

October 7, 2020

David Rozeboom  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
Eau Claire Regional Office  
1300 W. Clairemont Ave.  
Eau Claire, WI 54701

**RE: Site Investigation Status Update  
La Crosse Municipal Wells 23 & 24  
Fisherman Rd, French Island, La Crosse, WI  
WDNR BRRTS Activity # 02-32-000065**

Dear Mr. Rozeboom:

Coulee Environmental Solutions™, a division of The OS Group, LLC, (OSG) herein provides this site investigation status update for the La Crosse Municipal Wells 23 & 24 site. This status update serves to inform the City of La Crosse (the City) and Wisconsin Department of Natural Resources (WDNR) about the findings of the soil, groundwater and surface water sampling performed to date.

### Background and Discussion

The La Crosse Municipal Wells 23 and 24 site is located at the La Crosse Regional Airport (LSE or the airport) on French Island in the Mississippi/Black River complex, in La Crosse County, WI. See Figure 1: Site Location Map and Figure 2: Site Layout Map. Figure 2 also depicts the suspect contaminant source areas under investigation. The site was previously under investigation and remediation for chlorinated solvents contamination in the 1990s and 2000s. The site was reopened by the WDNR Remediation and Redevelopment Program on May 10, 2019 after the WDNR Water Supply Program was informed that Polyfluoralkyl Substances (PFAS) were detected in municipal well 23, located on the east side of French Island, during sampling conducted in 2014 and 2016. Engaged by the City in July 2019, OSG submitted, to the WDNR, a Site Investigation Work Plan in September 2019 and subsequent revisions to the work plan in January, March and June 2020. While a more detailed description of the site history and potential source areas is provided in the SIWP and subsequent revisions, a brief summary is provided below:

- PFAS, presumably from Aqueous Film Forming Foam (AFFF) firefighting foam, is the type of contamination currently under investigation. Firefighting training was conducted at test burn pits at the airport from the 1970s through approximately 1988. In an August 12, 2019 project kick off meeting between the City and OSG, Assistant Fire Chief Jeff Murphy stated that, in recent years, the firefighting foams used at the airport were AFFF (also referred to as “Class B

Foam”) manufactured by 3M and others. No records of products used historically were readily available. According to Assistant Chief Murphy, to the best of his knowledge no foam has been used during practice drills for about 25 years, and at some point, the pits were re-constructed with concrete containment. The Test Burn Pits are not currently used. The pits have been filled in, and the area is partially overgrown with trees.

- At the start of the investigation, affected and potentially affected media included groundwater, soils and surface water. Groundwater was known to be affected as the contaminant was identified by sampling of wells 23 and 24.
- The SIWP identified five potential sources areas to be investigated:
  - Former Test Burn Pits;
  - 1997 Fuel Spill, where AFFF was applied over the spilled jet fuel;
  - AFFF Test Area, west of taxiway northwest of airport fire station, where AFFF was discharged while annually collecting FAA-required samples from the firefighting equipment;
  - Former Fire Station, where AFFF was presumably stored and transferred into firefighting equipment; and
  - 2001 Crash Site, where AFFF was applied to the wreckage.
- Known and potential contaminant receptors include water supply wells and the Black River. The direction of groundwater flow across the study area is generally to the southeast, toward the Black River. See Figure 9: Downgradient Receptor Study Areas. All water supply wells near the airport are being evaluated as potential receptors with the potential for contaminant impacts based on whether PFAS groundwater contamination is present either upgradient of or within 1,200 feet of any particular well. Several wells known to be present near the airport and neighborhoods served by private water wells are discussed in the following sections. The airport itself is served by the La Crosse Water Utility. Given that PFAS contamination has been detected in all groundwater samples collected thus far, all wells down gradient (“downstream”) of the airport are being considered for PFAS sampling:
  - **Municipal Water Supply Wells:** Documented impacts to municipal water supply Well 23 triggered the re-opening of the BRRTS case. PFAS sampling of the wells was conducted by SEH, consultant to the La Crosse Water Utility, under various pumping regimes. A June 14, 2019 SEH memo to the La Crosse Water Utility described the pumping rates of Well 23 and its correlation to PFAS sampling results from July 26, 2017 to April 15, 2019, at which time “Well 23H was shut off and remains off.” Wells 23 and 24 have been and will be monitored for PFAS by the Water Utility in conjunction with its SDWA monitoring program. Well 26 is located 2,800 to greater than 3,500 feet west-northwest and up gradient of the former test burn pits and other potential sources of PFAS groundwater contamination. Well 26 was sampled for PFAS compounds under the UCMR in 2014, and none were detected. Given the strong and consistent southeasterly groundwater gradient across the site, OSG does not consider Well 26 as a potential receptor.
  - **USGS Upper Midwest Environmental Sciences Center:** The USGS Upper Midwest Environmental Sciences Center (formerly known as the U.S. National Fisheries Research

- Center) owns and operates four (4) wells serving their campus. Three (3) of the wells are high capacity and provide water for their Fish Hatchery research, and one is potable. The wells are located on the eastern side of French Island near the Black River, approximately 0.5 mile south of City wells 23H and 24H. The high-capacity Fish Hatchery wells have a design capacity of 1,800 gpm and produce an average of approximately one million gallons of water per day. OSG reviewed the WDNR online drinking & groundwater use information system database for information regarding the Fish Hatchery high-capacity wells. As recently as 2018, all three high-capacity Fish Hatchery wells were active with a reported withdrawal rate of 9,400,000 gallons/month/well. A fourth well provides potable water to the USGS Upper Midwest Environmental Sciences Center. The Fish Hatchery wells are downgradient (albeit greater than 1,200 feet) from the 1997 fuel Spill, the Airport Fire Station and the Former Fire Station, all potential source areas. The closest distance between PFAS groundwater detection to date and any of the USGS wells is approximately 1450 feet.
- **Private Water Wells:** Neighborhoods in the Town of Campbell west and south of the airport are served by private water wells. Several homes and businesses east and south east of the airport are also served by private water wells. The Island Park Addition neighborhood in the Town of Campbell is located south of Fanta Reed Road, southeast (down gradient or “downstream”) of the 2001 Crash Site, an area of identified PFAS contamination in the groundwater. Homes in that neighborhood are served by private water supply wells. The closest distance between PFAS groundwater detection, to date, down gradient of the 2001 Crash Site and any of the Island Park residences is approximately 800 feet. Other business and residential properties in the Town of Campbell and the City of La Crosse are on the east and southeast side of the airport; and these are “downstream” of other areas of identified PFAS contamination discovered at the airport.
  - **Black River:** Based on the persistence of PFAS in the environment, as well as the documented contaminants in Well 23, which is adjacent to the Black River, the surface water quality of the Black River will be investigated for PFAS contaminant impacts from the known and suspected PFAS sources at the site. Two of three planned surface water samples from the Black River have been collected and analyzed; the findings are presented and discussed below.

## Recent Activities

The following sections summarize the recent site investigation undertaken at the airport.

### Surface Water Sampling

On July 29, 2020, OSG collected two surface water samples from the Black River, which runs southwardly along the east side of the site and downgradient from the PFAS source areas to evaluate if the river has been affected by PFAS. One sample, representing upstream background conditions, was collected upstream from Wells 23 & 24 just below the spillway. A second sample was collected downstream of the site, at the I-90 bridge. Samples were collected from the surface of the river by

lowering a sample bottle into the river approximately two (2) feet upstream of the boat's bow to a depth of approximately three (3) to six (6) inches. Samples were preserved on ice and submitted to a laboratory for PFAS analysis via EPA Method 537M (WI 36 Compounds). Surface water sampling locations are depicted in Figure 3: Surface Water Sampling Locations - Black River.

## Drilling and Geoprobng

Between August 3 and August 13, 2020, twenty-nine (29) Geoprobe soil borings were advanced at the site. Soil samples were collected continuously from each borehole and classified according to the Unified Soil Classification System. One (1) to three (3) soil samples from each borehole were also submitted for PFAS analysis via EPA Method 537M. In addition, if groundwater was encountered in a boring, a groundwater sample was collected and submitted for PFAS analysis via EPA Method 537M (WI 36 Compounds).

At eleven (11) of the borehole locations, following completion of the Geoprobng, hollow-stem-auger borings were advanced, with eight (8) of the borings completed as water table monitoring wells and three (3) completed as piezometers. A more detailed description of investigation activities per source area is provided below:

### *Test Burn Pits*

Figures 4 and 4a depict the soil and groundwater sampling location in the area of the former Test Burn Pits, where fire suppression drills had occurred in the 1970s to 1980s. Six (6) Geoprobe borings were advanced to the water table, approximately 10 feet below ground surface (bgs), in the immediate vicinity of the former burn pits. Three (3) soil samples from each boring, collected at depths of 1-2 feet, 5-6 feet, and 10-11 feet bgs, were submitted for PFAS analysis. In addition, a groundwater sample was collected from each borehole for PFAS analysis. At three (3) of the borehole locations, following completion of the Geoprobng, hollow-stem-auger borings were advanced and completed as water table monitoring wells.

Approximately 2,200 to 2,800 feet downgradient (roughly southeast) of the former burn pits, three (3) Geoprobe borings were advanced in an effort to identify the lateral and vertical extent of the PFAS contaminant plume impacting municipal wells 23 and 24. All three (3) Geoprobe borings were advanced to depths ranging from approximately 45-60 feet bgs; approximately 30 feet below the water table. The placement and depth of these boreholes mirrored piezometers constructed and monitored for the 1990s chlorinated solvents study. One soil sample from the water table interface from each boring was submitted for PFAS analysis. In addition, groundwater samples were also collected from each borehole and submitted for PFAS analysis. Groundwater samples collected from the two "side-gradient" boreholes (PZ-105 and PZ-106) were collected near the water table, and the groundwater sample collected from the potential contaminant plume centerline (PZ-104I) was collected approximately 30 feet below the water table via a discreet sampler.

Following completion of the three (3) down-gradient Geoprobngs, four (4) hollow-stem-auger borings were advanced at the three locations; one (1) boring at each of the side-gradient locations and two (2) borings at the centerline location. The two (2) "side-gradient" borings were finished as piezometers, and the "centerline" borings were finished as a monitoring well/piezometer nest. Locations of all the

borings and monitoring wells installed at and downgradient of the former burn pits are provided in Figure(s) 4 and 4a: Former Burn Pits – Soil and Groundwater Sampling Locations.

#### *Jet Fuel Spill*

Figure 5 depicts soil and groundwater sampling locations in the 1997 Jet Fuel Spill source area. Three (3) Geoprobe borings were advanced adjacent to the airport terminal, north of the airport apron; the suspected source area of a potential “Jet Fuel Spill” release. Two (2) of the borings were advanced to a depth of three (3) feet bgs and the third boring (center) advanced to the water table located approximately fifteen (15) feet bgs. One (1) soil sample from the two (2) shallow borings and two (2) samples from the deeper borings were submitted for PFAS analysis. In addition, a groundwater sample was collected from the deeper borehole for PFAS analysis.

One (1) additional Geoprobe boring was advanced in the grass east of the airport apron approximately 700 feet downgradient (southeast) of the Fuel Spill Source Area. This boring was advanced to the water table with the water table interface soil sample and a groundwater sample submitted for PFAS analysis. A hollow-stem-auger boring was advanced following Geoprobings and finished as a water table monitoring well. The locations of the borings and monitoring wells at the potential Jet Fuel Spill source area are provided in Figure 5: 1997 Fuel Spill Sample Locations.

#### *AFFF Test Area*

Figures 6 and 7 depict soil and groundwater sampling locations in the AFFF Test Area, the suspected source area where, in the past, firefighting foam samples were collected from the nozzles of the firefighting equipment over a period of approximately 20 years. Three (3) Geoprobe borings were advanced in the grass across the taxiway, northwest of the Airport Fire Station, in the AFFF Test Area. Two (2) of the borings were advanced to a depth of three (3) feet bgs and the third boring advanced to the water table located approximately fifteen (15) feet bgs. One (1) soil sample from the two (2) shallow borings and three (3) samples from the deeper borings were submitted for PFAS analysis. In addition, a groundwater sample was collected from the deeper borehole for PFAS analysis.

Three (3) additional Geoprobe borings were advanced southeast of the airport taxiway, down-gradient from the AFFF Test Area. All three (3) borings were advanced to the water table with one (1) soil sample from the water table interface and a groundwater sample submitted for PFAS analysis. The boring advanced adjacent to the airport taxiway was completed as a monitoring well using hollow stem auger drilling methods. Locations of the borings and monitoring wells at the AFFF Test Area are provided in Figure 6: AFFF Test Area Sample Locations and Figure 7: Former Fire Station Sample Locations.

#### *Former Airport Fire Station*

Figure 7 depicts soil and groundwater sampling locations in the area of the Former Fire Station. One (1) Geoprobe boring was installed downgradient from the Former Fire station, where presumably AFFF firefighting foam was stored and handled. The Former Fire Station is near the current fire station and AFFF Test Area, in the east airport campus. The boring was advanced to the water table located approximately twenty (20) feet bgs. One (1) soil sample from the water table interface and a groundwater sample were submitted for PFAS analysis. The boring was completed as a monitoring

well using hollow stem auger drilling methods. The location the boring and monitoring well at the Former Airport Fire Station is depicted in Figure 7: Former Fire Station Sample Locations.

### *Jet Crash*

Figure 8 depicts soil and groundwater sampling locations in the vicinity of the 2001 Jet Crash Site, where AFFF firefighting foam was applied to the wreckage. The location of the crash site debris was identified by a metal detector survey with concurrent on-site interviews of current and retired airport personnel who were present during the 2001 crash emergency response and debris clean up.

Nine (9) Geoprobe borings were installed at and downgradient (“downstream”) of the 2001 Jet Crash Site. Four (4) of the borings were advanced in the immediate vicinity of the crash debris site with three (3) of the borings advanced to a depth of three (3) feet bgs and one to the water table at approximately twenty two (22) feet bgs. One soil sample from each of the three (3) shallow borings and three soil samples from the deeper boring were submitted for PFAS analysis. In addition, a groundwater sample was collected from the deeper borehole for PFAS analysis.

Five Geoprobe borings were advanced approximately 400 feet downgradient of the crash site in a line perpendicular to the anticipated flow direction. All five (5) borings were advanced to the water table. A soil sample from the water-table interface and a groundwater sample from each boring submitted for PFAS analysis. The center boring was completed as a monitoring well using hollow stem auger drilling methods. The locations of the borings and monitoring wells at the Jet Crash Site are provided in Figure 8: 2001 Crash Site Sample Locations.

## Results

Soils observed at the site were typically well-sorted medium-grained sand to the deepest extent of drilling (approximately 60 feet bgs), with some brown and black silt layers near the surface ( upper one to three feet) at various boreholes across the site. Groundwater was encountered across the site at depths ranging from approximately 10 to 20 feet bgs.

### *Surface Water Laboratory Analytical Results*

The upstream and downstream surface water laboratory analytical results detected PFAS compounds at both sampling locations. Specifically, 12 nanograms per liter (ng/L) (also known as parts per trillion or ppt) and 15 ng/L total PFAS was detected in the upstream (SW-1 U/S) and downstream (SW-2 D/S) surface water samples, respectively. Compounds detected were similar in the two samples with PFBA, PFHxA and PFOS comprising the majority of the detections in both samples with a combined (total concentration of PFBA, PFHxA and PFOS) concentration of 10.0 ng/L and 11.0 ng/L respectively. Other PFAS compounds detected included PFPeA (1.5 ng/L) in the upstream sampling location and 6:2 FTS (2.4 ng/L), PFBS (0.92 ng/L), and PFHxS (0.93 ng/L) in the downstream sampling location. Summing the PFAS compounds’ detections and the limits of detection for any PFAS compound found in either sample yields 15 ng/L in SW-1 upstream and 16 ng/L in SW-2 downstream. OSG concludes that these are essentially equivalent results. A summary of the surface water laboratory analytical results is provided in Table 1. Copies of the surface water laboratory analytical results is provided in Attachment A.

### *Soil Laboratory Analytical Results*

*Prior to discussing the soil PFAS laboratory analytical results, it should be noted that Wisconsin currently has few standards relating to PFAS contamination. Specifically, no NR720 Soil Residual Contaminant Levels (RCLS) Protective of Groundwater Quality exist at the time of this update. In addition, while NR720 Soil Non-Industrial Direct Contact RCLS are available for five (5) specific PFAS compounds, no standard exists for total PFAS. Furthermore, of the five (5) PFAS compounds for which direct contact standards currently exist, EPA method 527M only analyzes for three (3) of the compounds including PFBS, PFOS, and PFOA. Therefore, while OSG has compared the soil PFAS laboratory analytical results to applicable direct contact standards, OSG has arbitrarily chosen a concentration of 20 µg/kg (parts per billion) as a relative arbitrary benchmark for the purposes of the discussion that follows. This number was chosen because the ratio of detection limits between water analyses and soil analyses is three orders of magnitude (tenths of a part per billion versus tenths of a part per trillion), and 20 parts per billion is three orders of magnitude larger than the proposed groundwater standard of 20 ng/L (parts per trillion).*

A total of forty-nine (49) soil samples (plus five (5) duplicate samples) were submitted for PFAS analysis. Sixteen (16) of the samples were collected from shallow soils (less than 3 feet below ground surface (bgs)), eleven (11) samples collected from intermediate depths (typically between five and 10 feet bgs) and twenty-two (22) collected from the water table interface.

Of the sixteen (16) shallow soil samples collected at the site, the only sample exceeding any of the NR720 Non-Industrial Direct Contact PFAS standards was the sample collected in the former burn pit (MW-101) at a depth of 1 to 2 feet bgs. This sample and a duplicate sample taken from the same location had PFOS concentrations of 4,100 µg/kg and 7,400 µg/kg, respectively, which exceeds the Direct Contact Standard of 1,260 µg/kg.

Six (6) of the 16 shallow soil samples had total PFAS concentrations above 20 µg/kg. Three (3) of those samples were collected at the former AFFF Testing Area located northwest of the airport taxiway (concentrations ranging from 282 to 513 µg/kg), two (2) collected in the vicinity of the jet fuel spill (concentrations of 22 and 46 µg/kg) and one (1) at the former burn pit (8,520 µg/kg). Two (2) of the eleven (11) soil samples collected from the intermediate depths and two (2) of the twenty-two (22) samples collected from the water table interface also had total PFAS concentrations above 20 µg/kg. All four water-table-interface samples above 20 µg/kg were collected from two (2) borings that also had greater than 20 µg/kg in the shallow soil sample. The intermediate and water-table-interface above the arbitrary relative benchmark were observed in GP-14 and MW-101 located at the "AFFF Test Area" and former burn pit, respectively. A summary of the soil laboratory analytical results is provided in Table 2. Copies of the laboratory analytical reports is provided in Appendix: Laboratory Reports.

### *Groundwater Laboratory Analytical Results*

Groundwater samples were collected from Geoprobe borings at twenty-two (22) locations across the site with the samples collected from the water table at twenty-one (21) locations and one sample collected from approximately 30 feet below the water table using a discrete sampler. All twenty-two (22) groundwater samples had total PFAS concentrations above the proposed WDNR enforcement

standard of 20 ng/L. Total PFAS concentrations in groundwater at the site ranged from 31 ng/L to 49,097 ng/L. A summary of the results per source area is provided below:

#### Test Burn Pits

Nine (9) groundwater samples were collected for PFAS analysis in the vicinity of the former burn pits with six (6) of the samples collected in the immediate vicinity of the burn pits and three (3) samples collected over 2,000 feet downgradient from the pits. Two (2) of the downgradient samples were collected from the water table and the third sample collected from approximately 30 feet below the water table.

Total PFAS concentrations in the immediate vicinity of the burn pits ranged from 452 ng/L (upgradient of the burn pits) to 49,097 ng/L (approximately 50 to 100 feet downgradient of the burn pits). Total PFAS concentrations collected at the water table at the two “side-gradient” locations over 2,000 feet down-gradient from the burn pits were 31 (at PZ-106I) and 47 ng/L (at PZ-105I). The groundwater sample collected at MW-104 from approximately 30 feet below the water table at the anticipated centerline of the downgradient contaminant plume had a total PFAS concentration of 4,050 µg/L.

#### Fuel Spill

Two (2) groundwater samples were collected in the vicinity of the jet fuel spill, near the terminal. One sample was collected in the anticipated source area of the fuel spill in the grass at the north edge of the airport apron, and the second sample collected approximately 700 feet downgradient of the suspected source area. Laboratory analysis detected total PFAS concentrations of 17,586 ng/L at the suspected source area (GP-20) and 845 ng/L at the downgradient sampling point (GP-20/MW-2).

#### AFFF Test Area

Four (4) groundwater samples were collected at the former AFFF test area, northwest of the airport taxiway northwest of the current airport fire station. One (1) of the groundwater samples was collected in the suspected source area in the grass northwest of the airport taxiway, and the three (3) remaining samples were collected approximately 400 to 600 feet downgradient of the suspected source area. Laboratory analysis detected a total PFAS concentration of 18,642 ng/L in the suspected source area and concentrations ranging from 215 to 6,648 ng/L in the downgradient samples.

#### Former Fire Station

One (1) groundwater sample was collected from the water table downgradient of the former fire station. Laboratory analysis detected a total PFAS concentration of 1,472 ng/L in the sample (at MW-4).

#### Crash Site

Six (6) groundwater samples were collected from the water table at and downgradient from the 2001 jet crash site. One (1) sample was collected at the suspected source area (crash debris area), and five (5) samples collected in a “sentry line” perpendicular to the estimated flow direction approximately 400 feet downgradient of the observed crash debris. The water table sample at the source contained 2,315 ng/L total PFAS (at GP-11), whereas the five (5) down-gradient samples had concentrations ranging from 51 ng/L to 2,842 ng/L. It should be noted that of the five (5) downgradient samples, the two (2) samples at each end of the sentry line (GP-3 and GP-4) contained the lowest total PFAS



concentrations (190 and 51 ng/L, respectively) observed in the sentry line, indicating that the sentry line was successful in intercepting the centerline of jet crash PFAS. The highest concentration was observed in GP-6, the boring located approximately 50 feet northeast of where the monitoring well (MW-1/GP-10) was installed at the *anticipated* plume centerline. The pattern of detections suggests centerline of the plume is likely between GP-6 and MW-1/GP-10, closer to GP-6.

### Discussion of Soil and Groundwater Results

Relatively high residual PFAS contamination was observed in the unsaturated soils at the Test Burn Pit and AFFF Test areas, and lower concentrations were observed at the Jet Fuel Spill area, north of the airport apron. The no and relatively low detections of concentrations of PFAS compounds in shallow soil samples at the Crash Site could be a result of surface soil removal during crash debris clean-up activities, which was conducted with an end loader. It is possible that the center of crash debris (where firefighting foam was applied) was not precisely located; we did, however, find aircraft debris at this location.

Groundwater PFAS impacts at the La Crosse Municipal Well 23 & 24 / LSE site appear to be widespread. Every groundwater sample collected contained total PFAS contaminant concentrations above the proposed standard of 20 ng/L. Of particular concern is the contamination identified at and downgradient of the Crash Site, which is located directly upgradient (“upstream”) of the Island Park Addition neighborhood subdivision. The neighborhood is served by private potable wells, typically screened at depths of approximately 63 to 66 feet bgs. It should be noted that all groundwater samples analyzed to date were collected from Geoprobes and therefore are a sample of a 1 to 2 foot vertical section of the water table (or deeper in the aquifer at PZ104-I) versus a larger vertical section accomplished by sampling a NR 141 monitoring well.

### Proposed Activities

Based on the observed total PFAS groundwater concentrations observed at the La Crosse Municipal Well 23 & 24 site, OSG on the behalf of the City of La Crosse is proposing that the following interim activities be completed prior to and during the completion of activities outlined in the Site Investigation Work Plan (i.e., monitoring well development and sampling, sediment sampling, report preparation, etc.):

1. Develop and initiate a public information plan to include:
  - a. Develop public information fact sheet(s);
  - b. Communication of conditions to relevant government bodies (Town of Campbell, La Crosse County, La Crosse County Health Department, USGS Upper Midwest Environmental Sciences Center);
  - c. Press release and media interviews;
  - d. Public meeting(s), virtual;
  - e. Letters to well owners/occupants, with questionnaire/survey and well sampling agreement form; and
  - f. Develop public information web site.
2. Identify all private wells in the Water Well Sampling Area depicted on Figure 9 Downgradient Receptor Study Areas.

3. Sample drinking water and fishery water (USGS) wells serving houses and businesses south and east of the airport in the Water Well Sampling Area depicted on Figure 9.
4. Convey sample results to the well owners/occupants and the DNR.

## Standard of Care

In performing this scope of work, OSG has exercised that degree of care and skill ordinarily exercised under similar circumstances, such as scope, schedule and budget, by firms in the environmental consulting profession performing substantially similar services and practicing at the same time in the same or similar locality.

## Closing

If you have any question, please do not hesitate to call me.

Sincerely,



John C. Storlie, PG

Coulee Environmental Solutions™

A division of The OS Group, LLC

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608.433.9389 – Direct

E-Mail Address: [John.Storlie@theOSgrp.com](mailto:John.Storlie@theOSgrp.com)

### Attachments:

Figure 1: Site Location Map

Figure 2: Site Layout

Figure 3: Surface Water Sampling Locations

Figure 4: Former Burn Pits – Soil and Groundwater Sampling Locations

Figure 4a: Former Burn Pits – Soil and Groundwater Sampling Locations

Figure 5: 1997 Fuel Spill Sample Locations

Figure 6: AFFF Test Area Sample Locations

Figure 7: Former Fire Station Sample Locations

Figure 8: 2001 Crash Site sample Locations

Figure 9: Downgradient Receptor Study Areas

Table 1: Surface Water Laboratory Analytical Results

Table 2: Soil PFAS Laboratory Analytical Results

Table 3: Soil Boring Groundwater PFAS Laboratory Analytical Results

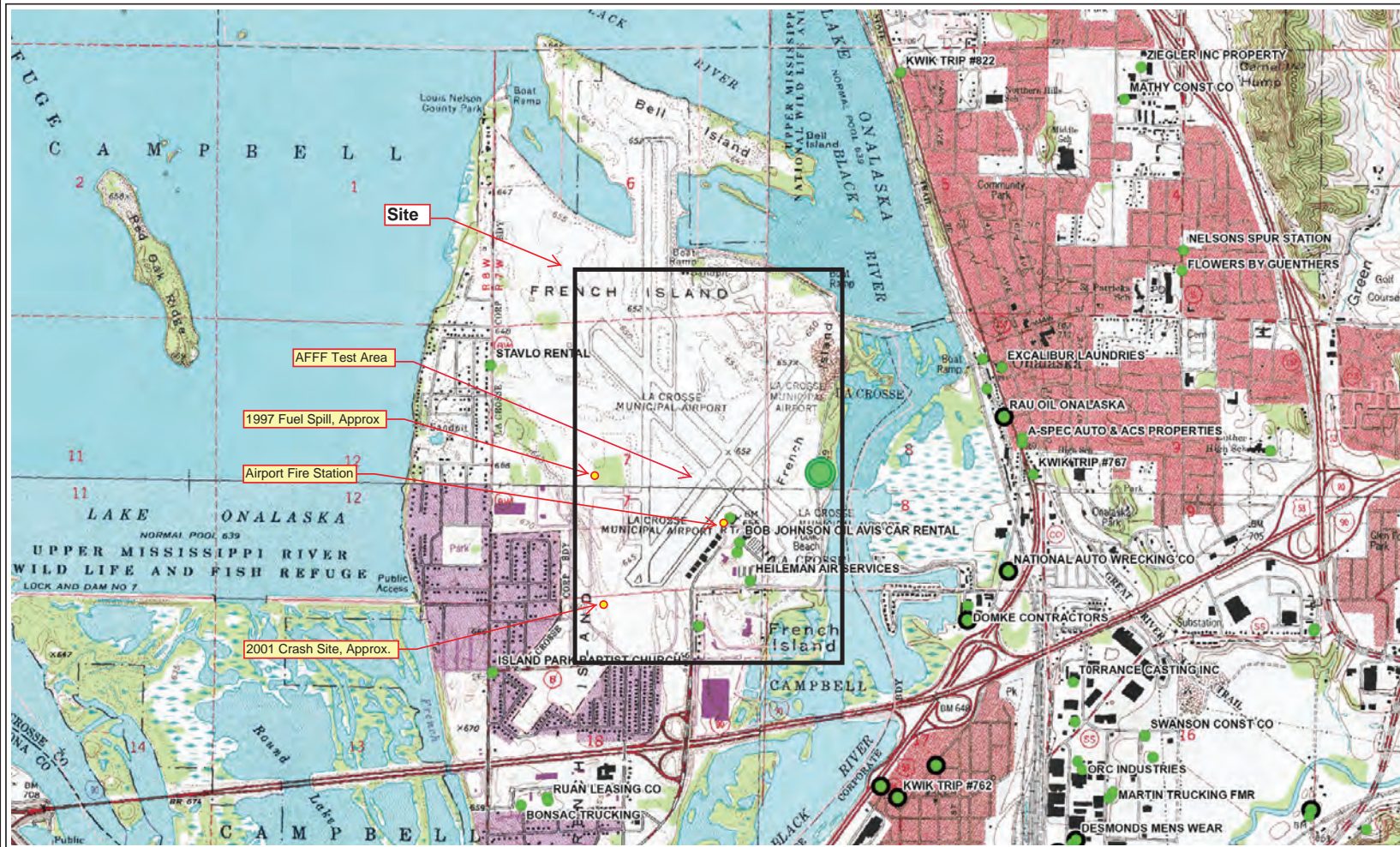
### Appendix: Laboratory Reports:

Pace Project No.: 40212540, August 28, 2020

Pace Project No.: 40212977, September 08, 2020



**Figure 1: Site Location Map**  
**BRRTS # 02-32-000065 - LA CROSSE MUNICIPAL WELLS 23 & 24**



**Legend**

- Open Site
- Open Site Boundary
- Closed Site
- Continuing Obligations Apply
- Facility-wide Site

0.8 0 0.38 0.8 Miles

NAD\_1983\_HARN\_Wisconsin\_TM

© Latitude Geographics Group Ltd.

