L		115	70 - 130	3	30	
Perfluorononanoic acid (PFNA)	<0.24	F1	35.9	47.8	F1	ng/L		133	70 - 130	0	30	
Perfluorodecanoic acid (PFDA)	<0.28		35.9	42.1		ng/L		117	70 - 130	5	30	
Perfluoroundecanoic acid (PFUnA)	<0.98		35.9	40.3		ng/L		112	70 - 130	9	30	
Perfluorododecanoic acid (PFDoA)	<0.49		35.9	43.2		ng/L		120	70 - 130	8	30	
Perfluorotridecanoic acid (PFTTrDA)	<1.2		35.9	44.4		ng/L		124	70 - 130	21	30	
Perfluorotetradecanoic acid (PFTeA)	<0.65		35.9	40.1		ng/L		112	70 - 130	1	30	
Perfluorobutanesulfonic acid (PFBS)	<0.18		31.9	37.3		ng/L		117	70 - 130	1	30	
Perfluoropentanesulfonic acid (PFPeS)	<0.27	F1	33.7	47.6	F1	ng/L		141	70 - 130	3	30	
Perfluorohexanesulfonic acid (PFHxS)	<0.51		32.7	36.7		ng/L		112	70 - 130	0	30	
Perfluoroheptanesulfonic acid (PFHpS)	<0.17	F1	34.2	47.0	F1	ng/L		137	70 - 130	9	30	

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: 500-233239-6 MSD**

**Matrix: Water**

**Analysis Batch: 677091**

**Client Sample ID: TRIP BLANK**

**Prep Type: Total/NA**

**Prep Batch: 674233**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Perfluorooctanesulfonic acid (PFOS)	<0.48		33.4	38.3		ng/L		115	70 - 130	6	30
Perfluorononanesulfonic acid (PFNS)	<0.33	F1	34.5	45.2	F1	ng/L		131	70 - 130	6	30
Perfluorodecanesulfonic acid (PFDS)	<0.29	F1	34.6	44.6		ng/L		129	70 - 130	6	30
Perfluorododecanesulfonic acid (PFDoS)	<0.87		34.8	39.1		ng/L		112	70 - 130	1	30
Perfluorooctanesulfonamide (FOSA)	<0.88		35.9	41.6		ng/L		116	70 - 130	3	30
NEtFOSA	<0.78		35.9	37.7		ng/L		105	70 - 130	6	30
NMeFOSA	<0.38		35.9	35.8		ng/L		100	70 - 130	10	30
NMeFOSAA	<1.1		35.9	43.3		ng/L		121	70 - 130	6	30
NEtFOSAA	<1.2	F1	35.9	48.0	F1	ng/L		134	70 - 130	16	30
NMeFOSE	<1.3	F1	35.9	48.0	F1	ng/L		134	70 - 130	10	30
NEtFOSE	<0.76	F1 *+	35.9	56.3	F1	ng/L		157	70 - 130	7	30
4:2 FTS	<0.21	F1	33.7	41.7		ng/L		124	70 - 130	7	30
6:2 FTS	<2.2	F1	34.2	44.6	F1	ng/L		131	70 - 130	5	30
8:2 FTS	<0.41		34.5	38.1		ng/L		110	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.36	F1	33.9	55.1	F1	ng/L		163	70 - 130	6	30
HFPO-DA (GenX)	<1.3		35.9	40.5		ng/L		113	70 - 130	1	30
9Cl-PF3ONS	<0.21	F1	33.5	45.8	F1	ng/L		137	70 - 130	4	30
11Cl-PF3OUdS	<0.29	F1	33.9	49.7	F1	ng/L		147	70 - 130	3	30

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	85		25 - 150
13C5 PFPeA	58		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFHpA	102		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	84		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	86		25 - 150
13C2 PFTeDA	88		25 - 150
13C3 PFBS	82		25 - 150
18O2 PFHxS	94		25 - 150
13C4 PFOS	79		25 - 150
13C8 FOSA	78		10 - 150
d3-NMeFOSAA	91		25 - 150
d5-NEtFOSAA	78		25 - 150
d-N-MeFOSA-M	76		10 - 150
d-N-EtFOSA-M	77		10 - 150
d7-N-MeFOSE-M	69		10 - 150
d9-N-EtFOSE-M	55		10 - 150
M2-4:2 FTS	89		25 - 150
M2-6:2 FTS	69		25 - 150
M2-8:2 FTS	70		25 - 150
13C3 HFPO-DA	100		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: 500-233239-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 677091**

**Client Sample ID: TRIP BLANK**  
**Prep Type: Total/NA**  
**Prep Batch: 674233**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
13C2 10:2 FTS	95		25 - 150

**Lab Sample ID: MB 320-679359/1-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

<i>Analyte</i>	<i>MB MB Result Qualifier</i>	<i>RL</i>	<i>MDL Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorotridecanoic acid (PFTTrDA)	<1.3		2.0	1.3 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorotetradecanoic acid (PFTTeA)	<0.73		2.0	0.73 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.19		2.0	0.19 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97 ng/L		06/01/23 04:42 06/02/23 18:58	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98 ng/L		06/01/23 04:42 06/02/23 18:58	1
NEtFOSA	<0.87		2.0	0.87 ng/L		06/01/23 04:42 06/02/23 18:58	1
NMeFOSA	<0.43		2.0	0.43 ng/L		06/01/23 04:42 06/02/23 18:58	1
NMeFOSAA	<1.2		5.0	1.2 ng/L		06/01/23 04:42 06/02/23 18:58	1
NEtFOSAA	<1.3		5.0	1.3 ng/L		06/01/23 04:42 06/02/23 18:58	1
NMeFOSE	<1.4		4.0	1.4 ng/L		06/01/23 04:42 06/02/23 18:58	1
NEtFOSE	<0.85		2.0	0.85 ng/L		06/01/23 04:42 06/02/23 18:58	1
4:2 FTS	<0.24		2.0	0.24 ng/L		06/01/23 04:42 06/02/23 18:58	1
6:2 FTS	<2.5		5.0	2.5 ng/L		06/01/23 04:42 06/02/23 18:58	1
8:2 FTS	<0.46		2.0	0.46 ng/L		06/01/23 04:42 06/02/23 18:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40 ng/L		06/01/23 04:42 06/02/23 18:58	1
HFPO-DA (GenX)	<1.5		4.0	1.5 ng/L		06/01/23 04:42 06/02/23 18:58	1
9CI-PF3ONS	<0.24		2.0	0.24 ng/L		06/01/23 04:42 06/02/23 18:58	1
11CI-PF3OUdS	<0.32		2.0	0.32 ng/L		06/01/23 04:42 06/02/23 18:58	1

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	98		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C5 PFPeA	99		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 PFHxA	92		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C4 PFHpA	102		25 - 150	06/01/23 04:42	06/02/23 18:58	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: MB 320-679359/1-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFOA	96		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C5 PFNA	103		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 PFDA	98		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 PFUnA	92		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 PFDoA	88		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 PFTeDA	85		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C3 PFBS	98		25 - 150	06/01/23 04:42	06/02/23 18:58	1
18O2 PFHxS	98		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C4 PFOS	101		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C8 FOSA	106		10 - 150	06/01/23 04:42	06/02/23 18:58	1
d3-NMeFOSAA	87		25 - 150	06/01/23 04:42	06/02/23 18:58	1
d5-NEtFOSAA	94		25 - 150	06/01/23 04:42	06/02/23 18:58	1
d-N-MeFOSA-M	84		10 - 150	06/01/23 04:42	06/02/23 18:58	1
d-N-EtFOSA-M	81		10 - 150	06/01/23 04:42	06/02/23 18:58	1
d7-N-MeFOSE-M	83		10 - 150	06/01/23 04:42	06/02/23 18:58	1
d9-N-EtFOSE-M	85		10 - 150	06/01/23 04:42	06/02/23 18:58	1
M2-4:2 FTS	72		25 - 150	06/01/23 04:42	06/02/23 18:58	1
M2-6:2 FTS	77		25 - 150	06/01/23 04:42	06/02/23 18:58	1
M2-8:2 FTS	88		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C3 HFPO-DA	109		25 - 150	06/01/23 04:42	06/02/23 18:58	1
13C2 10:2 FTS	103		25 - 150	06/01/23 04:42	06/02/23 18:58	1

**Lab Sample ID: LCS 320-679359/2-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	40.0	43.3		ng/L		108	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	43.2		ng/L		108	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	44.0		ng/L		110	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	43.3		ng/L		108	60 - 135
Perfluorononanoic acid (PFNA)	40.0	43.7		ng/L		109	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	45.2		ng/L		113	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	44.8		ng/L		112	60 - 135
Perfluorotridecanoic acid (PFTTrDA)	40.0	37.1		ng/L		93	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	43.8		ng/L		109	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.5	37.0		ng/L		104	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.6	41.5		ng/L		110	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.8		ng/L		101	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.9		ng/L		107	60 - 135

Eurofins Chicago

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: LCS 320-679359/2-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	38.6		ng/L		104	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.5	41.1		ng/L		107	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	38.4		ng/L		100	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.8	30.7		ng/L		79	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	41.0		ng/L		103	60 - 135
NEtFOSA	40.0	43.6		ng/L		109	60 - 135
NMeFOSA	40.0	43.3		ng/L		108	60 - 135
NMeFOSAA	40.0	41.9		ng/L		105	60 - 135
NEtFOSAA	40.0	51.2		ng/L		128	60 - 135
NMeFOSE	40.0	41.1		ng/L		103	60 - 135
NEtFOSE	40.0	40.2		ng/L		100	60 - 135
4:2 FTS	37.5	37.6		ng/L		100	60 - 135
6:2 FTS	38.1	38.5		ng/L		101	60 - 135
8:2 FTS	38.4	39.6		ng/L		103	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	45.0		ng/L		119	60 - 135
HFPO-DA (GenX)	40.0	42.7		ng/L		107	60 - 135
9Cl-PF3ONS	37.4	41.6		ng/L		111	60 - 135
11Cl-PF3OUdS	37.8	38.7		ng/L		102	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	97		25 - 150
13C5 PFPeA	95		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	99		25 - 150
13C4 PFOA	96		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	94		25 - 150
13C2 PFUnA	87		25 - 150
13C2 PFDoA	85		25 - 150
13C2 PFTeDA	82		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	100		25 - 150
13C4 PFOS	94		25 - 150
13C8 FOSA	98		10 - 150
d3-NMeFOSAA	80		25 - 150
d5-NEtFOSAA	83		25 - 150
d-N-MeFOSA-M	80		10 - 150
d-N-EtFOSA-M	76		10 - 150
d7-N-MeFOSE-M	83		10 - 150
d9-N-EtFOSE-M	84		10 - 150
M2-4:2 FTS	72		25 - 150
M2-6:2 FTS	75		25 - 150
M2-8:2 FTS	86		25 - 150
13C3 HFPO-DA	100		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: LCS 320-679359/2-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C2 10:2 FTS	97		25 - 150

**Lab Sample ID: LCSD 320-679359/3-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	40.0		ng/L		100	60 - 135	0	30
Perfluoropentanoic acid (PFPeA)	40.0	44.6		ng/L		111	60 - 135	3	30
Perfluorohexanoic acid (PFHxA)	40.0	41.8		ng/L		104	60 - 135	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	42.0		ng/L		105	60 - 135	5	30
Perfluorooctanoic acid (PFOA)	40.0	41.7		ng/L		104	60 - 135	4	30
Perfluorononanoic acid (PFNA)	40.0	42.6		ng/L		107	60 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	44.2		ng/L		111	60 - 135	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	45.7		ng/L		114	60 - 135	4	30
Perfluorododecanoic acid (PFDoA)	40.0	43.6		ng/L		109	60 - 135	3	30
Perfluorotridecanoic acid (PFTrDA)	40.0	36.3		ng/L		91	60 - 135	2	30
Perfluorotetradecanoic acid (PFTeA)	40.0	44.0		ng/L		110	60 - 135	0	30
Perfluorobutanesulfonic acid (PFBS)	35.5	37.1		ng/L		104	60 - 135	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	43.3		ng/L		115	60 - 135	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	35.8		ng/L		98	60 - 135	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.7		ng/L		107	60 - 135	0	30
Perfluorooctanesulfonic acid (PFOS)	37.2	40.3		ng/L		108	60 - 135	4	30
Perfluorononanesulfonic acid (PFNS)	38.5	41.8		ng/L		109	60 - 135	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.3		ng/L		99	60 - 135	0	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	31.7		ng/L		82	60 - 135	3	30
Perfluorooctanesulfonamide (FOSA)	40.0	42.1		ng/L		105	60 - 135	3	30
NEtFOSA	40.0	44.7		ng/L		112	60 - 135	3	30
NMeFOSA	40.0	44.9		ng/L		112	60 - 135	4	30
NMeFOSAA	40.0	46.1		ng/L		115	60 - 135	10	30
NEtFOSAA	40.0	50.6		ng/L		127	60 - 135	1	30
NMeFOSE	40.0	42.7		ng/L		107	60 - 135	4	30
NEtFOSE	40.0	43.7		ng/L		109	60 - 135	8	30
4:2 FTS	37.5	36.4		ng/L		97	60 - 135	3	30
6:2 FTS	38.1	43.7		ng/L		115	60 - 135	12	30
8:2 FTS	38.4	39.9		ng/L		104	60 - 135	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	47.7		ng/L		126	60 - 135	6	30
HFPO-DA (GenX)	40.0	44.9		ng/L		112	60 - 135	5	30

Eurofins Chicago

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

**Lab Sample ID: LCSD 320-679359/3-A**  
**Matrix: Water**  
**Analysis Batch: 679893**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 679359**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9CI-PF3ONS	37.4	41.0		ng/L		110	60 - 135	1	30
11CI-PF3OUdS	37.8	39.4		ng/L		104	60 - 135	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	94		25 - 150
13C5 PFPeA	91		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	96		25 - 150
13C4 PFOA	96		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	83		25 - 150
13C2 PFDoA	84		25 - 150
13C2 PFTeDA	76		25 - 150
13C3 PFBS	89		25 - 150
18O2 PFHxS	94		25 - 150
13C4 PFOS	89		25 - 150
13C8 FOSA	91		10 - 150
d3-NMeFOSAA	74		25 - 150
d5-NEtFOSAA	86		25 - 150
d-N-MeFOSA-M	73		10 - 150
d-N-EtFOSA-M	69		10 - 150
d7-N-MeFOSE-M	77		10 - 150
d9-N-EtFOSE-M	78		10 - 150
M2-4:2 FTS	75		25 - 150
M2-6:2 FTS	70		25 - 150
M2-8:2 FTS	89		25 - 150
13C3 HFPO-DA	98		25 - 150
13C2 10:2 FTS	94		25 - 150

# Lab Chronicle

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Client Sample ID: MW-1

Lab Sample ID: 500-233239-1

Date Collected: 05/02/23 11:45

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 01:41

## Client Sample ID: MW-2

Lab Sample ID: 500-233239-2

Date Collected: 05/02/23 14:00

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 01:51
Total/NA	Prep	3535	DL		674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)	DL	50	676474	S1M	EET SAC	05/21/23 02:34

## Client Sample ID: MW-3

Lab Sample ID: 500-233239-3

Date Collected: 05/02/23 17:20

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		100	676474	S1M	EET SAC	05/21/23 02:54

## Client Sample ID: MW-4

Lab Sample ID: 500-233239-4

Date Collected: 05/02/23 15:35

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 02:12
Total/NA	Prep	3535	DL		674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)	DL	100	676474	S1M	EET SAC	05/21/23 03:04

## Client Sample ID: PZ-1

Lab Sample ID: 500-233239-5

Date Collected: 05/02/23 10:10

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 02:22
Total/NA	Prep	3535	DL		674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)	DL	100	676474	S1M	EET SAC	05/21/23 03:15

# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Client Sample ID: TRIP BLANK

Lab Sample ID: 500-233239-6

Date Collected: 05/02/23 00:00

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	677091	RS1	EET SAC	05/24/23 05:27

## Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 500-233239-7

Date Collected: 05/02/23 12:45

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 03:24

## Client Sample ID: FIELD BLANK

Lab Sample ID: 500-233239-8

Date Collected: 05/02/23 07:30

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	RE		679359	EFG	EET SAC	06/01/23 04:42
Total/NA	Analysis	537 (modified)	RE	1	679893	K1S	EET SAC	06/02/23 19:29
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:41
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 03:34

## Client Sample ID: FIELD DUPLICATE

Lab Sample ID: 500-233239-9

Date Collected: 05/02/23 00:00

Matrix: Water

Date Received: 05/04/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			674233	EFG	EET SAC	05/12/23 05:43
Total/NA	Analysis	537 (modified)		1	676252	S1M	EET SAC	05/20/23 03:44
Total/NA	Prep	3535	DL		674233	EFG	EET SAC	05/12/23 05:43
Total/NA	Analysis	537 (modified)	DL	50	676474	S1M	EET SAC	05/21/23 02:44

### Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

# Accreditation/Certification Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23

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# Chain of Custody Record

<b>Client Information</b> Client Contact: Mr. Joey Hahn Company: Shannon & Wilson, Inc Address: 5325 Wall Street, Suite 2355 City: Madison State, Zip: WI, 53718 Phone: 608-354-7999 Email: joey.hahn@shawnwil.com Project Name: Dane County PFAS Site: <u>Dave County</u>		Lab PM: Fredrick, Sandie E-Mail: Sandra.Fredrick@eurofinsus.com Carmer Tracking No(s): State of Origin: CCC No.: 500-112053-46443.6 Page: Page 6 of 7 Job #: Preservation Codes: A - HCL B - NaOH C - AshNaO2 D - Zn Acetate E - Nitric Acid F - NaHSO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Sampler: <u>Joe Hahn</u> Phone: <u>608-354-7999</u> PWSID:		Analysis Requested Total Number of Containers:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: <u>608-354-7999</u> Purchase Order not required Project #: 50021461 SSO#W#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> PFC, IDA, WI - PFAS, Standard List (33 analytes) <input checked="" type="checkbox"/> Special Instructions/Note:	
Sample Identification <u>MW-1</u> <u>MW-2</u> <u>MW-3</u> <u>MW-4</u> <u>PZ-1</u> <u>Trip Blank</u> <u>Equipment Blank</u> <u>Field Blank</u> <u>Field Duplicate</u>		Sample Date <u>5/2/23</u> <u>14:00</u> <u>17:20</u> <u>15:35</u> <u>10:10</u> <u>12:45</u> <u>7:30</u>	
Sample Type (C=Comp, G=grab) <u>G</u>		Matrix (W=Water, S=solid, O=soil, BT=tissue, AA=air) <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: <u>Joe Hahn</u> Relinquished by:		Date: <u>5/3/23</u> Date/Time: <u>15:00</u> Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: <u>2133172</u>		Cooler Temperature(s) °C and Other Remarks: <u>3.3°C</u>	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Method of Shipment:			
Received by: <u>Joe Hahn</u> Company: <u>SWI</u>		Date/Time: <u>5/6/23</u> Date/Time: <u>9:00</u>	
Received by:		Date/Time:	
Received by:		Date/Time:	





# Login Sample Receipt Checklist

Client: Shannon & Wilson, Inc

Job Number: 500-233239-1

**Login Number: 233239**

**List Number: 2**

**Creator: Oropeza, Salvador**

**List Source: Eurofins Sacramento**

**List Creation: 05/04/23 07:23 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2133172
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



500-233239 Field Sheet

Tracking #: 6374 2028 6063

Job: \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSO / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.  
File in the job folder with the COC.

Therm. ID: <u>U10</u> Corr. Factor: (+/-) _____ °C	Notes: _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Ice _____ Wet _____ Gel _____ Other _____	
Cooler Custody Seal: <u>2133172</u>	
Cooler ID: _____	
Temp Observed: <u>3.3</u> °C Corrected: <u>3.3</u> °C From: Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/>	
<b>Opening/Processing The Shipment</b>	
<b>Yes No NA</b>	
Cooler compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
Cooler Temperature is acceptable? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Frozen samples show signs of thaw? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Initials: <u>JF</u> Date: <u>5/4/23</u>	
<b>Unpacking/Labeling The Samples</b>	
<b>Yes No NA</b>	
COC is complete w/o discrepancies? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Samples compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
Containers are not broken or leaking? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Sample custody seal? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Sample containers have legible labels? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Sample date/times are provided? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Appropriate containers are used? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Sample bottles are completely filled? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Sample preservatives verified? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Is the Field Sampler's name on COC? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Samples require splitting/compositing? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Samples w/o discrepancies? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Zero headspace? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Alkalinity has no headspace? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Perchlorate has headspace? (Methods 314, 331, 6850) <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Multiphasic samples are not present? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")	
Initials: <u>JS</u> Date: <u>5/4/23</u>	
Trizma Lot #(s): _____ _____ _____	
<b>Login Completion</b>	
<b>Yes No NA</b>	
Receipt Temperature on COC? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Samples received within hold time? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
NCM Filed? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Log Release checked in TALS? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Initials: <u>JS</u> Date: <u>5/4/23</u>	

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

Job ID: 500-233239-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-233239-1	MW-1	96	83	99	106	100	83	80	108
500-233239-2	MW-2						98	86	106
500-233239-2 - DL	MW-2	86	79	106	100	97			
500-233239-3	MW-3	64	53	78	77	73	58	59	75
500-233239-4	MW-4						145	126	
500-233239-4 - DL	MW-4	84	73	108	114	91			85
500-233239-5	PZ-1						85	109	125
500-233239-5 - DL	PZ-1	82	67	103	100	87			
500-233239-6	TRIP BLANK	82	71	99	113	99	84	85	106
500-233239-6 MS	TRIP BLANK	88	70	106	123	102	88	92	102
500-233239-6 MSD	TRIP BLANK	85	58	98	102	100	87	84	89
500-233239-7	EQUIPMENT BLANK	97	81	108	113	104	92	90	115
500-233239-8	FIELD BLANK	96	85	110	117	103	92	89	113
500-233239-8 - RE	FIELD BLANK	98	99	95	103	98	103	98	89
500-233239-9	FIELD DUPLICATE						100	89	114
500-233239-9 - DL	FIELD DUPLICATE	89	81	111	112	108			
LCS 320-674233/2-A	Lab Control Sample	92	69	103	120	106	95	87	100
LCS 320-679359/2-A	Lab Control Sample	97	95	91	99	96	95	94	87
LCS 320-679359/3-A	Lab Control Sample Dup	94	91	91	96	96	95	92	83
MB 320-674233/1-A	Method Blank	93	90	109	117	102	88	85	111
MB 320-679359/1-A	Method Blank	98	99	92	102	96	103	98	92

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-233239-1	MW-1	101	84	92	104	84	88	91	90
500-233239-2	MW-2	82	76			92	89	90	91
500-233239-2 - DL	MW-2			90	104	90			
500-233239-3	MW-3	61	59	67	138	57	54	69	67
500-233239-4	MW-4	143	127			137	128	145	138
500-233239-4 - DL	MW-4			99	134	99			
500-233239-5	PZ-1	130	93			84	116	120	118
500-233239-5 - DL	PZ-1			85	99	76			
500-233239-6	TRIP BLANK	96	85	85	102	83	78	97	89
500-233239-6 MS	TRIP BLANK	107	91	91	100	90	81	103	99
500-233239-6 MSD	TRIP BLANK	86	88	82	94	79	78	91	78
500-233239-7	EQUIPMENT BLANK	102	99	97	105	96	88	96	103
500-233239-8	FIELD BLANK	104	105	104	105	100	94	104	112
500-233239-8 - RE	FIELD BLANK	84	83	95	99	97	97	85	82
500-233239-9	FIELD DUPLICATE	96	80			93	94	101	104
500-233239-9 - DL	FIELD DUPLICATE			103	114	91			
LCS 320-674233/2-A	Lab Control Sample	116	93	92	96	94	83	101	88
LCS 320-679359/2-A	Lab Control Sample	85	82	97	100	94	98	80	83
LCS 320-679359/3-A	Lab Control Sample Dup	84	76	89	94	89	91	74	86
MB 320-674233/1-A	Method Blank	116	94	102	103	90	89	106	108
MB 320-679359/1-A	Method Blank	88	85	98	98	101	106	87	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-233239-1	MW-1	84	84	76	70	86	78	78	92

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# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS

Job ID: 500-233239-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-233239-2	MW-2	80	79	80	61	80	80	89	117
500-233239-2 - DL	MW-2								
500-233239-3	MW-3	55	59	50	44	59	45	65	73
500-233239-4	MW-4	115	113	121	98	78	71	114	
500-233239-4 - DL	MW-4								87
500-233239-5	PZ-1	100	102	96	82	85	74	98	
500-233239-5 - DL	PZ-1								79
500-233239-6	TRIP BLANK	75	79	80	58	93	80	65	103
500-233239-6 MS	TRIP BLANK	79	79	82	62	94	83	80	110
500-233239-6 MSD	TRIP BLANK	76	77	69	55	89	69	70	100
500-233239-7	EQUIPMENT BLANK	78	80	88	70	88	72	85	99
500-233239-8	FIELD BLANK	87	91	91	75	83	76	81	102
500-233239-8 - RE	FIELD BLANK	79	74	80	81	70	75	87	108
500-233239-9	FIELD DUPLICATE	87	78	85	64	77	81	87	125
500-233239-9 - DL	FIELD DUPLICATE								
LCS 320-674233/2-A	Lab Control Sample	80	77	81	53	101	82	81	111
LCS 320-679359/2-A	Lab Control Sample	80	76	83	84	72	75	86	100
LCSD 320-679359/3-A	Lab Control Sample Dup	73	69	77	78	75	70	89	98
MB 320-674233/1-A	Method Blank	75	77	86	67	85	73	77	93
MB 320-679359/1-A	Method Blank	84	81	83	85	72	77	88	109

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-233239-1	MW-1	82
500-233239-2	MW-2	95
500-233239-2 - DL	MW-2	
500-233239-3	MW-3	59
500-233239-4	MW-4	125
500-233239-4 - DL	MW-4	
500-233239-5	PZ-1	108
500-233239-5 - DL	PZ-1	
500-233239-6	TRIP BLANK	93
500-233239-6 MS	TRIP BLANK	97
500-233239-6 MSD	TRIP BLANK	95
500-233239-7	EQUIPMENT BLANK	86
500-233239-8	FIELD BLANK	95
500-233239-8 - RE	FIELD BLANK	100
500-233239-9	FIELD DUPLICATE	85
500-233239-9 - DL	FIELD DUPLICATE	
LCS 320-674233/2-A	Lab Control Sample	92
LCS 320-679359/2-A	Lab Control Sample	97
LCSD 320-679359/3-A	Lab Control Sample Dup	94
MB 320-674233/1-A	Method Blank	90
MB 320-679359/1-A	Method Blank	103

#### Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA

# Isotope Dilution Summary

Job ID: 500-233239-1

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS

PFOA = 13C4 PFOA  
PFNA = 13C5 PFNA  
PFDA = 13C2 PFDA  
PFUnA = 13C2 PFUnA  
PFDoA = 13C2 PFDoA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFHxS = 18O2 PFHxS  
PFOS = 13C4 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
dMeFOSA = d-N-MeFOSA-M  
dEtFOSA = d-N-EtFOSA-M  
NMFm = d7-N-MeFOSE-M  
NEFM = d9-N-EtFOSE-M  
M242FTS = M2-4:2 FTS  
M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
HFPODA = 13C3 HFPO-DA  
M102FTS = 13C2 10:2 FTS

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Samantha Huntoon  
Shannon & Wilson, Inc  
5325 Wall Street, Suite 2355  
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## JOB DESCRIPTION

Dane County PFAS - 110361

## JOB NUMBER

500-238310-1

# Eurofins Chicago

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Job ID: 500-238310-1

### Laboratory: Eurofins Chicago

#### Narrative

#### Job Narrative 500-238310-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 8/17/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.6° C.

#### LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte : MW-1 (500-238310-7)

Method 537 (modified): Results for samples MW-2 (500-238310-1), PZ-1 (500-238310-3), MW-3 (500-238310-4) and MW-1 (500-238310-7) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. MW-4 (500-238310-2) and MW-3 (500-238310-4)

Method 537 (modified): Results for sample MW-4 (500-238310-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were outside acceptance limits. As the target analyte concentrations are comparable between the diluted and the undiluted analysis, the data is reported. The internal standard is not used to quantitate the target analyte results.

Method 537 (modified): Results for samples DUP-08162023 (500-238310-5) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): There are some analytes with positive results for this field blank sample and these are confirmed on re-analysis. But, considering the extremely high levels for these analytes in the accompanying samples in this job this should not be an issue. FB-081623 (500-238310-6)

Method 537 (modified): The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: PZ-1 (500-238310-3) and MW-3 (500-238310-4). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range. The client was consulted and agreed to reporting with E flags.

Method 537 (modified): The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: DUP-08162023 (500-238310-5). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range. The client was consulted and agreed to reporting with E flags.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-702269 and 320-702269.  
preparation batch 320-702269 and 320-702269  
Method: 3535 PFC-W

# Case Narrative

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

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## Job ID: 500-238310-1 (Continued)

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### Laboratory: Eurofins Chicago (Continued)

Matrix: Aqueous

Method 3535: The following samples in preparation batch 320-702269 were yellow in color prior to extraction. MW-4 (500-238310-2) and MW-3 (500-238310-4)  
preparation batch 320-702269  
Method: 3535 PFC-W  
Matrix: Aqueous

Method 3535: The following samples in preparation batch 320-702269 were observed to have a thin layer of sediment present in the bottom of the bottle prior to extraction. MW-4 (500-238310-2) and MW-3 (500-238310-4)  
preparation batch 320-702269  
Method: 3535 PFC-W  
Matrix: Aqueous

Method 3535: During the solid phase extraction process, the following samples contain non-settable particulates which clogged the solid phase extraction column: MW-3 (500-238310-4).  
preparation batch 320-702269  
Method: 3535 PFC-W  
Matrix: Aqueous

Method 3535: The following samples in preparation batch 320-702269 were yellow in color following extraction. MW-3 (500-238310-4)  
preparation batch 320-702269  
Method: 3535 PFC-W  
Matrix: Aqueous

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-706363.  
3535\_PFC\_28D  
Aqueous

Method 3535: The following sample was re-prepared outside of preparation holding time to confirm results: FB-081623 (500-238310-6).  
preparation batch 320-706363  
3535\_PFC\_28D  
Aqueous

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Client Sample ID: MW-2

## Lab Sample ID: 500-238310-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	32		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.0	J	1.7	0.27	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	21		1.7	0.16	ng/L	1		537 (modified)	Total/NA
6:2 FTS	22		4.3	2.2	ng/L	1		537 (modified)	Total/NA
8:2 FTS	40		1.7	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	550		220	100	ng/L	50		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	1600		86	21	ng/L	50		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	2100		86	25	ng/L	50		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	610		86	11	ng/L	50		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	1500		86	37	ng/L	50		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1100		86	8.6	ng/L	50		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	710		86	13	ng/L	50		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	12000		86	25	ng/L	50		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1400		86	23	ng/L	50		537 (modified)	Total/NA

## Client Sample ID: MW-4

## Lab Sample ID: 500-238310-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	290		1.7	0.23	ng/L	1		537 (modified)	Total/NA
4:2 FTS	1.7		1.7	0.20	ng/L	1		537 (modified)	Total/NA
6:2 FTS	210		4.2	2.1	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	1900		420	200	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	8800		170	41	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	11000		170	49	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	3100		170	21	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	10000		170	72	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	4000		170	17	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	2500		170	25	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	29000		170	48	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	1900		170	16	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	3000	I	170	45	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: PZ-1

## Lab Sample ID: 500-238310-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonamide (FOSA)	0.83	J	1.7	0.82	ng/L	1		537 (modified)	Total/NA
4:2 FTS	0.45	J	1.7	0.20	ng/L	1		537 (modified)	Total/NA
6:2 FTS	270		4.2	2.1	ng/L	1		537 (modified)	Total/NA
8:2 FTS	23		1.7	0.39	ng/L	1		537 (modified)	Total/NA
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.92	J	1.7	0.34	ng/L	1		537 (modified)	Total/NA
11Cl-PF3OUdS	0.31	J	1.7	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	830		420	200	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	4000		170	41	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	5300		170	49	ng/L	100		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Euofins Chicago

# Detection Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Client Sample ID: PZ-1 (Continued)

## Lab Sample ID: 500-238310-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA) - DL	2400		170	21	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	3000		170	71	ng/L	100		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA) - DL	4100		170	23	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1700		170	17	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	1600		170	25	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	14000		170	48	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	590		170	16	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	37000	E	170	45	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: MW-3

## Lab Sample ID: 500-238310-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	240		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	120		1.7	0.16	ng/L	1		537 (modified)	Total/NA
6:2 FTS	41		4.3	2.2	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	1300		430	210	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	4800		170	42	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	5200		170	50	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	3000		170	22	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	16000		170	73	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1800		170	17	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	1700		170	26	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	40000	E	170	49	ng/L	100		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	460	I	170	47	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: DUP-08162023

## Lab Sample ID: 500-238310-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4:2 FTS	0.44	J	1.7	0.20	ng/L	1		537 (modified)	Total/NA
6:2 FTS	270		4.2	2.1	ng/L	1		537 (modified)	Total/NA
8:2 FTS	26		1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	850		420	200	ng/L	100		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	3900		170	41	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	5400		170	49	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	2500		170	21	ng/L	100		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	3200		170	72	ng/L	100		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA) - DL	4300		170	23	ng/L	100		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	1600		170	17	ng/L	100		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	1500		170	25	ng/L	100		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	13000		170	48	ng/L	100		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	580		170	16	ng/L	100		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Client Sample ID: DUP-08162023 (Continued)

Lab Sample ID: 500-238310-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS) - DL	36000	E	170	46	ng/L	100		537 (modified)	Total/NA

## Client Sample ID: FB-081623

Lab Sample ID: 500-238310-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.26	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.94	J	1.7	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		1.7	0.46	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: MW-1

Lab Sample ID: 500-238310-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.4		4.3	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	49		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	42		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	130		1.7	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.24	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.9		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.5		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	21	I	1.7	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	500		8.5	2.4	ng/L	5		537 (modified)	Total/NA
- DL									

This Detection Summary does not include radiochemical test results.

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# Method Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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# Sample Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-238310-1	MW-2	Water	08/16/23 11:10	08/17/23 09:30
500-238310-2	MW-4	Water	08/16/23 13:45	08/17/23 09:30
500-238310-3	PZ-1	Water	08/16/23 14:30	08/17/23 09:30
500-238310-4	MW-3	Water	08/16/23 17:45	08/17/23 09:30
500-238310-5	DUP-08162023	Water	08/16/23 00:00	08/17/23 09:30
500-238310-6	FB-081623	Water	08/16/23 00:00	08/17/23 09:30
500-238310-7	MW-1	Water	08/16/23 17:00	08/17/23 09:30

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# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-2**  
**Date Collected: 08/16/23 11:10**  
**Date Received: 08/17/23 09:30**

**Lab Sample ID: 500-238310-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	32		1.7	0.23	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorodecanoic acid (PFDA)	1.0	J	1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluoroundecanoic acid (PFUnA)	<0.95		1.7	0.95	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorotetradecanoic acid (PFTeA)	<0.63		1.7	0.63	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluoroheptanesulfonic acid (PFHps)	21		1.7	0.16	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluoronanesulfonic acid (PFNS)	<0.32		1.7	0.32	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7	0.28	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorododecanesulfonic acid (PFDoS)	<0.84		1.7	0.84	ng/L		08/28/23 19:27	08/30/23 19:09	1
Perfluorooctanesulfonamide (FOSA)	<0.84		1.7	0.84	ng/L		08/28/23 19:27	08/30/23 19:09	1
NEtFOSA	<0.75		1.7	0.75	ng/L		08/28/23 19:27	08/30/23 19:09	1
NMeFOSA	<0.37		1.7	0.37	ng/L		08/28/23 19:27	08/30/23 19:09	1
NMeFOSAA	<1.0		4.3	1.0	ng/L		08/28/23 19:27	08/30/23 19:09	1
NEtFOSAA	<1.1		4.3	1.1	ng/L		08/28/23 19:27	08/30/23 19:09	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 19:09	1
NEtFOSE	<0.73		1.7	0.73	ng/L		08/28/23 19:27	08/30/23 19:09	1
4:2 FTS	<0.21		1.7	0.21	ng/L		08/28/23 19:27	08/30/23 19:09	1
6:2 FTS	22		4.3	2.2	ng/L		08/28/23 19:27	08/30/23 19:09	1
8:2 FTS	40		1.7	0.40	ng/L		08/28/23 19:27	08/30/23 19:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	08/30/23 19:09	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 19:09	1
9CI-PF3ONS	<0.21		1.7	0.21	ng/L		08/28/23 19:27	08/30/23 19:09	1
11CI-PF3OUdS	<0.28		1.7	0.28	ng/L		08/28/23 19:27	08/30/23 19:09	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	76		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C2 PFDA	79		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C2 PFUnA	74		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C2 PFDoA	72		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C2 PFTeDA	67		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C4 PFOS	71		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C8 FOSA	82		10 - 150	08/28/23 19:27	08/30/23 19:09	1
d3-NMeFOSAA	68		25 - 150	08/28/23 19:27	08/30/23 19:09	1
d5-NEtFOSAA	72		25 - 150	08/28/23 19:27	08/30/23 19:09	1
d-N-MeFOSA-M	63		10 - 150	08/28/23 19:27	08/30/23 19:09	1
d-N-EtFOSA-M	67		10 - 150	08/28/23 19:27	08/30/23 19:09	1
d7-N-MeFOSE-M	69		10 - 150	08/28/23 19:27	08/30/23 19:09	1
d9-N-EtFOSE-M	71		10 - 150	08/28/23 19:27	08/30/23 19:09	1
M2-4:2 FTS	67		25 - 150	08/28/23 19:27	08/30/23 19:09	1
M2-6:2 FTS	70		25 - 150	08/28/23 19:27	08/30/23 19:09	1
M2-8:2 FTS	74		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C3 HFPO-DA	71		25 - 150	08/28/23 19:27	08/30/23 19:09	1
13C2 10:2 FTS	70		25 - 150	08/28/23 19:27	08/30/23 19:09	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	550		220	100	ng/L		08/28/23 19:27	09/02/23 05:44	50

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-2**

**Lab Sample ID: 500-238310-1**

**Date Collected: 08/16/23 11:10**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1600		86	21	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluorohexanoic acid (PFHxA)	2100		86	25	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluoroheptanoic acid (PFHpA)	610		86	11	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluorooctanoic acid (PFOA)	1500		86	37	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluorobutanesulfonic acid (PFBS)	1100		86	8.6	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluoropentanesulfonic acid (PFPeS)	710		86	13	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluorohexanesulfonic acid (PFHxS)	12000		86	25	ng/L		08/28/23 19:27	09/02/23 05:44	50
Perfluorooctanesulfonic acid (PFOS)	1400		86	23	ng/L		08/28/23 19:27	09/02/23 05:44	50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C5 PFPeA	74		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C2 PFHxA	78		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C4 PFHpA	73		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C4 PFOA	73		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C3 PFBS	75		25 - 150	08/28/23 19:27	09/02/23 05:44	50
18O2 PFHxS	83		25 - 150	08/28/23 19:27	09/02/23 05:44	50
13C4 PFOS	71		25 - 150	08/28/23 19:27	09/02/23 05:44	50