1: 23,760



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*Note: Not all sites are mapped.*

**Notes**

Source:

Wisconsin DNR RR Sites map, <https://dnrmaps.wi.gov/H5/?viewer=rrsites&run=RR2&DSN=32998>, accessed 09/03/2019



Figure 2: Site Layout

**Legend**

- Airport Beach
- Contaminant Source Area
- Fire Station
- Municipal Well
- USGS



**Legend**

-  Airport Beach
-  Fire Station
-  Municipal Well
-  Source Area
-  Surface Water Sample

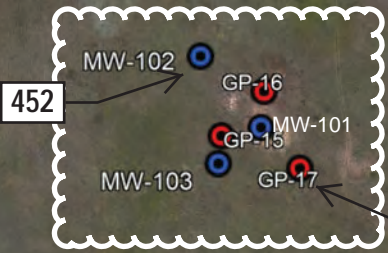
# Figure 3: Surface Water Sampling Locations

Black River  
Total PFAS (ng/L)



# Figure 4: Former Burn Pits

Soil & Groundwater Sampling Locations  
Groundwater Results - Total PFAS (ng/L)  
*Water samples collected at water table, except where noted.*



See Figure 4a

Estimated Flow

47

PZ-105I

4,050 @ 50-59"

31

PZ-106I

PZ-104I MW-104

MW-24H

Well 24

Well 23

Fisheraman Rd

**Legend**

- Geoprobe Boring
- Monitoring Well
- Piezometer
- Municipal Well

Google Earth

© 2020 Google



1000 ft

**Figure 4a: Former Burn Pits**  
Soil & Groundwater Sampling Locations  
Groundwater Results - Total PFAS (ng/L)

MW-102 452

GP-16 194

17,754 GP-15

4,262 MW-101

650 MW-103

49,097 GP-17



**Legend**

- Burn Pit
- Geoprobe
- Monitoring Well

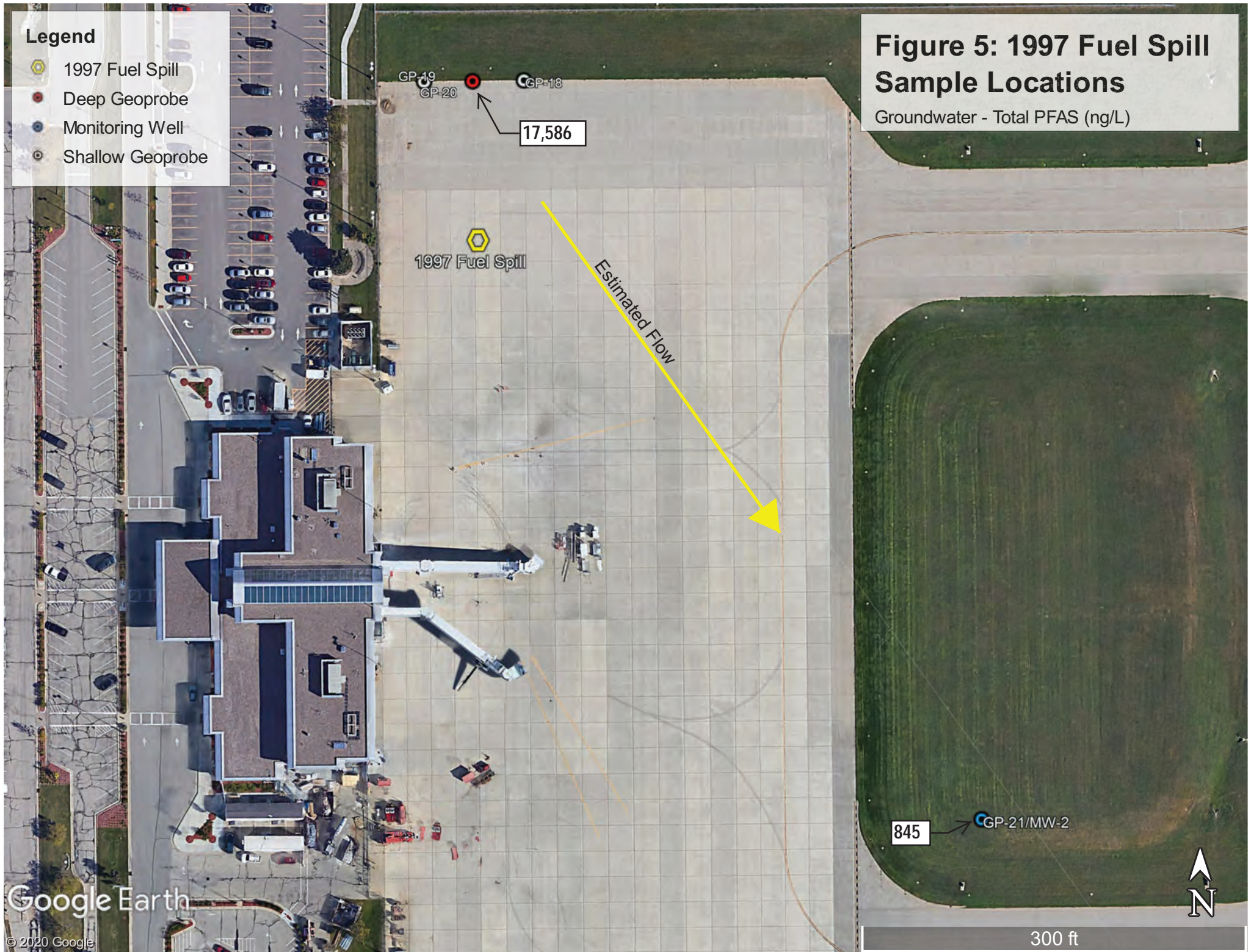
100 ft

**Legend**

- 1997 Fuel Spill
- Deep Geoprobe
- Monitoring Well
- Shallow Geoprobe

**Figure 5: 1997 Fuel Spill  
Sample Locations**

Groundwater - Total PFAS (ng/L)



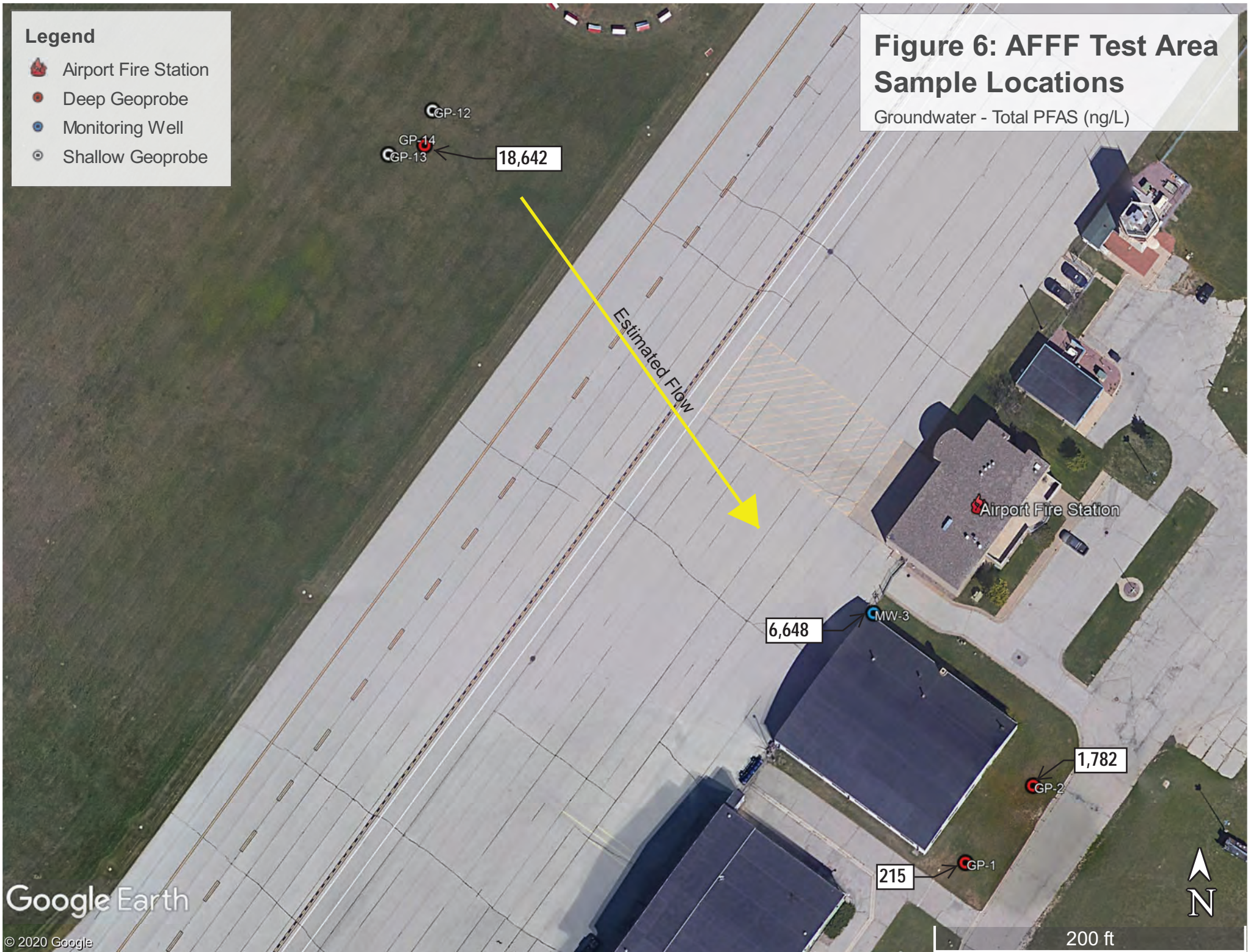


**Legend**

-  Airport Fire Station
-  Deep Geoprobe
-  Monitoring Well
-  Shallow Geoprobe

**Figure 6: AFFF Test Area  
Sample Locations**

Groundwater - Total PFAS (ng/L)



**Legend**

- Deep Geoprobe
- 🔥 Fire Station
- ⦿ Monitoring Well
- Shallow Geoprobe

**Figure 7: Former Fire Station Sample Locations**  
Groundwater - Total PFAS (ng/L)

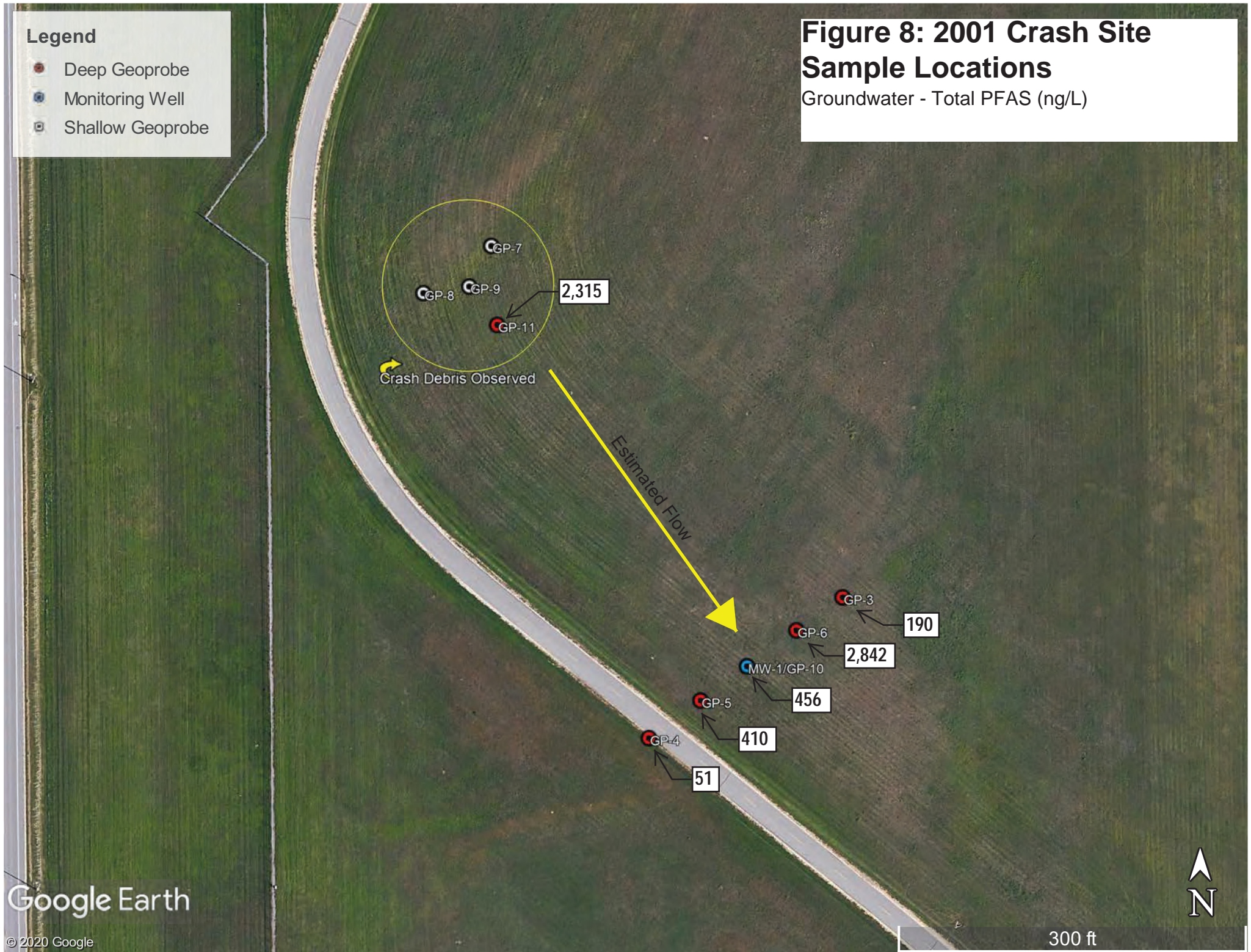


**Legend**

- Deep Geoprobe
- Monitoring Well
- Shallow Geoprobe

**Figure 8: 2001 Crash Site  
Sample Locations**

Groundwater - Total PFAS (ng/L)



**Figure 9: Downgradient Receptor Study Areas**



Table 1  
 Surface Water Laboratory Analytical Results  
 La Crosse Municipal Well #23 and 24  
 La Crosse, WI

| PFAS Compounds<br>Detected | Sampling Location |              |
|----------------------------|-------------------|--------------|
|                            | SW-1 U/S          | SW-2 D/S     |
| 6:2 FTS                    | <1.8              | 2.4 J        |
| PFBS                       | <0.88             | 0.92 J       |
| PFHxS                      | <0.88             | 0.93 J       |
| PFBA                       | 7.3               | 7.9          |
| PFHxA                      | 1.2 J             | 1.2 J        |
| PFPeA                      | 1.5 J             | <0.88        |
| PFOS                       | 1.5 J             | 1.9 J        |
| <b>Total PFAS</b>          | <b>11.5</b>       | <b>15.25</b> |

Notes: All results are in ng/L

Results are provided only for PFAS compounds that had a  
 detection in at least one sample

Table 2  
Soil PFAS Laboratory Analytical Results  
La Crosse Wells #23 and 24  
La Crosse, WI

| Sample                 | Depth (feet) | Date     | 8:2 FTS | 6:2 FTS | 10:2 FTS | MeFOSAA | PFBS    | PFDS   | PFHpS  | PFNS   | PFOSA  | PFPeS  | PFHxS  | PFBA   | PFDA   | PFHpA  | PFHxA  | PFNA   | PFOA   | PFPeA  | PFUdA | PFOS   | Total PFAS |      |
|------------------------|--------------|----------|---------|---------|----------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|------------|------|
| GP-1                   | 18-20        | 8/3/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 0.00       |      |
| GP-2                   | 18-20        | 8/3/2020 | <2.2    | <2.2    | <2.2     | <2.2    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | 0.22 J | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.22       |      |
| GP-3                   | 18-20        | 8/4/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| GP-4                   | 21-23        | 8/4/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 0.00       |      |
| GP-5                   | 18-20        | 8/4/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <0.99   | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99 | <0.99  | 0.00       |      |
| GP-6                   | 18-20        | 8/4/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.22 J     |      |
| GP-7                   | 2-3          | 8/4/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.87 J     |      |
| GP-8                   | 2-3          | 8/4/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| GP-9                   | 2-3          | 8/4/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 0.00       |      |
| GP-10                  | 18-20        | 8/4/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| GP-11                  | 2-3          | 8/4/2020 | <2.3    | <2.3    | <2.3     | <2.3    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| GP-11                  | 9-10         | 8/4/2020 | <1.7    | <1.7    | <1.7     | <1.7    | <0.86   | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86 | <0.86  | 0.00       |      |
| GP-11                  | 22-23        | 8/4/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | 0.96 J | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 19         |      |
| GP-12                  | 2-3          | 8/5/2020 | <1.9    | 0.58 J  | <1.9     | <1.9    | <0.96   | <0.96  | 0.83 J | <0.96  | 0.20 J | <0.96  | 1.8    | <0.96  | <0.96  | <0.96  | <0.96  | <0.96  | <0.96  | 0.19 J | <0.96 | 510    | 513.60     |      |
| GP-13                  | 2-3          | 8/5/2020 | 1.4 J   | 8.5     | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | 1.8    | <1.0   | <1.0   | 0.22 J | 0.24 J | 1.5    | 1.0    | 0.30 J | <1.0  | 360    | 374.96     |      |
| GP-14                  | 2-3          | 8/5/2020 | <1.8    | 42      | <1.8     | <1.8    | <0.88   | <0.88  | 3.4    | <0.88  | <0.88  | <0.88  | 12     | 0.23 J | <0.88  | 0.51 J | 0.76 J | 0.37 J | 2.5    | 0.75 J | <0.88 | 220    | 282.52     |      |
| GP-14                  | 9-10         | 8/5/2020 | <1.8    | 31      | <1.8     | <1.8    | <0.89   | <0.89  | 0.27 J | <0.89  | <0.89  | 0.25 J | 3.4    | <0.89  | <0.89  | 0.31 J | 0.52 J | <0.89  | <0.89  | 0.71 J | <0.89 | 10     | 46.46      |      |
| GP-14                  | 14.5 - 15.5  | 8/5/2020 | <2.3    | 30      | <2.3     | <2.3    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | 2.1    | 0.25 J | <1.1   | <1.1   | 0.80 J | <1.1   | <1.1   | 1.2    | <1.1  | 110    | 144.35     |      |
| GP-15                  | 1-2          | 8/5/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <0.99   | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | <0.99  | 0.20 J | <0.99  | <0.99 | 3.8    | 4.00       |      |
| GP-15                  | 5-6          | 8/5/2020 | <1.8    | <1.8    | <1.8     | <1.8    | <0.92   | <0.92  | <0.92  | <0.92  | <0.92  | <0.92  | <0.92  | <0.92  | <0.92  | <0.92  | 0.18 J | <0.92  | <0.92  | <0.92  | <0.92 | 0.66 J | 0.84       |      |
| GP-15                  | 10-11        | 8/5/2020 | 4.3     | <2.1    | <2.1     | <2.1    | <1.1    | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | 12     | 16.30      |      |
| DUP #1                 | GP-15 1-2    | 8/5/2020 | 4.2     | 2.5     | <2.1     | <2.1    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | 9.4    | 16.10      |      |
| GP-16                  | 1-2          | 8/5/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | 0.23 J | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | 0.21 J | 0.32 J | <1.0  | <1.0   | 5.0        | 5.76 |
| GP-16                  | 5-6          | 8/5/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | 1.3    | 1.30       |      |
| GP-16                  | 10-11        | 8/5/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.0    | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | 2.6    | 2.60       |      |
| GP-17                  | 1-2          | 8/5/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | 0.30 J | <1.0   | 0.27 J | <1.0   | <1.0   | 0.54 J | <1.0   | 1.5    | 0.33 J | 0.20 J | 0.26 J | 0.33 J | <1.0   | 1.5   | 3.8    | 9.03       |      |
| GP-17                  | 5-6          | 8/5/2020 | <1.8    | <1.8    | <1.8     | <1.8    | <0.91   | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | 0.58 J | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | <0.91 | 0.23 J | 0.81       |      |
| GP-17                  | 10-11        | 8/5/2020 | 1.8 J   | <2.4    | <2.4     | <2.4    | <1.2    | <1.2   | <1.2   | <1.2   | <1.2   | <1.2   | <1.2   | <1.2   | 0.55 J | <1.2   | <1.2   | <1.2   | <1.2   | <1.2   | <1.2  | 9.9    | 12.25      |      |
| Non-industrial DC RCLS |              |          | NS      | NS      | NS       | NS      | 1260000 | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS    | 1260   | NS         |      |
| Groundwater RCLS       |              |          | NS      | NS      | NS       | NS      | NS      | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS    | NS     | NS         |      |

Notes: All results in µg/kg  
J - Estimated results < Limit of Quantitation and > Detection Limit  
Results are provided only for PFAS compounds where a detection occurred in at least one sample

Table 2 (Continued)  
 Soil PFAS Laboratory Analytical Results  
 La Crosse Wells #23 and 24  
 La Crosse, WI

| Sample                 | Depth (feet)    | Date      | 8:2 FTS | 6:2 FTS | 10:2 FTS | MeFOSAA | PFBS    | PFDS  | PFHpS | PFNS  | PFOSA  | PFPeS  | PFHxS  | PFBA  | PFDA  | PFHpA  | PFHxA  | PFNA   | PFOA   | PFPeA  | PFUDA | PFOS   | Total PFAS |      |
|------------------------|-----------------|-----------|---------|---------|----------|---------|---------|-------|-------|-------|--------|--------|--------|-------|-------|--------|--------|--------|--------|--------|-------|--------|------------|------|
| GP-18                  | 2-3             | 8/6/2020  | 22      | <2.2    | <2.2     | <2.2    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | 4.6   | <1.1   | <1.1   | 0.34 J | <1.1   | <1.1   | <1.1  | 14     | 40.94      |      |
| DUP #3                 | GP-18 (2-3)     | 8/5/2020  | 25      | <1.9    | <1.9     | <1.9    | <0.97   | <0.97 | <0.97 | <0.97 | <0.97  | <0.97  | 0.20 J | <0.97 | 4.9   | 0.22 J | 0.28 J | 0.31 J | <0.97  | 0.26 J | <0.97 | 15     | 46.17      |      |
| GP-19                  | 2-3             | 8/6/2020  | 1.2 J   | <2.1    | <2.1     | <2.1    | <1.0    | <1.0  | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0  | 1.8   | <1.0   | <1.0   | 0.26 J | <1.0   | <1.0   | <1.0  | 6.6    | 9.86       |      |
| GP-20                  | 2-3             | 8/6/2020  | 7.6     | <1.8    | <1.8     | <1.8    | <0.89   | <0.89 | <0.89 | <0.89 | <0.89  | <0.89  | <0.89  | <0.89 | 13    | <0.89  | <0.89  | 0.22 J | <0.89  | <0.89  | <0.89 | 1.0    | 21.82      |      |
| GP-20                  | 14-15           | 8/6/2020  | <1.9    | 13      | <1.9     | <1.9    | <0.96   | <0.96 | <0.96 | <0.96 | <0.96  | <0.96  | 2.8    | <0.96 | <0.96 | 0.30 J | 0.37 J | <0.96  | <0.96  | <0.96  | <0.96 | <0.96  | 16.47      |      |
| GP-21                  | 9.5-10.5        | 8/6/2020  | <2.2    | <2.2    | <2.2     | <2.2    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| MW-3                   | 16-17           | 8/10/2020 | <2.5    | 0.71 J  | <2.5     | <2.5    | 0.32 J  | <1.2  | <1.2  | <1.2  | <1.2   | 0.34 J | 0.52 J | <1.2  | <1.2  | <1.2   | 0.48 J | <1.2   | <1.2   | 0.58 J | <1.2  | 0.40 J | 3.35       |      |
| DUP #4                 | MW-3 (16-17)    | 8/10/2020 | <2.1    | <2.1    | <2.1     | <2.1    | 0.24 J  | <1.1  | <1.1  | <1.1  | <1.1   | 0.22 J | 0.51 J | <1.1  | <1.1  | <1.1   | 0.43 J | <1.1   | <1.1   | 0.44 J | <1.1  | 0.30 J | 2.14       |      |
| MW-4                   | 17-18           | 8/11/2020 | <2.1    | 3.1     | <2.1     | <2.1    | 0.37 J  | <1.0  | <1.0  | <1.0  | <1.0   | 0.71 J | 5.0    | <1.0  | <1.0  | <1.0   | 0.48 J | <1.0   | <1.0   | <1.0   | <1.0  | 1.7    | 11.36      |      |
| MW-101                 | 1-2             | 8/5/2020  | 150     | 13      | 26       | <2.3    | 11      | <4.5  | 13    | 3.5 J | 2.2 J  | 11     | 300    | 8.9   | 4.6   | 16     | 47     | 2.9 J  | 35     | 36     | <4.5  | 4100   | 4780.10    |      |
| DUP #2                 | MW-101 1-2      | 8/5/2020  | 150     | 9.1 J   | 36       | <5.1    | 18      | 6.8 J | 25    | 9.3 J | <10    | 21     | 570    | 12    | 5.8 J | 37     | 87     | 4.7 J  | 69     | 59     | <10   | 7400   | 8519.70    |      |
| MW-101                 | 5-6             | 8/5/2020  | 36      | 6.3     | 0.92 J   | 0.70 J  | 2.9     | <1.0  | 5.3   | <1.0  | 0.80 J | 2.3    | 120    | 3.1   | <1.0  | 1.7    | 16     | <1.0   | 5.6    | 9.4    | <1.0  | 840    | 1051.02    |      |
| MW-101                 | 10-11           | 8/5/2020  | 6.2     | <2.0    | <2.0     | <2.0    | <1.0    | <1.0  | <1.0  | <1.0  | <1.0   | <1.0   | 2.7    | <1.0  | <1.0  | <1.0   | 0.36 J | <1.0   | 0.37 J | <1.0   | <1.0  | 25     | 34.63      |      |
| MW-102                 | 1-2             | 8/5/2020  | <1.9    | <1.9    | <1.9     | <1.9    | <0.97   | <0.97 | <0.97 | <0.97 | <0.97  | <0.97  | <0.97  | <0.97 | <0.97 | <0.97  | <0.97  | <0.97  | 0.21 J | <0.97  | <0.97 | 1.7    | 1.91       |      |
| MW-102                 | 5-6             | 8/5/2020  | <1.8    | <1.8    | <1.8     | <1.8    | <0.91   | <0.91 | <0.91 | <0.91 | <0.91  | <0.91  | <0.91  | <0.91 | <0.91 | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | <0.91 | <0.91  | 0.00       |      |
| MW-102                 | 10-11           | 8/5/2020  | <2.2    | <2.2    | <2.2     | <2.2    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| MW-103                 | 1-2             | 8/5/2020  | <1.7    | <1.7    | <1.7     | <1.7    | <0.86   | <0.86 | <0.86 | <0.86 | <0.86  | <0.86  | <0.86  | <0.86 | <0.86 | <0.86  | <0.86  | <0.86  | <0.86  | <0.86  | <0.86 | <0.86  | 2.0        | 2.00 |
| MW-103                 | 5-6             | 8/5/2020  | <1.8    | <1.8    | <1.8     | <1.8    | <0.91   | <0.91 | <0.91 | <0.91 | <0.91  | <0.91  | <0.91  | <0.91 | <0.91 | <0.91  | <0.91  | <0.91  | <0.91  | <0.91  | <0.91 | <0.91  | 0.00       |      |
| MW-103                 | 10-11           | 8/5/2020  | <2.2    | <2.2    | <2.2     | <2.2    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| MW-104I                | 9-10            | 8/11/2020 | <2.0    | 1.4 J   | <2.0     | <2.0    | <1.0    | <1.0  | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 1.40       |      |
| MW-104I                | 24-25           | 8/11/2020 | <2.2    | <2.2    | <2.2     | <2.2    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| DUP #5                 | MW-104I (24-25) | 8/11/2020 | <2.3    | 1.6 J   | <2.3     | <2.3    | <1.2    | <1.2  | <1.2  | <1.2  | <1.2   | <1.2   | <1.2   | <1.2  | <1.2  | <1.2   | <1.2   | <1.2   | <1.2   | <1.2   | <1.2  | <1.2   | 1.60       |      |
| PZ-105I                | 9-10            | 8/12/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.0    | <1.0  | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 0.00       |      |
| PZ-105I                | 18-19           | 8/12/2020 | <2.1    | <2.1    | <2.1     | <2.1    | <1.1    | <1.1  | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1  | <1.1  | <1.1   | <1.1   | <1.1   | <1.1   | <1.1   | <1.1  | <1.1   | 0.00       |      |
| PZ-106                 | 9-10            | 8/13/2020 | <1.8    | <1.8    | <1.8     | <1.8    | <0.89   | <0.89 | <0.89 | <0.89 | <0.89  | <0.89  | <0.89  | <0.89 | <0.89 | <0.89  | <0.89  | <0.89  | <0.89  | <0.89  | <0.89 | <0.89  | 0.00       |      |
| PZ-106                 | 14-15           | 8/13/2020 | <2.0    | <2.0    | <2.0     | <2.0    | <1.0    | <1.0  | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0  | <1.0  | <1.0   | <1.0   | <1.0   | <1.0   | <1.0   | <1.0  | <1.0   | 0.00       |      |
| Non-industrial DC RCLS |                 |           | NS      | NS      | NS       | NS      | 1260000 | NS    | NS    | NS    | NS     | NS     | NS     | NS    | NS    | NS     | NS     | NS     | 1260   | NS     | NS    | 1260   | NS         |      |
| Groundwater RCLS       |                 |           | NS      | NS      | NS       | NS      | NS      | NS    | NS    | NS    | NS     | NS     | NS     | NS    | NS    | NS     | NS     | NS     | NS     | NS     | NS    | NS     | NS         |      |

Notes: All results in µg/kg  
 J - Estimated results < Limit of Quantitation and > Detection Limit  
 Results are provided only for PFAS compounds where a detection occurred in at least one sample

Table 3  
Soil Boring Groundwater PFAS Laboratory Analytical Results  
La Crosse Municipal Wells #23 and #24  
La Crosse, WI

| PFAS Compounds Detected | Sample ID (by Source Area) |       |        |       |               |            |       |       |        |       |        |          |        |         |        |        |        |                |  |
|-------------------------|----------------------------|-------|--------|-------|---------------|------------|-------|-------|--------|-------|--------|----------|--------|---------|--------|--------|--------|----------------|--|
|                         | AFFF Test Area             |       |        |       |               | Crash Site |       |       |        |       |        | Burn Pit |        |         |        |        |        |                |  |
|                         | GP-1                       | GP-2  | GP-14  | MW-3  | Dup #2 (MW-3) | GP-3       | GP-4  | GP-5  | GP-6   | GP-10 | GP-11  | GP-15    | GP-16  | GP-17   | MW-101 | MW-102 | MW-103 | Dup#1 (MW-103) |  |
| 8:2 FTS                 | <7.5                       | <9.0  | 64     | 8.1   | 7.2 J         | <7.4       | <7.3  | <8.0  | <7.2   | <8.5  | <10    | 720      | 8.5    | 8300    | 620    | 3.9 J  | 3.6 J  | <9.2           |  |
| 6:2 FTS                 | <7.5                       | <9.0  | 4900   | 290   | 290           | <7.4       | <7.3  | <8.0  | <7.2   | <8.5  | <10    | <36      | <7.3   | 650     | 61     | 150    | 39     | 24             |  |
| 10:2 FTS                | <7.5                       | <9.0  | 24 J   | <7.8  | <8.0          | <7.4       | <7.3  | <8.0  | <7.2   | <8.5  | <10    | <36      | <7.3   | <110    | 64     | <7.5   | <8.0   | <9.2           |  |
| EtFOSAA                 | <7.5                       | <9.0  | <48    | <7.8  | <8.0          | <7.4       | <7.3  | <8.0  | <7.2   | <8.5  | <10    | <36      | <7.3   | <110    | 7.0 J  | <7.5   | <8.0   | <9.2           |  |
| PFBS                    | 1.6 J                      | 21    | 94     | 210   | 220           | 2.4 J      | 3.2 J | 1.4 J | 57     | 2.7 J | 14     | 17 J     | <3.7   | 160     | 16     | 1.2 J  | 4.1    | 4.9            |  |
| PFDS                    | <3.7                       | <4.5  | <24    | <3.9  | <4.0          | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | <18      | <3.7   | <55     | 2.8 J  | <3.8   | <4.0   | <4.6           |  |
| PFHpS                   | <3.7                       | 2.4 J | 100    | 120   | 130           | <3.7       | <3.6  | 1.6 J | 66     | 4.7   | 32     | 41       | <3.7   | 160     | 20     | 1.8 J  | 3.0 J  | 3.5 J          |  |
| PFNS                    | <3.7                       | <4.5  | <24    | <3.9  | <4.0          | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | 110      | <3.7   | <55     | 4.6 J  | <3.8   | <4.0   | <4.6           |  |
| PFOSA                   | <3.7                       | <4.5  | 14 J   | 2.5 J | 2.2 J         | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | 37       | 0.96 J | 17 J    | 19     | <3.8   | <4.0   | <4.6           |  |
| PFPeS                   | 1.9 J                      | 33    | 190    | 400   | 410           | 2.7 J      | 2.7 J | <4.0  | 75     | 4.0 J | 18     | 15 J     | <3.7   | 260     | 13     | 1.5 J  | 2.4 J  | 2.4 J          |  |
| PFHxS                   | 36                         | 1300  | 2700   | 2600  | 2900          | 72         | 30    | 20    | 950    | 110   | 520    | 1300     | 7.6    | 6700    | 510    | 14     | 72     | 91             |  |
| PFBA                    | 6.1                        | 27    | 92     | 120   | 120           | 5.0        | 1.3 J | 3.4 J | 20     | 3.7 J | 4.7 J  | 25       | 2.2 J  | 430     | 24     | 8.1    | 21     | 20             |  |
| PFDA                    | <3.7                       | <4.5  | 6.6 J  | 5.3   | 4.9           | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | 30       | 1.4 J  | 300     | 39     | <3.8   | <4.0   | <4.6           |  |
| PFDoA                   | <3.7                       | <4.5  | <24    | 2.1 J | 2.2 J         | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | <18      | <3.7   | <55     | 6.9    | <3.8   | <4.0   | <4.6           |  |
| PFHpA                   | 3.8                        | 19    | 39     | 64    | 68            | 3.9        | <3.6  | <4.0  | 3.9    | <4.3  | 2.0 J  | 77       | 1.9 J  | 750     | 52     | 1.5 J  | 4.9    | 3.6 J          |  |
| PFHxA                   | 15                         | 48    | 370    | 320   | 310           | 6.0        | 1.2 J | 1.3 J | 39     | 4.0 J | 7.1    | 83       | 3.5 J  | 2500    | 150    | 8.6    | 19     | 9.5            |  |
| PFNA                    | <3.7                       | <4.5  | 7.9 J  | 2.9 J | 3.2 J         | 1.2 J      | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | 120      | 1.4 J  | 270     | 25     | <3.8   | 2.4 J  | 1.2 J          |  |
| PFOA                    | 21                         | 250   | 160    | 170   | 170           | 5.4        | 1.9 J | 2.0 J | 17     | 5.2   | 14     | 150      | 3.1 J  | 1500    | 65     | 4.4    | 7.6    | 4.7            |  |
| PFPeA                   | 9.2                        | 49    | 380    | 300   | 310           | 3.8        | 1.4 J | <4.0  | 14     | 1.6 J | 2.7 J  | 29       | 3.2 J  | 1100    | 56     | 7.0    | 11     | 6.6            |  |
| PFTeDA                  | <3.7                       | <4.5  | <24    | <3.9  | <4.0          | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | <18      | <3.7   | <55     | <5.4   | <3.8   | <4.0   | <4.6           |  |
| PFUdA                   | <3.7                       | <4.5  | <24    | <3.9  | <4.0          | <3.7       | <3.6  | <4.0  | <3.6   | <4.3  | <5.2   | <18      | <3.7   | <55     | 7.1    | <3.8   | <4.0   | <4.6           |  |
| PFOS                    | 120 B                      | 33 B  | 9500 B | 1700  | 1700          | 88 B       | 9.6 B | 380 B | 1600 B | 320 B | 1700 B | 15000 B  | 160 B  | 26000 B | 2500 B | 250    | 460    | 360            |  |
| Total PFAS              | 215                        | 1,782 | 18,642 | 6,315 | 6,648         | 190        | 51    | 410   | 2,842  | 456   | 2,315  | 17,754   | 194    | 49,097  | 4,262  | 452    | 650    | 531            |  |

Notes: All results are in ng/l  
 J - Estimated results < Limit of Quantitation and > Detection Limit  
 B - Detected in Method Blank  
 Results are provided only for PFAS compounds where a detection occurred in at least one sample



Table 3 (Continued)  
Soil Boring Groundwater PFAS Laboratory Analytical Results  
La Crosse Municipal Wells #23 and #24  
La Crosse, WI

| PFAS Compounds Detected | Sample ID (by Source Area) |       |                             |                             |                     |                |                |
|-------------------------|----------------------------|-------|-----------------------------|-----------------------------|---------------------|----------------|----------------|
|                         | Fuel Spill                 |       | Former Fire Station<br>MW-4 | Burn Pit #2 (Down-gradient) |                     |                |                |
|                         | GP-20                      | GP-21 |                             | MW-104I<br>(55-59')         | Dup #3<br>(MW-104I) | PZ-105<br>(WT) | PZ-106<br>(WT) |
| 8:2 FTS                 | 15                         | <7.4  | <7.8                        | 2.0 J                       | 2.6 J               | <7.4           | <7.5           |
| 6:2 FTS                 | 8300                       | 7.1 J | 8.0                         | 16                          | 15                  | 2.0 J          | 2.7 J          |
| 10:2 FTS                | 9.3                        | <7.4  | <7.8                        | <7.6                        | <7.6                | <7.4           | <7.5           |
| EtFOSAA                 | <7.2                       | <7.4  | <7.8                        | <7.6                        | <7.6                | <7.4           | <7.5           |
| PFBS                    | 50                         | 4.6   | 48                          | 12                          | 13                  | 1.7 J          | 1.1 J          |
| PFDS                    | <3.6                       | <3.7  | <3.9                        | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFHpS                   | 270                        | 1.1 J | 18                          | 13                          | 13                  | <3.7           | <3.7           |
| PFNS                    | <3.6                       | <3.7  | <3.9                        | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFOSA                   | <3.6                       | <3.7  | 1.0 J                       | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFPeS                   | 310                        | 4.1   | 53                          | 26                          | 26                  | <3.7           | <3.7           |
| PFHxS                   | 3100                       | 25    | 370                         | 810                         | 780                 | 6.0            | 3.0 J          |
| PFBA                    | 210                        | 91    | 27                          | 38                          | 39                  | 6.4            | 5.6            |
| PFDA                    | 5.4                        | 11    | 2.3 J                       | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFDoA                   | 11                         | <3.7  | <3.9                        | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFHpA                   | 620                        | 32    | 57                          | 83                          | 71                  | <3.7           | <3.7           |
| PFHxA                   | 650                        | 99    | 93                          | 160                         | 150                 | 2.7 J          | 2.7 J          |
| PFNA                    | 610                        | 130   | 18                          | 17                          | 16                  | <3.7           | <3.7           |
| PFOA                    | 460                        | 200   | 52                          | 83                          | 79                  | 4.4            | 2.8 J          |
| PFPeA                   | 760                        | 140   | 55                          | 90                          | 90                  | 2.4 J          | 1.2 J          |
| PFTeDA                  | 1.2 J                      | <3.7  | <3.9                        | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFUdA                   | 3.7                        | <3.7  | <3.9                        | <3.8                        | <3.8                | <3.7           | <3.7           |
| PFOS                    | 2200                       | 100   | 670                         | 2700                        | 2700                | 21             | 12             |
| Total PFAS              | 17,586                     | 845   | 1,472                       | 4,050                       | 3,995               | 47             | 31             |

Notes: All results are in ng/l  
 J - Estimated results < Limit of Quantitation and > Detection Limit  
 B - Detected in Method Blank  
 Results are provided only for PFAS compounds where a detection occurred in at least one sample