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-4**

**Lab Sample ID: 500-238310-2**

**Date Collected: 08/16/23 13:45**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorononanoic acid (PFNA)</b>	<b>290</b>		1.7	0.23	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluoroundecanoic acid (PFUnA)	<0.93		1.7	0.93	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorotetradecanoic acid (PFTeA)	<0.61		1.7	0.61	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorononanesulfonic acid (PFNS)	<0.31		1.7	0.31	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorododecanesulfonic acid (PFDoS)	<0.82		1.7	0.82	ng/L		08/28/23 19:27	08/30/23 19:20	1
Perfluorooctanesulfonamide (FOSA)	<0.82		1.7	0.82	ng/L		08/28/23 19:27	08/30/23 19:20	1
NEtFOSA	<0.73		1.7	0.73	ng/L		08/28/23 19:27	08/30/23 19:20	1
NMeFOSA	<0.36		1.7	0.36	ng/L		08/28/23 19:27	08/30/23 19:20	1
NMeFOSAA	<1.0		4.2	1.0	ng/L		08/28/23 19:27	08/30/23 19:20	1
NEtFOSAA	<1.1		4.2	1.1	ng/L		08/28/23 19:27	08/30/23 19:20	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 19:20	1
NEtFOSE	<0.72		1.7	0.72	ng/L		08/28/23 19:27	08/30/23 19:20	1
<b>4:2 FTS</b>	<b>1.7</b>		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:20	1
<b>6:2 FTS</b>	<b>210</b>		4.2	2.1	ng/L		08/28/23 19:27	08/30/23 19:20	1
8:2 FTS	<0.39		1.7	0.39	ng/L		08/28/23 19:27	08/30/23 19:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	08/30/23 19:20	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 19:20	1
9CI-PF3ONS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:20	1
11CI-PF3OUdS	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	69		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C2 PFDA	71		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C2 PFUnA	65		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C2 PFDoA	64		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C2 PFTeDA	60		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C4 PFOS	65		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C8 FOSA	78		10 - 150	08/28/23 19:27	08/30/23 19:20	1
d3-NMeFOSAA	66		25 - 150	08/28/23 19:27	08/30/23 19:20	1
d5-NEtFOSAA	64		25 - 150	08/28/23 19:27	08/30/23 19:20	1
d-N-MeFOSA-M	54		10 - 150	08/28/23 19:27	08/30/23 19:20	1
d-N-EtFOSA-M	56		10 - 150	08/28/23 19:27	08/30/23 19:20	1
d7-N-MeFOSE-M	64		10 - 150	08/28/23 19:27	08/30/23 19:20	1
d9-N-EtFOSE-M	64		10 - 150	08/28/23 19:27	08/30/23 19:20	1
M2-4:2 FTS	55		25 - 150	08/28/23 19:27	08/30/23 19:20	1
M2-6:2 FTS	58		25 - 150	08/28/23 19:27	08/30/23 19:20	1
M2-8:2 FTS	65		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C3 HFPO-DA	68		25 - 150	08/28/23 19:27	08/30/23 19:20	1
13C2 10:2 FTS	65		25 - 150	08/28/23 19:27	08/30/23 19:20	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>1900</b>		420	200	ng/L		08/28/23 19:27	09/02/23 06:18	100
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>8800</b>		170	41	ng/L		08/28/23 19:27	09/02/23 06:18	100
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>11000</b>		170	49	ng/L		08/28/23 19:27	09/02/23 06:18	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-4**

**Lab Sample ID: 500-238310-2**

Date Collected: 08/16/23 13:45

Matrix: Water

Date Received: 08/17/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	3100		170	21	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluorooctanoic acid (PFOA)	10000		170	72	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluorobutanesulfonic acid (PFBS)	4000		170	17	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluoropentanesulfonic acid (PFPeS)	2500		170	25	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluorohexanesulfonic acid (PFHxS)	29000		170	48	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluoroheptanesulfonic acid (PFHpS)	1900		170	16	ng/L		08/28/23 19:27	09/02/23 06:18	100
Perfluorooctanesulfonic acid (PFOS)	3000	I	170	45	ng/L		08/28/23 19:27	09/02/23 06:18	100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	73		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C5 PFPeA	67		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C2 PFHxA	83		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C4 PFHpA	64		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C4 PFOA	66		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C3 PFBS	69		25 - 150	08/28/23 19:27	09/02/23 06:18	100
18O2 PFHxS	95		25 - 150	08/28/23 19:27	09/02/23 06:18	100
13C4 PFOS	60		25 - 150	08/28/23 19:27	09/02/23 06:18	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: PZ-1**

**Lab Sample ID: 500-238310-3**

**Date Collected: 08/16/23 14:30**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluoroundecanoic acid (PFUnA)	<0.92		1.7	0.92	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.61		1.7	0.61	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorononanesulfonic acid (PFNS)	<0.31		1.7	0.31	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.81		1.7	0.81	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>Perfluorooctanesulfonamide (FOSA)</b>	<b>0.83</b>	<b>J</b>	1.7	0.82	ng/L		08/28/23 19:27	08/30/23 19:32	1
NEtFOSA	<0.73		1.7	0.73	ng/L		08/28/23 19:27	08/30/23 19:32	1
NMeFOSA	<0.36		1.7	0.36	ng/L		08/28/23 19:27	08/30/23 19:32	1
NMeFOSAA	<1.0		4.2	1.0	ng/L		08/28/23 19:27	08/30/23 19:32	1
NEtFOSAA	<1.1		4.2	1.1	ng/L		08/28/23 19:27	08/30/23 19:32	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 19:32	1
NEtFOSE	<0.71		1.7	0.71	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>4:2 FTS</b>	<b>0.45</b>	<b>J</b>	1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>6:2 FTS</b>	<b>270</b>		4.2	2.1	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>8:2 FTS</b>	<b>23</b>		1.7	0.39	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>4,8-Dioxa-3H-perfluorononanoic acid (ADONA)</b>	<b>0.92</b>	<b>J</b>	1.7	0.34	ng/L		08/28/23 19:27	08/30/23 19:32	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 19:32	1
9CI-PF3ONS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>11CI-PF3OUds</b>	<b>0.31</b>	<b>J</b>	1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:32	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C2 PFDA	71		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C2 PFUnA	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C2 PFDoA	63		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C2 PFTeDA	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C3 PFBS	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C4 PFOS	36		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C8 FOSA	78		10 - 150				08/28/23 19:27	08/30/23 19:32	1
d3-NMeFOSAA	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
d5-NEtFOSAA	68		25 - 150				08/28/23 19:27	08/30/23 19:32	1
d-N-MeFOSA-M	60		10 - 150				08/28/23 19:27	08/30/23 19:32	1
d-N-EtFOSA-M	63		10 - 150				08/28/23 19:27	08/30/23 19:32	1
d7-N-MeFOSE-M	67		10 - 150				08/28/23 19:27	08/30/23 19:32	1
d9-N-EtFOSE-M	67		10 - 150				08/28/23 19:27	08/30/23 19:32	1
M2-4:2 FTS	62		25 - 150				08/28/23 19:27	08/30/23 19:32	1
M2-6:2 FTS	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
M2-8:2 FTS	70		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C3 HFPO-DA	65		25 - 150				08/28/23 19:27	08/30/23 19:32	1
13C2 10:2 FTS	66		25 - 150				08/28/23 19:27	08/30/23 19:32	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>830</b>		420	200	ng/L		08/28/23 19:27	09/02/23 06:29	100
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4000</b>		170	41	ng/L		08/28/23 19:27	09/02/23 06:29	100
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>5300</b>		170	49	ng/L		08/28/23 19:27	09/02/23 06:29	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: PZ-1**

**Lab Sample ID: 500-238310-3**

Date Collected: 08/16/23 14:30

Matrix: Water

Date Received: 08/17/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	2400		170	21	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluorooctanoic acid (PFOA)	3000		170	71	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluorononanoic acid (PFNA)	4100		170	23	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluorobutanesulfonic acid (PFBS)	1700		170	17	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluoropentanesulfonic acid (PFPeS)	1600		170	25	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluorohexanesulfonic acid (PFHxS)	14000		170	48	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluoroheptanesulfonic acid (PFHpS)	590		170	16	ng/L		08/28/23 19:27	09/02/23 06:29	100
Perfluorooctanesulfonic acid (PFOS)	37000	E	170	45	ng/L		08/28/23 19:27	09/02/23 06:29	100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C5 PFPeA	84		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C2 PFHxA	84		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C4 PFHpA	72		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C4 PFOA	78		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C5 PFNA	79		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C3 PFBS	78		25 - 150	08/28/23 19:27	09/02/23 06:29	100
18O2 PFHxS	85		25 - 150	08/28/23 19:27	09/02/23 06:29	100
13C4 PFOS	78		25 - 150	08/28/23 19:27	09/02/23 06:29	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-3**  
**Date Collected: 08/16/23 17:45**  
**Date Received: 08/17/23 09:30**

**Lab Sample ID: 500-238310-4**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorononanoic acid (PFNA)</b>	<b>240</b>		1.7	0.23	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluoroundecanoic acid (PFUnA)	<0.95		1.7	0.95	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorotetradecanoic acid (PFTeA)	<0.63		1.7	0.63	ng/L		08/28/23 19:27	08/30/23 19:43	1
<b>Perfluoroheptanesulfonic acid (PFHps)</b>	<b>120</b>		1.7	0.16	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorononanesulfonic acid (PFNS)	<0.32		1.7	0.32	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7	0.28	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorododecanesulfonic acid (PFDoS)	<0.84		1.7	0.84	ng/L		08/28/23 19:27	08/30/23 19:43	1
Perfluorooctanesulfonamide (FOSA)	<0.84		1.7	0.84	ng/L		08/28/23 19:27	08/30/23 19:43	1
NEtFOSA	<0.75		1.7	0.75	ng/L		08/28/23 19:27	08/30/23 19:43	1
NMeFOSA	<0.37		1.7	0.37	ng/L		08/28/23 19:27	08/30/23 19:43	1
NMeFOSAA	<1.0		4.3	1.0	ng/L		08/28/23 19:27	08/30/23 19:43	1
NEtFOSAA	<1.1		4.3	1.1	ng/L		08/28/23 19:27	08/30/23 19:43	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 19:43	1
NEtFOSE	<0.73		1.7	0.73	ng/L		08/28/23 19:27	08/30/23 19:43	1
4:2 FTS	<0.21		1.7	0.21	ng/L		08/28/23 19:27	08/30/23 19:43	1
<b>6:2 FTS</b>	<b>41</b>		4.3	2.2	ng/L		08/28/23 19:27	08/30/23 19:43	1
8:2 FTS	<0.40		1.7	0.40	ng/L		08/28/23 19:27	08/30/23 19:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	08/30/23 19:43	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 19:43	1
9Cl-PF3ONS	<0.21		1.7	0.21	ng/L		08/28/23 19:27	08/30/23 19:43	1
11Cl-PF3OUdS	<0.28		1.7	0.28	ng/L		08/28/23 19:27	08/30/23 19:43	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFNA	76		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C2 PFDA	71		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C2 PFUnA	58		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C2 PFDoA	49		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C2 PFTeDA	43		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C4 PFOS	69		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C8 FOSA	76		10 - 150				08/28/23 19:27	08/30/23 19:43	1
d3-NMeFOSAA	59		25 - 150				08/28/23 19:27	08/30/23 19:43	1
d5-NEtFOSAA	59		25 - 150				08/28/23 19:27	08/30/23 19:43	1
d-N-MeFOSA-M	46		10 - 150				08/28/23 19:27	08/30/23 19:43	1
d-N-EtFOSA-M	49		10 - 150				08/28/23 19:27	08/30/23 19:43	1
d7-N-MeFOSE-M	49		10 - 150				08/28/23 19:27	08/30/23 19:43	1
d9-N-EtFOSE-M	48		10 - 150				08/28/23 19:27	08/30/23 19:43	1
M2-4:2 FTS	58		25 - 150				08/28/23 19:27	08/30/23 19:43	1
M2-6:2 FTS	63		25 - 150				08/28/23 19:27	08/30/23 19:43	1
M2-8:2 FTS	75		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C3 HFPO-DA	69		25 - 150				08/28/23 19:27	08/30/23 19:43	1
13C2 10:2 FTS	54		25 - 150				08/28/23 19:27	08/30/23 19:43	1

## Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>1300</b>		430	210	ng/L		08/28/23 19:27	09/02/23 06:41	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-3**

**Lab Sample ID: 500-238310-4**

Date Collected: 08/16/23 17:45

Matrix: Water

Date Received: 08/17/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	4800		170	42	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluorohexanoic acid (PFHxA)	5200		170	50	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluoroheptanoic acid (PFHpA)	3000		170	22	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluorooctanoic acid (PFOA)	16000		170	73	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluorobutanesulfonic acid (PFBS)	1800		170	17	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluoropentanesulfonic acid (PFPeS)	1700		170	26	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluorohexanesulfonic acid (PFHxS)	40000	E	170	49	ng/L		08/28/23 19:27	09/02/23 06:41	100
Perfluorooctanesulfonic acid (PFOS)	460	I	170	47	ng/L		08/28/23 19:27	09/02/23 06:41	100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	71		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C5 PFPeA	63		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C2 PFHxA	75		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C4 PFHpA	65		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C4 PFOA	64		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C3 PFBS	63		25 - 150	08/28/23 19:27	09/02/23 06:41	100
18O2 PFHxS	111		25 - 150	08/28/23 19:27	09/02/23 06:41	100
13C4 PFOS	70		25 - 150	08/28/23 19:27	09/02/23 06:41	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: DUP-08162023**