## Appendix: Laboratory Reports

August 28, 2020

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

RE: Project: LACROSSE WELL #23 & #24  
Pace Project No.: 40212540

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on August 07, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,



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

Enclosures

cc: John Storlie, The OS Group, LLC



## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: LACROSSE WELL #23 & #24

Pace Project No.: 40212540

| Lab ID      | Sample ID        | Matrix | Date Collected | Date Received  |
|-------------|------------------|--------|----------------|----------------|
| 40212540001 | GP-1 18-20'      | Solid  | 08/03/20 15:20 | 08/07/20 10:10 |
| 40212540002 | GP-2 18-20'      | Solid  | 08/03/20 14:50 | 08/07/20 10:10 |
| 40212540003 | GP-3 18-20'      | Solid  | 08/04/20 08:20 | 08/07/20 10:10 |
| 40212540004 | GP-4 21-23'      | Solid  | 08/04/20 09:10 | 08/07/20 10:10 |
| 40212540005 | GP-5 18-20'      | Solid  | 08/04/20 09:45 | 08/07/20 10:10 |
| 40212540006 | GP-6 18-20'      | Solid  | 08/04/20 10:40 | 08/07/20 10:10 |
| 40212540007 | GP-7 2-3'        | Solid  | 08/04/20 11:20 | 08/07/20 10:10 |
| 40212540008 | GP-8 2-3'        | Solid  | 08/04/20 11:25 | 08/07/20 10:10 |
| 40212540009 | GP-9 2-3'        | Solid  | 08/04/20 11:30 | 08/07/20 10:10 |
| 40212540010 | GP-10 18-20'     | Solid  | 08/04/20 15:40 | 08/07/20 10:10 |
| 40212540011 | GP-11 2-3'       | Solid  | 08/04/20 16:00 | 08/07/20 10:10 |
| 40212540012 | GP-11 9-10'      | Solid  | 08/04/20 16:05 | 08/07/20 10:10 |
| 40212540013 | GP-11 22-23'     | Solid  | 08/04/20 16:10 | 08/07/20 10:10 |
| 40212540014 | GP-12 2-3'       | Solid  | 08/05/20 08:25 | 08/07/20 10:10 |
| 40212540015 | GP-13 2-3'       | Solid  | 08/05/20 08:35 | 08/07/20 10:10 |
| 40212540016 | GP-14 2-3'       | Solid  | 08/05/20 08:45 | 08/07/20 10:10 |
| 40212540017 | GP-14 9-10'      | Solid  | 08/05/20 08:50 | 08/07/20 10:10 |
| 40212540018 | GP-14 14.5-15.5' | Solid  | 08/05/20 08:55 | 08/07/20 10:10 |
| 40212540019 | GP-15 1-2'       | Solid  | 08/05/20 12:05 | 08/07/20 10:10 |
| 40212540020 | GP-15 5-6'       | Solid  | 08/05/20 12:10 | 08/07/20 10:10 |
| 40212540021 | GP-15 10-11'     | Solid  | 08/05/20 12:15 | 08/07/20 10:10 |
| 40212540022 | GP-16 1-2'       | Solid  | 08/05/20 12:35 | 08/07/20 10:10 |
| 40212540023 | GP-16 5-6'       | Solid  | 08/05/20 12:37 | 08/07/20 10:10 |
| 40212540024 | GP-16 10-11'     | Solid  | 08/05/20 12:40 | 08/07/20 10:10 |
| 40212540025 | GP-17 1-2'       | Solid  | 08/05/20 13:15 | 08/07/20 10:10 |
| 40212540026 | GP-17 5-6'       | Solid  | 08/05/20 13:20 | 08/07/20 10:10 |
| 40212540027 | GP-17 10-11'     | Solid  | 08/05/20 13:25 | 08/07/20 10:10 |
| 40212540028 | MW-101 1-2'      | Solid  | 08/05/20 13:45 | 08/07/20 10:10 |
| 40212540029 | MW-101 5-6'      | Solid  | 08/05/20 13:55 | 08/07/20 10:10 |
| 40212540030 | MW-101 10-11'    | Solid  | 08/05/20 14:00 | 08/07/20 10:10 |
| 40212540031 | MW-102 1-2'      | Solid  | 08/05/20 11:00 | 08/07/20 10:10 |
| 40212540032 | MW-102 5-6'      | Solid  | 08/05/20 11:05 | 08/07/20 10:10 |
| 40212540033 | MW-102 10-11'    | Solid  | 08/05/20 11:10 | 08/07/20 10:10 |
| 40212540034 | MW-103 1-2'      | Solid  | 08/05/20 11:25 | 08/07/20 10:10 |
| 40212540035 | MW-103 5-6'      | Solid  | 08/05/20 11:30 | 08/07/20 10:10 |
| 40212540036 | MW-103 10-11'    | Solid  | 08/05/20 11:35 | 08/07/20 10:10 |
| 40212540037 | GP-18 2-3'       | Solid  | 08/06/20 11:00 | 08/07/20 10:10 |

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## SAMPLE SUMMARY

Project: LACROSSE WELL #23 & #24  
Pace Project No.: 40212540

| Lab ID      | Sample ID         | Matrix | Date Collected | Date Received  |
|-------------|-------------------|--------|----------------|----------------|
| 40212540038 | GP-19 2-3'        | Solid  | 08/06/20 11:10 | 08/07/20 10:10 |
| 40212540039 | GP-20 2-3'        | Solid  | 08/06/20 11:15 | 08/07/20 10:10 |
| 40212540040 | GP-20 14-15'      | Solid  | 08/06/20 11:30 | 08/07/20 10:10 |
| 40212540041 | GP-21 9.5-10.5'   | Solid  | 08/06/20 12:10 | 08/07/20 10:10 |
| 40212540042 | DUP #1            | Solid  | 08/05/20 12:20 | 08/07/20 10:10 |
| 40212540043 | DUP #2            | Solid  | 08/05/20 13:50 | 08/07/20 10:10 |
| 40212540044 | DUP #3            | Solid  | 08/05/20 11:05 | 08/07/20 10:10 |
| 40212540045 | GP-1              | Water  | 08/03/20 15:30 | 08/07/20 10:10 |
| 40212540046 | GP-2              | Water  | 08/03/20 15:00 | 08/07/20 10:10 |
| 40212540047 | GP-3              | Water  | 08/04/20 08:30 | 08/07/20 10:10 |
| 40212540048 | GP-4              | Water  | 08/04/20 09:15 | 08/07/20 10:10 |
| 40212540049 | GP-5              | Water  | 08/04/20 10:00 | 08/07/20 10:10 |
| 40212540050 | GP-6              | Water  | 08/04/20 10:50 | 08/07/20 10:10 |
| 40212540051 | GP-10             | Water  | 08/04/20 13:45 | 08/07/20 10:10 |
| 40212540052 | GP-11             | Water  | 08/04/20 16:15 | 08/07/20 10:10 |
| 40212540053 | GP-14             | Water  | 08/05/20 09:00 | 08/07/20 10:10 |
| 40212540054 | GP-15             | Water  | 08/05/20 12:25 | 08/07/20 10:10 |
| 40212540055 | GP-16             | Water  | 08/05/20 12:45 | 08/07/20 10:10 |
| 40212540056 | GP-17             | Water  | 08/05/20 13:30 | 08/07/20 10:10 |
| 40212540057 | MW-101            | Water  | 08/05/20 14:10 | 08/07/20 10:10 |
| 40212540058 | MW-102            | Water  | 08/05/20 11:15 | 08/07/20 10:10 |
| 40212540059 | MW-103            | Water  | 08/05/20 11:40 | 08/07/20 10:10 |
| 40212540060 | GP-20             | Water  | 08/06/20 11:35 | 08/07/20 10:10 |
| 40212540061 | GP-21             | Water  | 08/06/20 12:20 | 08/07/20 10:10 |
| 40212540062 | FIELD BLANK       | Water  | 08/05/20 12:50 | 08/07/20 10:10 |
| 40212540063 | PERISTALTIC BLANK | Water  | 08/05/20 14:05 | 08/07/20 10:10 |
| 40212540064 | AUGER BLANK       | Water  | 08/06/20 10:25 | 08/07/20 10:10 |
| 40212540065 | DUP #1            | Water  | 08/05/20 11:45 | 08/07/20 10:10 |

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Number 110506

40212540

|  |                    |  |                                     |  |                               |                           |  |
|--|--------------------|--|-------------------------------------|--|-------------------------------|---------------------------|--|
| Client<br><b>The OS Group, LLC</b>           |                    | Report to Contact<br><b>Steven Ossek</b>     |                                     | Telephone No. / E-mail<br><b>608-437-9388 Steve. Ossek @ The OS Grp. com</b> |                               | Quote No.                 |  |
| Address<br><b>444 21st Street S</b>          |                    | Sampler's Signature<br><b>X Steven Ossek</b> |                                     | Analysis (Attach list if more space is needed)                               |                               | Page <b>1</b> of <b>8</b> |  |
| City<br><b>La Crosse, WI</b>                 | State<br><b>WI</b> | Zip Code<br><b>54601</b>                     | Printed Name<br><b>Steven Ossek</b> |  | Lot # Bar Code (lab use only) |                           |  |
| Project Name<br><b>La Crosse Well #23-24</b> |                    |  |                                     |  |                               |                           |  |

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | P.O. No. | Collection Date(s) | Collection Time (Military) | Ge/Gr Co-Composite | Matrix  |       |             | No of Containers by Preservative Type |       |      |     |      |         |                | Remarks / Cooler I.D. |  |     |
|--|----------|--------------------|----------------------------|--------------------|---------|-------|-------------|---------------------------------------|-------|------|-----|------|---------|----------------|-----------------------|--|-----|
|  |          |                    |                            |                    | Aqueous | Solid | Non-Aqueous | Unpres.                               | H2SO4 | HNO3 | HCl | NaOH | 5035 Kt | Field Filtered |                       |  |     |
| GP-1 18-20'  |          | 8-3-20             | 3:20                       | G                  | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 001 |
| GP-2 18-20'  |          | 8-3-20             | 2:50                       |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 002 |
| GP-3 18-20'  |          | 8-4-20             | 8:20                       |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 003 |
| GP-4 21-23'  |          |                    | 9:10                       |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 004 |
| GP-5 18-20'  |          |                    | 9:45                       |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 005 |
| GP-6 18-20'  |          |                    | 10:40                      |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 006 |
| GP-7 2-3'  |          |                    | 11:20                      |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 007 |
| GP-8 2-3'  |          |                    | 11:25                      |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 008 |
| GP-9 2-3'  |          |                    | 11:30                      |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 009 |
| GP-10 18-20'   |          |                    | 3:40                       |                    | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 010 |

|  |  |   |                      |  |  |  |  |                           |                      |  |  |
|--|--|---|----------------------|--|--|--|--|---------------------------|----------------------|--|--|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |  | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab |                      | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |  |  |  | QC Requirements (Specify) |                      |  |  |
| 1. Relinquished by<br><b>Steven Ossek</b>  |  | Date<br><b>8/6/20</b>   | Time<br><b>4:00</b>  | 1. Received by   |  |  |  | Date                      | Time                 |  |  |
| 2. Relinquished by<br><b>FedEx Ground</b>  |  | Date<br><b>8-7-20</b>   | Time<br><b>10:10</b> | 2. Received by<br><b>Madison Z Petruska</b>  |  |  |  | Date<br><b>8-7-20</b>     | Time<br><b>10:10</b> |  |  |
| 3. Relinquished by   |  | Date  | Time                 | 3. Received by   |  |  |  | Date                      | Time                 |  |  |
| 4. Relinquished by   |  | Date  | Time                 | 4. Laboratory received by  |  |  |  | Date                      | Time                 |  |  |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY  
 Received on Ice (Circle)  Yes  No Ice Pack  
 Receipt Temp. **0.5, 1.0** °C  
 Temp Blank  Y  N  D  
 see stick mix 8-7-20



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Number 110505

40212540

Page 5 of 206

|  |                    |   |  |  |                               |                           |  |
|--|--------------------|---|--|--|-------------------------------|---------------------------|--|
| Client<br><b>The OS Group, LLC</b>           |                    | Report to Contact<br><b>Steven Osesek</b>   |  | Telephone No. / E-mail<br><b>803-433-9988 stev.osesek@THEOSGRP.COM</b> |                               | Quote No.                 |  |
| Address<br><b>444 21st Street S</b>          |                    | Sampler's Signature<br><b>Steven Osesek</b> |  | Analysis (Attach list if more space is needed)                         |                               | Page <b>2</b> of <b>8</b> |  |
| City<br><b>Lo Cross</b>                      | State<br><b>WI</b> | Zip Code<br><b>54601</b>                    | X Printed Name<br><b>Steven Osesek</b> |  | Lot # Bar Code (lab use only) |                           |  |
| Project Name<br><b>Lo Cross Wells #23-24</b> |                    |   | Printed Name<br><b>Steven Osesek</b>   |  |                               |                           |  |

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | P.O. No. | Collection Date(s) | Collection Time (Military) | G-Grab<br>C-Composite | Matrix  |       |             | No of Containers by Preservative Type |       |      |     |      |         |                | Remarks / Cooler I.D. |  |     |
|--|----------|--------------------|----------------------------|-----------------------|---------|-------|-------------|---------------------------------------|-------|------|-----|------|---------|----------------|-----------------------|--|-----|
|  |          |                    |                            |                       | Aqueous | Solid | Non-Aqueous | Unpres.                               | H2SO4 | HNO3 | HCl | NaOH | 5035 K2 | Field Filtered |                       |  |     |
| GP-11 2-3'   |          | 8-4-20             | 4:00                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 011 |
| GP-11 9-10'  |          | 8-4-20             | 4:05                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 012 |
| GP-11 22-23'   |          | 8-4-20             | 4:10                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 013 |
| GP-12 2-3'   |          | 8-5-20             | 8:25                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 014 |
| GP-13 2-3'   |          | 8-5-20             | 8:35                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 015 |
| GP-14 2-3'   |          |                    | 8:45                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 016 |
| GP-14 9-10'  |          |                    | 8:50                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 017 |
| GP-14 14.5-15.5'   |          |                    | 8:55                       |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 018 |
| GP-15 1-2'   |          |                    | 10:05                      |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 019 |
| GP-15 5-6'   |          |                    | 12:10                      |                       | X       |       |             | 1                                     |       |      |     |      |         |                |                       |  | 020 |

|  |                       |   |  |  |                       |                      |  |                           |  |
|--|-----------------------|---|--|--|-----------------------|----------------------|--|---------------------------|--|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |                       | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab |  | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |                       |                      |  | QC Requirements (Specify) |  |
| 1. Relinquished by<br><b>Steven Osesek</b>   | Date<br><b>8/6/20</b> | Time<br><b>4:00</b>   | 1. Received by                                   |  | Date                  | Time                 |  |                           |  |
| 2. Relinquished by<br><b>FedEx Ground</b>  | Date<br><b>8-7-20</b> | Time<br><b>10:10</b>  | 2. Received by<br><b>Madeline J. Hubert Pace</b> |  | Date<br><b>8-7-20</b> | Time<br><b>10:10</b> |  |                           |  |
| 3. Relinquished by   | Date                  | Time  | 3. Received by                                   |  | Date                  | Time                 |  |                           |  |
| 4. Relinquished by   | Date                  | Time  | 4. Laboratory received by                        |  | Date                  | Time                 |  |                           |  |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

|              |  |                                  |  |
|--------------|--|----------------------------------|--|
| LAB USE ONLY | Received on ice (Circle) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack | Receipt Temp. <b>0.5, 1.0</b> °C | <input checked="" type="checkbox"/> Temp Blank <input type="checkbox"/> BY <input checked="" type="checkbox"/> <b>OS</b> |
|--------------|--|----------------------------------|--|

MR 8-7-20







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402254

Page 7 of 206

|   |                    |   |                                      |  |              |                           |                                  |
|---|--------------------|---|--------------------------------------|--|--------------|---------------------------|----------------------------------|
| Client<br><b>The OS Group, LLC</b>            |                    | Report to Contact<br><b>Steven Oserek</b>   |                                      | Telephone No. / E-mail<br><b>608-433-9388</b> <b>steve.oserek@THEOSGRP.COM</b> |              | Quote No.                 |                                  |
| Address<br><b>444 21st Street S</b>           |                    | Sampler's Signature<br><i>Steven Oserek</i> |                                      | Analysis (Attach list if more space is needed)                                 |              | Page <b>4</b> of <b>8</b> |                                  |
| City<br><b>La Crosse</b>                      | State<br><b>WI</b> | Zip Code<br><b>54601</b>                    | Printed Name<br><b>STEVEN OSEREK</b> |  | PFAS - WI 36 |                           | Lot # Bar Code<br>(lab use only) |
| Project Name<br><b>La Crosse wells #23024</b> |                    |   |                                      |  |              |                           |                                  |

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | Ca-Cl-Complete | Matrix  |       |             | No of Containers by Preservative Type |       |      |     |      |         |                |  | Remarks / Cooler I.D. |     |
|--|--------------------|----------------------------|----------------|---------|-------|-------------|---------------------------------------|-------|------|-----|------|---------|----------------|--|-----------------------|-----|
|  |                    |                            |                | Aqueous | Solid | Non-Aqueous | Unpres.                               | H2SO4 | HNO3 | HCl | NaOH | 5035 KR | Field Filtered |  |                       |     |
| MW-102 1-2'  | 8-5-20             | 11:00                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 031 |
| MW-102 5-6'  | ↓                  | 11:05                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 032 |
| MW-102 10-11'  |                    | 11:10                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 033 |
| MW-103 1-2   |                    | 11:25                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 034 |
| MW-103 5-6   |                    | 11:30                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 035 |
| MW-103 10-11   |                    | 11:35                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 036 |
| GP-18 2-3  |                    | 8-6-20                     | 11:00          |         | X     |             |                                       | 1     |      |     |      |         |                |  |                       |     |
| GP-19 2-3  | ↓                  | 11:10                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 038 |
| GP-20 2-3  |                    | 11:15                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 039 |
| GP-20 14-15  |                    | 11:30                      |                | X       |       |             | 1                                     |       |      |     |      |         |                |  |                       | 040 |

|  |   |  |                           |
|--|---|--|---------------------------|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown | QC Requirements (Specify) |
|--|---|--|---------------------------|

|  |                       |                      |   |                       |                      |
|--|-----------------------|----------------------|---|-----------------------|----------------------|
| 1. Relinquished by<br><i>Steven Oserek</i> | Date<br><b>8/1/20</b> | Time<br><b>9:00</b>  | 1. Received by                                  | Date                  | Time                 |
| 2. Relinquished by<br><i>FedEx Ground</i>  | Date<br><b>8-7-20</b> | Time<br><b>10:10</b> | 2. Received by<br><i>Madeline Z Roberts Pae</i> | Date<br><b>8-7-20</b> | Time<br><b>10:10</b> |
| 3. Relinquished by                         | Date                  | Time                 | 3. Received by                                  | Date                  | Time                 |
| 4. Relinquished by                         | Date                  | Time                 | 4. Laboratory received by                       | Date                  | Time                 |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY  
 Received on ice (Circle)  No Ice Pack Receipt Temp. **05.10 °C** Temp Blank  Y  N  
*9225UR MW 8-7-20*



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Number **110470**  
**4020540**

Page 8 of 206

|   |                    |  |                                       |  |   |                           |                               |  |                       |  |  |
|---|--------------------|--|---------------------------------------|--|---|---------------------------|-------------------------------|--|-----------------------|--|--|
| Client<br><b>The OS Group, LLC</b>              |                    | Report to Contact<br><b>Steven Oseseck</b>     |                                       | Telephone No. / E-mail<br><b>608-433-9388 Steve.Oseseck@TheOSGrp.com</b> |   | Quote No.                 |                               |  |                       |  |  |
| Address<br><b>444 21st Street S</b>             |                    | Sampler's Signature<br><b>X Steven Oseseck</b> |                                       | Analysis (Attach list if more space is needed)                           |   | Page <b>5</b> of <b>8</b> |                               |  |                       |  |  |
| City<br><b>Lo Crosse</b>                        | State<br><b>WI</b> | Zip Code<br><b>54601</b>                       | Printed Name<br><b>Steven Oseseck</b> |  | <table border="1"> <tr> <td colspan="2">Lot # Bar Code (lab use only)</td> </tr> <tr> <td colspan="2">Remarks / Cooler I.D.</td> </tr> </table> |                           | Lot # Bar Code (lab use only) |  | Remarks / Cooler I.D. |  |  |
| Lot # Bar Code (lab use only)                   |                    |  |                                       |  |   |                           |                               |  |                       |  |  |
| Remarks / Cooler I.D.                           |                    |  |                                       |  |   |                           |                               |  |                       |  |  |
| Project Name<br><b>Lo Crosse Wells #23 + 24</b> |                    |  |                                       |  |   |                           |                               |  |                       |  |  |

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | G-Grab C-Composite | Matrix   |       |             | No of Containers by Preservative Type |       |      |     |      |          |                |  | Remarks / Cooler I.D. |  |            |
|--|--------------------|----------------------------|--------------------|----------|-------|-------------|---------------------------------------|-------|------|-----|------|----------|----------------|--|-----------------------|--|------------|
|  |                    |                            |                    | Aqueous  | Solid | Non-Aqueous | Urnines                               | H2SO4 | HNO3 | HCl | NaOH | 5035 Kit | Field Filtered |  |                       |  |            |
| <b>GP-21/MW-2 9.5-10.5</b>   | <b>8/6/20</b>      | <b>12:10</b>               |                    | <b>X</b> |       |             | <b>1</b>                              |       |      |     |      |          |                |  |                       |  | <b>041</b> |
| <b>Dup #1</b>  | <b>8/5/20</b>      | <b>12:20</b>               |                    | <b>X</b> |       |             | <b>1</b>                              |       |      |     |      |          |                |  |                       |  | <b>042</b> |
| <b>Dup #2</b>  | <b>8/5/20</b>      | <b>1:50</b>                |                    | <b>X</b> |       |             | <b>1</b>                              |       |      |     |      |          |                |  |                       |  | <b>043</b> |
| <b>Dup #3</b>  | <b>8/6/20</b>      | <b>11:05</b>               |                    | <b>X</b> |       |             | <b>1</b>                              |       |      |     |      |          |                |  |                       |  | <b>044</b> |

|  |  |   |                      |  |  |  |  |                           |                      |  |  |  |
|--|--|---|----------------------|--|--|--|--|---------------------------|----------------------|--|--|--|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |  | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab |                      | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |  |  |  | QC Requirements (Specify) |                      |  |  |  |
| 1. Relinquished by<br><b>Steven Oseseck</b>  |  | Date<br><b>8/6/20</b>   | Time<br><b>4:08</b>  | 1. Received by   |  |  |  | Date                      | Time                 |  |  |  |
| 2. Relinquished by<br><b>FedEx Ground</b>  |  | Date<br><b>8-7-20</b>   | Time<br><b>10:10</b> | 2. Received by<br><b>Madeline Z. Pichler, Ph.D.</b>  |  |  |  | Date<br><b>8-7-20</b>     | Time<br><b>10:10</b> |  |  |  |
| 3. Relinquished by   |  | Date  | Time                 | 3. Received by   |  |  |  | Date                      | Time                 |  |  |  |
| 4. Relinquished by   |  | Date  | Time                 | 4. Laboratory received by  |  |  |  | Date                      | Time                 |  |  |  |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

|              |   |                                   |   |
|--------------|---|-----------------------------------|---|
| LAB USE ONLY | Received on ice (Circle) <b>(Yes)</b> No Ice Pack | Receipt Temp. <b>0.5 ± 0.0 °C</b> | Temp Blank <b>XY 50N</b><br><b>See Slurb MUR</b><br><b>8-7-20</b> |
|--------------|---|-----------------------------------|---|



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|   |                    |  |                                     |  |                                  |                           |  |
|---|--------------------|--|-------------------------------------|--|----------------------------------|---------------------------|--|
| Client<br><b>The OS Group, LLC</b>            |                    | Report to Contact<br><b>Steven Oseck</b>   |                                     | Telephone No. / E-mail<br><b>608-433-9388 Steve.oseck@theOSGrp.com</b> |                                  | Quote No.                 |  |
| Address<br><b>444 21st Street S</b>           |                    | Sampler's Signature<br><i>Steven Oseck</i> |                                     | Analysis (Attach list if more space is needed)                         |                                  | Page <b>6</b> of <b>8</b> |  |
| City<br><b>La Crosse</b>                      | State<br><b>WI</b> | Zip Code<br><b>54601</b>                   | Printed Name<br><b>STEVEN OSECK</b> |  | Lot # Bar Code<br>(lab use only) |                           |  |
| Project Name<br><b>La Crosse Wells #23+24</b> |                    |  |                                     |  |                                  |                           |  |

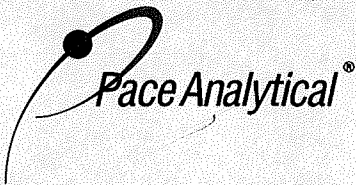
| Project No. | P.O. No. | Collection Date(s) | Collection Time (Military) | G-Grab<br>C-Composite | Matrix  |       |             | No of Containers by Preservative Type |       |      |     |      |         |                | Remarks / Cooler I.D. |  |     |
|-------------|----------|--------------------|----------------------------|-----------------------|---------|-------|-------------|---------------------------------------|-------|------|-----|------|---------|----------------|-----------------------|--|-----|
|             |          |                    |                            |                       | Aqueous | Solid | Non-Aqueous | Unpres.                               | H2SO4 | HNO3 | HCl | NaOH | 5035 KR | Field Filtered |                       |  |     |
| GP-1        |          | 8-3-20             | 3:30                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 045 |
| GP-2        |          | 8-3-20             | 3:00                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 046 |
| GP-3        |          | 8-4-20             | 8:30                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 047 |
| GP-4        |          |                    | 9:15                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 048 |
| GP-5        |          |                    | 10:00                      | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 049 |
| GP-6        |          |                    | 10:50                      | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 050 |
| GP-10       |          |                    | 3:45                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 051 |
| GP-11       |          |                    | 4:15                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 052 |
| GP-14       |          | 8-5-20             | 9:00                       | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 053 |
| GP-15       |          | 8-5-20             | 12:25                      | X                     |         |       |             | 2                                     |       |      |     |      |         |                |                       |  | 054 |

|   |  |   |                      |  |  |  |  |                           |                      |
|---|--|---|----------------------|--|--|--|--|---------------------------|----------------------|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |  | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab |                      | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |  |  |  | QC Requirements (Specify) |                      |
| 1. Relinquished by <i>Steven Oseck</i>  |  | Date<br><i>8/6/20</i>   | Time<br><i>4:08</i>  | 1. Received by   |  |  |  | Date                      | Time                 |
| 2. Relinquished by <i>MRS T. Grund</i>  |  | Date<br><i>8-7-20</i>   | Time<br><i>10:10</i> | 2. Received by <i>Madeline Z...</i>  |  |  |  | Date<br><i>8-7-20</i>     | Time<br><i>10:10</i> |
| 3. Relinquished by  |  | Date  | Time                 | 3. Received by   |  |  |  | Date                      | Time                 |
| 4. Relinquished by  |  | Date  | Time                 | 4. Laboratory received by  |  |  |  | Date                      | Time                 |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

|              |  |          |                                  |                       |
|--------------|--|----------|----------------------------------|-----------------------|
| LAB USE ONLY | Received on ice (Circle) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Ice Pack | Receipt Temp. <i>0.5, 1.0</i> °C | Temp Blank <i>see</i> |
|--------------|--|----------|----------------------------------|-----------------------|

8-7-20



**PACE ANALYTICAL SERVICES, LLC**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.pacelabs.com

Number 110508  
 40212540

Page 10 of 206

|                                     |                    |   |                                      |   |   |                           |                               |  |                       |  |  |  |
|-------------------------------------|--------------------|---|--------------------------------------|---|---|---------------------------|-------------------------------|--|-----------------------|--|--|--|
| Client<br><b>The OS Group, LLC</b>  |                    | Report to Contact<br><b>Steven Osesek</b>   |                                      | Telephone No. / E-mail<br><b>603-433-9388 Steve.osesek@TheOSGrp.com</b> |   | Quote No.                 |                               |  |                       |  |  |  |
| Address<br><b>444 21st Street S</b> |                    | Sampler's Signature<br><i>Steven Osesek</i> |                                      | Analysis (Attach list if more space is needed)                          |   | Page <b>7</b> of <b>8</b> |                               |  |                       |  |  |  |
| City<br><b>La Crosse</b>            | State<br><b>WI</b> | Zip Code<br><b>54601</b>                    | Printed Name<br><b>STEVEN OSESEK</b> |   | <table border="1"> <tr> <td colspan="2">Lot # Bar Code (lab use only)</td> </tr> <tr> <td colspan="2">Remarks / Cooler I.D.</td> </tr> </table> |                           | Lot # Bar Code (lab use only) |  | Remarks / Cooler I.D. |  |  |  |
| Lot # Bar Code (lab use only)       |                    |   |                                      |   |   |                           |                               |  |                       |  |  |  |
| Remarks / Cooler I.D.               |                    |   |                                      |   |   |                           |                               |  |                       |  |  |  |
| Project Name                        |                    |   |                                      |   |   |                           |                               |  |                       |  |  |  |

| Project No.       | P.O. No. | Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | Ge/Grab C-Composite | Matrix  |       |             | No of Containers by Preservative Type |       |      |     |      |          |  | Field Filtered | Remarks / Cooler I.D. |
|-------------------|----------|--|--------------------|----------------------------|---------------------|---------|-------|-------------|---------------------------------------|-------|------|-----|------|----------|--|----------------|-----------------------|
|                   |          |  |                    |                            |                     | Aqueous | Solid | Non-Aqueous | Unpres.                               | H2SO4 | HNO3 | HCl | NaOH | 5035 Kit |  |                |                       |
| GP-16             |          |  | 8-5-20             | 12:45                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 055                   |
| GP-17             |          |  | ↓                  | 1:30                       | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 056                   |
| MW-101            |          |  |                    | 2:10                       | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 057                   |
| MW-102            |          |  |                    | 11:15                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 058                   |
| MW-103            |          |  |                    | 11:40                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 059                   |
| GP-20             | 8-6-20   |  |                    | 11:35                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 060                   |
| GP-21             | 86-20    |  |                    | 12:20                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 061                   |
| Field Blank       | 8-5-20   |  |                    | 12:50                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 062                   |
| Peristaltic Blank | 8-5-20   |  |                    | 2:05                       | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 063                   |
| Auger Blank       | 8-6-20   |  |                    | 10:25                      | X                   |         |       |             | 2                                     |       |      |     |      |          |  |                | 064                   |

|  |                |   |   |  |               |  |  |                           |  |  |  |
|--|----------------|---|---|--|---------------|--|--|---------------------------|--|--|--|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |                | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab |   | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |               |  |  | QC Requirements (Specify) |  |  |  |
| 1. Relinquished by<br><i>Steven Osesek</i>   | Date<br>8/6/20 | Time<br>4:00  | 1. Received by                                | Date   | Time          |  |  |                           |  |  |  |
| 2. Relinquished by<br><i>Felix Grund</i>   | Date<br>8-7-20 | Time<br>10:10   | 2. Received by<br><i>Maddalena Z. Bahulee</i> | Date<br>8-7-20   | Time<br>10:10 |  |  |                           |  |  |  |
| 3. Relinquished by   | Date           | Time  | 3. Received by                                | Date   | Time          |  |  |                           |  |  |  |
| 4. Relinquished by   | Date           | Time  | 4. Laboratory received by                     | Date   | Time          |  |  |                           |  |  |  |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY  
 Received on Ice (Circle)  Yes  No Ice Pack  
 Receipt Temp. 05.10 °C  
 Temp Blank  Y  N  
*see stub MR 8-7-20*

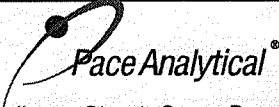










|   |  |  |
|---|--|--|
| <br>1241 Bellevue Street, Green Bay, WI 54302 | Document Name:<br>Sample Condition Upon Receipt (SCUR) | Document Revised: 26Mar2020              |
|   | Document No.:<br>ENV-FRM-GBAY-0014-Rev.00              | Author:<br>Pace Green Bay Quality Office |

### Sample Condition Upon Receipt Form (SCUR)

Client Name: The OS Group, LLC

Project #:

WO#: **40212540**

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



Tracking #: Mo# 39556672 2466

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

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

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

Thermometer Used SR - 99 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 10.0.5 / Corr: 1.0.0.5

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

|   |
|---|
| Person examining contents:<br>Date: <u>8-7-20</u> / Initials: <u>MUR</u><br>Labeled By Initials: <u>SRK</u> |
|---|

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

|   |   |
|---|---|
| Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A  | 1. <u>+CC MUR 8-7-20 - 065 MUR 8-7-20</u>                                       |
| Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   | 2. <u>proj #, sample type 01-020, AM/PM &amp; time</u>                          |
| Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   | 3. <u>MUR 8-7-20</u>  |
| Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   | 4.  |
| Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 5.  |
| - VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No  | Date/Time:  |
| Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 6.  |
| Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | 7.  |
| Sufficient Volume: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 8. <u>002 00 025, +042: containers not full MUR 8-7-20</u>                      |
| Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 9.  |
| -Pace Containers Used: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |   |
| -Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A  |   |
| Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 10.   |
| Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A   | 11.   |
| Sample Labels match COC: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   | 12. <u>041 ID GP-21, 061 ID MW-2, 064 (1): no year, 065 ID DUP-1 MUR 8-7-20</u> |
| -Includes date/time/ID/Analysis Matrix: <u>S + W</u>  |   |
| Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A  | 13.   |
| Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A   |   |
| Pace Trip Blank Lot # (if purchased): _____   |   |

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: Steve Oseseck Date/Time: 8/10/20

Comments/ Resolution: in (1) cooler MUR 8-7-20 @ 021 date 8-6-20 MUR 8-7-20

no depth units: 002-003, 005-006, 019, 022-024, 029, no dash in ID: 028, 030, 036, depth has units: 034, 035, 039 MUR 8-7-20  
③ Missing proj. state 8/7/20 SRK

Per client, sample ID # 41 is "GP-21 9.5-10.5" and for #61 is GP-21. 8/10/20 CDH

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



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## Report of Analysis

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

Project Name: LACROSSE Well #23 & #24

Project Number: 40212540

Lot Number: **VH11086**

Date Completed: 08/25/2020

Revision Date: 08/27/2020

*N. Saikaly*

08/28/2020 6:57 AM

Approved and released by:

Project Manager II: **Nisreen Saikaly**



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

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

# PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

## Case Narrative Pace Analytical Services, LLC Lot Number: VH11086

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

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

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

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" qualifier

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

### **PFAS**

The laboratory control sample (LCS) for batch 63515 exceeded acceptance criteria for 6:2 FTS. This analyte was biased high and was not detected in the samples affected: VH11086-019, VH11086-021, VH11086-022, VH11086-023, VH11086-024, VH11086-025, VH11086-026, VH11086-027, VH11086-030, VH11086-031, VH11086-032, VH11086-033. Results are reported.

### **Report Revision (08/272020)**

This report supersedes and replaces any prior reports issued under this lot number. This report is revised to update the sample ID for sample VH11086-004 to GP-4 21-23' instead of GP-4 21-33.

# PACE ANALYTICAL SERVICES, LLC

**Sample Summary**  
**Pace Analytical Services, LLC**  
**Lot Number: VH11086**  
**Project Name: LACROSSE Well #23 & #24**  
**Project Number: 40212540**

| Sample Number | Sample ID        | Matrix | Date Sampled    | Date Received |
|---------------|------------------|--------|-----------------|---------------|
| 001           | GP-1 18-20'      | Solid  | 08/03/2020 1520 | 08/11/2020    |
| 002           | GP-2 18-20'      | Solid  | 08/03/2020 1450 | 08/11/2020    |
| 003           | GP-3 18-20'      | Solid  | 08/04/2020 0820 | 08/11/2020    |
| 004           | GP-4 21-23'      | Solid  | 08/04/2020 0910 | 08/11/2020    |
| 005           | GP-5 18-20'      | Solid  | 08/04/2020 0945 | 08/11/2020    |
| 006           | GP-6 18-20'      | Solid  | 08/04/2020 1040 | 08/11/2020    |
| 007           | GP-7 2-3'        | Solid  | 08/04/2020 1120 | 08/11/2020    |
| 008           | GP-8 2-3'        | Solid  | 08/04/2020 1125 | 08/11/2020    |
| 009           | GP-9 2-3'        | Solid  | 08/04/2020 1130 | 08/11/2020    |
| 010           | GP-10 18-20'     | Solid  | 08/04/2020 1540 | 08/11/2020    |
| 011           | GP-11 2-3'       | Solid  | 08/04/2020 1600 | 08/11/2020    |
| 012           | GP-11 9-10'      | Solid  | 08/04/2020 1605 | 08/11/2020    |
| 013           | GP-11 22-23'     | Solid  | 08/04/2020 1610 | 08/11/2020    |
| 014           | GP-12 2-3'       | Solid  | 08/05/2020 0825 | 08/11/2020    |
| 015           | GP-13 2-3'       | Solid  | 08/05/2020 0835 | 08/11/2020    |
| 016           | GP-14 2-3'       | Solid  | 08/05/2020 0845 | 08/11/2020    |
| 017           | GP-14 9-10'      | Solid  | 08/05/2020 0850 | 08/11/2020    |
| 018           | GP-14 14.5-15.5' | Solid  | 08/05/2020 0855 | 08/11/2020    |
| 019           | GP-15 1-2'       | Solid  | 08/05/2020 1205 | 08/11/2020    |
| 020           | GP-15 5-6'       | Solid  | 08/05/2020 1210 | 08/11/2020    |
| 021           | GP-15 10-11'     | Solid  | 08/05/2020 1215 | 08/11/2020    |
| 022           | GP-16 1-2'       | Solid  | 08/05/2020 1235 | 08/11/2020    |
| 023           | GP-16 5-6'       | Solid  | 08/05/2020 1237 | 08/11/2020    |
| 024           | GP-16 10-11'     | Solid  | 08/05/2020 1240 | 08/11/2020    |
| 025           | GP-17 1-2'       | Solid  | 08/05/2020 1315 | 08/11/2020    |
| 026           | GP-17 5-6'       | Solid  | 08/05/2020 1320 | 08/11/2020    |
| 027           | GP-17 10-11'     | Solid  | 08/05/2020 1325 | 08/11/2020    |
| 028           | MW-101 1-2'      | Solid  | 08/05/2020 1345 | 08/11/2020    |
| 029           | MW-101 5-6'      | Solid  | 08/05/2020 1355 | 08/11/2020    |
| 030           | MW-101 10-11'    | Solid  | 08/05/2020 1400 | 08/11/2020    |
| 031           | MW-102 1-2'      | Solid  | 08/05/2020 1100 | 08/11/2020    |
| 032           | MW-102 5-6'      | Solid  | 08/05/2020 1105 | 08/11/2020    |
| 033           | MW-102 10-11'    | Solid  | 08/05/2020 1110 | 08/11/2020    |
| 034           | MW-103 1-2'      | Solid  | 08/05/2020 1125 | 08/11/2020    |
| 035           | MW-103 5-6'      | Solid  | 08/05/2020 1130 | 08/11/2020    |
| 036           | MW-103 10-11'    | Solid  | 08/05/2020 1135 | 08/11/2020    |
| 037           | GP-18 2-3'       | Solid  | 08/06/2020 1100 | 08/11/2020    |
| 038           | GP-19 2-3'       | Solid  | 08/06/2020 1110 | 08/11/2020    |
| 039           | GP-20 2-3'       | Solid  | 08/06/2020 1115 | 08/11/2020    |
| 040           | GP-20 14-15'     | Solid  | 08/06/2020 1130 | 08/11/2020    |
| 041           | GP-21 9.5-10.5'  | Solid  | 08/06/2020 1210 | 08/11/2020    |
| 042           | DUP #1           | Solid  | 08/05/2020 1220 | 08/11/2020    |
| 043           | DUP #2           | Solid  | 08/05/2020 1350 | 08/11/2020    |

## Sample Summary (Continued)

Lot Number: VH11086

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| Sample Number | Sample ID | Matrix | Date Sampled    | Date Received |
|---------------|-----------|--------|-----------------|---------------|
| 044           | DUP #3    | Solid  | 08/05/2020 1105 | 08/11/2020    |

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(44 samples)

# PACE ANALYTICAL SERVICES, LLC

**Detection Summary**  
**Pace Analytical Services, LLC**  
**Lot Number: VH11086**  
**Project Name: LACROSSE Well #23 & #24**  
**Project Number: 40212540**

| Sample | Sample ID        | Matrix | Parameter | Method     | Result | Q | Units | Page |
|--------|------------------|--------|-----------|------------|--------|---|-------|------|
| 002    | GP-2 18-20'      | Solid  | PFHxS     | PFAS by ID | 0.22   | J | ug/kg | 13   |
| 006    | GP-6 18-20'      | Solid  | PFOS      | PFAS by ID | 0.22   | J | ug/kg | 21   |
| 007    | GP-7 2-3'        | Solid  | PFOS      | PFAS by ID | 0.87   | J | ug/kg | 23   |
| 013    | GP-11 22-23'     | Solid  | PFHxS     | PFAS by ID | 0.96   | J | ug/kg | 35   |
| 013    | GP-11 22-23'     | Solid  | PFOS      | PFAS by ID | 19     |   | ug/kg | 35   |
| 014    | GP-12 2-3'       | Solid  | 6:2 FTS   | PFAS by ID | 0.58   | J | ug/kg | 37   |
| 014    | GP-12 2-3'       | Solid  | PFHpS     | PFAS by ID | 0.83   | J | ug/kg | 37   |
| 014    | GP-12 2-3'       | Solid  | PFOSA     | PFAS by ID | 0.20   | J | ug/kg | 37   |
| 014    | GP-12 2-3'       | Solid  | PFHxS     | PFAS by ID | 1.8    |   | ug/kg | 37   |
| 014    | GP-12 2-3'       | Solid  | PFPeA     | PFAS by ID | 0.19   | J | ug/kg | 37   |
| 014    | GP-12 2-3'       | Solid  | PFOS      | PFAS by ID | 510    |   | ug/kg | 37   |
| 015    | GP-13 2-3'       | Solid  | 8:2 FTS   | PFAS by ID | 1.4    | J | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | 6:2 FTS   | PFAS by ID | 8.5    |   | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFHxS     | PFAS by ID | 1.8    |   | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFHpA     | PFAS by ID | 0.22   | J | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFHxA     | PFAS by ID | 0.24   | J | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFNA      | PFAS by ID | 1.5    |   | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFOA      | PFAS by ID | 1.0    |   | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFPeA     | PFAS by ID | 0.30   | J | ug/kg | 39   |
| 015    | GP-13 2-3'       | Solid  | PFOS      | PFAS by ID | 360    |   | ug/kg | 39   |
| 016    | GP-14 2-3'       | Solid  | 6:2 FTS   | PFAS by ID | 42     |   | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFHpS     | PFAS by ID | 3.4    |   | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFHxS     | PFAS by ID | 12     |   | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFBA      | PFAS by ID | 0.23   | J | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFHpA     | PFAS by ID | 0.51   | J | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFHxA     | PFAS by ID | 0.76   | J | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFNA      | PFAS by ID | 0.37   | J | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFOA      | PFAS by ID | 2.5    |   | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFPeA     | PFAS by ID | 0.75   | J | ug/kg | 41   |
| 016    | GP-14 2-3'       | Solid  | PFOS      | PFAS by ID | 220    |   | ug/kg | 41   |
| 017    | GP-14 9-10'      | Solid  | 6:2 FTS   | PFAS by ID | 31     |   | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFHpS     | PFAS by ID | 0.27   | J | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFPeS     | PFAS by ID | 0.25   | J | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFHxS     | PFAS by ID | 3.4    |   | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFHpA     | PFAS by ID | 0.31   | J | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFHxA     | PFAS by ID | 0.52   | J | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFPeA     | PFAS by ID | 0.71   | J | ug/kg | 43   |
| 017    | GP-14 9-10'      | Solid  | PFOS      | PFAS by ID | 10     |   | ug/kg | 43   |
| 018    | GP-14 14.5-15.5' | Solid  | 6:2 FTS   | PFAS by ID | 30     |   | ug/kg | 45   |
| 018    | GP-14 14.5-15.5' | Solid  | PFHxS     | PFAS by ID | 2.1    |   | ug/kg | 45   |
| 018    | GP-14 14.5-15.5' | Solid  | PFBA      | PFAS by ID | 0.25   | J | ug/kg | 45   |
| 018    | GP-14 14.5-15.5' | Solid  | PFHxA     | PFAS by ID | 0.80   | J | ug/kg | 45   |
| 018    | GP-14 14.5-15.5' | Solid  | PFPeA     | PFAS by ID | 1.2    |   | ug/kg | 45   |

## Detection Summary (Continued)

Lot Number: VH11086

| Sample ID | Sample ID        | Matrix | Parameter | Method     | Result | Q | Units | Page |
|-----------|------------------|--------|-----------|------------|--------|---|-------|------|
| 018       | GP-14 14.5-15.5' | Solid  | PFOS      | PFAS by ID | 110    |   | ug/kg | 45   |
| 019       | GP-15 1-2'       | Solid  | PFOA      | PFAS by ID | 0.20   | J | ug/kg | 47   |
| 019       | GP-15 1-2'       | Solid  | PFOS      | PFAS by ID | 3.8    |   | ug/kg | 47   |
| 020       | GP-15 5-6'       | Solid  | PFHxA     | PFAS by ID | 0.18   | J | ug/kg | 49   |
| 020       | GP-15 5-6'       | Solid  | PFOS      | PFAS by ID | 0.66   | J | ug/kg | 49   |
| 021       | GP-15 10-11'     | Solid  | 8:2 FTS   | PFAS by ID | 4.3    |   | ug/kg | 51   |
| 021       | GP-15 10-11'     | Solid  | PFOS      | PFAS by ID | 12     |   | ug/kg | 51   |
| 022       | GP-16 1-2'       | Solid  | PFHxS     | PFAS by ID | 0.23   | J | ug/kg | 53   |
| 022       | GP-16 1-2'       | Solid  | PFNA      | PFAS by ID | 0.21   | J | ug/kg | 53   |
| 022       | GP-16 1-2'       | Solid  | PFOA      | PFAS by ID | 0.32   | J | ug/kg | 53   |
| 022       | GP-16 1-2'       | Solid  | PFOS      | PFAS by ID | 5.0    |   | ug/kg | 53   |
| 023       | GP-16 5-6'       | Solid  | PFOS      | PFAS by ID | 1.3    |   | ug/kg | 55   |
| 024       | GP-16 10-11'     | Solid  | PFOS      | PFAS by ID | 2.6    |   | ug/kg | 57   |
| 025       | GP-17 1-2'       | Solid  | PFDS      | PFAS by ID | 0.30   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFNS      | PFAS by ID | 0.27   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFHxS     | PFAS by ID | 0.54   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFDA      | PFAS by ID | 1.5    |   | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFHpA     | PFAS by ID | 0.33   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFHxA     | PFAS by ID | 0.20   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFNA      | PFAS by ID | 0.26   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFOA      | PFAS by ID | 0.33   | J | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFUdA     | PFAS by ID | 1.5    |   | ug/kg | 59   |
| 025       | GP-17 1-2'       | Solid  | PFOS      | PFAS by ID | 3.8    |   | ug/kg | 59   |
| 026       | GP-17 5-6'       | Solid  | PFHxS     | PFAS by ID | 0.58   | J | ug/kg | 61   |
| 026       | GP-17 5-6'       | Solid  | PFOS      | PFAS by ID | 0.23   | J | ug/kg | 61   |
| 027       | GP-17 10-11'     | Solid  | 8:2 FTS   | PFAS by ID | 1.8    | J | ug/kg | 63   |
| 027       | GP-17 10-11'     | Solid  | PFDA      | PFAS by ID | 0.55   | J | ug/kg | 63   |
| 027       | GP-17 10-11'     | Solid  | PFOS      | PFAS by ID | 9.9    |   | ug/kg | 63   |
| 028       | MW-101 1-2'      | Solid  | 8:2 FTS   | PFAS by ID | 150    |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | 6:2 FTS   | PFAS by ID | 13     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | 10:2 FTS  | PFAS by ID | 26     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFBS      | PFAS by ID | 11     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFHpS     | PFAS by ID | 13     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFNS      | PFAS by ID | 3.5    | J | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFOSA     | PFAS by ID | 2.2    | J | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFPeS     | PFAS by ID | 11     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFHxS     | PFAS by ID | 300    |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFBA      | PFAS by ID | 8.9    |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFDA      | PFAS by ID | 4.6    |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFHpA     | PFAS by ID | 16     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFHxA     | PFAS by ID | 47     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFNA      | PFAS by ID | 2.9    | J | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFOA      | PFAS by ID | 35     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFPeA     | PFAS by ID | 36     |   | ug/kg | 65   |
| 028       | MW-101 1-2'      | Solid  | PFOS      | PFAS by ID | 4100   |   | ug/kg | 65   |
| 029       | MW-101 5-6'      | Solid  | 8:2 FTS   | PFAS by ID | 36     |   | ug/kg | 67   |
| 029       | MW-101 5-6'      | Solid  | 6:2 FTS   | PFAS by ID | 6.3    |   | ug/kg | 67   |
| 029       | MW-101 5-6'      | Solid  | 10:2 FTS  | PFAS by ID | 0.92   | J | ug/kg | 67   |

## Detection Summary (Continued)

Lot Number: VH11086

| Sample | Sample ID     | Matrix | Parameter | Method     | Result | Q | Units | Page |
|--------|---------------|--------|-----------|------------|--------|---|-------|------|
| 029    | MW-101 5-6'   | Solid  | MeFOSAA   | PFAS by ID | 0.70   | J | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFBS      | PFAS by ID | 2.9    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFHpS     | PFAS by ID | 5.3    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFOSA     | PFAS by ID | 0.80   | J | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFPeS     | PFAS by ID | 2.3    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFHxS     | PFAS by ID | 120    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFBA      | PFAS by ID | 3.1    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFHpA     | PFAS by ID | 1.7    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFHxA     | PFAS by ID | 16     |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFOA      | PFAS by ID | 5.6    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFPeA     | PFAS by ID | 9.4    |   | ug/kg | 67   |
| 029    | MW-101 5-6'   | Solid  | PFOS      | PFAS by ID | 840    |   | ug/kg | 67   |
| 030    | MW-101 10-11' | Solid  | 8:2 FTS   | PFAS by ID | 6.2    |   | ug/kg | 69   |
| 030    | MW-101 10-11' | Solid  | PFHxS     | PFAS by ID | 2.7    |   | ug/kg | 69   |
| 030    | MW-101 10-11' | Solid  | PFHxA     | PFAS by ID | 0.36   | J | ug/kg | 69   |
| 030    | MW-101 10-11' | Solid  | PFOA      | PFAS by ID | 0.37   | J | ug/kg | 69   |
| 030    | MW-101 10-11' | Solid  | PFOS      | PFAS by ID | 25     |   | ug/kg | 69   |
| 031    | MW-102 1-2'   | Solid  | PFOA      | PFAS by ID | 0.21   | J | ug/kg | 71   |
| 031    | MW-102 1-2'   | Solid  | PFOS      | PFAS by ID | 1.7    |   | ug/kg | 71   |
| 034    | MW-103 1-2'   | Solid  | PFOS      | PFAS by ID | 2.0    |   | ug/kg | 77   |
| 037    | GP-18 2-3'    | Solid  | 8:2 FTS   | PFAS by ID | 22     |   | ug/kg | 83   |
| 037    | GP-18 2-3'    | Solid  | PFDA      | PFAS by ID | 4.6    |   | ug/kg | 83   |
| 037    | GP-18 2-3'    | Solid  | PFNA      | PFAS by ID | 0.34   | J | ug/kg | 83   |
| 037    | GP-18 2-3'    | Solid  | PFOS      | PFAS by ID | 14     |   | ug/kg | 83   |
| 038    | GP-19 2-3'    | Solid  | 8:2 FTS   | PFAS by ID | 1.2    | J | ug/kg | 85   |
| 038    | GP-19 2-3'    | Solid  | PFDA      | PFAS by ID | 1.8    |   | ug/kg | 85   |
| 038    | GP-19 2-3'    | Solid  | PFNA      | PFAS by ID | 0.26   | J | ug/kg | 85   |
| 038    | GP-19 2-3'    | Solid  | PFOS      | PFAS by ID | 6.6    |   | ug/kg | 85   |
| 039    | GP-20 2-3'    | Solid  | 8:2 FTS   | PFAS by ID | 7.6    |   | ug/kg | 87   |
| 039    | GP-20 2-3'    | Solid  | PFDA      | PFAS by ID | 13     |   | ug/kg | 87   |
| 039    | GP-20 2-3'    | Solid  | PFNA      | PFAS by ID | 0.22   | J | ug/kg | 87   |
| 039    | GP-20 2-3'    | Solid  | PFOS      | PFAS by ID | 1.0    |   | ug/kg | 87   |
| 040    | GP-20 14-15'  | Solid  | 6:2 FTS   | PFAS by ID | 13     |   | ug/kg | 89   |
| 040    | GP-20 14-15'  | Solid  | PFHxS     | PFAS by ID | 2.8    |   | ug/kg | 89   |
| 040    | GP-20 14-15'  | Solid  | PFHpA     | PFAS by ID | 0.30   | J | ug/kg | 89   |
| 040    | GP-20 14-15'  | Solid  | PFHxA     | PFAS by ID | 0.37   | J | ug/kg | 89   |
| 042    | DUP #1        | Solid  | 8:2 FTS   | PFAS by ID | 4.2    |   | ug/kg | 93   |
| 042    | DUP #1        | Solid  | 6:2 FTS   | PFAS by ID | 2.5    |   | ug/kg | 93   |
| 042    | DUP #1        | Solid  | PFOS      | PFAS by ID | 9.4    |   | ug/kg | 93   |
| 043    | DUP #2        | Solid  | 8:2 FTS   | PFAS by ID | 150    |   | ug/kg | 95   |
| 043    | DUP #2        | Solid  | 6:2 FTS   | PFAS by ID | 9.1    | J | ug/kg | 95   |
| 043    | DUP #2        | Solid  | 10:2 FTS  | PFAS by ID | 36     |   | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFBS      | PFAS by ID | 18     |   | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFDS      | PFAS by ID | 6.8    | J | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFHpS     | PFAS by ID | 25     |   | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFNS      | PFAS by ID | 9.3    | J | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFPeS     | PFAS by ID | 21     |   | ug/kg | 95   |
| 043    | DUP #2        | Solid  | PFHxS     | PFAS by ID | 570    |   | ug/kg | 95   |



## Detection Summary (Continued)

Lot Number: VH11086

| Sample | Sample ID | Matrix | Parameter | Method     | Result | Q | Units | Page |
|--------|-----------|--------|-----------|------------|--------|---|-------|------|
| 043    | DUP #2    | Solid  | PFBA      | PFAS by ID | 12     |   | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFDA      | PFAS by ID | 5.8    | J | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFHpA     | PFAS by ID | 37     |   | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFHxA     | PFAS by ID | 87     |   | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFNA      | PFAS by ID | 4.7    | J | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFOA      | PFAS by ID | 69     |   | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFPeA     | PFAS by ID | 59     |   | ug/kg | 95   |
| 043    | DUP #2    | Solid  | PFOS      | PFAS by ID | 7400   |   | ug/kg | 95   |
| 044    | DUP #3    | Solid  | 8:2 FTS   | PFAS by ID | 25     |   | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFHxS     | PFAS by ID | 0.20   | J | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFDA      | PFAS by ID | 4.9    |   | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFHpA     | PFAS by ID | 0.22   | J | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFHxA     | PFAS by ID | 0.28   | J | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFNA      | PFAS by ID | 0.31   | J | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFPeA     | PFAS by ID | 0.26   | J | ug/kg | 97   |
| 044    | DUP #3    | Solid  | PFOS      | PFAS by ID | 15     |   | ug/kg | 97   |

(155 detections)

# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-001</b>                |
| Description: <b>GP-1 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/03/2020 1520</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1804 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.1 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 83               | 25-150            |
| 13C2_6:2FTS |   | 92               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDaA  |   | 93               | 25-150            |
| 13C2_PFHxDA |   | 104              | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-001</b>                |
| Description: <b>GP-1 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/03/2020 1520</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 82                  | 25-150               |
| 13C3-HFPO-DA |   | 94                  | 25-150               |
| 13C4_PFBa    |   | 90                  | 25-150               |
| 13C4_PFHpA   |   | 90                  | 25-150               |
| 13C5_PFHxA   |   | 96                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDA    |   | 89                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |
| 13C8_PFOS    |   | 89                  | 25-150               |
| 13C8_PFOsA   |   | 94                  | 10-150               |
| 13C9_PFNA    |   | 93                  | 25-150               |
| d-EtFOSA     |   | 108                 | 10-150               |
| d5-EtFOSAA   |   | 88                  | 25-150               |
| d9-EtFOSE    |   | 94                  | 10-150               |
| d-MeFOSA     |   | 100                 | 10-150               |
| d3-MeFOSAA   |   | 92                  | 25-150               |
| d7-MeFOSE    |   | 90                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-002</b>                |
| Description: <b>GP-2 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/03/2020 1450</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>80.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1815 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number      | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-----------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1     | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9     | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4      | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2      | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0     | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4     | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6      | PFAS by ID SOP        | ND          |          | 4.3        | 1.1         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4     | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8      | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7      | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1      | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4       | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5      | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b> | <b>PFAS by ID SOP</b> | <b>0.22</b> | <b>J</b> | <b>1.1</b> | <b>0.22</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5      | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6      | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3       | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8      | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8       | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1       | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 84               | 25-150            |
| 13C2_6:2FTS |   | 93               | 25-150            |
| 13C2_8:2FTS |   | 83               | 25-150            |
| 13C2_PFDa   |   | 83               | 25-150            |
| 13C2_PFHxDA |   | 95               | 25-150            |
| 13C2_PFTeDA |   | 81               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-002</b>                |
| Description: <b>GP-2 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/03/2020 1450</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>80.9 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 88                  | 25-150               |
| 13C3_PFHxS   |   | 81                  | 25-150               |
| 13C3-HFPO-DA |   | 91                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 85                  | 25-150               |
| 13C5_PFHxA   |   | 88                  | 25-150               |
| 13C5_PFPeA   |   | 85                  | 25-150               |
| 13C6_PFDa    |   | 89                  | 25-150               |
| 13C7_PFUdA   |   | 87                  | 25-150               |
| 13C8_PFOA    |   | 83                  | 25-150               |
| 13C8_PFOS    |   | 86                  | 25-150               |
| 13C8_PFOsA   |   | 88                  | 10-150               |
| 13C9_PFNa    |   | 88                  | 25-150               |
| d-EtFOsA     |   | 96                  | 10-150               |
| d5-EtFOsAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 82                  | 10-150               |
| d-MeFOsA     |   | 87                  | 10-150               |
| d3-MeFOsAA   |   | 86                  | 25-150               |
| d7-MeFOSE    |   | 76                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-003</b>                |
| Description: <b>GP-3 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 0820</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.6 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1825 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 74               | 25-150            |
| 13C2_6:2FTS |   | 80               | 25-150            |
| 13C2_8:2FTS |   | 75               | 25-150            |
| 13C2_PFDaA  |   | 77               | 25-150            |
| 13C2_PFHxDA |   | 86               | 25-150            |
| 13C2_PFTeDA |   | 71               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-003</b>                |                                       |
| Description: <b>GP-3 18-20'</b>              | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/04/2020 0820</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>81.6 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 84                  | 25-150               |
| 13C3_PFHxS   |   | 73                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 82                  | 25-150               |
| 13C4_PFHpA   |   | 78                  | 25-150               |
| 13C5_PFHxA   |   | 82                  | 25-150               |
| 13C5_PFPeA   |   | 80                  | 25-150               |
| 13C6_PFDa    |   | 82                  | 25-150               |
| 13C7_PFUdA   |   | 81                  | 25-150               |
| 13C8_PFOA    |   | 77                  | 25-150               |
| 13C8_PFOS    |   | 77                  | 25-150               |
| 13C8_PFOsA   |   | 79                  | 10-150               |
| 13C9_PFNa    |   | 82                  | 25-150               |
| d-EtFOsA     |   | 86                  | 10-150               |
| d5-EtFOsAA   |   | 80                  | 25-150               |
| d9-EtFOsE    |   | 77                  | 10-150               |
| d-MeFOsA     |   | 75                  | 10-150               |
| d3-MeFOsAA   |   | 83                  | 25-150               |
| d7-MeFOsE    |   | 70                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-004</b>                |
| Description: <b>GP-4 21-23'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 0910</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>90.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1836 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.1 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 85               | 25-150            |
| 13C2_PFDaA  |   | 92               | 25-150            |
| 13C2_PFHxDA |   | 107              | 25-150            |
| 13C2_PFTeDA |   | 88               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-004</b>                |
| Description: <b>GP-4 21-23'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 0910</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>90.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 93                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 100                 | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |
| 13C5_PFHxA   |   | 98                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 92                  | 25-150               |
| 13C7_PFUdA   |   | 98                  | 25-150               |
| 13C8_PFOA    |   | 90                  | 25-150               |
| 13C8_PFOS    |   | 93                  | 25-150               |
| 13C8_PFOsA   |   | 96                  | 10-150               |
| 13C9_PFNA    |   | 97                  | 25-150               |
| d-EtFOsA     |   | 104                 | 10-150               |
| d5-EtFOsAA   |   | 89                  | 25-150               |
| d9-EtFOSE    |   | 93                  | 10-150               |
| d-MeFOsA     |   | 97                  | 10-150               |
| d3-MeFOsAA   |   | 90                  | 25-150               |
| d7-MeFOSE    |   | 88                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-005</b>                |
| Description: <b>GP-5 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 0945</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>90.6 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1847 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ  | DL   | Units | Run |
|---|-------------|-------------------|--------|---|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 3.9  | 0.99 | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.0  | 0.49 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 0.99 | 0.20 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 104              | 25-150            |
| 13C2_8:2FTS |   | 93               | 25-150            |
| 13C2_PFDaA  |   | 95               | 25-150            |
| 13C2_PFHxDA |   | 106              | 25-150            |
| 13C2_PFTeDA |   | 89               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-005</b>                |
| Description: <b>GP-5 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 0945</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>90.6 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 99                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 93                  | 25-150               |
| 13C4_PFBa    |   | 94                  | 25-150               |
| 13C4_PFHpA   |   | 90                  | 25-150               |
| 13C5_PFHxA   |   | 99                  | 25-150               |
| 13C5_PFPeA   |   | 92                  | 25-150               |
| 13C6_PFDa    |   | 98                  | 25-150               |
| 13C7_PFUdA   |   | 100                 | 25-150               |
| 13C8_PFOA    |   | 90                  | 25-150               |
| 13C8_PFOs    |   | 96                  | 25-150               |
| 13C8_PFOsA   |   | 94                  | 10-150               |
| 13C9_PFNa    |   | 96                  | 25-150               |
| d-EtFOsA     |   | 107                 | 10-150               |
| d5-EtFOsAA   |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 96                  | 10-150               |
| d-MeFOsA     |   | 98                  | 10-150               |
| d3-MeFOsAA   |   | 95                  | 25-150               |
| d7-MeFOsE    |   | 90                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-006</b>                |
| Description: <b>GP-6 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1040</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>87.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1858 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 4.3        | 1.1         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>0.22</b> | <b>J</b> | <b>1.1</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 84               | 25-150            |
| 13C2_PFDaA  |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 100              | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-006</b>                |
| Description: <b>GP-6 18-20'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1040</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>87.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 90                  | 25-150               |
| 13C3_PFHxS   |   | 87                  | 25-150               |
| 13C3-HFPO-DA |   | 88                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 92                  | 25-150               |
| 13C6_PFDa    |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |
| 13C8_PFOS    |   | 96                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 95                  | 25-150               |
| d-EtFOsA     |   | 103                 | 10-150               |
| d5-EtFOsAA   |   | 88                  | 25-150               |
| d9-EtFOsE    |   | 98                  | 10-150               |
| d-MeFOsA     |   | 99                  | 10-150               |
| d3-MeFOsAA   |   | 91                  | 25-150               |
| d7-MeFOsE    |   | 88                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-007</b>                |
| Description: <b>GP-7 2-3'</b>                | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1120</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>94.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1919 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 4.2        | 1.1         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOA)                              | 754-91-6         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butyanoic acid (PFBA)                                 | 375-22-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 2.1        | 0.53        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 1.1        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>0.87</b> | <b>J</b> | <b>1.1</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 84               | 25-150            |
| 13C2_PFDa   |   | 89               | 25-150            |
| 13C2_PFHxDA |   | 102              | 25-150            |
| 13C2_PFTeDA |   | 85               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-007</b>                |
| Description: <b>GP-7 2-3'</b>                | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1120</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>94.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 89                  | 25-150               |
| 13C3_PFHxS   |   | 84                  | 25-150               |
| 13C3-HFPO-DA |   | 93                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 85                  | 25-150               |
| 13C5_PFHxA   |   | 91                  | 25-150               |
| 13C5_PFPeA   |   | 89                  | 25-150               |
| 13C6_PFDa    |   | 92                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 84                  | 25-150               |
| 13C8_PFOS    |   | 89                  | 25-150               |
| 13C8_PFOsA   |   | 93                  | 10-150               |
| 13C9_PFNa    |   | 92                  | 25-150               |
| d-EtFOsA     |   | 101                 | 10-150               |
| d5-EtFOsAA   |   | 82                  | 25-150               |
| d9-EtFOsE    |   | 88                  | 10-150               |
| d-MeFOsA     |   | 96                  | 10-150               |
| d3-MeFOsAA   |   | 91                  | 25-150               |
| d7-MeFOsE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-008</b>                |
| Description: <b>GP-8 2-3'</b>                | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1125</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>82.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1930 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.2 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOA)                              | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 82               | 25-150            |
| 13C2_6:2FTS |   | 88               | 25-150            |
| 13C2_8:2FTS |   | 82               | 25-150            |
| 13C2_PFDaA  |   | 88               | 25-150            |
| 13C2_PFHxDA |   | 98               | 25-150            |
| 13C2_PFTeDA |   | 83               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-008</b>                |                                       |
| Description: <b>GP-8 2-3'</b>                | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/04/2020 1125</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>82.1 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 87                  | 25-150               |
| 13C3_PFHxS   |   | 82                  | 25-150               |
| 13C3-HFPO-DA |   | 92                  | 25-150               |
| 13C4_PFBa    |   | 90                  | 25-150               |
| 13C4_PFHpA   |   | 88                  | 25-150               |
| 13C5_PFHxA   |   | 96                  | 25-150               |
| 13C5_PFPeA   |   | 89                  | 25-150               |
| 13C6_PFDa    |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 89                  | 25-150               |
| 13C8_PFOA    |   | 86                  | 25-150               |
| 13C8_PFOS    |   | 91                  | 25-150               |
| 13C8_PFOsA   |   | 89                  | 10-150               |
| 13C9_PFNa    |   | 90                  | 25-150               |
| d-EtFOsA     |   | 93                  | 10-150               |
| d5-EtFOsAA   |   | 83                  | 25-150               |
| d9-EtFOsE    |   | 91                  | 10-150               |
| d-MeFOsA     |   | 90                  | 10-150               |
| d3-MeFOsAA   |   | 88                  | 25-150               |
| d7-MeFOsE    |   | 84                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-009</b>                |
| Description: <b>GP-9 2-3'</b>                | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>87.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1941 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.1 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 81               | 25-150            |
| 13C2_6:2FTS |   | 88               | 25-150            |
| 13C2_8:2FTS |   | 84               | 25-150            |
| 13C2_PFDaA  |   | 79               | 25-150            |
| 13C2_PFHxDA |   | 90               | 25-150            |
| 13C2_PFTeDA |   | 76               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-009</b>                |
| Description: <b>GP-9 2-3'</b>                | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>87.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 83                  | 25-150               |
| 13C3_PFHxS   |   | 78                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 83                  | 25-150               |
| 13C5_PFHxA   |   | 86                  | 25-150               |
| 13C5_PFPeA   |   | 82                  | 25-150               |
| 13C6_PFDa    |   | 88                  | 25-150               |
| 13C7_PFUdA   |   | 83                  | 25-150               |
| 13C8_PFOA    |   | 76                  | 25-150               |
| 13C8_PFOS    |   | 83                  | 25-150               |
| 13C8_PFOsA   |   | 84                  | 10-150               |
| 13C9_PFNa    |   | 83                  | 25-150               |
| d-EtFOsA     |   | 89                  | 10-150               |
| d5-EtFOsAA   |   | 75                  | 25-150               |
| d9-EtFOsE    |   | 77                  | 10-150               |
| d-MeFOsA     |   | 85                  | 10-150               |
| d3-MeFOsAA   |   | 82                  | 25-150               |
| d7-MeFOsE    |   | 80                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-010</b>                |
| Description: <b>GP-10 18-20'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1540</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>85.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 1951 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 87               | 25-150            |
| 13C2_6:2FTS |   | 97               | 25-150            |
| 13C2_8:2FTS |   | 91               | 25-150            |
| 13C2_PFDaA  |   | 97               | 25-150            |
| 13C2_PFHxDA |   | 114              | 25-150            |
| 13C2_PFTeDA |   | 93               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-010</b>                |
| Description: <b>GP-10 18-20'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1540</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>85.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 100                 | 25-150               |
| 13C3_PFHxS   |   | 88                  | 25-150               |
| 13C3-HFPO-DA |   | 103                 | 25-150               |
| 13C4_PFBa    |   | 96                  | 25-150               |
| 13C4_PFHpA   |   | 95                  | 25-150               |
| 13C5_PFHxA   |   | 99                  | 25-150               |
| 13C5_PFPeA   |   | 93                  | 25-150               |
| 13C6_PFDA    |   | 102                 | 25-150               |
| 13C7_PFUdA   |   | 104                 | 25-150               |
| 13C8_PFOA    |   | 93                  | 25-150               |
| 13C8_PFOS    |   | 102                 | 25-150               |
| 13C8_PFOsA   |   | 101                 | 10-150               |
| 13C9_PFNA    |   | 101                 | 25-150               |
| d-EtFOSA     |   | 104                 | 10-150               |
| d5-EtFOSAA   |   | 94                  | 25-150               |
| d9-EtFOSE    |   | 99                  | 10-150               |
| d-MeFOSA     |   | 97                  | 10-150               |
| d3-MeFOSAA   |   | 99                  | 25-150               |
| d7-MeFOSE    |   | 94                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-011</b>                |
| Description: <b>GP-11 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1600</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>86.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 2002 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.6 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.3 | 0.57 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.23 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 71               | 25-150            |
| 13C2_6:2FTS |   | 78               | 25-150            |
| 13C2_8:2FTS |   | 71               | 25-150            |
| 13C2_PFDaA  |   | 75               | 25-150            |
| 13C2_PFHxDA |   | 86               | 25-150            |
| 13C2_PFTeDA |   | 71               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-011</b>                |                                       |
| Description: <b>GP-11 2-3'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/04/2020 1600</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>86.2 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 78                  | 25-150               |
| 13C3_PFHxS   |   | 75                  | 25-150               |
| 13C3-HFPO-DA |   | 79                  | 25-150               |
| 13C4_PFBa    |   | 77                  | 25-150               |
| 13C4_PFHpA   |   | 75                  | 25-150               |
| 13C5_PFHxA   |   | 77                  | 25-150               |
| 13C5_PFPeA   |   | 72                  | 25-150               |
| 13C6_PFDa    |   | 77                  | 25-150               |
| 13C7_PFUdA   |   | 73                  | 25-150               |
| 13C8_PFOA    |   | 74                  | 25-150               |
| 13C8_PFOS    |   | 79                  | 25-150               |
| 13C8_PFOsA   |   | 80                  | 10-150               |
| 13C9_PFNA    |   | 83                  | 25-150               |
| d-EtFOsA     |   | 90                  | 10-150               |
| d5-EtFOsAA   |   | 69                  | 25-150               |
| d9-EtFOsE    |   | 81                  | 10-150               |
| d-MeFOsA     |   | 82                  | 10-150               |
| d3-MeFOsAA   |   | 72                  | 25-150               |
| d7-MeFOsE    |   | 76                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-012</b>                |
| Description: <b>GP-11 9-10'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1605</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.6 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 2013 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ  | DL   | Units | Run |
|---|-------------|-------------------|--------|---|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 3.5  | 0.86 | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 1.7  | 0.43 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 0.86 | 0.17 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 89               | 25-150            |
| 13C2_8:2FTS |   | 81               | 25-150            |
| 13C2_PFDaA  |   | 87               | 25-150            |
| 13C2_PFHxDA |   | 105              | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-012</b>                |                                       |
| Description: <b>GP-11 9-10'</b>              | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/04/2020 1605</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>96.6 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 93                  | 25-150               |
| 13C3_PFHxS   |   | 87                  | 25-150               |
| 13C3-HFPO-DA |   | 92                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 91                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDa    |   | 94                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 88                  | 25-150               |
| 13C8_PFOS    |   | 92                  | 25-150               |
| 13C8_PFOsA   |   | 93                  | 10-150               |
| 13C9_PFNa    |   | 92                  | 25-150               |
| d-EtFOsA     |   | 103                 | 10-150               |
| d5-EtFOsAA   |   | 85                  | 25-150               |
| d9-EtFOsE    |   | 91                  | 10-150               |
| d-MeFOsA     |   | 94                  | 10-150               |
| d3-MeFOsAA   |   | 87                  | 25-150               |
| d7-MeFOsE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-013</b>                |
| Description: <b>GP-11 22-23'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1610</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>86.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 2024 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 4.1        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>  | <b>PFAS by ID SOP</b> | <b>0.96</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 2.0        | 0.51        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>19</b>   |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 82               | 25-150            |
| 13C2_6:2FTS |   | 91               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDaA  |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 102              | 25-150            |
| 13C2_PFTeDA |   | 85               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-013</b>                |
| Description: <b>GP-11 22-23'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/04/2020 1610</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>86.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 90                  | 25-150               |
| 13C3_PFHxS   |   | 82                  | 25-150               |
| 13C3-HFPO-DA |   | 91                  | 25-150               |
| 13C4_PFBa    |   | 92                  | 25-150               |
| 13C4_PFHpA   |   | 92                  | 25-150               |
| 13C5_PFHxA   |   | 96                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 91                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |
| 13C8_PFOS    |   | 92                  | 25-150               |
| 13C8_PFOsA   |   | 92                  | 10-150               |
| 13C9_PFNa    |   | 95                  | 25-150               |
| d-EtFOsA     |   | 94                  | 10-150               |
| d5-EtFOsAA   |   | 85                  | 25-150               |
| d9-EtFOsE    |   | 86                  | 10-150               |
| d-MeFOsA     |   | 92                  | 10-150               |
| d3-MeFOsAA   |   | 88                  | 25-150               |
| d7-MeFOsE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-014</b>                |
| Description: <b>GP-12 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0825</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 2034 | KMM2    | 08/12/2020 1047 | 63160 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/14/2020 1456 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>0.58</b> | <b>J</b> | <b>1.9</b>  | <b>0.48</b> | <b>ug/kg</b> | <b>1</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.9         | 0.96        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>   | <b>PFAS by ID SOP</b> | <b>0.83</b> | <b>J</b> | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-1-octanesulfonamide (PFOSA)</b>                      | <b>754-91-6</b>   | <b>PFAS by ID SOP</b> | <b>0.20</b> | <b>J</b> | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>1.8</b>  |          | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>0.19</b> | <b>J</b> | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>510</b>  |          | <b>4.8</b>  | <b>0.96</b> | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Run 1 Q | Run 1 % Recovery | Acceptance Limits | Run 2 Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---------|------------------|-------------------|---------|------------------|-------------------|
| 13C2_4:2FTS |         | 81               | 25-150            |         | 98               | 25-150            |
| 13C2_6:2FTS |         | 93               | 25-150            |         | 90               | 25-150            |
| 13C2_8:2FTS |         | 87               | 25-150            |         | 101              | 25-150            |
| 13C2_PFDa   |         | 94               | 25-150            |         | 99               | 25-150            |
| 13C2_PFHxDA |         | 107              | 25-150            |         | 96               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-014</b>                |
| Description: <b>GP-12 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0825</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 89                  | 25-150               |   | 95                  | 25-150               |
| 13C3_PFBs    |   | 95                  | 25-150               |   | 96                  | 25-150               |
| 13C3_PFHxS   |   | 90                  | 25-150               |   | 93                  | 25-150               |
| 13C3-HFPO-DA |   | 95                  | 25-150               |   | 96                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 93                  | 25-150               |   | 92                  | 25-150               |
| 13C5_PFHxA   |   | 94                  | 25-150               |   | 92                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |   | 93                  | 25-150               |
| 13C6_PFDA    |   | 99                  | 25-150               |   | 96                  | 25-150               |
| 13C7_PFUdA   |   | 99                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOA    |   | 88                  | 25-150               |   | 90                  | 25-150               |
| 13C8_PFOS    |   | 91                  | 25-150               |   | 90                  | 25-150               |
| 13C8_PFOsA   |   | 100                 | 10-150               |   | 97                  | 10-150               |
| 13C9_PFNAA   |   | 92                  | 25-150               |   | 90                  | 25-150               |
| d-EtFOsA     |   | 102                 | 10-150               |   | 104                 | 10-150               |
| d5-EtFOsAA   |   | 89                  | 25-150               |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 93                  | 10-150               |   | 96                  | 10-150               |
| d-MeFOsA     |   | 98                  | 10-150               |   | 100                 | 10-150               |
| d3-MeFOsAA   |   | 91                  | 25-150               |   | 96                  | 25-150               |
| d7-MeFOsE    |   | 91                  | 10-150               |   | 91                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-015</b>                |
| Description: <b>GP-13 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0835</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/13/2020 2045 | KMM2    | 08/12/2020 1047 | 63160 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/14/2020 1507 | KMM2    | 08/12/2020 1047 | 63160 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>1.4</b>  | <b>J</b> | <b>2.0</b> | <b>0.50</b> | <b>ug/kg</b> | <b>1</b> |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>8.5</b>  |          | <b>2.0</b> | <b>0.50</b> | <b>ug/kg</b> | <b>1</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.0        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>1.8</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-heptanoic acid (PFHpA)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.22</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.24</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>1.5</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>   | <b>PFAS by ID SOP</b> | <b>1.0</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>0.30</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>360</b>  |          | <b>5.0</b> | <b>1.0</b>  | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Run 1 |            | Run 2 |            |
|-------------|-------|------------|-------|------------|
|             | Q     | % Recovery | Q     | % Recovery |
| 13C2_4:2FTS |       | 86         |       | 93         |
| 13C2_6:2FTS |       | 88         |       | 94         |
| 13C2_8:2FTS |       | 81         |       | 99         |
| 13C2_PFDa   |       | 88         |       | 95         |
| 13C2_PFHxDA |       | 99         |       | 98         |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-015</b>                |
| Description: <b>GP-13 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0835</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Run 1 |            | Acceptance Limits | Run 2 |            |
|--------------|-------|------------|-------------------|-------|------------|
|              | Q     | % Recovery |                   | Q     | % Recovery |
| 13C2_PFTeDA  |       | 81         | 25-150            | 95    | 25-150     |
| 13C3_PFBS    |       | 91         | 25-150            | 88    | 25-150     |
| 13C3_PFHxS   |       | 82         | 25-150            | 99    | 25-150     |
| 13C3-HFPO-DA |       | 91         | 25-150            | 93    | 25-150     |
| 13C4_PFBA    |       | 91         | 25-150            | 96    | 25-150     |
| 13C4_PFHpA   |       | 88         | 25-150            | 96    | 25-150     |
| 13C5_PFHxA   |       | 95         | 25-150            | 94    | 25-150     |
| 13C5_PFPeA   |       | 87         | 25-150            | 96    | 25-150     |
| 13C6_PFDA    |       | 90         | 25-150            | 99    | 25-150     |
| 13C7_PFUdA   |       | 91         | 25-150            | 94    | 25-150     |
| 13C8_PFOA    |       | 87         | 25-150            | 91    | 25-150     |
| 13C8_PFOS    |       | 92         | 25-150            | 94    | 25-150     |
| 13C8_PFOSA   |       | 86         | 10-150            | 96    | 10-150     |
| 13C9_PFNA    |       | 88         | 25-150            | 93    | 25-150     |
| d-EtFOSA     |       | 98         | 10-150            | 107   | 10-150     |
| d5-EtFOSAA   |       | 85         | 25-150            | 90    | 25-150     |
| d9-EtFOSE    |       | 88         | 10-150            | 99    | 10-150     |
| d-MeFOSA     |       | 101        | 10-150            | 95    | 10-150     |
| d3-MeFOSAA   |       | 89         | 25-150            | 91    | 25-150     |
| d7-MeFOSE    |       | 84         | 10-150            | 92    | 10-150     |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-016</b>                |
| Description: <b>GP-14 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0845</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1434 | KMM2    | 08/14/2020 1209 | 63515 |
| 3   | SOP SPE     | PFAS by ID SOP    | 1        | 08/20/2020 1803 | KMM2    | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>42</b>   |          | <b>1.8</b>  | <b>0.44</b> | <b>ug/kg</b> | <b>3</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.5         | 0.88        | ug/kg        | 3        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>   | <b>PFAS by ID SOP</b> | <b>3.4</b>  |          | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>12</b>   |          | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-butanoic acid (PFBA)</b>                           | <b>375-22-4</b>   | <b>PFAS by ID SOP</b> | <b>0.23</b> | <b>J</b> | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| <b>Perfluoro-n-heptanoic acid (PFHpA)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.51</b> | <b>J</b> | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.8         | 0.44        | ug/kg        | 3        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.76</b> | <b>J</b> | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.37</b> | <b>J</b> | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>   | <b>PFAS by ID SOP</b> | <b>2.5</b>  |          | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>0.75</b> | <b>J</b> | <b>0.88</b> | <b>0.18</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.88        | 0.18        | ug/kg        | 3        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>220</b>  |          | <b>4.9</b>  | <b>0.98</b> | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Run 2 |            | Run 3 |            |
|-------------|-------|------------|-------|------------|
|             | Q     | % Recovery | Q     | % Recovery |
| 13C2_4:2FTS |       | 98         |       | 68         |
| 13C2_6:2FTS |       | 94         |       | 63         |
| 13C2_8:2FTS |       | 91         |       | 58         |
| 13C2_PFDa   |       | 104        |       | 62         |
| 13C2_PFHxDA |       | 98         |       | 69         |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-016</b>                |
| Description: <b>GP-14 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0845</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Run 2 |            | Acceptance Limits | Run 3 |            |
|--------------|-------|------------|-------------------|-------|------------|
|              | Q     | % Recovery |                   | Q     | % Recovery |
| 13C2_PFTeDA  |       | 95         | 25-150            | 63    | 25-150     |
| 13C3_PFBs    |       | 97         | 25-150            | 67    | 25-150     |
| 13C3_PFHxS   |       | 101        | 25-150            | 62    | 25-150     |
| 13C3-HFPO-DA |       | 96         | 25-150            | 61    | 25-150     |
| 13C4_PFBa    |       | 96         | 25-150            | 68    | 25-150     |
| 13C4_PFHpA   |       | 96         | 25-150            | 62    | 25-150     |
| 13C5_PFHxA   |       | 97         | 25-150            | 63    | 25-150     |
| 13C5_PFPeA   |       | 96         | 25-150            | 67    | 25-150     |
| 13C6_PFDA    |       | 93         | 25-150            | 69    | 25-150     |
| 13C7_PFUdA   |       | 95         | 25-150            | 64    | 25-150     |
| 13C8_PFOA    |       | 93         | 25-150            | 63    | 25-150     |
| 13C8_PFOS    |       | 92         | 25-150            | 60    | 25-150     |
| 13C8_PFOsA   |       | 106        | 10-150            | 61    | 10-150     |
| 13C9_PFNA    |       | 93         | 25-150            | 63    | 25-150     |
| d-EtFOsA     |       | 104        | 10-150            | 67    | 10-150     |
| d5-EtFOsAA   |       | 91         | 25-150            | 66    | 25-150     |
| d9-EtFOsE    |       | 97         | 10-150            | 77    | 10-150     |
| d-MeFOsA     |       | 93         | 10-150            | 63    | 10-150     |
| d3-MeFOsAA   |       | 89         | 25-150            | 61    | 25-150     |
| d7-MeFOsE    |       | 104        | 10-150            | 72    | 10-150     |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-017</b>                |
| Description: <b>GP-14 9-10'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0850</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>95.7 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 2   | SOP SPE     | PFAS by ID SOP    | 1        | 08/21/2020 1932 | KMM2    | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>31</b>   |          | <b>1.8</b>  | <b>0.45</b> | <b>ug/kg</b> | <b>2</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.6         | 0.89        | ug/kg        | 2        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| Perfluoro-1-butanefluoro sulfonic acid (PFBS)                     | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>   | <b>PFAS by ID SOP</b> | <b>0.27</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>                   | <b>2706-91-4</b>  | <b>PFAS by ID SOP</b> | <b>0.25</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>3.4</b>  |          | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-butanefluoro sulfonic acid (PFBA)                     | 375-22-4          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluoro-n-heptanoic acid (PFHpa)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.31</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 2        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.52</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>0.71</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 2        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>10</b>   |          | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 80               | 25-150            |
| 13C2_6:2FTS |   | 87               | 25-150            |
| 13C2_8:2FTS |   | 76               | 25-150            |
| 13C2_PFDaA  |   | 90               | 25-150            |
| 13C2_PFHxDA |   | 89               | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-017</b>                |                                       |
| Description: <b>GP-14 9-10'</b>              | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 0850</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>95.7 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 81                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 92                  | 25-150               |
| 13C5_PFPeA   |   | 84                  | 25-150               |
| 13C6_PFDa    |   | 84                  | 25-150               |
| 13C7_PFUdA   |   | 86                  | 25-150               |
| 13C8_PFOA    |   | 84                  | 25-150               |
| 13C8_PFOS    |   | 85                  | 25-150               |
| 13C8_PFOSA   |   | 88                  | 10-150               |
| 13C9_PFNA    |   | 85                  | 25-150               |
| d-EtFOSA     |   | 93                  | 10-150               |
| d5-EtFOSAA   |   | 82                  | 25-150               |
| d9-EtFOSE    |   | 90                  | 10-150               |
| d-MeFOSA     |   | 89                  | 10-150               |
| d3-MeFOSAA   |   | 78                  | 25-150               |
| d7-MeFOSE    |   | 96                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-018</b>                |
| Description: <b>GP-14 14.5-15.5'</b>         | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0855</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>78.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 2   | SOP SPE     | PFAS by ID SOP    | 1        | 08/20/2020 1825 | KMM2    | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>30</b>   |          | <b>2.3</b> | <b>0.57</b> | <b>ug/kg</b> | <b>2</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.6        | 1.1         | ug/kg        | 2        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-1-octanesulfonamide (PFOA)                              | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>2.1</b>  |          | <b>1.1</b> | <b>0.23</b> | <b>ug/kg</b> | <b>2</b> |
| <b>Perfluoro-n-butanoic acid (PFBA)</b>                           | <b>375-22-4</b>   | <b>PFAS by ID SOP</b> | <b>0.25</b> | <b>J</b> | <b>1.1</b> | <b>0.23</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.3        | 0.57        | ug/kg        | 2        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.80</b> | <b>J</b> | <b>1.1</b> | <b>0.23</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>1.2</b>  |          | <b>1.1</b> | <b>0.23</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.1        | 0.23        | ug/kg        | 2        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>110</b>  |          | <b>1.1</b> | <b>0.23</b> | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 79               | 25-150            |
| 13C2_6:2FTS |   | 81               | 25-150            |
| 13C2_8:2FTS |   | 78               | 25-150            |
| 13C2_PFDa   |   | 83               | 25-150            |
| 13C2_PFHxDA |   | 91               | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-018</b>                |
| Description: <b>GP-14 14.5-15.5'</b>         | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 0855</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>78.9 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 79                  | 25-150               |
| 13C4_PFBa    |   | 89                  | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |
| 13C5_PFHxA   |   | 86                  | 25-150               |
| 13C5_PFPeA   |   | 88                  | 25-150               |
| 13C6_PFDa    |   | 89                  | 25-150               |
| 13C7_PFUdA   |   | 83                  | 25-150               |
| 13C8_PFOA    |   | 83                  | 25-150               |
| 13C8_PFOS    |   | 83                  | 25-150               |
| 13C8_PFOsA   |   | 82                  | 10-150               |
| 13C9_PFNA    |   | 85                  | 25-150               |
| d-EtFOsA     |   | 91                  | 10-150               |
| d5-EtFOsAA   |   | 85                  | 25-150               |
| d9-EtFOsE    |   | 94                  | 10-150               |
| d-MeFOsA     |   | 90                  | 10-150               |
| d3-MeFOsAA   |   | 81                  | 25-150               |
| d7-MeFOsE    |   | 95                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-019</b>                |
| Description: <b>GP-15 1-2'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1205</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2018 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 4.0         | 0.99        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 2.0         | 0.50        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>  | <b>PFAS by ID SOP</b> | <b>0.20</b> | <b>J</b> | <b>0.99</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 0.99        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>3.8</b>  |          | <b>0.99</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 85               | 25-150            |
| 13C2_8:2FTS |   | 91               | 25-150            |
| 13C2_PFDa   |   | 89               | 25-150            |
| 13C2_PFHxDA |   | 105              | 25-150            |
| 13C2_PFTeDA |   | 95               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-019</b>                |                                       |
| Description: <b>GP-15 1-2'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1205</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>96.0 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 87                  | 25-150               |
| 13C3_PFHxS   |   | 90                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 94                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 96                  | 25-150               |
| 13C6_PFDa    |   | 90                  | 25-150               |
| 13C7_PFUdA   |   | 91                  | 25-150               |
| 13C8_PFOA    |   | 93                  | 25-150               |
| 13C8_PFOS    |   | 94                  | 25-150               |
| 13C8_PFOsA   |   | 94                  | 10-150               |
| 13C9_PFNA    |   | 95                  | 25-150               |
| d-EtFOsA     |   | 96                  | 10-150               |
| d5-EtFOsAA   |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 101                 | 10-150               |
| d-MeFOsA     |   | 105                 | 10-150               |
| d3-MeFOsAA   |   | 90                  | 25-150               |
| d7-MeFOsE    |   | 90                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-020</b>                |
| Description: <b>GP-15 5-6'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1210</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 2   | SOP SPE     | PFAS by ID SOP    | 1        | 08/20/2020 1835 | KMM2    | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 3.7         | 0.92        | ug/kg        | 2        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 2        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>  | <b>PFAS by ID SOP</b> | <b>0.18</b> | <b>J</b> | <b>0.92</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 0.92        | 0.18        | ug/kg        | 2        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>0.66</b> | <b>J</b> | <b>0.92</b> | <b>0.18</b> | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 74               | 25-150            |
| 13C2_6:2FTS |   | 78               | 25-150            |
| 13C2_8:2FTS |   | 72               | 25-150            |
| 13C2_PFDa   |   | 77               | 25-150            |
| 13C2_PFHxDA |   | 86               | 25-150            |
| 13C2_PFTeDA |   | 79               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-020</b>                |                                       |
| Description: <b>GP-15 5-6'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1210</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>97.2 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 77                  | 25-150               |
| 13C3_PFHxS   |   | 80                  | 25-150               |
| 13C3-HFPO-DA |   | 71                  | 25-150               |
| 13C4_PFBa    |   | 81                  | 25-150               |
| 13C4_PFHpA   |   | 78                  | 25-150               |
| 13C5_PFHxA   |   | 76                  | 25-150               |
| 13C5_PFPeA   |   | 76                  | 25-150               |
| 13C6_PFDa    |   | 85                  | 25-150               |
| 13C7_PFUdA   |   | 78                  | 25-150               |
| 13C8_PFOA    |   | 79                  | 25-150               |
| 13C8_PFOs    |   | 80                  | 25-150               |
| 13C8_PFOsA   |   | 75                  | 10-150               |
| 13C9_PFNa    |   | 75                  | 25-150               |
| d-EtFOsA     |   | 84                  | 10-150               |
| d5-EtFOsAA   |   | 79                  | 25-150               |
| d9-EtFOsE    |   | 88                  | 10-150               |
| d-MeFOsA     |   | 91                  | 10-150               |
| d3-MeFOsAA   |   | 80                  | 25-150               |
| d7-MeFOsE    |   | 88                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-021</b>                |
| Description: <b>GP-15 10-11'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1215</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.8 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2050 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number        | Analytical Method     | Result     | Q | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|------------|---|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>4.3</b> |   | <b>2.1</b> | <b>0.54</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND         |   | 4.3        | 1.1         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND         |   | 2.1        | 0.54        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8         | PFAS by ID SOP        | ND         |   | 1.1        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>12</b>  |   | <b>1.1</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 82               | 25-150            |
| 13C2_6:2FTS |   | 79               | 25-150            |
| 13C2_8:2FTS |   | 77               | 25-150            |
| 13C2_PFDa   |   | 89               | 25-150            |
| 13C2_PFHxDA |   | 100              | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-021</b>                |
| Description: <b>GP-15 10-11'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1215</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.8 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 80                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 88                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDa    |   | 83                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 88                  | 25-150               |
| 13C8_PFOS    |   | 86                  | 25-150               |
| 13C8_PFOsA   |   | 93                  | 10-150               |
| 13C9_PFNa    |   | 87                  | 25-150               |
| d-EtFOsA     |   | 89                  | 10-150               |
| d5-EtFOsAA   |   | 87                  | 25-150               |
| d9-EtFOsE    |   | 91                  | 10-150               |
| d-MeFOsA     |   | 108                 | 10-150               |
| d3-MeFOsAA   |   | 89                  | 25-150               |
| d7-MeFOsE    |   | 86                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-022</b>                |
| Description: <b>GP-16 1-2'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1235</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2101 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 4.0        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>  | <b>PFAS by ID SOP</b> | <b>0.23</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>  | <b>PFAS by ID SOP</b> | <b>0.21</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>  | <b>PFAS by ID SOP</b> | <b>0.32</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>5.0</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 87               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDaA  |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 105              | 25-150            |
| 13C2_PFTeDA |   | 95               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-022</b>                |                                       |
| Description: <b>GP-16 1-2'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1235</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>96.4 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 89                  | 25-150               |
| 13C3_PFHxS   |   | 92                  | 25-150               |
| 13C3-HFPO-DA |   | 92                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 93                  | 25-150               |
| 13C5_PFHxA   |   | 92                  | 25-150               |
| 13C5_PFPeA   |   | 95                  | 25-150               |
| 13C6_PFDa    |   | 89                  | 25-150               |
| 13C7_PFUdA   |   | 96                  | 25-150               |
| 13C8_PFOA    |   | 94                  | 25-150               |
| 13C8_PFOs    |   | 91                  | 25-150               |
| 13C8_PFOsA   |   | 95                  | 10-150               |
| 13C9_PFNa    |   | 92                  | 25-150               |
| d-EtFOsA     |   | 95                  | 10-150               |
| d5-EtFOsAA   |   | 96                  | 25-150               |
| d9-EtFOsE    |   | 104                 | 10-150               |
| d-MeFOsA     |   | 94                  | 10-150               |
| d3-MeFOsAA   |   | 97                  | 25-150               |
| d7-MeFOsE    |   | 92                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-023</b>                |
| Description: <b>GP-16 5-6'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1237</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>88.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2112 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result     | Q | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|------------|---|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND         |   | 4.0        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOA)                              | 754-91-6         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND         |   | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND         |   | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>1.3</b> |   | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 80               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDa   |   | 87               | 25-150            |
| 13C2_PFHxDA |   | 101              | 25-150            |
| 13C2_PFTeDA |   | 89               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-023</b>                |                                       |
| Description: <b>GP-16 5-6'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1237</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>88.1 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 81                  | 25-150               |
| 13C3_PFHxS   |   | 80                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 86                  | 25-150               |
| 13C4_PFHpA   |   | 85                  | 25-150               |
| 13C5_PFHxA   |   | 83                  | 25-150               |
| 13C5_PFPeA   |   | 89                  | 25-150               |
| 13C6_PFDa    |   | 85                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 90                  | 25-150               |
| 13C8_PFOS    |   | 85                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 89                  | 25-150               |
| d-EtFOsA     |   | 95                  | 10-150               |
| d5-EtFOsAA   |   | 90                  | 25-150               |
| d9-EtFOsE    |   | 95                  | 10-150               |
| d-MeFOsA     |   | 101                 | 10-150               |
| d3-MeFOsAA   |   | 85                  | 25-150               |
| d7-MeFOsE    |   | 81                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-024</b>                |
| Description: <b>GP-16 10-11'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1240</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>86.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2122 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result     | Q | LOQ        | DL          | Units        | Run      |
|---|------------------|-----------------------|------------|---|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND         |   | 4.2        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>2.6</b> |   | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 84               | 25-150            |
| 13C2_6:2FTS |   | 77               | 25-150            |
| 13C2_8:2FTS |   | 74               | 25-150            |
| 13C2_PFDa   |   | 88               | 25-150            |
| 13C2_PFHxDA |   | 98               | 25-150            |
| 13C2_PFTeDA |   | 85               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-024</b>                |                                       |
| Description: <b>GP-16 10-11'</b>             | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1240</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>86.9 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 79                  | 25-150               |
| 13C3_PFHxS   |   | 80                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 84                  | 25-150               |
| 13C4_PFHpA   |   | 82                  | 25-150               |
| 13C5_PFHxA   |   | 83                  | 25-150               |
| 13C5_PFPeA   |   | 85                  | 25-150               |
| 13C6_PFDA    |   | 83                  | 25-150               |
| 13C7_PFUdA   |   | 89                  | 25-150               |
| 13C8_PFOA    |   | 85                  | 25-150               |
| 13C8_PFOS    |   | 85                  | 25-150               |
| 13C8_PFOSA   |   | 85                  | 10-150               |
| 13C9_PFNA    |   | 84                  | 25-150               |
| d-EtFOSA     |   | 82                  | 10-150               |
| d5-EtFOSAA   |   | 90                  | 25-150               |
| d9-EtFOSE    |   | 98                  | 10-150               |
| d-MeFOSA     |   | 93                  | 10-150               |
| d3-MeFOSAA   |   | 88                  | 25-150               |
| d7-MeFOSE    |   | 81                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-025</b>                |
| Description: <b>GP-17 1-2'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1315</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2133 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.0        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-1-decanesulfonic acid (PFDS)</b>                     | <b>335-77-3</b>   | <b>PFAS by ID SOP</b> | <b>0.30</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-1-nonanesulfonic acid (PFNS)</b>                     | <b>68259-12-1</b> | <b>PFAS by ID SOP</b> | <b>0.27</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>0.54</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>1.5</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-heptanoic acid (PFHpA)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.33</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.20</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.26</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>   | <b>PFAS by ID SOP</b> | <b>0.33</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-undecanoic acid (PFUdA)</b>                        | <b>2058-94-8</b>  | <b>PFAS by ID SOP</b> | <b>1.5</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>3.8</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 80               | 25-150            |
| 13C2_6:2FTS |   | 77               | 25-150            |
| 13C2_8:2FTS |   | 82               | 25-150            |
| 13C2_PFDa   |   | 83               | 25-150            |
| 13C2_PFHxDA |   | 102              | 25-150            |
| 13C2_PFTeDA |   | 92               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-025</b>                |
| Description: <b>GP-17 1-2'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1315</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 79                  | 25-150               |
| 13C3_PFHxS   |   | 88                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 86                  | 25-150               |
| 13C4_PFHpA   |   | 85                  | 25-150               |
| 13C5_PFHxA   |   | 84                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 85                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 86                  | 25-150               |
| 13C8_PFOS    |   | 87                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNa    |   | 88                  | 25-150               |
| d-EtFOsA     |   | 78                  | 10-150               |
| d5-EtFOsAA   |   | 93                  | 25-150               |
| d9-EtFOsE    |   | 103                 | 10-150               |
| d-MeFOsA     |   | 101                 | 10-150               |
| d3-MeFOsAA   |   | 90                  | 25-150               |
| d7-MeFOsE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-026</b>                |
| Description: <b>GP-17 5-6'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1320</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2143 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 3.6         | 0.91        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>  | <b>PFAS by ID SOP</b> | <b>0.58</b> | <b>J</b> | <b>0.91</b> | <b>0.18</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 1.8         | 0.46        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 0.91        | 0.18        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>0.23</b> | <b>J</b> | <b>0.91</b> | <b>0.18</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 87               | 25-150            |
| 13C2_6:2FTS |   | 77               | 25-150            |
| 13C2_8:2FTS |   | 84               | 25-150            |
| 13C2_PFDa   |   | 89               | 25-150            |
| 13C2_PFHxDA |   | 99               | 25-150            |
| 13C2_PFTeDA |   | 89               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-026</b>                |                                       |
| Description: <b>GP-17 5-6'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1320</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>96.2 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 83                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 84                  | 25-150               |
| 13C5_PFHxA   |   | 85                  | 25-150               |
| 13C5_PFPeA   |   | 89                  | 25-150               |
| 13C6_PFDa    |   | 86                  | 25-150               |
| 13C7_PFUdA   |   | 89                  | 25-150               |
| 13C8_PFOA    |   | 86                  | 25-150               |
| 13C8_PFOS    |   | 88                  | 25-150               |
| 13C8_PFOsA   |   | 97                  | 10-150               |
| 13C9_PFNa    |   | 90                  | 25-150               |
| d-EtFOsA     |   | 91                  | 10-150               |
| d5-EtFOsAA   |   | 93                  | 25-150               |
| d9-EtFOsE    |   | 95                  | 10-150               |
| d-MeFOsA     |   | 116                 | 10-150               |
| d3-MeFOsAA   |   | 84                  | 25-150               |
| d7-MeFOsE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-027</b>                |
| Description: <b>GP-17 10-11'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1325</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2154 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>1.8</b>  | <b>J</b> | <b>2.4</b> | <b>0.60</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.8        | 1.2         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>0.55</b> | <b>J</b> | <b>1.2</b> | <b>0.24</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.4        | 0.60        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.2        | 0.24        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>9.9</b>  |          | <b>1.2</b> | <b>0.24</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 82               | 25-150            |
| 13C2_6:2FTS |   | 78               | 25-150            |
| 13C2_8:2FTS |   | 78               | 25-150            |
| 13C2_PFDoA  |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 96               | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-027</b>                |
| Description: <b>GP-17 10-11'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1325</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 84                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 92                  | 25-150               |
| 13C5_PFHxA   |   | 85                  | 25-150               |
| 13C5_PFPeA   |   | 88                  | 25-150               |
| 13C6_PFDa    |   | 83                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 91                  | 25-150               |
| 13C8_PFOS    |   | 88                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNa    |   | 86                  | 25-150               |
| d-EtFOsA     |   | 84                  | 10-150               |
| d5-EtFOsAA   |   | 80                  | 25-150               |
| d9-EtFOsE    |   | 102                 | 10-150               |
| d-MeFOsA     |   | 88                  | 10-150               |
| d3-MeFOsAA   |   | 87                  | 25-150               |
| d7-MeFOsE    |   | 90                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-028</b>                |
| Description: <b>MW-101 1-2'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1345</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>93.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 3   | SOP SPE     | PFAS by ID SOP    | 5        | 08/21/2020 1954 | KMM2    | 08/19/2020 1020 | 63988 |
| 4   | SOP SPE     | PFAS by ID SOP    | 50       | 08/21/2020 1943 | MMM     | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number         | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|--------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1        | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9        | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b>  | <b>PFAS by ID SOP</b> | <b>150</b>  |          | <b>9.0</b> | <b>2.3</b>  | <b>ug/kg</b> | <b>3</b> |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b>  | <b>PFAS by ID SOP</b> | <b>13</b>   |          | <b>9.0</b> | <b>2.3</b>  | <b>ug/kg</b> | <b>3</b> |
| <b>1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)</b>     | <b>120226-60-0</b> | <b>PFAS by ID SOP</b> | <b>26</b>   |          | <b>9.0</b> | <b>2.3</b>  | <b>ug/kg</b> | <b>3</b> |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4        | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6         | PFAS by ID SOP        | ND          |          | 18         | 4.5         | ug/kg        | 3        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4        | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2          | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6          | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2          | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8         | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9          | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7         | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| <b>Perfluoro-1-butanefluoronic acid (PFBS)</b>                    | <b>375-73-5</b>    | <b>PFAS by ID SOP</b> | <b>11</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3           | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>    | <b>PFAS by ID SOP</b> | <b>13</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-1-nonanesulfonic acid (PFNS)</b>                     | <b>68259-12-1</b>  | <b>PFAS by ID SOP</b> | <b>3.5</b>  | <b>J</b> | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-1-octanesulfonamide (PFOSA)</b>                      | <b>754-91-6</b>    | <b>PFAS by ID SOP</b> | <b>2.2</b>  | <b>J</b> | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>                   | <b>2706-91-4</b>   | <b>PFAS by ID SOP</b> | <b>11</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5         | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>    | <b>PFAS by ID SOP</b> | <b>300</b>  |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-butanoic acid (PFBA)</b>                           | <b>375-22-4</b>    | <b>PFAS by ID SOP</b> | <b>8.9</b>  |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>    | <b>PFAS by ID SOP</b> | <b>4.6</b>  |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1           | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| <b>Perfluoro-n-heptanoic acid (PFHpA)</b>                         | <b>375-85-9</b>    | <b>PFAS by ID SOP</b> | <b>16</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5         | PFAS by ID SOP        | ND          |          | 9.0        | 2.3         | ug/kg        | 3        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>    | <b>PFAS by ID SOP</b> | <b>47</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>    | <b>PFAS by ID SOP</b> | <b>2.9</b>  | <b>J</b> | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6         | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>    | <b>PFAS by ID SOP</b> | <b>35</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>   | <b>PFAS by ID SOP</b> | <b>36</b>   |          | <b>4.5</b> | <b>0.90</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7           | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8         | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8          | PFAS by ID SOP        | ND          |          | 4.5        | 0.90        | ug/kg        | 3        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>   | <b>PFAS by ID SOP</b> | <b>4100</b> |          | <b>45</b>  | <b>9.0</b>  | <b>ug/kg</b> | <b>4</b> |