**Lab Sample ID: 500-238310-5**

**Date Collected: 08/16/23 00:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluoroundecanoic acid (PFUnA)	<0.93		1.7	0.93	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorotetradecanoic acid (PFTeA)	<0.62		1.7	0.62	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorononanesulfonic acid (PFNS)	<0.31		1.7	0.31	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorododecanesulfonic acid (PFDoS)	<0.82		1.7	0.82	ng/L		08/28/23 19:27	08/30/23 19:54	1
Perfluorooctanesulfonamide (FOSA)	<0.83		1.7	0.83	ng/L		08/28/23 19:27	08/30/23 19:54	1
NEtFOSA	<0.73		1.7	0.73	ng/L		08/28/23 19:27	08/30/23 19:54	1
NMeFOSA	<0.36		1.7	0.36	ng/L		08/28/23 19:27	08/30/23 19:54	1
NMeFOSAA	<1.0		4.2	1.0	ng/L		08/28/23 19:27	08/30/23 19:54	1
NEtFOSAA	<1.1		4.2	1.1	ng/L		08/28/23 19:27	08/30/23 19:54	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 19:54	1
NEtFOSE	<0.72		1.7	0.72	ng/L		08/28/23 19:27	08/30/23 19:54	1
<b>4:2 FTS</b>	<b>0.44</b>	<b>J</b>	1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:54	1
<b>6:2 FTS</b>	<b>270</b>		4.2	2.1	ng/L		08/28/23 19:27	08/30/23 19:54	1
<b>8:2 FTS</b>	<b>26</b>		1.7	0.39	ng/L		08/28/23 19:27	08/30/23 19:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	08/30/23 19:54	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 19:54	1
9Cl-PF3ONS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 19:54	1
11Cl-PF3OUdS	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 19:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	78		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C2 PFUnA	73		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C2 PFDoA	69		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C2 PFTeDA	70		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C4 PFOS	38		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C8 FOSA	86		10 - 150	08/28/23 19:27	08/30/23 19:54	1
d3-NMeFOSAA	71		25 - 150	08/28/23 19:27	08/30/23 19:54	1
d5-NEtFOSAA	79		25 - 150	08/28/23 19:27	08/30/23 19:54	1
d-N-MeFOSA-M	68		10 - 150	08/28/23 19:27	08/30/23 19:54	1
d-N-EtFOSA-M	68		10 - 150	08/28/23 19:27	08/30/23 19:54	1
d7-N-MeFOSE-M	70		10 - 150	08/28/23 19:27	08/30/23 19:54	1
d9-N-EtFOSE-M	74		10 - 150	08/28/23 19:27	08/30/23 19:54	1
M2-4:2 FTS	68		25 - 150	08/28/23 19:27	08/30/23 19:54	1
M2-6:2 FTS	70		25 - 150	08/28/23 19:27	08/30/23 19:54	1
M2-8:2 FTS	67		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C3 HFPO-DA	71		25 - 150	08/28/23 19:27	08/30/23 19:54	1
13C2 10:2 FTS	74		25 - 150	08/28/23 19:27	08/30/23 19:54	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	850		420	200	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluoropentanoic acid (PFPeA)	3900		170	41	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluorohexanoic acid (PFHxA)	5400		170	49	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluoroheptanoic acid (PFHpA)	2500		170	21	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluorooctanoic acid (PFOA)	3200		170	72	ng/L		08/28/23 19:27	09/05/23 19:45	100

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: DUP-08162023**

**Lab Sample ID: 500-238310-5**

Date Collected: 08/16/23 00:00

Matrix: Water

Date Received: 08/17/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	4300		170	23	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluorobutanesulfonic acid (PFBS)	1600		170	17	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluoropentanesulfonic acid (PFPeS)	1500		170	25	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluorohexanesulfonic acid (PFHxS)	13000		170	48	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluoroheptanesulfonic acid (PFHpS)	580		170	16	ng/L		08/28/23 19:27	09/05/23 19:45	100
Perfluorooctanesulfonic acid (PFOS)	36000	E	170	46	ng/L		08/28/23 19:27	09/05/23 19:45	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	83		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C5 PFPeA	90		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C2 PFHxA	85		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C4 PFHpA	72		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C4 PFOA	76		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C5 PFNA	81		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C3 PFBS	86		25 - 150				08/28/23 19:27	09/05/23 19:45	100
18O2 PFHxS	92		25 - 150				08/28/23 19:27	09/05/23 19:45	100
13C4 PFOS	79		25 - 150				08/28/23 19:27	09/05/23 19:45	100

# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: FB-081623**

**Lab Sample ID: 500-238310-6**

**Date Collected: 08/16/23 00:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.0		4.2	2.0	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluoropentanoic acid (PFPeA)	<0.41		1.7	0.41	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorohexanoic acid (PFHxA)	<0.49		1.7	0.49	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluoroheptanoic acid (PFHpA)	<0.21		1.7	0.21	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorooctanoic acid (PFOA)	<0.72		1.7	0.72	ng/L		08/28/23 19:27	09/02/23 07:03	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.26</b>	<b>J</b>	1.7	0.23	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluoroundecanoic acid (PFUnA)	<0.93		1.7	0.93	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorotridecanoic acid (PFTTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorotetradecanoic acid (PFTeA)	<0.62		1.7	0.62	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorobutanesulfonic acid (PFBS)	<0.17		1.7	0.17	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluoropentanesulfonic acid (PFPeS)	<0.25		1.7	0.25	ng/L		08/28/23 19:27	09/02/23 07:03	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>0.94</b>	<b>J</b>	1.7	0.48	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.16		1.7	0.16	ng/L		08/28/23 19:27	09/02/23 07:03	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.3</b>		1.7	0.46	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorononanesulfonic acid (PFNS)	<0.31		1.7	0.31	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorododecanesulfonic acid (PFDoS)	<0.82		1.7	0.82	ng/L		08/28/23 19:27	09/02/23 07:03	1
Perfluorooctanesulfonamide (FOSA)	<0.83		1.7	0.83	ng/L		08/28/23 19:27	09/02/23 07:03	1
NEtFOSA	<0.73		1.7	0.73	ng/L		08/28/23 19:27	09/02/23 07:03	1
NMeFOSA	<0.36		1.7	0.36	ng/L		08/28/23 19:27	09/02/23 07:03	1
NMeFOSAA	<1.0		4.2	1.0	ng/L		08/28/23 19:27	09/02/23 07:03	1
NEtFOSAA	<1.1		4.2	1.1	ng/L		08/28/23 19:27	09/02/23 07:03	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	09/02/23 07:03	1
NEtFOSE	<0.72		1.7	0.72	ng/L		08/28/23 19:27	09/02/23 07:03	1
4:2 FTS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	09/02/23 07:03	1
6:2 FTS	<2.1		4.2	2.1	ng/L		08/28/23 19:27	09/02/23 07:03	1
8:2 FTS	<0.39		1.7	0.39	ng/L		08/28/23 19:27	09/02/23 07:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	09/02/23 07:03	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	09/02/23 07:03	1
9Cl-PF3ONS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	09/02/23 07:03	1
11Cl-PF3OUdS	<0.27		1.7	0.27	ng/L		08/28/23 19:27	09/02/23 07:03	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	136		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C5 PFPeA	122		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C2 PFHxA	129		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C4 PFHpA	120		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C4 PFOA	120		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C5 PFNA	132		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C2 PFDA	125		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C2 PFUnA	115		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C2 PFDoA	109		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C2 PFTeDA	109		25 - 150				08/28/23 19:27	09/02/23 07:03	1
13C3 PFBS	128		25 - 150				08/28/23 19:27	09/02/23 07:03	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: FB-081623**

**Lab Sample ID: 500-238310-6**

**Date Collected: 08/16/23 00:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	124		25 - 150	08/28/23 19:27	09/02/23 07:03	1
13C4 PFOS	119		25 - 150	08/28/23 19:27	09/02/23 07:03	1
13C8 FOSA	124		10 - 150	08/28/23 19:27	09/02/23 07:03	1
d3-NMeFOSAA	117		25 - 150	08/28/23 19:27	09/02/23 07:03	1
d5-NEtFOSAA	126		25 - 150	08/28/23 19:27	09/02/23 07:03	1
d-N-MeFOSA-M	98		10 - 150	08/28/23 19:27	09/02/23 07:03	1
d-N-EtFOSA-M	104		10 - 150	08/28/23 19:27	09/02/23 07:03	1
d7-N-MeFOSE-M	113		10 - 150	08/28/23 19:27	09/02/23 07:03	1
d9-N-EtFOSE-M	110		10 - 150	08/28/23 19:27	09/02/23 07:03	1
M2-4:2 FTS	122		25 - 150	08/28/23 19:27	09/02/23 07:03	1
M2-6:2 FTS	113		25 - 150	08/28/23 19:27	09/02/23 07:03	1
M2-8:2 FTS	130		25 - 150	08/28/23 19:27	09/02/23 07:03	1
13C3 HFPO-DA	100		25 - 150	08/28/23 19:27	09/02/23 07:03	1
13C2 10:2 FTS	122		25 - 150	08/28/23 19:27	09/02/23 07:03	1

# Client Sample Results

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-1**  
**Date Collected: 08/16/23 17:00**  
**Date Received: 08/17/23 09:30**

**Lab Sample ID: 500-238310-7**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	9.4		4.3	2.0	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluoropentanoic acid (PFPeA)	14		1.7	0.42	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorohexanoic acid (PFHxA)	49		1.7	0.49	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluoroheptanoic acid (PFHpA)	42		1.7	0.21	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorooctanoic acid (PFOA)	130		1.7	0.72	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorononanoic acid (PFNA)	0.24	J	1.7	0.23	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluoroundecanoic acid (PFUnA)	<0.94		1.7	0.94	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorotridecanoic acid (PFTTrDA)	<1.1		1.7	1.1	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorotetradecanoic acid (PFTeA)	<0.62		1.7	0.62	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorobutanesulfonic acid (PFBS)	5.9		1.7	0.17	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluoropentanesulfonic acid (PFPeS)	6.5		1.7	0.26	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.16		1.7	0.16	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorooctanesulfonic acid (PFOS)	21	I	1.7	0.46	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorononanesulfonic acid (PFNS)	<0.32		1.7	0.32	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorododecanesulfonic acid (PFDoS)	<0.83		1.7	0.83	ng/L		08/28/23 19:27	08/30/23 20:17	1
Perfluorooctanesulfonamide (FOSA)	<0.84		1.7	0.84	ng/L		08/28/23 19:27	08/30/23 20:17	1
NEtFOSA	<0.74		1.7	0.74	ng/L		08/28/23 19:27	08/30/23 20:17	1
NMeFOSA	<0.37		1.7	0.37	ng/L		08/28/23 19:27	08/30/23 20:17	1
NMeFOSAA	<1.0		4.3	1.0	ng/L		08/28/23 19:27	08/30/23 20:17	1
NEtFOSAA	<1.1		4.3	1.1	ng/L		08/28/23 19:27	08/30/23 20:17	1
NMeFOSE	<1.2		3.4	1.2	ng/L		08/28/23 19:27	08/30/23 20:17	1
NEtFOSE	<0.72		1.7	0.72	ng/L		08/28/23 19:27	08/30/23 20:17	1
4:2 FTS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 20:17	1
6:2 FTS	<2.1		4.3	2.1	ng/L		08/28/23 19:27	08/30/23 20:17	1
8:2 FTS	<0.39		1.7	0.39	ng/L		08/28/23 19:27	08/30/23 20:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		08/28/23 19:27	08/30/23 20:17	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		08/28/23 19:27	08/30/23 20:17	1
9Cl-PF3ONS	<0.20		1.7	0.20	ng/L		08/28/23 19:27	08/30/23 20:17	1
11Cl-PF3OUdS	<0.27		1.7	0.27	ng/L		08/28/23 19:27	08/30/23 20:17	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	84		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C5 PFPeA	82		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C2 PFHxA	81		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C4 PFHpA	81		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C4 PFOA	84		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C5 PFNA	87		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C2 PFDA	83		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C2 PFUnA	81		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C2 PFDoA	78		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C2 PFTTrDA	75		25 - 150				08/28/23 19:27	08/30/23 20:17	1
13C3 PFBS	83		25 - 150				08/28/23 19:27	08/30/23 20:17	1
18O2 PFHxS	83		25 - 150				08/28/23 19:27	08/30/23 20:17	1

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# Client Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: MW-1**

**Lab Sample ID: 500-238310-7**

**Date Collected: 08/16/23 17:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

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

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	77		25 - 150	08/28/23 19:27	08/30/23 20:17	1
13C8 FOSA	88		10 - 150	08/28/23 19:27	08/30/23 20:17	1
d3-NMeFOSAA	75		25 - 150	08/28/23 19:27	08/30/23 20:17	1
d5-NEtFOSAA	86		25 - 150	08/28/23 19:27	08/30/23 20:17	1
d-N-MeFOSA-M	67		10 - 150	08/28/23 19:27	08/30/23 20:17	1
d-N-EtFOSA-M	68		10 - 150	08/28/23 19:27	08/30/23 20:17	1
d7-N-MeFOSE-M	73		10 - 150	08/28/23 19:27	08/30/23 20:17	1
d9-N-EtFOSE-M	75		10 - 150	08/28/23 19:27	08/30/23 20:17	1
M2-4:2 FTS	77		25 - 150	08/28/23 19:27	08/30/23 20:17	1
M2-6:2 FTS	76		25 - 150	08/28/23 19:27	08/30/23 20:17	1
M2-8:2 FTS	81		25 - 150	08/28/23 19:27	08/30/23 20:17	1
13C3 HFPO-DA	72		25 - 150	08/28/23 19:27	08/30/23 20:17	1
13C2 10:2 FTS	75		25 - 150	08/28/23 19:27	08/30/23 20:17	1

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>500</b>		8.5	2.4	ng/L		08/28/23 19:27	09/02/23 07:15	5
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>			
18O2 PFHxS	88		25 - 150	08/28/23 19:27	09/02/23 07:15	5			