| Surrogate   | Run 3 |            | Run 4 |            |
|-------------|-------|------------|-------|------------|
|             | Q     | % Recovery | Q     | % Recovery |
| 13C2_4:2FTS |       | 121        |       | 105        |
| 13C2_6:2FTS |       | 138        |       | 108        |
| 13C2_8:2FTS |       | 139        |       | 105        |
| 13C2_PFDa   |       | 117        |       | 110        |
| 13C2_PFHxDA |       | 101        |       | 109        |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-028</b>                |
| Description: <b>MW-101 1-2'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1345</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>93.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 3<br>% Recovery | Acceptance<br>Limits | Q | Run 4<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 100                 | 25-150               |   | 103                 | 25-150               |
| 13C3_PFBS    |   | 101                 | 25-150               |   | 108                 | 25-150               |
| 13C3_PFHxS   |   | 107                 | 25-150               |   | 109                 | 25-150               |
| 13C3-HFPO-DA |   | 97                  | 25-150               |   | 100                 | 25-150               |
| 13C4_PFBA    |   | 101                 | 25-150               |   | 105                 | 25-150               |
| 13C4_PFHpA   |   | 104                 | 25-150               |   | 102                 | 25-150               |
| 13C5_PFHxA   |   | 100                 | 25-150               |   | 109                 | 25-150               |
| 13C5_PFPeA   |   | 99                  | 25-150               |   | 104                 | 25-150               |
| 13C6_PFDA    |   | 98                  | 25-150               |   | 97                  | 25-150               |
| 13C7_PFUdA   |   | 115                 | 25-150               |   | 110                 | 25-150               |
| 13C8_PFOA    |   | 101                 | 25-150               |   | 104                 | 25-150               |
| 13C8_PFOS    |   | 99                  | 25-150               |   | 106                 | 25-150               |
| 13C8_PFOSA   |   | 105                 | 10-150               |   | 113                 | 10-150               |
| 13C9_PFNA    |   | 92                  | 25-150               |   | 103                 | 25-150               |
| d-EtFOSA     |   | 106                 | 10-150               |   | 111                 | 10-150               |
| d5-EtFOSAA   |   | 119                 | 25-150               |   | 112                 | 25-150               |
| d9-EtFOSE    |   | 102                 | 10-150               |   | 106                 | 10-150               |
| d-MeFOSA     |   | 100                 | 10-150               |   | 105                 | 10-150               |
| d3-MeFOSAA   |   | 108                 | 25-150               |   | 110                 | 25-150               |
| d7-MeFOSE    |   | 99                  | 10-150               |   | 107                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-029</b>                |
| Description: <b>MW-101 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1355</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 3   | SOP SPE     | PFAS by ID SOP    | 1        | 08/21/2020 2026 | KMM2    | 08/19/2020 1020 | 63988 |
| 4   | SOP SPE     | PFAS by ID SOP    | 10       | 08/21/2020 2015 | MMM     | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number         | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|--------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1        | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9        | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b>  | <b>PFAS by ID SOP</b> | <b>36</b>   |          | <b>2.1</b> | <b>0.51</b> | <b>ug/kg</b> | <b>3</b> |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b>  | <b>PFAS by ID SOP</b> | <b>6.3</b>  |          | <b>2.1</b> | <b>0.51</b> | <b>ug/kg</b> | <b>3</b> |
| <b>1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)</b>     | <b>120226-60-0</b> | <b>PFAS by ID SOP</b> | <b>0.92</b> | <b>J</b> | <b>2.1</b> | <b>0.51</b> | <b>ug/kg</b> | <b>3</b> |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4        | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6         | PFAS by ID SOP        | ND          |          | 4.1        | 1.0         | ug/kg        | 3        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4        | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2          | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6          | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2          | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8         | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| <b>N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)</b> | <b>2355-31-9</b>   | <b>PFAS by ID SOP</b> | <b>0.70</b> | <b>J</b> | <b>2.1</b> | <b>0.51</b> | <b>ug/kg</b> | <b>3</b> |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7         | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| <b>Perfluoro-1-butanefluoronic acid (PFBS)</b>                    | <b>375-73-5</b>    | <b>PFAS by ID SOP</b> | <b>2.9</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3           | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>    | <b>PFAS by ID SOP</b> | <b>5.3</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluoro-1-octanesulfonamide (PFOSA)</b>                      | <b>754-91-6</b>    | <b>PFAS by ID SOP</b> | <b>0.80</b> | <b>J</b> | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>                   | <b>2706-91-4</b>   | <b>PFAS by ID SOP</b> | <b>2.3</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>    | <b>PFAS by ID SOP</b> | <b>120</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-butanoic acid (PFBA)</b>                           | <b>375-22-4</b>    | <b>PFAS by ID SOP</b> | <b>3.1</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2           | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1           | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluoro-n-heptanoic acid (PFHpa)</b>                         | <b>375-85-9</b>    | <b>PFAS by ID SOP</b> | <b>1.7</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5         | PFAS by ID SOP        | ND          |          | 2.1        | 0.51        | ug/kg        | 3        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>    | <b>PFAS by ID SOP</b> | <b>16</b>   |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1           | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>    | <b>PFAS by ID SOP</b> | <b>5.6</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>   | <b>PFAS by ID SOP</b> | <b>9.4</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>3</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7           | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 3        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>   | <b>PFAS by ID SOP</b> | <b>840</b>  |          | <b>10</b>  | <b>2.1</b>  | <b>ug/kg</b> | <b>4</b> |

| Surrogate   | Run 3 |            | Run 4 |            |
|-------------|-------|------------|-------|------------|
|             | Q     | % Recovery | Q     | % Recovery |
| 13C2_4:2FTS |       | 79         |       | 106        |
| 13C2_6:2FTS |       | 99         |       | 112        |
| 13C2_8:2FTS |       | 100        |       | 107        |
| 13C2_PFDa   |       | 71         |       | 110        |
| 13C2_PFHxDA |       | 61         |       | 106        |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-029</b>                |
| Description: <b>MW-101 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1355</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Run 3 |            |                   | Run 4 |            |                   |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
|              | Q     | % Recovery | Acceptance Limits | Q     | % Recovery | Acceptance Limits |
| 13C2_PFTeDA  |       | 59         | 25-150            |       | 102        | 25-150            |
| 13C3_PFBs    |       | 65         | 25-150            |       | 106        | 25-150            |
| 13C3_PFHxS   |       | 65         | 25-150            |       | 105        | 25-150            |
| 13C3-HFPO-DA |       | 58         | 25-150            |       | 100        | 25-150            |
| 13C4_PFBa    |       | 65         | 25-150            |       | 104        | 25-150            |
| 13C4_PFHpA   |       | 66         | 25-150            |       | 112        | 25-150            |
| 13C5_PFHxA   |       | 68         | 25-150            |       | 107        | 25-150            |
| 13C5_PFPeA   |       | 65         | 25-150            |       | 103        | 25-150            |
| 13C6_PFDA    |       | 64         | 25-150            |       | 102        | 25-150            |
| 13C7_PFUdA   |       | 69         | 25-150            |       | 117        | 25-150            |
| 13C8_PFOA    |       | 65         | 25-150            |       | 101        | 25-150            |
| 13C8_PFOS    |       | 64         | 25-150            |       | 104        | 25-150            |
| 13C8_PFOSA   |       | 60         | 10-150            |       | 115        | 10-150            |
| 13C9_PFNA    |       | 64         | 25-150            |       | 106        | 25-150            |
| d-EtFOSA     |       | 63         | 10-150            |       | 107        | 10-150            |
| d5-EtFOSAA   |       | 67         | 25-150            |       | 108        | 25-150            |
| d9-EtFOSE    |       | 56         | 10-150            |       | 108        | 10-150            |
| d-MeFOSA     |       | 57         | 10-150            |       | 104        | 10-150            |
| d3-MeFOSAA   |       | 62         | 25-150            |       | 110        | 25-150            |
| d7-MeFOSE    |       | 59         | 10-150            |       | 103        | 10-150            |

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 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-030</b>                |
| Description: <b>MW-101 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1400</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>90.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1319 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>6.2</b>  |          | <b>2.0</b> | <b>0.50</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.0        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>2.7</b>  |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.0        | 0.50        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.36</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>   | <b>PFAS by ID SOP</b> | <b>0.37</b> | <b>J</b> | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.20        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>25</b>   |          | <b>1.0</b> | <b>0.20</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 80               | 25-150            |
| 13C2_6:2FTS |   | 83               | 25-150            |
| 13C2_8:2FTS |   | 83               | 25-150            |
| 13C2_PFDa   |   | 84               | 25-150            |
| 13C2_PFHxDA |   | 92               | 25-150            |
| 13C2_PFTeDA |   | 85               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-030</b>                |
| Description: <b>MW-101 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1400</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>90.1 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBS    |   | 82                  | 25-150               |
| 13C3_PFHxS   |   | 82                  | 25-150               |
| 13C3-HFPO-DA |   | 82                  | 25-150               |
| 13C4_PFBA    |   | 83                  | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |
| 13C5_PFHxA   |   | 83                  | 25-150               |
| 13C5_PFPeA   |   | 84                  | 25-150               |
| 13C6_PFDA    |   | 86                  | 25-150               |
| 13C7_PFUdA   |   | 89                  | 25-150               |
| 13C8_PFOA    |   | 80                  | 25-150               |
| 13C8_PFOS    |   | 84                  | 25-150               |
| 13C8_PFOSA   |   | 87                  | 10-150               |
| 13C9_PFNA    |   | 88                  | 25-150               |
| d-EtFOSA     |   | 88                  | 10-150               |
| d5-EtFOSAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 89                  | 10-150               |
| d-MeFOSA     |   | 87                  | 10-150               |
| d3-MeFOSAA   |   | 80                  | 25-150               |
| d7-MeFOSE    |   | 107                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-031</b>                |
| Description: <b>MW-102 1-2'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1100</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2247 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number       | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND          |          | 3.9         | 0.97        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND          |          | 1.9         | 0.49        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>  | <b>PFAS by ID SOP</b> | <b>0.21</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>1.7</b>  |          | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 84               | 25-150            |
| 13C2_8:2FTS |   | 88               | 25-150            |
| 13C2_PFDa   |   | 90               | 25-150            |
| 13C2_PFHxDA |   | 112              | 25-150            |
| 13C2_PFTeDA |   | 91               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-031</b>                |                                       |
| Description: <b>MW-102 1-2'</b>              | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1100</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>96.1 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 88                  | 25-150               |
| 13C3_PFHxS   |   | 89                  | 25-150               |
| 13C3-HFPO-DA |   | 90                  | 25-150               |
| 13C4_PFBa    |   | 92                  | 25-150               |
| 13C4_PFHpA   |   | 92                  | 25-150               |
| 13C5_PFHxA   |   | 88                  | 25-150               |
| 13C5_PFPeA   |   | 95                  | 25-150               |
| 13C6_PFDA    |   | 90                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |
| 13C8_PFOS    |   | 90                  | 25-150               |
| 13C8_PFOsA   |   | 93                  | 10-150               |
| 13C9_PFNA    |   | 92                  | 25-150               |
| d-EtFOsA     |   | 89                  | 10-150               |
| d5-EtFOsAA   |   | 91                  | 25-150               |
| d9-EtFOSE    |   | 100                 | 10-150               |
| d-MeFOsA     |   | 104                 | 10-150               |
| d3-MeFOsAA   |   | 94                  | 25-150               |
| d7-MeFOSE    |   | 83                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-032</b>                |
| Description: <b>MW-102 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1105</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.7 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2258 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ  | DL   | Units | Run |
|---|-------------|-------------------|--------|---|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 3.6  | 0.91 | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 87               | 25-150            |
| 13C2_8:2FTS |   | 79               | 25-150            |
| 13C2_PFDaA  |   | 96               | 25-150            |
| 13C2_PFHxDA |   | 109              | 25-150            |
| 13C2_PFTeDA |   | 90               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-032</b>                |
| Description: <b>MW-102 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1105</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>96.7 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 91                  | 25-150               |
| 13C3-HFPO-DA |   | 93                  | 25-150               |
| 13C4_PFBa    |   | 94                  | 25-150               |
| 13C4_PFHpA   |   | 91                  | 25-150               |
| 13C5_PFHxA   |   | 92                  | 25-150               |
| 13C5_PFPeA   |   | 94                  | 25-150               |
| 13C6_PFDa    |   | 92                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 92                  | 25-150               |
| 13C8_PFOS    |   | 89                  | 25-150               |
| 13C8_PFOsA   |   | 95                  | 10-150               |
| 13C9_PFNa    |   | 92                  | 25-150               |
| d-EtFOsA     |   | 94                  | 10-150               |
| d5-EtFOsAA   |   | 97                  | 25-150               |
| d9-EtFOsE    |   | 102                 | 10-150               |
| d-MeFOsA     |   | 101                 | 10-150               |
| d3-MeFOsAA   |   | 92                  | 25-150               |
| d7-MeFOsE    |   | 88                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-033</b>                |
| Description: <b>MW-102 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1110</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>82.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2308 | SES     | 08/14/2020 1209 | 63515 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |

| Surrogate   | Run 1 Q | % Recovery | Acceptance Limits |
|-------------|---------|------------|-------------------|
| 13C2_4:2FTS |         | 83         | 25-150            |
| 13C2_6:2FTS |         | 77         | 25-150            |
| 13C2_8:2FTS |         | 94         | 25-150            |
| 13C2_PFDaA  |         | 85         | 25-150            |
| 13C2_PFHxDA |         | 101        | 25-150            |
| 13C2_PFTeDA |         | 86         | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-033</b>                |
| Description: <b>MW-102 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1110</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>82.9 08/12/2020 0115</b>            |
|  | Project Number: <b>40212540</b>                  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 86                  | 25-150               |
| 13C3_PFHxS   |   | 84                  | 25-150               |
| 13C3-HFPO-DA |   | 85                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |
| 13C5_PFHxA   |   | 85                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDa    |   | 88                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 85                  | 25-150               |
| 13C8_PFOS    |   | 88                  | 25-150               |
| 13C8_PFOsA   |   | 92                  | 10-150               |
| 13C9_PFNa    |   | 88                  | 25-150               |
| d-EtFOsA     |   | 91                  | 10-150               |
| d5-EtFOsAA   |   | 90                  | 25-150               |
| d9-EtFOsE    |   | 96                  | 10-150               |
| d-MeFOsA     |   | 107                 | 10-150               |
| d3-MeFOsAA   |   | 89                  | 25-150               |
| d7-MeFOsE    |   | 81                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-034</b>                |
| Description: <b>MW-103 1-2'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1125</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>97.6 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1700 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number       | Analytical Method     | Result     | Q | LOQ         | DL          | Units        | Run      |
|---|------------------|-----------------------|------------|---|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1      | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9      | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4       | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2       | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0      | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4      | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6       | PFAS by ID SOP        | ND         |   | 3.4         | 0.86        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4      | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2        | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6        | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2        | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8       | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9        | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7       | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1       | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4        | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5       | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5       | PFAS by ID SOP        | ND         |   | 1.7         | 0.43        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6       | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3        | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7         | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8       | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8        | PFAS by ID SOP        | ND         |   | 0.86        | 0.17        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b> | <b>PFAS by ID SOP</b> | <b>2.0</b> |   | <b>0.86</b> | <b>0.17</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 93               | 25-150            |
| 13C2_6:2FTS |   | 72               | 25-150            |
| 13C2_8:2FTS |   | 99               | 25-150            |
| 13C2_PFDaA  |   | 94               | 25-150            |
| 13C2_PFHxDA |   | 102              | 25-150            |
| 13C2_PFTeDA |   | 100              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-034</b>                |
| Description: <b>MW-103 1-2'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1125</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>97.6 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 95                  | 25-150               |
| 13C3-HFPO-DA |   | 94                  | 25-150               |
| 13C4_PFBa    |   | 98                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 98                  | 25-150               |
| 13C5_PFPeA   |   | 96                  | 25-150               |
| 13C6_PFDa    |   | 95                  | 25-150               |
| 13C7_PFUdA   |   | 99                  | 25-150               |
| 13C8_PFOA    |   | 96                  | 25-150               |
| 13C8_PFOS    |   | 93                  | 25-150               |
| 13C8_PFOsA   |   | 95                  | 10-150               |
| 13C9_PFNa    |   | 93                  | 25-150               |
| d-EtFOsA     |   | 106                 | 10-150               |
| d5-EtFOsAA   |   | 96                  | 25-150               |
| d9-EtFOsE    |   | 102                 | 10-150               |
| d-MeFOsA     |   | 100                 | 10-150               |
| d3-MeFOsAA   |   | 95                  | 25-150               |
| d7-MeFOsE    |   | 102                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-035</b>                |
| Description: <b>MW-103 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>95.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1711 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ  | DL   | Units | Run |
|---|-------------|-------------------|--------|---|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 3.6  | 0.91 | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 1.8  | 0.46 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 0.91 | 0.18 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 91               | 25-150            |
| 13C2_6:2FTS |   | 92               | 25-150            |
| 13C2_8:2FTS |   | 100              | 25-150            |
| 13C2_PFDa   |   | 97               | 25-150            |
| 13C2_PFHxDA |   | 101              | 25-150            |
| 13C2_PFTeDA |   | 97               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-035</b>                |
| Description: <b>MW-103 5-6'</b>              | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>95.4 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 89                  | 25-150               |
| 13C3_PFHxS   |   | 89                  | 25-150               |
| 13C3-HFPO-DA |   | 88                  | 25-150               |
| 13C4_PFBa    |   | 95                  | 25-150               |
| 13C4_PFHpA   |   | 90                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 94                  | 25-150               |
| 13C6_PFDa    |   | 96                  | 25-150               |
| 13C7_PFUdA   |   | 100                 | 25-150               |
| 13C8_PFOA    |   | 95                  | 25-150               |
| 13C8_PFOS    |   | 87                  | 25-150               |
| 13C8_PFOsA   |   | 89                  | 10-150               |
| 13C9_PFNAA   |   | 91                  | 25-150               |
| d-EtFOsA     |   | 99                  | 10-150               |
| d5-EtFOsAA   |   | 93                  | 25-150               |
| d9-EtFOsE    |   | 101                 | 10-150               |
| d-MeFOsA     |   | 99                  | 10-150               |
| d3-MeFOsAA   |   | 88                  | 25-150               |
| d7-MeFOsE    |   | 99                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-036</b>                |
| Description: <b>MW-103 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1135</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>84.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1722 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.4 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| Perfluoro-1-butanefluoro-1-sulfonic acid (PFBS)                   | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOA)                              | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-butanefluoro-1-sulfonic acid (PFBA)                   | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.2 | 0.55 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 84               | 25-150            |
| 13C2_8:2FTS |   | 91               | 25-150            |
| 13C2_PFDa   |   | 91               | 25-150            |
| 13C2_PFHxDA |   | 94               | 25-150            |
| 13C2_PFTeDA |   | 93               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

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| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-036</b>                |
| Description: <b>MW-103 10-11'</b>            | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1135</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>84.5 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |
| 13C5_PFHxA   |   | 86                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDa    |   | 87                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 89                  | 25-150               |
| 13C8_PFOs    |   | 87                  | 25-150               |
| 13C8_PFOsA   |   | 83                  | 10-150               |
| 13C9_PFNa    |   | 86                  | 25-150               |
| d-EtFOsA     |   | 89                  | 10-150               |
| d5-EtFOsAA   |   | 86                  | 25-150               |
| d9-EtFOsE    |   | 93                  | 10-150               |
| d-MeFOsA     |   | 89                  | 10-150               |
| d3-MeFOsAA   |   | 86                  | 25-150               |
| d7-MeFOsE    |   | 96                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-037</b>                |
| Description: <b>GP-18 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1100</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>91.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1732 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>22</b>   |          | <b>2.2</b> | <b>0.54</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.4        | 1.1         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>4.6</b>  |          | <b>1.1</b> | <b>0.22</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.2        | 0.54        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.34</b> | <b>J</b> | <b>1.1</b> | <b>0.22</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.1        | 0.22        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>14</b>   |          | <b>1.1</b> | <b>0.22</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 88               | 25-150            |
| 13C2_6:2FTS |   | 89               | 25-150            |
| 13C2_8:2FTS |   | 92               | 25-150            |
| 13C2_PFDaA  |   | 92               | 25-150            |
| 13C2_PFHxDA |   | 96               | 25-150            |
| 13C2_PFTeDA |   | 93               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-037</b>                |                                       |
| Description: <b>GP-18 2-3'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/06/2020 1100</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>91.9 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 86                  | 25-150               |
| 13C3-HFPO-DA |   | 88                  | 25-150               |
| 13C4_PFBa    |   | 96                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 88                  | 25-150               |
| 13C6_PFDa    |   | 92                  | 25-150               |
| 13C7_PFUdA   |   | 103                 | 25-150               |
| 13C8_PFOA    |   | 93                  | 25-150               |
| 13C8_PFOs    |   | 87                  | 25-150               |
| 13C8_PFOsA   |   | 90                  | 10-150               |
| 13C9_PFNa    |   | 91                  | 25-150               |
| d-EtFOsA     |   | 102                 | 10-150               |
| d5-EtFOsAA   |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 97                  | 10-150               |
| d-MeFOsA     |   | 94                  | 10-150               |
| d3-MeFOsAA   |   | 85                  | 25-150               |
| d7-MeFOsE    |   | 97                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-038</b>                |
| Description: <b>GP-19 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1110</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>94.0 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1743 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>1.2</b>  | <b>J</b> | <b>2.1</b> | <b>0.52</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 4.2        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>1.8</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.26</b> | <b>J</b> | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 1.0        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>6.6</b>  |          | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 88               | 25-150            |
| 13C2_6:2FTS |   | 90               | 25-150            |
| 13C2_8:2FTS |   | 96               | 25-150            |
| 13C2_PFDoA  |   | 90               | 25-150            |
| 13C2_PFHxDA |   | 100              | 25-150            |
| 13C2_PFTeDA |   | 97               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-038</b>                |
| Description: <b>GP-19 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1110</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |
|  | % Solids: <b>94.0 08/12/2020 0115</b>            |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 90                  | 25-150               |
| 13C3_PFHxS   |   | 88                  | 25-150               |
| 13C3-HFPO-DA |   | 87                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 90                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 94                  | 25-150               |
| 13C7_PFUdA   |   | 92                  | 25-150               |
| 13C8_PFOA    |   | 92                  | 25-150               |
| 13C8_PFOs    |   | 91                  | 25-150               |
| 13C8_PFOsA   |   | 89                  | 10-150               |
| 13C9_PFNa    |   | 93                  | 25-150               |
| d-EtFOsA     |   | 99                  | 10-150               |
| d5-EtFOsAA   |   | 90                  | 25-150               |
| d9-EtFOsE    |   | 100                 | 10-150               |
| d-MeFOsA     |   | 96                  | 10-150               |
| d3-MeFOsAA   |   | 87                  | 25-150               |
| d7-MeFOsE    |   | 100                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-039</b>                |
| Description: <b>GP-20 2-3'</b>               | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1115</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>95.8 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1754 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>7.6</b>  |          | <b>1.8</b>  | <b>0.45</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.6         | 0.89        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>13</b>   |          | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.8         | 0.45        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.22</b> | <b>J</b> | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.89        | 0.18        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>1.0</b>  |          | <b>0.89</b> | <b>0.18</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 85               | 25-150            |
| 13C2_6:2FTS |   | 88               | 25-150            |
| 13C2_8:2FTS |   | 90               | 25-150            |
| 13C2_PFDaA  |   | 94               | 25-150            |
| 13C2_PFHxDA |   | 97               | 25-150            |
| 13C2_PFTeDA |   | 97               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-039</b>                |                                       |
| Description: <b>GP-20 2-3'</b>               | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/06/2020 1115</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>95.8 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 88                  | 25-150               |
| 13C3_PFHxS   |   | 89                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 90                  | 25-150               |
| 13C5_PFHxA   |   | 95                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 90                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 91                  | 25-150               |
| 13C8_PFOS    |   | 91                  | 25-150               |
| 13C8_PFOsA   |   | 90                  | 10-150               |
| 13C9_PFNa    |   | 91                  | 25-150               |
| d-EtFOsA     |   | 100                 | 10-150               |
| d5-EtFOsAA   |   | 87                  | 25-150               |
| d9-EtFOsE    |   | 98                  | 10-150               |
| d-MeFOsA     |   | 100                 | 10-150               |
| d3-MeFOsAA   |   | 85                  | 25-150               |
| d7-MeFOsE    |   | 100                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-040</b>                |
| Description: <b>GP-20 14-15'</b>             | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>90.1 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1805 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>13</b>   |          | <b>1.9</b>  | <b>0.48</b> | <b>ug/kg</b> | <b>1</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.9         | 0.96        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>2.8</b>  |          | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-heptanoic acid (PFHpA)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.30</b> | <b>J</b> | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.37</b> | <b>J</b> | <b>0.96</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1         | PFAS by ID SOP        | ND          |          | 0.96        | 0.19        | ug/kg        | 1        |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 93               | 25-150            |
| 13C2_6:2FTS |   | 87               | 25-150            |
| 13C2_8:2FTS |   | 94               | 25-150            |
| 13C2_PFDa   |   | 91               | 25-150            |
| 13C2_PFHxDA |   | 94               | 25-150            |
| 13C2_PFTeDA |   | 97               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-040</b>                |                                       |
| Description: <b>GP-20 14-15'</b>             | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/06/2020 1130</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>90.1 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 87                  | 25-150               |
| 13C3-HFPO-DA |   | 81                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 90                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 94                  | 25-150               |
| 13C7_PFUdA   |   | 99                  | 25-150               |
| 13C8_PFOA    |   | 91                  | 25-150               |
| 13C8_PFOS    |   | 90                  | 25-150               |
| 13C8_PFOsA   |   | 87                  | 10-150               |
| 13C9_PFNa    |   | 93                  | 25-150               |
| d-EtFOsA     |   | 95                  | 10-150               |
| d5-EtFOsAA   |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 99                  | 10-150               |
| d-MeFOsA     |   | 94                  | 10-150               |
| d3-MeFOsAA   |   | 90                  | 25-150               |
| d7-MeFOsE    |   | 96                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-041</b>                |
| Description: <b>GP-21 9.5-10.5'</b>          | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/06/2020 1210</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>87.9 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1815 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.2 | 0.56 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 88               | 25-150            |
| 13C2_6:2FTS |   | 86               | 25-150            |
| 13C2_8:2FTS |   | 89               | 25-150            |
| 13C2_PFDa   |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 89               | 25-150            |
| 13C2_PFTeDA |   | 88               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-041</b>                |                                       |
| Description: <b>GP-21 9.5-10.5'</b>          | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/06/2020 1210</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>87.9 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 83                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 78                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 82                  | 25-150               |
| 13C5_PFHxA   |   | 86                  | 25-150               |
| 13C5_PFPeA   |   | 92                  | 25-150               |
| 13C6_PFDa    |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 85                  | 25-150               |
| 13C8_PFOS    |   | 82                  | 25-150               |
| 13C8_PFOsA   |   | 84                  | 10-150               |
| 13C9_PFNA    |   | 90                  | 25-150               |
| d-EtFOSA     |   | 90                  | 10-150               |
| d5-EtFOSAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 93                  | 10-150               |
| d-MeFOSA     |   | 83                  | 10-150               |
| d3-MeFOSAA   |   | 82                  | 25-150               |
| d7-MeFOSE    |   | 95                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-042</b>                |
| Description: <b>DUP #1</b>                   | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1220</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/19/2020 1826 | MMM     | 08/17/2020 1514 | 63728 |

| Parameter   | CAS Number        | Analytical Method     | Result     | Q | LOQ        | DL          | Units        | Run      |
|---|-------------------|-----------------------|------------|---|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>4.2</b> |   | <b>2.1</b> | <b>0.52</b> | <b>ug/kg</b> | <b>1</b> |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b> | <b>PFAS by ID SOP</b> | <b>2.5</b> |   | <b>2.1</b> | <b>0.52</b> | <b>ug/kg</b> | <b>1</b> |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND         |   | 4.1        | 1.0         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND         |   | 2.1        | 0.52        | ug/kg        | 1        |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8         | PFAS by ID SOP        | ND         |   | 1.0        | 0.21        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>9.4</b> |   | <b>1.0</b> | <b>0.21</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 95               | 25-150            |
| 13C2_6:2FTS |   | 92               | 25-150            |
| 13C2_8:2FTS |   | 95               | 25-150            |
| 13C2_PFDaA  |   | 91               | 25-150            |
| 13C2_PFHxDA |   | 98               | 25-150            |
| 13C2_PFTeDA |   | 95               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-042</b>                |
| Description: <b>DUP #1</b>                   | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1220</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>81.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 89                  | 25-150               |
| 13C3_PFHxS   |   | 84                  | 25-150               |
| 13C3-HFPO-DA |   | 83                  | 25-150               |
| 13C4_PFBa    |   | 92                  | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 90                  | 25-150               |
| 13C7_PFUdA   |   | 101                 | 25-150               |
| 13C8_PFOA    |   | 90                  | 25-150               |
| 13C8_PFOS    |   | 92                  | 25-150               |
| 13C8_PFOsA   |   | 86                  | 10-150               |
| 13C9_PFNa    |   | 91                  | 25-150               |
| d-EtFOsA     |   | 96                  | 10-150               |
| d5-EtFOsAA   |   | 89                  | 25-150               |
| d9-EtFOsE    |   | 96                  | 10-150               |
| d-MeFOsA     |   | 98                  | 10-150               |
| d3-MeFOsAA   |   | 86                  | 25-150               |
| d7-MeFOsE    |   | 95                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-043</b>                |
| Description: <b>DUP #2</b>                   | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1350</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>94.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 10       | 08/21/2020 2058 | KMM2    | 08/19/2020 1020 | 63988 |
| 2   | SOP SPE     | PFAS by ID SOP    | 100      | 08/21/2020 2048 | MMM     | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number         | Analytical Method     | Result      | Q        | LOQ        | DL         | Units        | Run      |
|---|--------------------|-----------------------|-------------|----------|------------|------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1        | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9        | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b>  | <b>PFAS by ID SOP</b> | <b>150</b>  |          | <b>20</b>  | <b>5.1</b> | <b>ug/kg</b> | <b>1</b> |
| <b>1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</b>     | <b>27619-97-2</b>  | <b>PFAS by ID SOP</b> | <b>9.1</b>  | <b>J</b> | <b>20</b>  | <b>5.1</b> | <b>ug/kg</b> | <b>1</b> |
| <b>1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)</b>     | <b>120226-60-0</b> | <b>PFAS by ID SOP</b> | <b>36</b>   |          | <b>20</b>  | <b>5.1</b> | <b>ug/kg</b> | <b>1</b> |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4        | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6         | PFAS by ID SOP        | ND          |          | 40         | 10         | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4        | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2          | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6          | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2          | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8         | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9          | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7         | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| <b>Perfluoro-1-butanefluoronic acid (PFBS)</b>                    | <b>375-73-5</b>    | <b>PFAS by ID SOP</b> | <b>18</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-1-decanesulfonic acid (PFDS)</b>                     | <b>335-77-3</b>    | <b>PFAS by ID SOP</b> | <b>6.8</b>  | <b>J</b> | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-1-heptanesulfonic acid (PFHpS)</b>                   | <b>375-92-8</b>    | <b>PFAS by ID SOP</b> | <b>25</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-1-nonanesulfonic acid (PFNS)</b>                     | <b>68259-12-1</b>  | <b>PFAS by ID SOP</b> | <b>9.3</b>  | <b>J</b> | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6           | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| <b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>                   | <b>2706-91-4</b>   | <b>PFAS by ID SOP</b> | <b>21</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5         | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>    | <b>PFAS by ID SOP</b> | <b>570</b>  |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-butanoic acid (PFBA)</b>                           | <b>375-22-4</b>    | <b>PFAS by ID SOP</b> | <b>12</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>    | <b>PFAS by ID SOP</b> | <b>5.8</b>  | <b>J</b> | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1           | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| <b>Perfluoro-n-heptanoic acid (PFHpa)</b>                         | <b>375-85-9</b>    | <b>PFAS by ID SOP</b> | <b>37</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5         | PFAS by ID SOP        | ND          |          | 20         | 5.1        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>    | <b>PFAS by ID SOP</b> | <b>87</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>    | <b>PFAS by ID SOP</b> | <b>4.7</b>  | <b>J</b> | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6         | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| <b>Perfluoro-n-octanoic acid (PFOA)</b>                           | <b>335-67-1</b>    | <b>PFAS by ID SOP</b> | <b>69</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>   | <b>PFAS by ID SOP</b> | <b>59</b>   |          | <b>10</b>  | <b>2.0</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7           | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8         | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8          | PFAS by ID SOP        | ND          |          | 10         | 2.0        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>   | <b>PFAS by ID SOP</b> | <b>7400</b> |          | <b>100</b> | <b>20</b>  | <b>ug/kg</b> | <b>2</b> |

| Surrogate   | Run 1 |            | Acceptance Limits | Run 2 |            |
|-------------|-------|------------|-------------------|-------|------------|
|             | Q     | % Recovery |                   | Q     | % Recovery |
| 13C2_4:2FTS |       | 101        | 25-150            |       | 110        |
| 13C2_6:2FTS |       | 112        | 25-150            |       | 103        |
| 13C2_8:2FTS |       | 125        | 25-150            |       | 104        |
| 13C2_PFDa   |       | 113        | 25-150            |       | 112        |
| 13C2_PFHxDA |       | 94         | 25-150            |       | 110        |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-043</b>                |
| Description: <b>DUP #2</b>                   | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1350</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>94.3 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 95                  | 25-150               |   | 105                 | 25-150               |
| 13C3_PFBs    |   | 95                  | 25-150               |   | 110                 | 25-150               |
| 13C3_PFHxS   |   | 95                  | 25-150               |   | 109                 | 25-150               |
| 13C3-HFPO-DA |   | 88                  | 25-150               |   | 99                  | 25-150               |
| 13C4_PFBa    |   | 98                  | 25-150               |   | 108                 | 25-150               |
| 13C4_PFHpA   |   | 97                  | 25-150               |   | 110                 | 25-150               |
| 13C5_PFHxA   |   | 98                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFPeA   |   | 95                  | 25-150               |   | 109                 | 25-150               |
| 13C6_PFDA    |   | 94                  | 25-150               |   | 107                 | 25-150               |
| 13C7_PFUdA   |   | 100                 | 25-150               |   | 111                 | 25-150               |
| 13C8_PFOA    |   | 99                  | 25-150               |   | 104                 | 25-150               |
| 13C8_PFOS    |   | 90                  | 25-150               |   | 109                 | 25-150               |
| 13C8_PFOSA   |   | 99                  | 10-150               |   | 115                 | 10-150               |
| 13C9_PFNA    |   | 92                  | 25-150               |   | 106                 | 25-150               |
| d-EtFOSA     |   | 95                  | 10-150               |   | 112                 | 10-150               |
| d5-EtFOSAA   |   | 107                 | 25-150               |   | 111                 | 25-150               |
| d9-EtFOSE    |   | 95                  | 10-150               |   | 112                 | 10-150               |
| d-MeFOSA     |   | 100                 | 10-150               |   | 103                 | 10-150               |
| d3-MeFOSAA   |   | 103                 | 25-150               |   | 108                 | 25-150               |
| d7-MeFOSE    |   | 94                  | 10-150               |   | 111                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |
|--|--|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-044</b>                |
| Description: <b>DUP #3</b>                   | Matrix: <b>Solid</b>                             |
| Date Sampled: <b>08/05/2020 1105</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> |
| Date Received: <b>08/11/2020</b>             | % Solids: <b>92.2 08/12/2020 0115</b>            |
| Project Number: <b>40212540</b>              |  |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/21/2020 2120 | KMM2    | 08/19/2020 1020 | 63988 |

| Parameter   | CAS Number        | Analytical Method     | Result      | Q        | LOQ         | DL          | Units        | Run      |
|---|-------------------|-----------------------|-------------|----------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| <b>1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</b>     | <b>39108-34-4</b> | <b>PFAS by ID SOP</b> | <b>25</b>   |          | <b>1.9</b>  | <b>0.48</b> | <b>ug/kg</b> | <b>1</b> |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6        | PFAS by ID SOP        | ND          |          | 3.9         | 0.97        | ug/kg        | 1        |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4       | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9         | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluorohexanesulfonic acid (PFHxS)</b>                       | <b>355-46-4</b>   | <b>PFAS by ID SOP</b> | <b>0.20</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-decanoic acid (PFDA)</b>                           | <b>335-76-2</b>   | <b>PFAS by ID SOP</b> | <b>4.9</b>  |          | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-heptanoic acid (PFHpa)</b>                         | <b>375-85-9</b>   | <b>PFAS by ID SOP</b> | <b>0.22</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5        | PFAS by ID SOP        | ND          |          | 1.9         | 0.48        | ug/kg        | 1        |
| <b>Perfluoro-n-hexanoic acid (PFHxA)</b>                          | <b>307-24-4</b>   | <b>PFAS by ID SOP</b> | <b>0.28</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| <b>Perfluoro-n-nonanoic acid (PFNA)</b>                           | <b>375-95-1</b>   | <b>PFAS by ID SOP</b> | <b>0.31</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluoro-n-pentanoic acid (PFPeA)</b>                         | <b>2706-90-3</b>  | <b>PFAS by ID SOP</b> | <b>0.26</b> | <b>J</b> | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7          | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8        | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8         | PFAS by ID SOP        | ND          |          | 0.97        | 0.19        | ug/kg        | 1        |
| <b>Perfluorooctanesulfonic acid (PFOS)</b>                        | <b>1763-23-1</b>  | <b>PFAS by ID SOP</b> | <b>15</b>   |          | <b>0.97</b> | <b>0.19</b> | <b>ug/kg</b> | <b>1</b> |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 71               | 25-150            |
| 13C2_6:2FTS |   | 74               | 25-150            |
| 13C2_8:2FTS |   | 66               | 25-150            |
| 13C2_PFDaA  |   | 77               | 25-150            |
| 13C2_PFHxDA |   | 79               | 25-150            |
| 13C2_PFTeDA |   | 75               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|  |  |                                       |
|--|--|---------------------------------------|
| Client: <b>Pace Analytical Services, LLC</b> | Laboratory ID: <b>VH11086-044</b>                |                                       |
| Description: <b>DUP #3</b>                   | Matrix: <b>Solid</b>                             |                                       |
| Date Sampled: <b>08/05/2020 1105</b>         | Project Name: <b>LACROSSE Well #23 &amp; #24</b> | % Solids: <b>92.2 08/12/2020 0115</b> |
| Date Received: <b>08/11/2020</b>             | Project Number: <b>40212540</b>                  |                                       |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 74                  | 25-150               |
| 13C3_PFHxS   |   | 75                  | 25-150               |
| 13C3-HFPO-DA |   | 70                  | 25-150               |
| 13C4_PFBa    |   | 79                  | 25-150               |
| 13C4_PFHpA   |   | 79                  | 25-150               |
| 13C5_PFHxA   |   | 79                  | 25-150               |
| 13C5_PFPeA   |   | 80                  | 25-150               |
| 13C6_PFDa    |   | 75                  | 25-150               |
| 13C7_PFUdA   |   | 79                  | 25-150               |
| 13C8_PFOA    |   | 77                  | 25-150               |
| 13C8_PFOS    |   | 73                  | 25-150               |
| 13C8_PFOsA   |   | 80                  | 10-150               |
| 13C9_PFNa    |   | 76                  | 25-150               |
| d-EtFOsA     |   | 83                  | 10-150               |
| d5-EtFOsAA   |   | 72                  | 25-150               |
| d9-EtFOsE    |   | 79                  | 10-150               |
| d-MeFOsA     |   | 79                  | 10-150               |
| d3-MeFOsAA   |   | 70                  | 25-150               |
| d7-MeFOsE    |   | 84                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## QC Summary

# PFAS by LC/MS/MS - MB

Sample ID: VQ63160-001

Matrix: Solid

Batch: 63160

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/12/2020 1047

| Parameter    | Result | Q | Dil | LOQ | DL   | Units | Analysis Date   |
|--------------|--------|---|-----|-----|------|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| 11CI-PF3OUdS | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| 8:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| 6:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| 10:2 FTS     | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| 4:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| GenX         | ND     |   | 1   | 4.0 | 1.0  | ug/kg | 08/13/2020 1638 |
| ADONA        | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| EtFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| EtFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| EtFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| MeFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| MeFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| MeFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| PFBS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFDS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFHpS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFNS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFOSA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFPeS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFDOS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFHxS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFBA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFDA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFDoA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFHpA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFHxDA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/13/2020 1638 |
| PFHxA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFNA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFODA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFOA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFPeA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFTeDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFTrDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFUdA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |
| PFOS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/13/2020 1638 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 80    | 25-150           |
| 13C2_6:2FTS |   | 89    | 25-150           |
| 13C2_8:2FTS |   | 78    | 25-150           |
| 13C2_PFDoA  |   | 85    | 25-150           |
| 13C2_PFHxDA |   | 97    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - MB

Sample ID: VQ63160-001

Matrix: Solid

Batch: 63160

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/12/2020 1047

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 84    | 25-150           |
| 13C3_PFBS    |   | 86    | 25-150           |
| 13C3_PFHxS   |   | 80    | 25-150           |
| 13C3-HFPO-DA |   | 91    | 25-150           |
| 13C4_PFBA    |   | 85    | 25-150           |
| 13C4_PFHpA   |   | 87    | 25-150           |
| 13C5_PFHxA   |   | 87    | 25-150           |
| 13C5_PFPeA   |   | 83    | 25-150           |
| 13C6_PFDA    |   | 87    | 25-150           |
| 13C7_PFUdA   |   | 88    | 25-150           |
| 13C8_PFOA    |   | 84    | 25-150           |
| 13C8_PFOS    |   | 88    | 25-150           |
| 13C8_PFOSA   |   | 87    | 10-150           |
| 13C9_PFNA    |   | 90    | 25-150           |
| d-EtFOSA     |   | 95    | 10-150           |
| d5-EtFOSAA   |   | 80    | 25-150           |
| d9-EtFOSE    |   | 89    | 10-150           |
| d-MeFOSA     |   | 86    | 10-150           |
| d3-MeFOSAA   |   | 88    | 25-150           |
| d7-MeFOSE    |   | 82    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

**PFAS by LC/MS/MS - LCS**

Sample ID: VQ63160-002

Matrix: Solid

Batch: 63160

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/12/2020 1047

| Parameter    | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/13/2020 1649 |
| 11CI-PF3OUdS | 1.9                  | 2.0            |   | 1   | 108   | 50-150      | 08/13/2020 1649 |
| 8:2 FTS      | 1.9                  | 2.0            |   | 1   | 107   | 50-150      | 08/13/2020 1649 |
| 6:2 FTS      | 1.9                  | 1.9            |   | 1   | 101   | 50-150      | 08/13/2020 1649 |
| 10:2 FTS     | 1.9                  | 2.5            |   | 1   | 130   | 50-150      | 08/13/2020 1649 |
| 4:2 FTS      | 1.9                  | 2.0            |   | 1   | 110   | 50-150      | 08/13/2020 1649 |
| GenX         | 4.0                  | 3.8            |   | 1   | 94    | 50-150      | 08/13/2020 1649 |
| ADONA        | 1.9                  | 2.1            |   | 1   | 113   | 50-150      | 08/13/2020 1649 |
| EtFOSA       | 2.0                  | 1.9            |   | 1   | 93    | 50-150      | 08/13/2020 1649 |
| EtFOSAA      | 2.0                  | 2.2            |   | 1   | 108   | 50-150      | 08/13/2020 1649 |
| EtFOSE       | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/13/2020 1649 |
| MeFOSA       | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/13/2020 1649 |
| MeFOSAA      | 2.0                  | 2.0            |   | 1   | 99    | 50-150      | 08/13/2020 1649 |
| MeFOSE       | 2.0                  | 1.7            |   | 1   | 85    | 50-150      | 08/13/2020 1649 |
| PFBS         | 1.8                  | 1.8            |   | 1   | 101   | 50-150      | 08/13/2020 1649 |
| PFDS         | 1.9                  | 1.8            |   | 1   | 93    | 50-150      | 08/13/2020 1649 |
| PFHpS        | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/13/2020 1649 |
| PFNS         | 1.9                  | 2.1            |   | 1   | 109   | 50-150      | 08/13/2020 1649 |
| PFOSA        | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/13/2020 1649 |
| PFPeS        | 1.9                  | 1.9            |   | 1   | 100   | 50-150      | 08/13/2020 1649 |
| PFDOS        | 1.9                  | 2.0            |   | 1   | 104   | 50-150      | 08/13/2020 1649 |
| PFHxS        | 1.8                  | 1.8            |   | 1   | 100   | 50-150      | 08/13/2020 1649 |
| PFBA         | 2.0                  | 2.2            |   | 1   | 108   | 50-150      | 08/13/2020 1649 |
| PFDA         | 2.0                  | 2.0            |   | 1   | 102   | 50-150      | 08/13/2020 1649 |
| PFDoA        | 2.0                  | 2.2            |   | 1   | 110   | 50-150      | 08/13/2020 1649 |
| PFHpA        | 2.0                  | 2.3            |   | 1   | 114   | 50-150      | 08/13/2020 1649 |
| PFHxDA       | 2.0                  | 1.9            |   | 1   | 95    | 50-150      | 08/13/2020 1649 |
| PFHxA        | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/13/2020 1649 |
| PFNA         | 2.0                  | 2.1            |   | 1   | 103   | 50-150      | 08/13/2020 1649 |
| PFODA        | 2.0                  | 2.2            |   | 1   | 110   | 50-150      | 08/13/2020 1649 |
| PFOA         | 2.0                  | 2.3            |   | 1   | 113   | 50-150      | 08/13/2020 1649 |
| PFPeA        | 2.0                  | 2.2            |   | 1   | 112   | 50-150      | 08/13/2020 1649 |
| PFTeDA       | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/13/2020 1649 |
| PFTrDA       | 2.0                  | 2.1            |   | 1   | 106   | 50-150      | 08/13/2020 1649 |
| PFUdA        | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/13/2020 1649 |
| PFOS         | 1.9                  | 1.8            |   | 1   | 96    | 50-150      | 08/13/2020 1649 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 82    | 25-150           |
| 13C2_6:2FTS |   | 95    | 25-150           |
| 13C2_8:2FTS |   | 89    | 25-150           |
| 13C2_PFDoA  |   | 90    | 25-150           |
| 13C2_PFHxDA |   | 109   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - LCS

Sample ID: VQ63160-002

Matrix: Solid

Batch: 63160

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/12/2020 1047

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 90    | 25-150           |
| 13C3_PFBs    |   | 95    | 25-150           |
| 13C3_PFHxS   |   | 88    | 25-150           |
| 13C3-HFPO-DA |   | 109   | 25-150           |
| 13C4_PFBa    |   | 94    | 25-150           |
| 13C4_PFHpA   |   | 92    | 25-150           |
| 13C5_PFHxA   |   | 96    | 25-150           |
| 13C5_PFPeA   |   | 91    | 25-150           |
| 13C6_PFDa    |   | 97    | 25-150           |
| 13C7_PFUdA   |   | 97    | 25-150           |
| 13C8_PFOA    |   | 90    | 25-150           |
| 13C8_PFOs    |   | 98    | 25-150           |
| 13C8_PFOsA   |   | 97    | 10-150           |
| 13C9_PFNa    |   | 99    | 25-150           |
| d-EtFOsA     |   | 101   | 10-150           |
| d5-EtFOsAA   |   | 89    | 25-150           |
| d9-EtFOsE    |   | 96    | 10-150           |
| d-MeFOsA     |   | 99    | 10-150           |
| d3-MeFOsAA   |   | 98    | 25-150           |
| d7-MeFOsE    |   | 98    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

# PFAS by LC/MS/MS - MB

Sample ID: VQ63515-001

Matrix: Solid

Batch: 63515

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/14/2020 1209

| Parameter    | Result | Q | Dil | LOQ | DL   | Units | Analysis Date   |
|--------------|--------|---|-----|-----|------|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| 11CI-PF3OUdS | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| 8:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| 6:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| 10:2 FTS     | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| 4:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| GenX         | ND     |   | 1   | 4.0 | 1.0  | ug/kg | 08/17/2020 1603 |
| ADONA        | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| EtFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| EtFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| EtFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| MeFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| MeFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| MeFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| PFBS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFDS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFHpS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFNS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFOSA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFPeS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFDOS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFHxS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFBA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFDA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFDoA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFHpA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFHxDA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/17/2020 1603 |
| PFHxA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFNA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFODA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFOA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFPeA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFTeDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFTrDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFUdA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |
| PFOS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/17/2020 1603 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 86    | 25-150           |
| 13C2_6:2FTS |   | 84    | 25-150           |
| 13C2_8:2FTS |   | 82    | 25-150           |
| 13C2_PFDoA  |   | 88    | 25-150           |
| 13C2_PFHxDA |   | 102   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - MB

Sample ID: VQ63515-001

Matrix: Solid

Batch: 63515

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/14/2020 1209

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 90    | 25-150           |
| 13C3_PFBS    |   | 87    | 25-150           |
| 13C3_PFHxS   |   | 90    | 25-150           |
| 13C3-HFPO-DA |   | 87    | 25-150           |
| 13C4_PFBA    |   | 90    | 25-150           |
| 13C4_PFHpA   |   | 91    | 25-150           |
| 13C5_PFHxA   |   | 88    | 25-150           |
| 13C5_PFPeA   |   | 89    | 25-150           |
| 13C6_PFDA    |   | 87    | 25-150           |
| 13C7_PFUdA   |   | 98    | 25-150           |
| 13C8_PFOA    |   | 90    | 25-150           |
| 13C8_PFOS    |   | 89    | 25-150           |
| 13C8_PFOSA   |   | 96    | 10-150           |
| 13C9_PFNA    |   | 95    | 25-150           |
| d-EtFOSA     |   | 95    | 10-150           |
| d5-EtFOSAA   |   | 97    | 25-150           |
| d9-EtFOSE    |   | 106   | 10-150           |
| d-MeFOSA     |   | 106   | 10-150           |
| d3-MeFOSAA   |   | 91    | 25-150           |
| d7-MeFOSE    |   | 94    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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



# PFAS by LC/MS/MS - LCS

Sample ID: VQ63515-002

Matrix: Solid

Batch: 63515

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/14/2020 1209

| Parameter    | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/17/2020 1614 |
| 11CI-PF3OUdS | 1.9                  | 2.0            |   | 1   | 105   | 50-150      | 08/17/2020 1614 |
| 8:2 FTS      | 1.9                  | 2.1            |   | 1   | 110   | 50-150      | 08/17/2020 1614 |
| 6:2 FTS      | 1.9                  | 10             | N | 1   | 535   | 50-150      | 08/17/2020 1614 |
| 10:2 FTS     | 1.9                  | 1.9            |   | 1   | 98    | 50-150      | 08/17/2020 1614 |
| 4:2 FTS      | 1.9                  | 1.8            |   | 1   | 99    | 50-150      | 08/17/2020 1614 |
| GenX         | 4.0                  | 4.0            |   | 1   | 101   | 50-150      | 08/17/2020 1614 |
| ADONA        | 1.9                  | 2.4            |   | 1   | 126   | 50-150      | 08/17/2020 1614 |
| EtFOSA       | 2.0                  | 1.8            |   | 1   | 88    | 50-150      | 08/17/2020 1614 |
| EtFOSAA      | 2.0                  | 1.9            |   | 1   | 96    | 50-150      | 08/17/2020 1614 |
| EtFOSE       | 2.0                  | 1.6            |   | 1   | 78    | 50-150      | 08/17/2020 1614 |
| MeFOSA       | 2.0                  | 1.5            |   | 1   | 75    | 50-150      | 08/17/2020 1614 |
| MeFOSAA      | 2.0                  | 2.0            |   | 1   | 101   | 50-150      | 08/17/2020 1614 |
| MeFOSE       | 2.0                  | 1.8            |   | 1   | 88    | 50-150      | 08/17/2020 1614 |
| PFBS         | 1.8                  | 1.7            |   | 1   | 96    | 50-150      | 08/17/2020 1614 |
| PFDS         | 1.9                  | 1.8            |   | 1   | 94    | 50-150      | 08/17/2020 1614 |
| PFHpS        | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/17/2020 1614 |
| PFNS         | 1.9                  | 2.2            |   | 1   | 113   | 50-150      | 08/17/2020 1614 |
| PFOSA        | 2.0                  | 2.2            |   | 1   | 112   | 50-150      | 08/17/2020 1614 |
| PFPeS        | 1.9                  | 1.7            |   | 1   | 92    | 50-150      | 08/17/2020 1614 |
| PFDOS        | 1.9                  | 1.7            |   | 1   | 87    | 50-150      | 08/17/2020 1614 |
| PFHxS        | 1.8                  | 1.7            |   | 1   | 92    | 50-150      | 08/17/2020 1614 |
| PFBA         | 2.0                  | 2.1            |   | 1   | 103   | 50-150      | 08/17/2020 1614 |
| PFDA         | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/17/2020 1614 |
| PFDoA        | 2.0                  | 2.0            |   | 1   | 102   | 50-150      | 08/17/2020 1614 |
| PFHpA        | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/17/2020 1614 |
| PFHxDA       | 2.0                  | 1.9            |   | 1   | 96    | 50-150      | 08/17/2020 1614 |
| PFHxA        | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/17/2020 1614 |
| PFNA         | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/17/2020 1614 |
| PFODA        | 2.0                  | 2.0            |   | 1   | 100   | 50-150      | 08/17/2020 1614 |
| PFOA         | 2.0                  | 1.9            |   | 1   | 96    | 50-150      | 08/17/2020 1614 |
| PFPeA        | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/17/2020 1614 |
| PFTeDA       | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/17/2020 1614 |
| PFTrDA       | 2.0                  | 2.3            |   | 1   | 114   | 50-150      | 08/17/2020 1614 |
| PFUdA        | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/17/2020 1614 |
| PFOS         | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/17/2020 1614 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 94    | 25-150           |
| 13C2_6:2FTS |   | 82    | 25-150           |
| 13C2_8:2FTS |   | 92    | 25-150           |
| 13C2_PFDoA  |   | 92    | 25-150           |
| 13C2_PFHxDA |   | 109   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - LCS

Sample ID: VQ63515-002

Matrix: Solid

Batch: 63515

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/14/2020 1209

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 95    | 25-150           |
| 13C3_PFBS    |   | 90    | 25-150           |
| 13C3_PFHxS   |   | 89    | 25-150           |
| 13C3-HFPO-DA |   | 93    | 25-150           |
| 13C4_PFBA    |   | 94    | 25-150           |
| 13C4_PFHpA   |   | 91    | 25-150           |
| 13C5_PFHxA   |   | 87    | 25-150           |
| 13C5_PFPeA   |   | 91    | 25-150           |
| 13C6_PFDA    |   | 91    | 25-150           |
| 13C7_PFUdA   |   | 97    | 25-150           |
| 13C8_PFOA    |   | 94    | 25-150           |
| 13C8_PFOS    |   | 94    | 25-150           |
| 13C8_PFOSA   |   | 94    | 10-150           |
| 13C9_PFNA    |   | 94    | 25-150           |
| d-EtFOSA     |   | 95    | 10-150           |
| d5-EtFOSAA   |   | 97    | 25-150           |
| d9-EtFOSE    |   | 115   | 10-150           |
| d-MeFOSA     |   | 110   | 10-150           |
| d3-MeFOSAA   |   | 98    | 25-150           |
| d7-MeFOSE    |   | 100   | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

# PFAS by LC/MS/MS - MB

Sample ID: VQ63728-001

Matrix: Solid

Batch: 63728

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/17/2020 1514

| Parameter    | Result | Q | Dil | LOQ | DL   | Units | Analysis Date   |
|--------------|--------|---|-----|-----|------|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| 11CI-PF3OUdS | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| 8:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| 6:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| 10:2 FTS     | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| 4:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| GenX         | ND     |   | 1   | 4.0 | 1.0  | ug/kg | 08/19/2020 1639 |
| ADONA        | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| EtFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| EtFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| EtFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| MeFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| MeFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| MeFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| PFBS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFDS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFHpS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFNS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFOSA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFPeS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFDOS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFHxS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFBA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFDA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFDoA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFHpA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFHxDA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/19/2020 1639 |
| PFHxA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFNA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFODA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFOA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFPeA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFTeDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFTrDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFUdA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |
| PFOS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/19/2020 1639 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 98    | 25-150           |
| 13C2_6:2FTS |   | 94    | 25-150           |
| 13C2_8:2FTS |   | 94    | 25-150           |
| 13C2_PFDoA  |   | 96    | 25-150           |
| 13C2_PFHxDA |   | 100   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - MB

Sample ID: VQ63728-001

Matrix: Solid

Batch: 63728

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/17/2020 1514

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 100   | 25-150           |
| 13C3_PFBS    |   | 92    | 25-150           |
| 13C3_PFHxS   |   | 92    | 25-150           |
| 13C3-HFPO-DA |   | 95    | 25-150           |
| 13C4_PFBA    |   | 94    | 25-150           |
| 13C4_PFHpA   |   | 94    | 25-150           |
| 13C5_PFHxA   |   | 97    | 25-150           |
| 13C5_PFPeA   |   | 89    | 25-150           |
| 13C6_PFDA    |   | 97    | 25-150           |
| 13C7_PFUdA   |   | 101   | 25-150           |
| 13C8_PFOA    |   | 95    | 25-150           |
| 13C8_PFOS    |   | 91    | 25-150           |
| 13C8_PFOSA   |   | 93    | 10-150           |
| 13C9_PFNA    |   | 92    | 25-150           |
| d-EtFOSA     |   | 96    | 10-150           |
| d5-EtFOSAA   |   | 90    | 25-150           |
| d9-EtFOSE    |   | 103   | 10-150           |
| d-MeFOSA     |   | 102   | 10-150           |
| d3-MeFOSAA   |   | 93    | 25-150           |
| d7-MeFOSE    |   | 98    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

# PFAS by LC/MS/MS - LCS

Sample ID: VQ63728-002

Matrix: Solid

Batch: 63728

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/17/2020 1514

| Parameter    | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 1.9                  | 1.9            |   | 1   | 104   | 50-150      | 08/19/2020 1649 |
| 11CI-PF3OUdS | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/19/2020 1649 |
| 8:2 FTS      | 1.9                  | 1.9            |   | 1   | 100   | 50-150      | 08/19/2020 1649 |
| 6:2 FTS      | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/19/2020 1649 |
| 10:2 FTS     | 1.9                  | 1.9            |   | 1   | 96    | 50-150      | 08/19/2020 1649 |
| 4:2 FTS      | 1.9                  | 2.0            |   | 1   | 105   | 50-150      | 08/19/2020 1649 |
| GenX         | 4.0                  | 4.1            |   | 1   | 102   | 50-150      | 08/19/2020 1649 |
| ADONA        | 1.9                  | 2.0            |   | 1   | 107   | 50-150      | 08/19/2020 1649 |
| EtFOSA       | 2.0                  | 1.7            |   | 1   | 87    | 50-150      | 08/19/2020 1649 |
| EtFOSAA      | 2.0                  | 2.2            |   | 1   | 111   | 50-150      | 08/19/2020 1649 |
| EtFOSE       | 2.0                  | 1.7            |   | 1   | 84    | 50-150      | 08/19/2020 1649 |
| MeFOSA       | 2.0                  | 1.5            |   | 1   | 77    | 50-150      | 08/19/2020 1649 |
| MeFOSAA      | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/19/2020 1649 |
| MeFOSE       | 2.0                  | 1.8            |   | 1   | 89    | 50-150      | 08/19/2020 1649 |
| PFBS         | 1.8                  | 1.7            |   | 1   | 97    | 50-150      | 08/19/2020 1649 |
| PFDS         | 1.9                  | 1.8            |   | 1   | 93    | 50-150      | 08/19/2020 1649 |
| PFHpS        | 1.9                  | 1.7            |   | 1   | 90    | 50-150      | 08/19/2020 1649 |
| PFNS         | 1.9                  | 1.9            |   | 1   | 99    | 50-150      | 08/19/2020 1649 |
| PFOSA        | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/19/2020 1649 |
| PFPeS        | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/19/2020 1649 |
| PFDOS        | 1.9                  | 2.1            |   | 1   | 106   | 50-150      | 08/19/2020 1649 |
| PFHxS        | 1.8                  | 1.7            |   | 1   | 95    | 50-150      | 08/19/2020 1649 |
| PFBA         | 2.0                  | 2.0            |   | 1   | 101   | 50-150      | 08/19/2020 1649 |
| PFDA         | 2.0                  | 2.0            |   | 1   | 100   | 50-150      | 08/19/2020 1649 |
| PFDoA        | 2.0                  | 1.9            |   | 1   | 96    | 50-150      | 08/19/2020 1649 |
| PFHpA        | 2.0                  | 2.1            |   | 1   | 103   | 50-150      | 08/19/2020 1649 |
| PFHxDA       | 2.0                  | 1.7            |   | 1   | 85    | 50-150      | 08/19/2020 1649 |
| PFHxA        | 2.0                  | 2.0            |   | 1   | 102   | 50-150      | 08/19/2020 1649 |
| PFNA         | 2.0                  | 2.1            |   | 1   | 103   | 50-150      | 08/19/2020 1649 |
| PFODA        | 2.0                  | 1.9            |   | 1   | 97    | 50-150      | 08/19/2020 1649 |
| PFOA         | 2.0                  | 2.0            |   | 1   | 101   | 50-150      | 08/19/2020 1649 |
| PFPeA        | 2.0                  | 2.0            |   | 1   | 99    | 50-150      | 08/19/2020 1649 |
| PFTeDA       | 2.0                  | 2.0            |   | 1   | 100   | 50-150      | 08/19/2020 1649 |
| PFTrDA       | 2.0                  | 1.9            |   | 1   | 97    | 50-150      | 08/19/2020 1649 |
| PFUdA        | 2.0                  | 1.9            |   | 1   | 97    | 50-150      | 08/19/2020 1649 |
| PFOS         | 1.9                  | 1.7            |   | 1   | 92    | 50-150      | 08/19/2020 1649 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 101   | 25-150           |
| 13C2_6:2FTS |   | 98    | 25-150           |
| 13C2_8:2FTS |   | 103   | 25-150           |
| 13C2_PFDoA  |   | 99    | 25-150           |
| 13C2_PFHxDA |   | 108   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - LCS

Sample ID: VQ63728-002

Matrix: Solid

Batch: 63728

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/17/2020 1514

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 104   | 25-150           |
| 13C3_PFBS    |   | 94    | 25-150           |
| 13C3_PFHxS   |   | 99    | 25-150           |
| 13C3-HFPO-DA |   | 97    | 25-150           |
| 13C4_PFBA    |   | 103   | 25-150           |
| 13C4_PFHpA   |   | 96    | 25-150           |
| 13C5_PFHxA   |   | 99    | 25-150           |
| 13C5_PFPeA   |   | 100   | 25-150           |
| 13C6_PFDA    |   | 100   | 25-150           |
| 13C7_PFUdA   |   | 107   | 25-150           |
| 13C8_PFOA    |   | 100   | 25-150           |
| 13C8_PFOS    |   | 96    | 25-150           |
| 13C8_PFOSA   |   | 96    | 10-150           |
| 13C9_PFNA    |   | 100   | 25-150           |
| d-EtFOSA     |   | 98    | 10-150           |
| d5-EtFOSAA   |   | 95    | 25-150           |
| d9-EtFOSE    |   | 103   | 10-150           |
| d-MeFOSA     |   | 106   | 10-150           |
| d3-MeFOSAA   |   | 93    | 25-150           |
| d7-MeFOSE    |   | 109   | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

# PFAS by LC/MS/MS - MB

Sample ID: VQ63988-001

Matrix: Solid

Batch: 63988

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/19/2020 1020

| Parameter    | Result | Q | Dil | LOQ | DL   | Units | Analysis Date   |
|--------------|--------|---|-----|-----|------|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| 11CI-PF3OUdS | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| 8:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| 6:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| 10:2 FTS     | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| 4:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| GenX         | ND     |   | 1   | 4.0 | 1.0  | ug/kg | 08/21/2020 1432 |
| ADONA        | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| EtFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| EtFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| EtFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| MeFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| MeFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| MeFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| PFBS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFDS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFHpS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFNS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFOSA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFPeS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFDOS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFHxS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFBA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFDA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFDoA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFHpA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFHxDA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/21/2020 1432 |
| PFHxA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFNA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFODA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFOA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFPeA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFTeDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFTrDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFUdA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |
| PFOS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/21/2020 1432 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 86    | 25-150           |
| 13C2_6:2FTS |   | 90    | 25-150           |
| 13C2_8:2FTS |   | 78    | 25-150           |
| 13C2_PFDoA  |   | 91    | 25-150           |
| 13C2_PFHxDA |   | 95    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - MB

Sample ID: VQ63988-001

Matrix: Solid

Batch: 63988

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/19/2020 1020

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 90    | 25-150           |
| 13C3_PFBS    |   | 89    | 25-150           |
| 13C3_PFHxS   |   | 88    | 25-150           |
| 13C3-HFPO-DA |   | 83    | 25-150           |
| 13C4_PFBA    |   | 89    | 25-150           |
| 13C4_PFHpA   |   | 94    | 25-150           |
| 13C5_PFHxA   |   | 87    | 25-150           |
| 13C5_PFPeA   |   | 91    | 25-150           |
| 13C6_PFDA    |   | 89    | 25-150           |
| 13C7_PFUdA   |   | 89    | 25-150           |
| 13C8_PFOA    |   | 87    | 25-150           |
| 13C8_PFOS    |   | 88    | 25-150           |
| 13C8_PFOSA   |   | 91    | 10-150           |
| 13C9_PFNA    |   | 86    | 25-150           |
| d-EtFOSA     |   | 99    | 10-150           |
| d5-EtFOSAA   |   | 90    | 25-150           |
| d9-EtFOSE    |   | 90    | 10-150           |
| d-MeFOSA     |   | 89    | 10-150           |
| d3-MeFOSAA   |   | 86    | 25-150           |
| d7-MeFOSE    |   | 97    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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



# PFAS by LC/MS/MS - LCS

Sample ID: VQ63988-002

Matrix: Solid

Batch: 63988

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/19/2020 1020

| Parameter    | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/21/2020 1442 |
| 11CI-PF3OUdS | 1.9                  | 1.9            |   | 1   | 100   | 50-150      | 08/21/2020 1442 |
| 8:2 FTS      | 1.9                  | 2.2            |   | 1   | 115   | 50-150      | 08/21/2020 1442 |
| 6:2 FTS      | 1.9                  | 2.0            |   | 1   | 107   | 50-150      | 08/21/2020 1442 |
| 10:2 FTS     | 1.9                  | 1.8            |   | 1   | 92    | 50-150      | 08/21/2020 1442 |
| 4:2 FTS      | 1.9                  | 1.9            |   | 1   | 102   | 50-150      | 08/21/2020 1442 |
| GenX         | 4.0                  | 4.2            |   | 1   | 105   | 50-150      | 08/21/2020 1442 |
| ADONA        | 1.9                  | 2.0            |   | 1   | 108   | 50-150      | 08/21/2020 1442 |
| EtFOSA       | 2.0                  | 1.7            |   | 1   | 85    | 50-150      | 08/21/2020 1442 |
| EtFOSAA      | 2.0                  | 2.2            |   | 1   | 111   | 50-150      | 08/21/2020 1442 |
| EtFOSE       | 2.0                  | 1.7            |   | 1   | 85    | 50-150      | 08/21/2020 1442 |
| MeFOSA       | 2.0                  | 1.8            |   | 1   | 90    | 50-150      | 08/21/2020 1442 |
| MeFOSAA      | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/21/2020 1442 |
| MeFOSE       | 2.0                  | 1.7            |   | 1   | 87    | 50-150      | 08/21/2020 1442 |
| PFBS         | 1.8                  | 1.9            |   | 1   | 106   | 50-150      | 08/21/2020 1442 |
| PFDS         | 1.9                  | 2.0            |   | 1   | 105   | 50-150      | 08/21/2020 1442 |
| PFHpS        | 1.9                  | 1.8            |   | 1   | 95    | 50-150      | 08/21/2020 1442 |
| PFNS         | 1.9                  | 1.8            |   | 1   | 92    | 50-150      | 08/21/2020 1442 |
| PFOSA        | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/21/2020 1442 |
| PFPeS        | 1.9                  | 2.0            |   | 1   | 104   | 50-150      | 08/21/2020 1442 |
| PFDOS        | 1.9                  | 1.9            |   | 1   | 97    | 50-150      | 08/21/2020 1442 |
| PFHxS        | 1.8                  | 1.8            |   | 1   | 99    | 50-150      | 08/21/2020 1442 |
| PFBA         | 2.0                  | 2.1            |   | 1   | 104   | 50-150      | 08/21/2020 1442 |
| PFDA         | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/21/2020 1442 |
| PFDoA        | 2.0                  | 2.0            |   | 1   | 101   | 50-150      | 08/21/2020 1442 |
| PFHpA        | 2.0                  | 2.2            |   | 1   | 111   | 50-150      | 08/21/2020 1442 |
| PFHxDA       | 2.0                  | 1.8            |   | 1   | 88    | 50-150      | 08/21/2020 1442 |
| PFHxA        | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/21/2020 1442 |
| PFNA         | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/21/2020 1442 |
| PFODA        | 2.0                  | 1.9            |   | 1   | 94    | 50-150      | 08/21/2020 1442 |
| PFOA         | 2.0                  | 2.2            |   | 1   | 111   | 50-150      | 08/21/2020 1442 |
| PFPeA        | 2.0                  | 2.1            |   | 1   | 106   | 50-150      | 08/21/2020 1442 |
| PFTeDA       | 2.0                  | 2.1            |   | 1   | 103   | 50-150      | 08/21/2020 1442 |
| PFTrDA       | 2.0                  | 1.9            |   | 1   | 97    | 50-150      | 08/21/2020 1442 |
| PFUdA        | 2.0                  | 2.0            |   | 1   | 100   | 50-150      | 08/21/2020 1442 |
| PFOS         | 1.9                  | 1.9            |   | 1   | 101   | 50-150      | 08/21/2020 1442 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 89    | 25-150           |
| 13C2_6:2FTS |   | 94    | 25-150           |
| 13C2_8:2FTS |   | 84    | 25-150           |
| 13C2_PFDoA  |   | 97    | 25-150           |
| 13C2_PFHxDA |   | 102   | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