# Definitions/Glossary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
E	Result exceeded calibration range.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## LCMS

### Prep Batch: 702269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238310-1 - DL	MW-2	Total/NA	Water	3535	
500-238310-1	MW-2	Total/NA	Water	3535	
500-238310-2 - DL	MW-4	Total/NA	Water	3535	
500-238310-2	MW-4	Total/NA	Water	3535	
500-238310-3 - DL	PZ-1	Total/NA	Water	3535	
500-238310-3	PZ-1	Total/NA	Water	3535	
500-238310-4	MW-3	Total/NA	Water	3535	
500-238310-4 - DL	MW-3	Total/NA	Water	3535	
500-238310-5	DUP-08162023	Total/NA	Water	3535	
500-238310-5 - DL	DUP-08162023	Total/NA	Water	3535	
500-238310-6	FB-081623	Total/NA	Water	3535	
500-238310-7	MW-1	Total/NA	Water	3535	
500-238310-7 - DL	MW-1	Total/NA	Water	3535	
MB 320-702269/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-702269/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-702269/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 702832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238310-1	MW-2	Total/NA	Water	537 (modified)	702269
500-238310-2	MW-4	Total/NA	Water	537 (modified)	702269
500-238310-3	PZ-1	Total/NA	Water	537 (modified)	702269
500-238310-4	MW-3	Total/NA	Water	537 (modified)	702269
500-238310-5	DUP-08162023	Total/NA	Water	537 (modified)	702269
500-238310-7	MW-1	Total/NA	Water	537 (modified)	702269
MB 320-702269/1-A	Method Blank	Total/NA	Water	537 (modified)	702269
LCS 320-702269/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	702269
LCSD 320-702269/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	702269

### Analysis Batch: 703510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238310-1 - DL	MW-2	Total/NA	Water	537 (modified)	702269
500-238310-2 - DL	MW-4	Total/NA	Water	537 (modified)	702269
500-238310-3 - DL	PZ-1	Total/NA	Water	537 (modified)	702269
500-238310-4 - DL	MW-3	Total/NA	Water	537 (modified)	702269
500-238310-6	FB-081623	Total/NA	Water	537 (modified)	702269
500-238310-7 - DL	MW-1	Total/NA	Water	537 (modified)	702269

### Analysis Batch: 703863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238310-5 - DL	DUP-08162023	Total/NA	Water	537 (modified)	702269

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-702269/1-A**  
**Matrix: Water**  
**Analysis Batch: 702832**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 702269**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorotridecanoic acid (PFTrDA)	<1.3		2.0	1.3	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.19		2.0	0.19	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		08/28/23 19:27	08/30/23 15:23	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		08/28/23 19:27	08/30/23 15:23	1
NEtFOSA	<0.87		2.0	0.87	ng/L		08/28/23 19:27	08/30/23 15:23	1
NMeFOSA	<0.43		2.0	0.43	ng/L		08/28/23 19:27	08/30/23 15:23	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		08/28/23 19:27	08/30/23 15:23	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		08/28/23 19:27	08/30/23 15:23	1
NMeFOSE	<1.4		4.0	1.4	ng/L		08/28/23 19:27	08/30/23 15:23	1
NEtFOSE	<0.85		2.0	0.85	ng/L		08/28/23 19:27	08/30/23 15:23	1
4:2 FTS	<0.24		2.0	0.24	ng/L		08/28/23 19:27	08/30/23 15:23	1
6:2 FTS	<2.5		5.0	2.5	ng/L		08/28/23 19:27	08/30/23 15:23	1
8:2 FTS	<0.46		2.0	0.46	ng/L		08/28/23 19:27	08/30/23 15:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		08/28/23 19:27	08/30/23 15:23	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		08/28/23 19:27	08/30/23 15:23	1
9Cl-PF3ONS	<0.24		2.0	0.24	ng/L		08/28/23 19:27	08/30/23 15:23	1
11Cl-PF3OUdS	<0.32		2.0	0.32	ng/L		08/28/23 19:27	08/30/23 15:23	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	88		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C5 PFPeA	79		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 PFHxA	80		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C4 PFHpA	78		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C4 PFOA	80		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C5 PFNA	86		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 PFDA	85		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 PFUnA	79		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 PFDoA	77		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 PFTeDA	71		25 - 150	08/28/23 19:27	08/30/23 15:23	1

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

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

**Lab Sample ID: MB 320-702269/1-A**  
**Matrix: Water**  
**Analysis Batch: 702832**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 702269**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFBS	78		25 - 150	08/28/23 19:27	08/30/23 15:23	1
18O2 PFHxS	79		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C4 PFOS	79		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C8 FOSA	87		10 - 150	08/28/23 19:27	08/30/23 15:23	1
d3-NMeFOSAA	72		25 - 150	08/28/23 19:27	08/30/23 15:23	1
d5-NEtFOSAA	75		25 - 150	08/28/23 19:27	08/30/23 15:23	1
d-N-MeFOSA-M	68		10 - 150	08/28/23 19:27	08/30/23 15:23	1
d-N-EtFOSA-M	73		10 - 150	08/28/23 19:27	08/30/23 15:23	1
d7-N-MeFOSE-M	77		10 - 150	08/28/23 19:27	08/30/23 15:23	1
d9-N-EtFOSE-M	78		10 - 150	08/28/23 19:27	08/30/23 15:23	1
M2-4:2 FTS	78		25 - 150	08/28/23 19:27	08/30/23 15:23	1
M2-6:2 FTS	72		25 - 150	08/28/23 19:27	08/30/23 15:23	1
M2-8:2 FTS	81		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C3 HFPO-DA	69		25 - 150	08/28/23 19:27	08/30/23 15:23	1
13C2 10:2 FTS	79		25 - 150	08/28/23 19:27	08/30/23 15:23	1

**Lab Sample ID: LCS 320-702269/2-A**  
**Matrix: Water**  
**Analysis Batch: 702832**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 702269**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	40.0	42.1		ng/L		105	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	41.2		ng/L		103	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	37.3		ng/L		93	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	36.3		ng/L		91	60 - 135
Perfluorononanoic acid (PFNA)	40.0	41.1		ng/L		103	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	37.0		ng/L		93	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	38.6		ng/L		97	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	42.7		ng/L		107	60 - 135
Perfluorotridecanoic acid (PFTrDA)	40.0	41.6		ng/L		104	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	38.7		ng/L		97	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.5	33.9		ng/L		96	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.6		ng/L		95	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.5	32.2		ng/L		88	60 - 135
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.3		ng/L		100	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.2	36.4		ng/L		98	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.5	37.9		ng/L		99	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	35.4		ng/L		92	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.0		ng/L		88	60 - 135

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# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

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

**Lab Sample ID: LCS 320-702269/2-A**  
**Matrix: Water**  
**Analysis Batch: 702832**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 702269**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (FOSA)	40.0	36.5		ng/L		91	60 - 135
NEtFOSA	40.0	39.1		ng/L		98	60 - 135
NMeFOSA	40.0	45.3		ng/L		113	60 - 135
NMeFOSAA	40.0	40.2		ng/L		100	60 - 135
NEtFOSAA	40.0	36.9		ng/L		92	60 - 135
NMeFOSE	40.0	38.2		ng/L		95	60 - 135
NEtFOSE	40.0	38.0		ng/L		95	60 - 135
4:2 FTS	37.5	33.9		ng/L		90	60 - 135
6:2 FTS	38.1	36.2		ng/L		95	60 - 135
8:2 FTS	38.4	35.0		ng/L		91	60 - 135
4,8-Dioxa-3H-perfluoronanoic acid (ADONA)	37.8	37.8		ng/L		100	60 - 135
HFPO-DA (GenX)	40.0	40.5		ng/L		101	60 - 135
9Cl-PF3ONS	37.4	35.4		ng/L		95	60 - 135
11Cl-PF3OUdS	37.8	35.3		ng/L		93	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	93		25 - 150
13C5 PFPeA	87		25 - 150
13C2 PFHxA	88		25 - 150
13C4 PFHpA	86		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	94		25 - 150
13C2 PFDA	90		25 - 150
13C2 PFUnA	84		25 - 150
13C2 PFDoA	78		25 - 150
13C2 PFTeDA	78		25 - 150
13C3 PFBS	86		25 - 150
18O2 PFHxS	87		25 - 150
13C4 PFOS	84		25 - 150
13C8 FOSA	94		10 - 150
d3-NMeFOSAA	80		25 - 150
d5-NEtFOSAA	85		25 - 150
d-N-MeFOSA-M	77		10 - 150
d-N-EtFOSA-M	82		10 - 150
d7-N-MeFOSE-M	83		10 - 150
d9-N-EtFOSE-M	87		10 - 150
M2-4:2 FTS	87		25 - 150
M2-6:2 FTS	83		25 - 150
M2-8:2 FTS	85		25 - 150
13C3 HFPO-DA	74		25 - 150
13C2 10:2 FTS	85		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

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

**Lab Sample ID: LCSD 320-702269/3-A**  
**Matrix: Water**  
**Analysis Batch: 702832**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 702269**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Perfluorobutanoic acid (PFBA)	40.0	40.6		ng/L		101	60 - 135	6	30	
Perfluoropentanoic acid (PFPeA)	40.0	40.4		ng/L		101	60 - 135	4	30	
Perfluorohexanoic acid (PFHxA)	40.0	43.6		ng/L		109	60 - 135	6	30	
Perfluoroheptanoic acid (PFHpA)	40.0	38.8		ng/L		97	60 - 135	4	30	
Perfluorooctanoic acid (PFOA)	40.0	38.1		ng/L		95	60 - 135	5	30	
Perfluorononanoic acid (PFNA)	40.0	45.9		ng/L		115	60 - 135	11	30	
Perfluorodecanoic acid (PFDA)	40.0	39.3		ng/L		98	60 - 135	6	30	
Perfluoroundecanoic acid (PFUnA)	40.0	41.1		ng/L		103	60 - 135	6	30	
Perfluorododecanoic acid (PFDoA)	40.0	43.0		ng/L		107	60 - 135	1	30	
Perfluorotridecanoic acid (PFTTrDA)	40.0	38.8		ng/L		97	60 - 135	7	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	39.9		ng/L		100	60 - 135	3	30	
Perfluorobutanesulfonic acid (PFBS)	35.5	35.7		ng/L		101	60 - 135	5	30	
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.1		ng/L		99	60 - 135	4	30	
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.6		ng/L		92	60 - 135	4	30	
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.7		ng/L		104	60 - 135	4	30	
Perfluorooctanesulfonic acid (PFOS)	37.2	38.5		ng/L		104	60 - 135	6	30	
Perfluorononanesulfonic acid (PFNS)	38.5	37.6		ng/L		98	60 - 135	1	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	37.2		ng/L		97	60 - 135	5	30	
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.0		ng/L		88	60 - 135	0	30	
Perfluorooctanesulfonamide (FOSA)	40.0	36.1		ng/L		90	60 - 135	1	30	
NEtFOSA	40.0	41.3		ng/L		103	60 - 135	6	30	
NMeFOSA	40.0	45.2		ng/L		113	60 - 135	0	30	
NMeFOSAA	40.0	38.8		ng/L		97	60 - 135	4	30	
NEtFOSAA	40.0	36.2		ng/L		90	60 - 135	2	30	
NMeFOSE	40.0	39.5		ng/L		99	60 - 135	3	30	
NEtFOSE	40.0	38.9		ng/L		97	60 - 135	2	30	
4:2 FTS	37.5	37.0		ng/L		99	60 - 135	9	30	
6:2 FTS	38.1	38.3		ng/L		100	60 - 135	5	30	
8:2 FTS	38.4	42.2		ng/L		110	60 - 135	19	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	40.4		ng/L		107	60 - 135	7	30	
HFPO-DA (GenX)	40.0	42.4		ng/L		106	60 - 135	5	30	
9CI-PF3ONS	37.4	36.8		ng/L		99	60 - 135	4	30	
11CI-PF3OUdS	37.8	35.9		ng/L		95	60 - 135	2	30	

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	83		25 - 150
13C5 PFPeA	81		25 - 150
13C2 PFHxA	81		25 - 150

# QC Sample Results

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

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

Lab Sample ID: LCSD 320-702269/3-A  
 Matrix: Water  
 Analysis Batch: 702832

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 702269

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C4 PFHpA	82		25 - 150
13C4 PFOA	86		25 - 150
13C5 PFNA	82		25 - 150
13C2 PFDA	84		25 - 150
13C2 PFUnA	78		25 - 150
13C2 PFDoA	76		25 - 150
13C2 PFTeDA	74		25 - 150
13C3 PFBS	80		25 - 150
18O2 PFHxS	82		25 - 150
13C4 PFOS	78		25 - 150
13C8 FOSA	87		10 - 150
d3-NMeFOSAA	77		25 - 150
d5-NEtFOSAA	84		25 - 150
d-N-MeFOSA-M	73		10 - 150
d-N-EtFOSA-M	75		10 - 150
d7-N-MeFOSE-M	80		10 - 150
d9-N-EtFOSE-M	80		10 - 150
M2-4:2 FTS	77		25 - 150
M2-6:2 FTS	77		25 - 150
M2-8:2 FTS	77		25 - 150
13C3 HFPO-DA	69		25 - 150
13C2 10:2 FTS	70		25 - 150



# Lab Chronicle

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Client Sample ID: MW-2

Date Collected: 08/16/23 11:10

Date Received: 08/17/23 09:30

Lab Sample ID: 500-238310-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 19:09
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	50	703510	RS1	EET SAC	09/02/23 05:44

## Client Sample ID: MW-4

Date Collected: 08/16/23 13:45

Date Received: 08/17/23 09:30

Lab Sample ID: 500-238310-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 19:20
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	100	703510	RS1	EET SAC	09/02/23 06:18

## Client Sample ID: PZ-1

Date Collected: 08/16/23 14:30

Date Received: 08/17/23 09:30

Lab Sample ID: 500-238310-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 19:32
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	100	703510	RS1	EET SAC	09/02/23 06:29

## Client Sample ID: MW-3

Date Collected: 08/16/23 17:45

Date Received: 08/17/23 09:30

Lab Sample ID: 500-238310-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 19:43
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	100	703510	RS1	EET SAC	09/02/23 06:41

## Client Sample ID: DUP-08162023

Date Collected: 08/16/23 00:00

Date Received: 08/17/23 09:30

Lab Sample ID: 500-238310-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 19:54
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	100	703863	C1P	EET SAC	09/05/23 19:45

# Lab Chronicle

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

**Client Sample ID: FB-081623**

**Lab Sample ID: 500-238310-6**

**Date Collected: 08/16/23 00:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	703510	RS1	EET SAC	09/02/23 07:03

**Client Sample ID: MW-1**

**Lab Sample ID: 500-238310-7**

**Date Collected: 08/16/23 17:00**

**Matrix: Water**

**Date Received: 08/17/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)		1	702832	K1S	EET SAC	08/30/23 20:17
Total/NA	Prep	3535	DL		702269	ERR	EET SAC	08/28/23 19:27
Total/NA	Analysis	537 (modified)	DL	5	703510	RS1	EET SAC	09/02/23 07:15

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Accreditation/Certification Summary

Client: Shannon & Wilson, Inc  
Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.


Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23 *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Chain of Custody Record**



<b>Client Information</b> Client Contact: <u>Samantha Huntoon</u> Phone: <u>608 880 7352</u> E-Mail: <u>Sandra.Fredrick@eurofins.com</u>		Lab PM: <u>Fredrick, Sandie</u> Camper Tracking No(s): State of Origin:		COC No: <u>500-115060-47352 1</u> Page: <u>Page 1 of 2</u> Job #:	
Company: <u>Shannon &amp; Wilson Inc</u> Address: <u>5325 Wall Street, Suite 2355</u> City: <u>Madison</u> State, Zip: <u>WI 53718</u> Phone: <u>608 880 7352</u> Email: <u>jeeyahaha@shawnwil.com</u> Project Name: <u>Dane County PFAS</u> Site: <u>110361</u>		PWSID: Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: <u>Purchase Order not required</u> WO #:		Analysis Requested  <u>500-238310 Chain of Custody</u>	
Project #: <u>50021461</u> SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Performance (MSP Yes or No) <input checked="" type="checkbox"/> N PFC, IDA, W PFAS, Standard List (33 analytes) <input checked="" type="checkbox"/> X		Total Number:	
<b>Sample Identification</b>		<b>Sample Date</b>		<b>Sample Time</b>	
<u>MW 2</u>		<u>8/10/23</u>		<u>11:10</u>	
<u>MW 4</u>		<u>8/10/23</u>		<u>13:45</u>	
<u>PZ 1</u>		<u>8/10/23</u>		<u>14:30</u>	
<u>MW 3</u>		<u>8/10/23</u>		<u>17:45</u>	
<u>DUP 08/10/2023</u>		<u>8/10/23</u>			
<u>FB 08/10/23</u>		<u>8/10/23</u>			
<u>MW 1</u>		<u>8/10/23</u>		<u>17:00</u>	
<b>Matrix</b> (W=water, B=soil, O=hydro, G=grab)		<b>Sample Type</b> (C=Comp, G=grab)		<b>Preservation Code:</b>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<u>Water</u>		<u>G</u>		<u>Water</u>	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<b>Deliverable Requested:</b> I, II, III, IV Other (specify)		<b>Special Instructions/Note:</b>	
<input type="checkbox"/> Empty Kit Relinquished by		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>	
<b>Relinquished by:</b> <u>Samantha Huntoon</u>		<b>Date/Time:</b> <u>8/10/23</u>		<b>Company:</b>	
<b>Relinquished by:</b>		<b>Date/Time:</b>		<b>Company:</b>	
<b>Relinquished by:</b>		<b>Date/Time:</b>		<b>Company:</b>	
<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Custody Seal No.</b>		<b>Cooler Temperature(s) °C and Other Remarks:</b> <u>2.6</u>	





# Login Sample Receipt Checklist

Client: Shannon & Wilson, Inc

Job Number: 500-238310-1

**Login Number: 238310**

**List Number: 1**

**Creator: Simmons, Jason C**

**List Source: Eurofins Sacramento**

**List Creation: 08/17/23 02:54 PM**

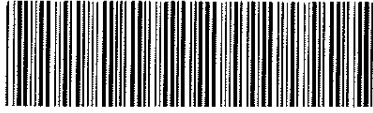
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2302503
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Environment Testing

Sacramento  
Sample Receiving Notes



500-238310 Field Sheet

Tracking # 6578 9771 2161

Job \_\_\_\_\_

SO /  FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal Cooler Custody Seal, Temperature & corrected Temperature & other observations.  
File in the job folder with the COC.

Therm ID <u>410</u> Corr Factor (+/-) _____ °C	Notes _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
Ice <input type="checkbox"/> Wet _____ Gel _____ Other _____		
Cooler Custody Seal <u>2302503</u>		
Cooler ID _____		
Temp Observed <u>2.6</u> °C Corrected <u>2.6</u> °C From Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/>		
<b>Opening/Processing The Shipment</b>		
Cooler compromised/tampered with? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Cooler Temperature is acceptable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Frozen samples show signs of thaw? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Initials <u>JP</u> Date <u>8/17/23</u>		
<b>Unpacking/Labeling The Samples</b>	Trizma Lot #(s) _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
Containers are not broken or leaking? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Samples compromised/tampered with? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
COC is complete w/o discrepancies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Sample custody seal? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Sample containers have legible labels? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Sample date/times are provided? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Appropriate containers are used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Sample bottles are completely filled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Sample preservatives verified? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Is the Field Sampler's name on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>	Ammonium Acetate Lot #(s) _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
Samples w/o discrepancies? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Zero headspace?* <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Alkalinity has no headspace? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Perchlorate has headspace? (Methods 314, 331 6850) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Multiphasic samples are not present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")		
Initials <u>DM</u> Date <u>08/17/23</u>		Initials <u>DM</u> Date <u>08/17/23</u>
<b>Login Completion</b>		
Receipt Temperature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
NCM Filed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		
Samples received within hold time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		
Log Release checked in TALS? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)	PFDoA (25-150)	PFTDA (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
500-238310-1	MW-2	76	79	74	72	67	71	82	68
500-238310-2	MW-4	69	71	65	64	60	65	78	66
500-238310-4	MW-3	76	71	58	49	43	69	76	59
500-238310-5	DUP-08162023		78	73	69	70	38	86	71

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-238310-1	MW-2	72	63	67	69	71	67	70	74
500-238310-2	MW-4	64	54	56	64	64	55	58	65
500-238310-4	MW-3	59	46	49	49	48	58	63	75
500-238310-5	DUP-08162023	79	68	68	70	74	68	70	67

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-238310-1	MW-2	71	70
500-238310-2	MW-4	68	65
500-238310-4	MW-3	69	54
500-238310-5	DUP-08162023	71	74

### Surrogate Legend

- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDoA = 13C2 PFDoA
- PFTDA = 13C2 PFTeDA
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- dMeFOSA = d-N-MeFOSA-M
- dEtFOSA = d-N-EtFOSA-M
- NMFM = d7-N-MeFOSE-M
- NEFM = d9-N-EtFOSE-M
- M242FTS = M2-4:2 FTS
- M262FTS = M2-6:2 FTS
- M282FTS = M2-8:2 FTS
- HFPODA = 13C3 HFPO-DA
- M102FTS = 13C2 10:2 FTS

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)
500-238310-1 - DL	MW-2	81	74	78	73	73	75	83	71
500-238310-2 - DL	MW-4	73	67	83	64	66	69	95	60
500-238310-4 - DL	MW-3	71	63	75	65	64	63	111	70

### Surrogate Legend

Euofins Chicago

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-238310-3	PZ-1							71	65
500-238310-6	FB-081623	136	122	129	120	120	132	125	115
500-238310-7	MW-1	84	82	81	81	84	87	83	81
LCS 320-702269/2-A	Lab Control Sample	93	87	88	86	89	94	90	84
LCSD 320-702269/3-A	Lab Control Sample Dup	83	81	81	82	86	82	84	78
MB 320-702269/1-A	Method Blank	88	79	80	78	80	86	85	79

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
500-238310-3	PZ-1	63	65	65		36	78	65	68
500-238310-6	FB-081623	109	109	128	124	119	124	117	126
500-238310-7	MW-1	78	75	83	83	77	88	75	86
LCS 320-702269/2-A	Lab Control Sample	78	78	86	87	84	94	80	85
LCSD 320-702269/3-A	Lab Control Sample Dup	76	74	80	82	78	87	77	84
MB 320-702269/1-A	Method Blank	77	71	78	79	79	87	72	75

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	HFPODA (25-150)
500-238310-3	PZ-1	60	63	67	67	62	65	70	65
500-238310-6	FB-081623	98	104	113	110	122	113	130	100
500-238310-7	MW-1	67	68	73	75	77	76	81	72
LCS 320-702269/2-A	Lab Control Sample	77	82	83	87	87	83	85	74
LCSD 320-702269/3-A	Lab Control Sample Dup	73	75	80	80	77	77	77	69
MB 320-702269/1-A	Method Blank	68	73	77	78	78	72	81	69

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M102FTS (25-150)
500-238310-3	PZ-1	66
500-238310-6	FB-081623	122
500-238310-7	MW-1	75
LCS 320-702269/2-A	Lab Control Sample	85
LCSD 320-702269/3-A	Lab Control Sample Dup	70
MB 320-702269/1-A	Method Blank	79

#### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA

# Isotope Dilution Summary

Client: Shannon & Wilson, Inc  
 Project/Site: Dane County PFAS - 110361

Job ID: 500-238310-1

PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 PFDoA = 13C2 PFDoA  
 PFTDA = 13C2 PFTeDA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 PFOSA = 13C8 FOSA  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 dMeFOSA = d-N-MeFOSA-M  
 dEtFOSA = d-N-EtFOSA-M  
 NMFm = d7-N-MeFOSE-M  
 NEFM = d9-N-EtFOSE-M  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 HFPODA = 13C3 HFPO-DA  
 M102FTS = 13C2 10:2 FTS

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	C3PFBS (25-150)	PFHxS (25-150)
500-238310-3 - DL	PZ-1	81	84	84	72	78	79	78	85
500-238310-5 - DL	DUP-08162023	83	90	85	72	76	81	86	92

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFOS (25-150)
500-238310-3 - DL	PZ-1	78
500-238310-5 - DL	DUP-08162023	79

#### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (25-150)
500-238310-7 - DL	MW-1	88

#### Surrogate Legend

PFHxS = 18O2 PFHxS

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Appendix E

# PFAS Spider Plots

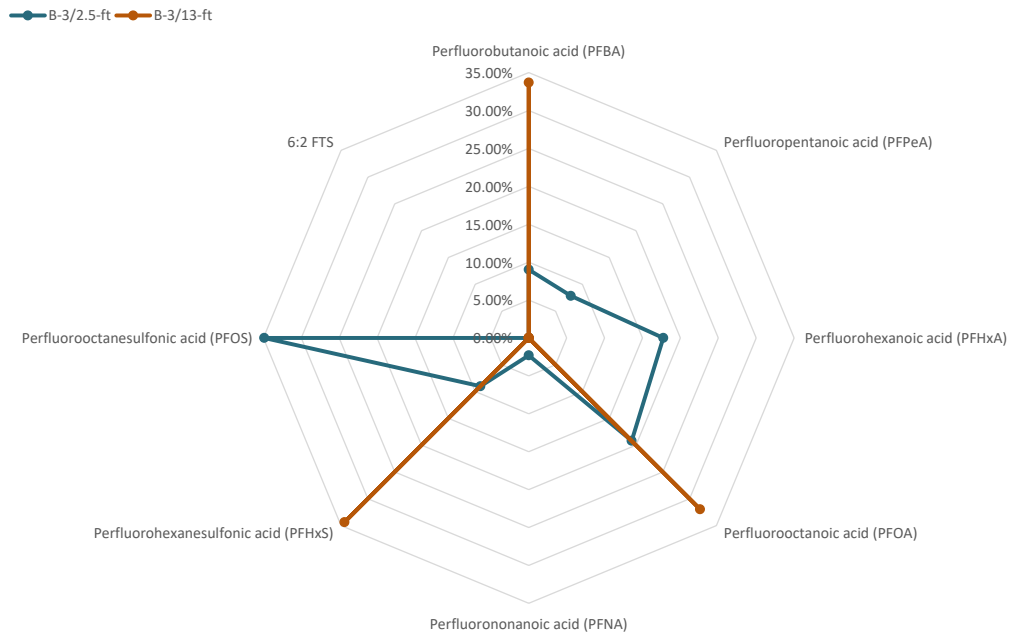
APPENDIX E: PFAS SPIDER PLOTS

**APPENDIX E: PFAS SPIDER PLOTS**

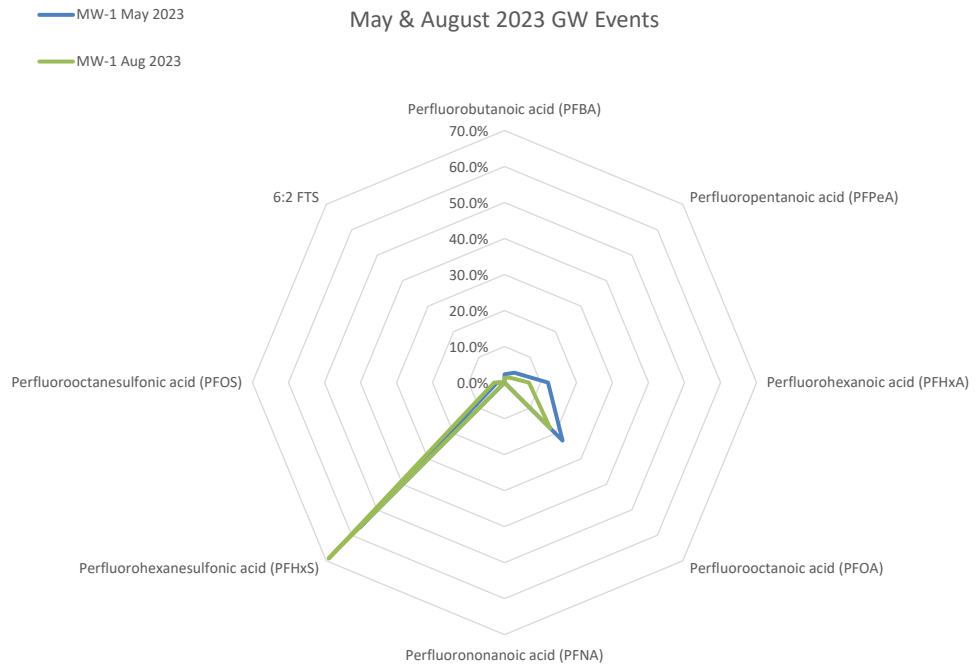
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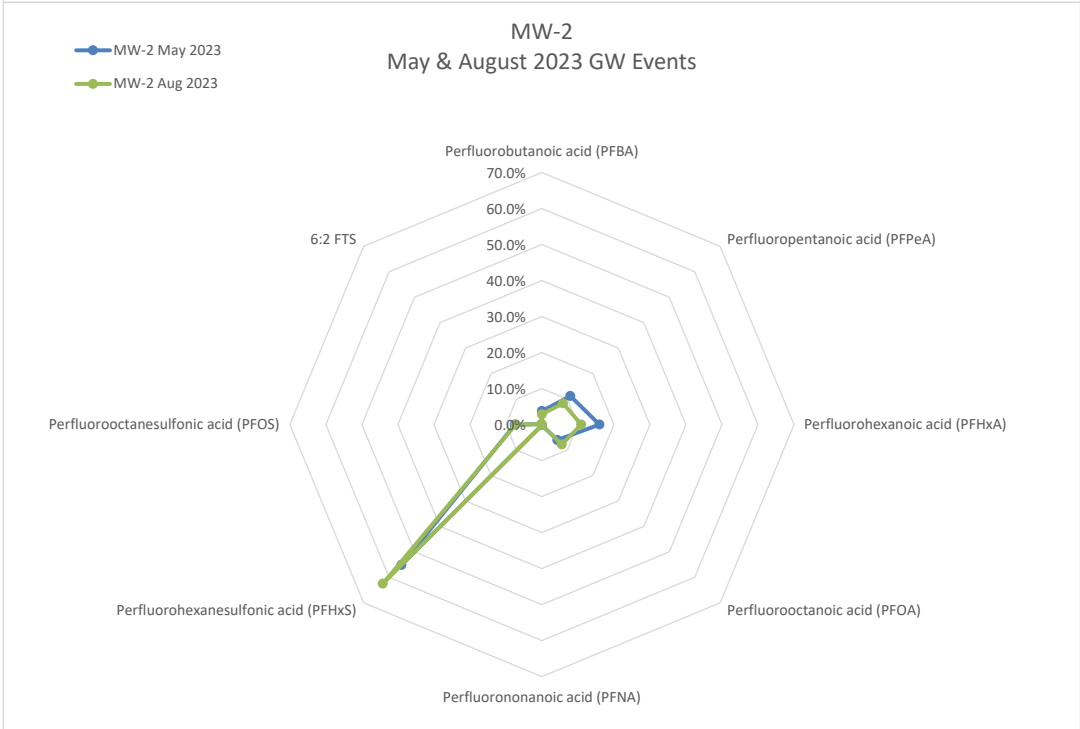
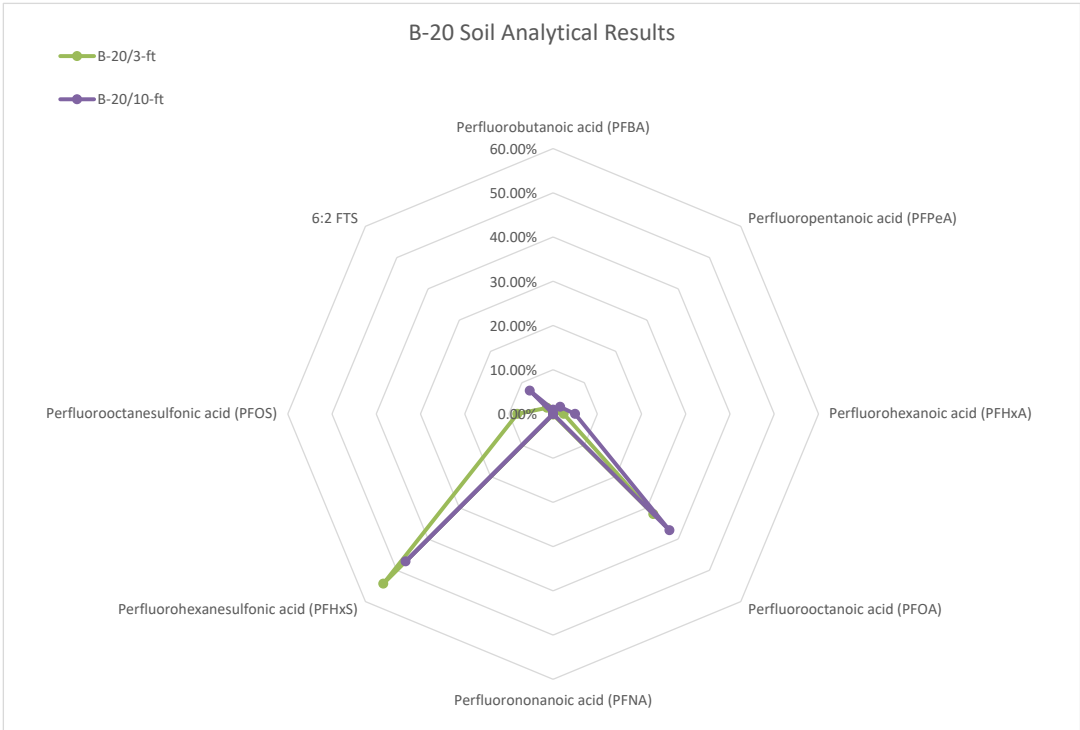


### B-3 Soil Analytical Results

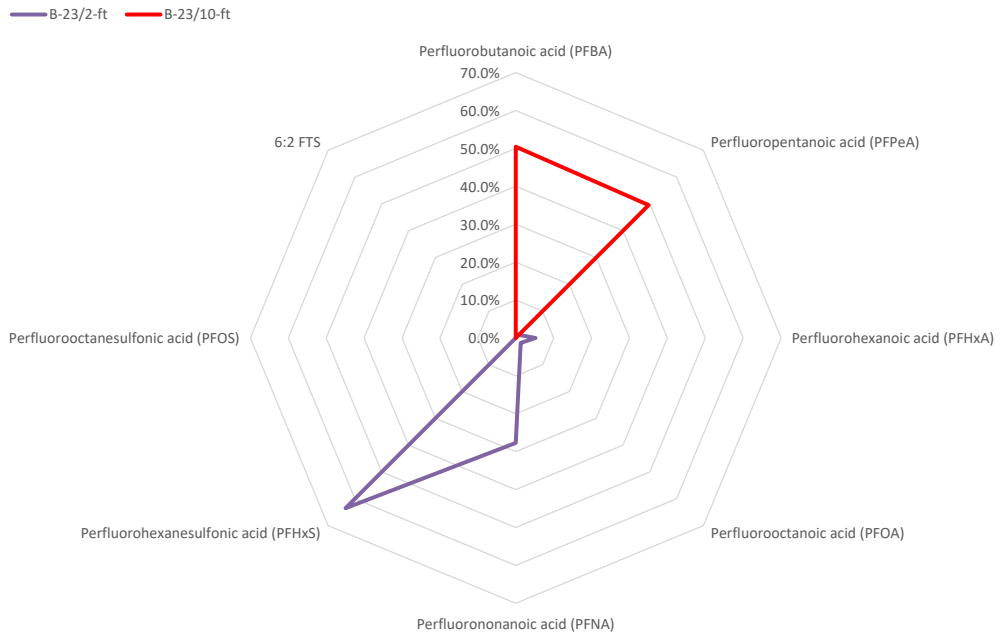


### MW-1 May & August 2023 GW Events

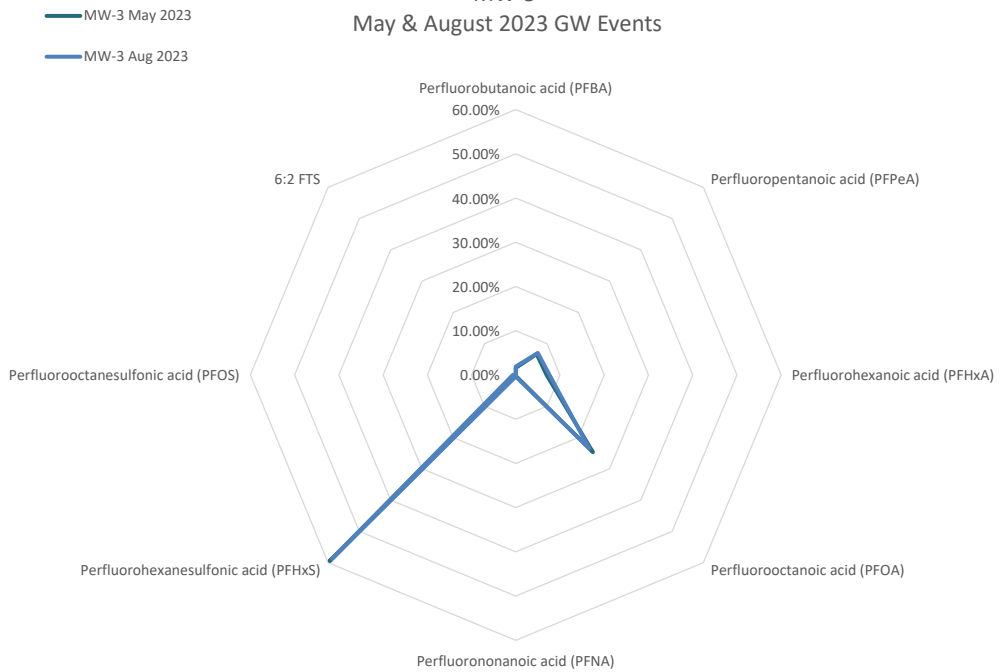




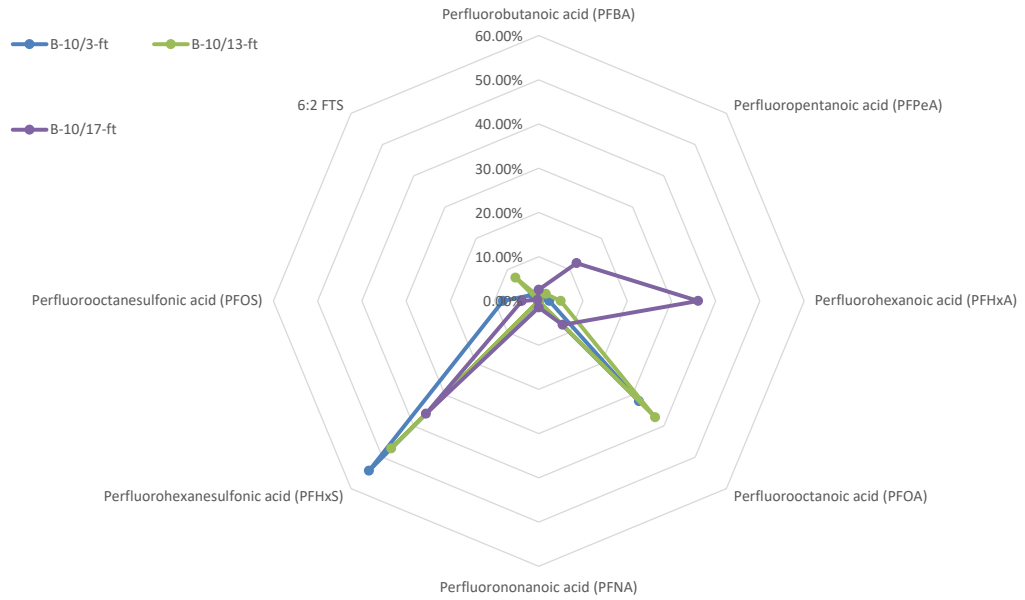
### B-23 Soil Analytical Results



### MW-3 May & August 2023 GW Events



### B-10 Soil Analytical Results



### MW-4 and PZ-1 May & August 2023 GW Events