## PFAS by LC/MS/MS - LCS

Sample ID: VQ63988-002

Matrix: Solid

Batch: 63988

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/19/2020 1020

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 95    | 25-150           |
| 13C3_PFBs    |   | 91    | 25-150           |
| 13C3_PFHxS   |   | 96    | 25-150           |
| 13C3-HFPO-DA |   | 87    | 25-150           |
| 13C4_PFBa    |   | 93    | 25-150           |
| 13C4_PFHpA   |   | 98    | 25-150           |
| 13C5_PFHxA   |   | 96    | 25-150           |
| 13C5_PFPeA   |   | 95    | 25-150           |
| 13C6_PFDa    |   | 89    | 25-150           |
| 13C7_PFUdA   |   | 99    | 25-150           |
| 13C8_PFOA    |   | 90    | 25-150           |
| 13C8_PFOs    |   | 98    | 25-150           |
| 13C8_PFOsA   |   | 99    | 10-150           |
| 13C9_PFNa    |   | 94    | 25-150           |
| d-EtFOsA     |   | 101   | 10-150           |
| d5-EtFOsAA   |   | 95    | 25-150           |
| d9-EtFOsE    |   | 100   | 10-150           |
| d-MeFOsA     |   | 94    | 10-150           |
| d3-MeFOsAA   |   | 89    | 25-150           |
| d7-MeFOsE    |   | 100   | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

**Chain of Custody  
and  
Miscellaneous Documents**





# Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI  
 Cert. Needed:  Yes  No  
 Owner Received Date: 8/7/2020 Results Requested By: 8/31/2020



Workorder: 40212540 Workorder Name: LACROSSE WELL #23 & #24

**Report To:** Christopher Hyska  
 Pace Analytical Green Bay  
 1241 Bellevue Street  
 Suite 9  
 Green Bay, WI 54302  
 Phone (920)469-2438

**Subcontract To:** Pace Analytical West Columbia  
 106 Vantage Point Drive  
 West Columbia, SC 29172  
 Phone (803)791-9700

Requested Analysis

| Item | Sample ID       | Sample Type | Collect Date/Time | Lab ID      | Matrix | Preserved Containers |   |   |   | WT 96 PFAS by Isotope Dilution | % IS / Dry Weight |         |
|------|-----------------|-------------|-------------------|-------------|--------|----------------------|---|---|---|--------------------------------|-------------------|---------|
|      |                 |             |                   |             |        | 1                    | 2 | 3 | 4 |                                |                   |         |
| 40   | GP-20 14-15'    | PS          | 8/6/2020 11:30    | 40212540040 | Solid  | 1                    |   |   |   | X                              | X                 | VH11086 |
| 41   | GP-21 8.5-10.5' | PS          | 8/6/2020 12:10    | 40212540041 | Solid  | 1                    |   |   |   | X                              | X                 |         |
| 42   | DUP #1          | PS          | 8/5/2020 12:20    | 40212540042 | Solid  | 1                    |   |   |   | X                              | X                 | VH11089 |
| 43   | DUP #2          | PS          | 8/5/2020 13:50    | 40212540043 | Solid  | 1                    |   |   |   | X                              | X                 |         |
| 44   | DUP #5          | PS          | 8/5/2020 11:05    | 40212540044 | Solid  | 1                    |   |   |   | X                              | X                 |         |
| 45   | GP-1            | PS          | 8/3/2020 15:30    | 40212540045 | Water  | 2                    |   |   |   | X                              |                   |         |
| 46   | GP-2            | PS          | 8/3/2020 15:00    | 40212540046 | Water  | 2                    |   |   |   | X                              |                   |         |
| 47   | GP-3            | PS          | 8/4/2020 08:30    | 40212540047 | Water  | 2                    |   |   |   | X                              |                   |         |
| 48   | GP-4            | PS          | 8/4/2020 09:15    | 40212540048 | Water  | 2                    |   |   |   | X                              |                   |         |
| 49   | GP-5            | PS          | 8/4/2020 10:00    | 40212540049 | Water  | 2                    |   |   |   | X                              |                   |         |
| 50   | GP-6            | PS          | 8/4/2020 10:50    | 40212540050 | Water  | 2                    |   |   |   | X                              |                   |         |
| 51   | GP-10           | PS          | 8/4/2020 13:45    | 40212540051 | Water  | 2                    |   |   |   | X                              |                   |         |
| 52   | GP-11           | PS          | 8/4/2020 16:15    | 40212540052 | Water  | 2                    |   |   |   | X                              |                   |         |
| 53   | GP-14           | PS          | 8/5/2020 09:00    | 40212540053 | Water  | 2                    |   |   |   | X                              |                   |         |
| 54   | GP-15           | PS          | 8/5/2020 12:25    | 40212540054 | Water  | 2                    |   |   |   | X                              |                   |         |
| 55   | GP-16           | PS          | 8/5/2020 12:45    | 40212540055 | Water  | 2                    |   |   |   | X                              |                   |         |
| 56   | GP-17           | PS          | 8/5/2020 13:30    | 40212540056 | Water  | 2                    |   |   |   | X                              |                   |         |
| 57   | MW-101          | PS          | 8/5/2020 14:10    | 40212540057 | Water  | 2                    |   |   |   | X                              |                   |         |
| 58   | MW-102          | PS          | 8/5/2020 11:15    | 40212540058 | Water  | 2                    |   |   |   | X                              |                   |         |
| 59   | MW-103          | PS          | 8/5/2020 11:40    | 40212540059 | Water  | 2                    |   |   |   | X                              |                   |         |



VH11086



VH11089

LAB USE ONLY

Monday, August 10, 2020 10:01:26 AM

FMT-ALL-C-002rev.00 24March2009

Page 3 of 4



**PACE ANALYTICAL SERVICES, LLC**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.pacelabs.com

Number 110506

40212540

Client: **The OS Group, LLC** Report to Contact: **Steven Ossek** Telephone No. / E-mail: **605-437-9388 Steve.Ossek@TheOSGrp.com** Quote No. \_\_\_\_\_  
 Address: **444 21st Street S** Sampler's Signature: *Steven Ossek* Analysis (Attach list if more space is needed) \_\_\_\_\_ Page **1** of **8**  
 City: **La Crosse, WI** State: **WI** Zip Code: **54601** Printed Name: **Steven Ossek** Lot # Bar Code (for use only) \_\_\_\_\_  
 Project Name: **La Crosse Well #23-24** Project No. \_\_\_\_\_ P.O. No. \_\_\_\_\_ Matrix \_\_\_\_\_ No. of Containers by Preservative Type \_\_\_\_\_  
 Remarks / Cooler I.D. \_\_\_\_\_

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | G-Geo<br>C-Composite | Matrix   |      |         |        |     |     |     |      |     |      |      | Field<br>Notes | Remarks / Cooler I.D. |      |     |
|--|--------------------|----------------------------|----------------------|----------|------|---------|--------|-----|-----|-----|------|-----|------|------|----------------|-----------------------|------|-----|
|  |                    |                            |                      | Asbestos | Lead | Mercury | Dioxin | PCB | PAH | PCP | MCHC | MSM | PHOS | THAL |                |                       | TRIC |     |
| GP-1 18-20'  | 8-3-20             | 3:20                       | G                    | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 001 |
| GP-2 18-20'  | 8-3-20             | 2:50                       |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 002 |
| GP-3 18-20'  | 8-4-20             | 8:20                       |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 003 |
| GP-4 21-23'  |                    | 9:10                       |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 004 |
| GP-5 18-20'  |                    | 9:45                       |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 005 |
| GP-6 18-20'  |                    | 10:40                      |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 006 |
| GP-7 2-3'  |                    | 11:20                      |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 007 |
| GP-8 2-3'  |                    | 11:25                      |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 008 |
| GP-9 2-3'  |                    | 11:30                      |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 009 |
| GP-10 18-20'   |                    | 3:40                       |                      | X        |      |         |        |     |     |     |      |     |      |      |                |                       |      | 010 |

Turn Around Time Required (Prior lab approval required for expedited TAT.)  Standard  Rush (Specify) \_\_\_\_\_

Sample Disposal:  Return to Client  Dispose by Lab

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison  Unknown

QC Requirements (Specify) \_\_\_\_\_

|  |                        |                    |  |                        |                    |
|--|------------------------|--------------------|--|------------------------|--------------------|
| 1. Relinquished by <b>Steven Ossek</b> | Date: <b>8/6/20</b>    | Time: <b>4:00</b>  | 1. Received by                                     | Date                   | Time               |
| 2. Relinquished by <b>FedEx Ground</b> | Date: <b>8-7-20</b>    | Time: <b>6:00</b>  | 2. Received by <b>Madelin Z Petrich</b>            | Date: <b>8-7-20</b>    | Time: <b>10:10</b> |
| 3. Relinquished by                     | Date                   | Time               | 3. Received by                                     | Date                   | Time               |
| 4. Relinquished by <b>FedEx</b>        | Date: <b>8/11/2020</b> | Time: <b>11:10</b> | 4. Laboratory received by <b>M. J. [Signature]</b> | Date: <b>8/11/2020</b> | Time: <b>11:10</b> |

LAB USE ONLY  
 Received on Ice (Circle)  Yes  No Ice Pack Receipt Temp. **0.5, 1.0, 2.0 °C**  
 Document Number: ME003N2-01  
 1.4.19  
 Ramp Blank  X  X  X  
 see SUR MUR 8-7-20

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s), PINK-Field/Client Copy

PACE ANALYTICAL SERVICES, LLC



**PACE ANALYTICAL SERVICES, LLC**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.pacelabs.com

Number **110505**  
**40212540**

|  |                    |   |                                      |   |                               |                           |  |
|--|--------------------|---|--------------------------------------|---|-------------------------------|---------------------------|--|
| Client<br><b>The OS Group, LLC</b>                 |                    | Report to Contact<br><b>Steven Osesek</b>   |                                      | Telephone No. / E-mail<br><b>803-433-2388 @THEOSGRP.COM</b> |                               | Quote No.                 |  |
| Address<br><b>444 21st Street S</b>                |                    | Sampler's Signature<br><i>Steven Osesek</i> |                                      | Analysis (Attach list if more space is needed)              |                               | Page <b>2</b> of <b>8</b> |  |
| City<br><b>Lo Cross</b>                            | State<br><b>WI</b> | Zip Code<br><b>54601</b>                    | Printed Name<br><b>Steven Osesek</b> |   | Lot # Bar Code (lab use only) |                           |  |
| Project Name<br><b>Lo Cross Wells #23 &amp; 24</b> |                    | Remarks / Cooler I.D.                       |                                      |   |                               |                           |  |

| Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | E-Grab<br>C-Composite | Matrix |       |        |       |      |       |       |     |      |      |      | No. of Containers<br>by Preservative Type | Remarks / Cooler I.D. |      |     |
|--|--------------------|----------------------------|-----------------------|--------|-------|--------|-------|------|-------|-------|-----|------|------|------|---|-----------------------|------|-----|
|  |                    |                            |                       | Acetic | Boric | Formic | Hydro | None | Other | Light | MSM | PHOS | PHOS | PHOS |   |                       | PHOS |     |
| GP-11 2-3'   | 8-4-20             | 4:00                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 011 |
| GP-11 9-10'  | 8-4-20             | 4:05                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 012 |
| GP-11 22-23'   | 8-4-20             | 4:10                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 013 |
| GP-12 2-3'   | 8-5-20             | 8:25                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 014 |
| GP-13 2-3'   | 8-5-20             | 8:35                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 015 |
| GP-14 2-3'   |                    | 8:45                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 016 |
| GP-14 9-10'  |                    | 8:50                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 017 |
| GP-14 14.5-15.5'   |                    | 8:55                       |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 018 |
| GP-15 1-2'   |                    | 10:05                      |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 019 |
| GP-15 5-6'   |                    | 12:10                      |                       | X      |       |        |       |      |       |       |     |      |      |      |   |                       |      | 020 |

|  |  |  |               |  |  |  |               |
|--|--|--|---------------|--|--|--|---------------|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) |  | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Dispose by Lab |               | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown |  | QC Requirements (Specify)  |               |
| 1. Relinquished by<br><i>Steven Osesek</i>   |  | Date<br>8/6/20   | Time<br>4:00  | 1. Received by   |  | Date   | Time          |
| 2. Relinquished by<br><i>FedEx Ground</i>  |  | Date<br>8-7-20   | Time<br>10:10 | 2. Received by<br><i>M. J. Robert</i>  |  | Date<br>8-7-20   | Time<br>10:10 |
| 3. Relinquished by   |  | Date   | Time          | 3. Received by   |  | Date   | Time          |
| 4. Relinquished by<br><i>Fed Ex</i>  |  | Date<br>8/11/2020  | Time<br>11:10 | 4. Laboratory received by<br><i>M. J. Robert</i>   |  | Date<br>8/11/2020  | Time<br>11:10 |
| Note: All samples are retained for four weeks from receipt unless other arrangements are made.   |  |  |               | LAB USE ONLY<br>Received on ice (Circle) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack   |  | Receipt Temp: <b>05.1.0</b> °C<br>Temp Blank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Use Blank<br><b>1.4.1.9</b><br>Document Number: ME00592-01 |               |

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

PACE ANALYTICAL SERVICES, LLC





**PACE ANALYTICAL SERVICES, LLC**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.pacelabs.com

Number 110504

40212540

|  |                    |  |                                     |   |                               |                           |  |
|--|--------------------|--|-------------------------------------|---|-------------------------------|---------------------------|--|
| Client<br><b>The OS Group LLC</b>            |                    | Report to Contact<br><b>Steven Oseck</b>   |                                     | Telephone No. / E-mail<br><b>608-433-9388 stev.oseck@ybcosgrp.com</b> |                               | Quote No.                 |  |
| Address<br><b>444 21st Street S</b>          |                    | Sancier's Signature<br><b>Steven Oseck</b> |                                     | Analysis (Attach list if more space is needed)                        |                               | Page <b>3</b> of <b>8</b> |  |
| City<br><b>Lo Crosse,</b>                    | State<br><b>WI</b> | Zip Code<br><b>54601</b>                   | Printed Name<br><b>Steven Oseck</b> |   | Lot # Bar Code (lab use only) |                           |  |
| Project Name<br><b>Lo Crosse Wells 23+24</b> |                    | Remarks / Cooler I.D.                      |                                     |   |                               |                           |  |

| Project No. | R.O. No. | Collection Date(s) | Collection Time (Military) | Matrix | No of Containers by Preservative Type |          |      |     |       |      |       |      |       |      |       | Remarks / Cooler I.D. |      |
|-------------|----------|--------------------|----------------------------|--------|---------------------------------------|----------|------|-----|-------|------|-------|------|-------|------|-------|-----------------------|------|
|             |          |                    |                            |        | Unpres.                               | Distill. | Acid | Alk | Other | None | Other | None | Other | None | Other |                       | None |
| GP-15       | 10-11'   | 8-5-20             | 12:05                      | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 021  |
| GP-16       | 1-2'     |                    | 12:035                     | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 022  |
| GP-16       | 5-6'     |                    | 12:037                     | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 023  |
| GP-16       | 10-11'   |                    | 12:140                     | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 024  |
| GP-17       | 1-2'     |                    | 1:15                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 025  |
| GP-17       | 5-6'     |                    | 1:20                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 026  |
| GP-17       | 10-11'   |                    | 1:25                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 027  |
| MW-101      | 1-2'     |                    | 1:45                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 028  |
| MW-101      | 5-6'     |                    | 1:55                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 029  |
| MW-101      | 10-11'   |                    | 2:00                       | X      |                                       |          |      |     |       |      |       |      |       |      |       |                       | 030  |

|  |   |  |   |
|--|---|--|---|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) | Sample Disposal<br><input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown | QC Requirements (Specify)                             |
| 1. Relinquished by<br><b>Steven Oseck</b>  | Date<br><b>8/6/20</b>   | Time<br><b>4:00</b>  | 1. Received by  |
| 2. Relinquished by<br><b>FedEx Ground</b>  | Date<br><b>8-7-2020</b>   | Time<br><b>10:10</b>   | 2. Received by<br><b>Madeline Z Polunke</b>           |
| 3. Relinquished by   | Date  | Time   | 3. Received by  |
| 4. Relinquished by<br><b>FedEx</b>   | Date<br><b>8/11/2020</b>  | Time<br><b>11:10</b>   | 4. Laboratory received by<br><b>M. L. [Signature]</b> |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY  
 Received on Ice (Circle)  Yes  No Ice Pack Receipt Temp. **0.5-1.0°C** Temp Blank **20 Y 20 N**  
**1.4.19** Document Number: ME003N2-01

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

PACE ANALYTICAL SERVICES, LLC





# PACE ANALYTICAL SERVICES, LLC

Shealy Environmental Services, Inc.  
Document Number: ME0018C-14

Page 1 of 1  
Effective Date: 8/2/2018

## Sample Receipt Checklist (SRC)

Client: The OS Group LLC Cooler Inspected by/date: MLH2 / 8/11/2020 Lot #: VIII008161-089

|  |   |
|--|---|
| Means of receipt: <input type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: |   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 1. Were custody seals present on the cooler?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA  | 2. If custody seals were present, were they intact and unbroken?  |
| pH Strip ID: <u>N/A</u> Chlorine Strip ID: <u>N/A</u> Tested by: <u>N/A</u>  |   |
| Original temperature upon receipt: <u>1.9 / 1.9 °C</u> Derived (Corrected) temperature upon receipt: <u>N/A / N/A °C</u> %Solid Snap-Cup ID: <u>N/A</u>                                |   |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C                       |   |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None                       |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).                  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA  | 4. Is the commercial courier's packing slip attached to this form?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 5. Were proper custody procedures (relinquished/received) followed?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 6. Were sample IDs listed on the COC?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 7. Were sample IDs listed on all sample containers?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 8. Was collection date & time listed on the COC?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 9. Was collection date & time listed on all sample containers?  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | 10. Did all container label information (ID, date, time) agree with the COC?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 11. Were tests to be performed listed on the COC?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 13. Was adequate sample volume available?   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | 14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 17. Were all DRO/metals/nutrient samples received at a pH of < 2?   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 19. Were all applicable NH <sub>3</sub> /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA  | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | 21. Was the quote number listed on the container label? If yes, Quote # <u>25490</u>  |

MLH2  
8/11/2020  
20-1342

**Sample Preservation** (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) \_\_\_\_\_ were received incorrectly preserved and were adjusted accordingly in sample receiving with \_\_\_\_\_ mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # \_\_\_\_\_.

Time of preservation \_\_\_\_\_. If more than one preservative is needed, please note in the comments below.

Sample(s) \_\_\_\_\_ were received with bubbles >6 mm in diameter.

Samples(s) \_\_\_\_\_ were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) with Shealy ID: \_\_\_\_\_.

SR barcode labels applied by: MLH2 Date: 8/11/2020

Comments: Sample "GP-21" labeled as "MLH21" sample was verified by date and time on container that matched the COC.



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## Report of Analysis

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

Project Name: LACROSSE Well #23 & #24

Project Number: 40212540

Lot Number: **VH11089**

Date Completed: 08/21/2020

*N. Saikaly*

08/25/2020 12:34 PM

Approved and released by:  
Project Manager II: **Nisreen Saikaly**



The electronic signature above is the equivalent of a handwritten signature.  
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# PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

## Case Narrative Pace Analytical Services, LLC Lot Number: VH11089

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

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

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

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

### **PFAS**

Surrogate recovery for the following samples was outside control limits: VH11089-001, VH11089-002, VH11089-003, VH11089-004, VH11089-005, VH11089-006, VH11089-007, VH11089-011, VH11089-013, VH11089-015, VH11089-017. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

# PACE ANALYTICAL SERVICES, LLC

## Sample Summary

Pace Analytical Services, LLC

Lot Number: VH11089

Project Name: LACROSSE Well #23 & #24

Project Number: 40212540

| Sample Number | Sample ID         | Matrix  | Date Sampled    | Date Received |
|---------------|-------------------|---------|-----------------|---------------|
| 001           | GP-1              | Aqueous | 08/03/2020 1530 | 08/11/2020    |
| 002           | GP-2              | Aqueous | 08/03/2020 1500 | 08/11/2020    |
| 003           | GP-3              | Aqueous | 08/04/2020 0830 | 08/11/2020    |
| 004           | GP-4              | Aqueous | 08/04/2020 0915 | 08/11/2020    |
| 005           | GP-5              | Aqueous | 08/04/2020 1000 | 08/11/2020    |
| 006           | GP-6              | Aqueous | 08/04/2020 1050 | 08/11/2020    |
| 007           | GP-10             | Aqueous | 08/04/2020 1345 | 08/11/2020    |
| 008           | GP-11             | Aqueous | 08/04/2020 1615 | 08/11/2020    |
| 009           | GP-14             | Aqueous | 08/05/2020 0900 | 08/11/2020    |
| 010           | GP-15             | Aqueous | 08/05/2020 1225 | 08/11/2020    |
| 011           | GP-16             | Aqueous | 08/05/2020 1245 | 08/11/2020    |
| 012           | GP-17             | Aqueous | 08/05/2020 1330 | 08/11/2020    |
| 013           | MW-101            | Aqueous | 08/05/2020 1410 | 08/11/2020    |
| 014           | MW-102            | Aqueous | 08/05/2020 1115 | 08/11/2020    |
| 015           | MW-103            | Aqueous | 08/05/2020 1140 | 08/11/2020    |
| 016           | GP-20             | Aqueous | 08/06/2020 1135 | 08/11/2020    |
| 017           | GP-21             | Aqueous | 08/06/2020 1220 | 08/11/2020    |
| 018           | FIELD BLANK       | Aqueous | 08/05/2020 1250 | 08/11/2020    |
| 019           | PERISTALTIC BLANK | Aqueous | 08/05/2020 1405 | 08/11/2020    |
| 020           | AUGER BLANK       | Aqueous | 08/06/2020 1025 | 08/11/2020    |
| 021           | DUP #1            | Aqueous | 08/05/2020 1145 | 08/11/2020    |

(21 samples)

# PACE ANALYTICAL SERVICES, LLC

Detection Summary  
 Pace Analytical Services, LLC  
 Lot Number: VH11089  
 Project Name: LACROSSE Well #23 & #24  
 Project Number: 40212540

| Sample | Sample ID | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|--------|-----------|---------|-----------|------------|--------|---|-------|------|
| 001    | GP-1      | Aqueous | PFBS      | PFAS by ID | 1.6    | J | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFPeS     | PFAS by ID | 1.9    | J | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFHxS     | PFAS by ID | 36     |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFBA      | PFAS by ID | 6.1    |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFHpA     | PFAS by ID | 3.8    |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFHxA     | PFAS by ID | 15     |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFOA      | PFAS by ID | 21     |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFPeA     | PFAS by ID | 9.2    |   | ng/L  | 11   |
| 001    | GP-1      | Aqueous | PFOS      | PFAS by ID | 120    | B | ng/L  | 11   |
| 002    | GP-2      | Aqueous | PFBS      | PFAS by ID | 21     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFHpS     | PFAS by ID | 2.4    | J | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFPeS     | PFAS by ID | 33     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFHxS     | PFAS by ID | 1300   |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFBA      | PFAS by ID | 27     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFHpA     | PFAS by ID | 19     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFHxA     | PFAS by ID | 48     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFOA      | PFAS by ID | 250    |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFPeA     | PFAS by ID | 49     |   | ng/L  | 13   |
| 002    | GP-2      | Aqueous | PFOS      | PFAS by ID | 33     | B | ng/L  | 13   |
| 003    | GP-3      | Aqueous | PFBS      | PFAS by ID | 2.4    | J | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFPeS     | PFAS by ID | 2.7    | J | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFHxS     | PFAS by ID | 72     |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFBA      | PFAS by ID | 5.0    |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFHpA     | PFAS by ID | 3.9    |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFHxA     | PFAS by ID | 6.0    |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFNA      | PFAS by ID | 1.2    | J | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFOA      | PFAS by ID | 5.4    |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFPeA     | PFAS by ID | 3.8    |   | ng/L  | 15   |
| 003    | GP-3      | Aqueous | PFOS      | PFAS by ID | 88     | B | ng/L  | 15   |
| 004    | GP-4      | Aqueous | PFBS      | PFAS by ID | 3.2    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFPeS     | PFAS by ID | 2.7    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFHxS     | PFAS by ID | 30     |   | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFBA      | PFAS by ID | 1.3    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFHxA     | PFAS by ID | 1.2    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFOA      | PFAS by ID | 1.9    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFPeA     | PFAS by ID | 1.4    | J | ng/L  | 17   |
| 004    | GP-4      | Aqueous | PFOS      | PFAS by ID | 9.6    | B | ng/L  | 17   |
| 005    | GP-5      | Aqueous | PFBS      | PFAS by ID | 1.4    | J | ng/L  | 19   |
| 005    | GP-5      | Aqueous | PFHpS     | PFAS by ID | 1.6    | J | ng/L  | 19   |
| 005    | GP-5      | Aqueous | PFHxS     | PFAS by ID | 20     |   | ng/L  | 19   |
| 005    | GP-5      | Aqueous | PFBA      | PFAS by ID | 3.4    | J | ng/L  | 19   |
| 005    | GP-5      | Aqueous | PFHxA     | PFAS by ID | 1.3    | J | ng/L  | 19   |
| 005    | GP-5      | Aqueous | PFOA      | PFAS by ID | 2.0    | J | ng/L  | 19   |



# Detection Summary (Continued)

Lot Number: VH11089

| Sample ID | Sample ID | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|-----------|-----------|---------|-----------|------------|--------|---|-------|------|
| 005       | GP-5      | Aqueous | PFOS      | PFAS by ID | 380    | B | ng/L  | 19   |
| 006       | GP-6      | Aqueous | PFBS      | PFAS by ID | 57     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFHpS     | PFAS by ID | 66     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFPeS     | PFAS by ID | 75     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFHxS     | PFAS by ID | 950    |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFBA      | PFAS by ID | 20     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFHpA     | PFAS by ID | 3.9    |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFHxA     | PFAS by ID | 39     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFOA      | PFAS by ID | 17     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFPeA     | PFAS by ID | 14     |   | ng/L  | 21   |
| 006       | GP-6      | Aqueous | PFOS      | PFAS by ID | 1600   | B | ng/L  | 21   |
| 007       | GP-10     | Aqueous | PFBS      | PFAS by ID | 2.7    | J | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFHpS     | PFAS by ID | 4.7    |   | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFPeS     | PFAS by ID | 4.0    | J | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFHxS     | PFAS by ID | 110    |   | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFBA      | PFAS by ID | 3.7    | J | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFHxA     | PFAS by ID | 4.0    | J | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFOA      | PFAS by ID | 5.2    |   | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFPeA     | PFAS by ID | 1.6    | J | ng/L  | 23   |
| 007       | GP-10     | Aqueous | PFOS      | PFAS by ID | 320    | B | ng/L  | 23   |
| 008       | GP-11     | Aqueous | PFBS      | PFAS by ID | 14     |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFHpS     | PFAS by ID | 32     |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFPeS     | PFAS by ID | 18     |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFHxS     | PFAS by ID | 520    |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFBA      | PFAS by ID | 4.7    | J | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFHpA     | PFAS by ID | 2.0    | J | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFHxA     | PFAS by ID | 7.1    |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFOA      | PFAS by ID | 14     |   | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFPeA     | PFAS by ID | 2.7    | J | ng/L  | 25   |
| 008       | GP-11     | Aqueous | PFOS      | PFAS by ID | 1700   | B | ng/L  | 25   |
| 009       | GP-14     | Aqueous | 8:2 FTS   | PFAS by ID | 64     |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | 6:2 FTS   | PFAS by ID | 4900   |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | 10:2 FTS  | PFAS by ID | 24     | J | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFBS      | PFAS by ID | 94     |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFHpS     | PFAS by ID | 100    |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFOSA     | PFAS by ID | 14     | J | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFPeS     | PFAS by ID | 190    |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFHxS     | PFAS by ID | 2700   |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFBA      | PFAS by ID | 92     |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFDA      | PFAS by ID | 6.6    | J | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFHpA     | PFAS by ID | 39     |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFHxA     | PFAS by ID | 370    |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFNA      | PFAS by ID | 7.9    | J | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFOA      | PFAS by ID | 160    |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFPeA     | PFAS by ID | 380    |   | ng/L  | 27   |
| 009       | GP-14     | Aqueous | PFOS      | PFAS by ID | 9500   | B | ng/L  | 27   |
| 010       | GP-15     | Aqueous | 8:2 FTS   | PFAS by ID | 720    |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFBS      | PFAS by ID | 17     | J | ng/L  | 29   |

# Detection Summary (Continued)

Lot Number: VH11089

| Sample ID | Sample ID | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|-----------|-----------|---------|-----------|------------|--------|---|-------|------|
| 010       | GP-15     | Aqueous | PFHpS     | PFAS by ID | 41     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFNS      | PFAS by ID | 110    |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFOSA     | PFAS by ID | 37     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFPeS     | PFAS by ID | 15     | J | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFHxS     | PFAS by ID | 1300   |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFBA      | PFAS by ID | 25     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFDA      | PFAS by ID | 30     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFHpA     | PFAS by ID | 77     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFHxA     | PFAS by ID | 83     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFNA      | PFAS by ID | 120    |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFOA      | PFAS by ID | 150    |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFPeA     | PFAS by ID | 29     |   | ng/L  | 29   |
| 010       | GP-15     | Aqueous | PFOS      | PFAS by ID | 15000  | B | ng/L  | 29   |
| 011       | GP-16     | Aqueous | 8:2 FTS   | PFAS by ID | 8.5    |   | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFOSA     | PFAS by ID | 0.96   | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFHxS     | PFAS by ID | 7.6    |   | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFBA      | PFAS by ID | 2.2    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFDA      | PFAS by ID | 1.4    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFHpA     | PFAS by ID | 1.9    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFHxA     | PFAS by ID | 3.5    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFNA      | PFAS by ID | 1.4    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFOA      | PFAS by ID | 3.1    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFPeA     | PFAS by ID | 3.2    | J | ng/L  | 31   |
| 011       | GP-16     | Aqueous | PFOS      | PFAS by ID | 160    | B | ng/L  | 31   |
| 012       | GP-17     | Aqueous | 8:2 FTS   | PFAS by ID | 8300   |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | 6:2 FTS   | PFAS by ID | 650    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFBS      | PFAS by ID | 160    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFHpS     | PFAS by ID | 160    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFOSA     | PFAS by ID | 17     | J | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFPeS     | PFAS by ID | 260    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFHxS     | PFAS by ID | 6700   |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFBA      | PFAS by ID | 430    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFDA      | PFAS by ID | 300    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFHpA     | PFAS by ID | 750    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFHxA     | PFAS by ID | 2500   |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFNA      | PFAS by ID | 270    |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFOA      | PFAS by ID | 1500   |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFPeA     | PFAS by ID | 1100   |   | ng/L  | 33   |
| 012       | GP-17     | Aqueous | PFOS      | PFAS by ID | 26000  | B | ng/L  | 33   |
| 013       | MW-101    | Aqueous | 8:2 FTS   | PFAS by ID | 620    |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | 6:2 FTS   | PFAS by ID | 61     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | 10:2 FTS  | PFAS by ID | 64     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | EtFOSAA   | PFAS by ID | 7.0    | J | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFBS      | PFAS by ID | 16     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFDS      | PFAS by ID | 2.8    | J | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFHpS     | PFAS by ID | 20     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFNS      | PFAS by ID | 4.6    | J | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFOSA     | PFAS by ID | 19     |   | ng/L  | 35   |

# Detection Summary (Continued)

Lot Number: VH11089

| Sample ID | Sample ID | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|-----------|-----------|---------|-----------|------------|--------|---|-------|------|
| 013       | MW-101    | Aqueous | PFPeS     | PFAS by ID | 13     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFHxS     | PFAS by ID | 510    |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFBA      | PFAS by ID | 24     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFDA      | PFAS by ID | 39     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFDoA     | PFAS by ID | 6.9    |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFHpA     | PFAS by ID | 52     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFHxA     | PFAS by ID | 150    |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFNA      | PFAS by ID | 25     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFOA      | PFAS by ID | 65     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFPeA     | PFAS by ID | 56     |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFUdA     | PFAS by ID | 7.1    |   | ng/L  | 35   |
| 013       | MW-101    | Aqueous | PFOS      | PFAS by ID | 2500   | B | ng/L  | 35   |
| 014       | MW-102    | Aqueous | 8:2 FTS   | PFAS by ID | 3.9    | J | ng/L  | 37   |
| 014       | MW-102    | Aqueous | 6:2 FTS   | PFAS by ID | 150    |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFBS      | PFAS by ID | 1.2    | J | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFHpS     | PFAS by ID | 1.8    | J | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFPeS     | PFAS by ID | 1.5    | J | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFHxS     | PFAS by ID | 14     |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFBA      | PFAS by ID | 8.1    |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFHpA     | PFAS by ID | 1.5    | J | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFHxA     | PFAS by ID | 8.6    |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFOA      | PFAS by ID | 4.4    |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFPeA     | PFAS by ID | 7.0    |   | ng/L  | 37   |
| 014       | MW-102    | Aqueous | PFOS      | PFAS by ID | 250    |   | ng/L  | 37   |
| 015       | MW-103    | Aqueous | 8:2 FTS   | PFAS by ID | 3.6    | J | ng/L  | 39   |
| 015       | MW-103    | Aqueous | 6:2 FTS   | PFAS by ID | 39     |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFBS      | PFAS by ID | 4.1    |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFHpS     | PFAS by ID | 3.0    | J | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFPeS     | PFAS by ID | 2.4    | J | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFHxS     | PFAS by ID | 72     |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFBA      | PFAS by ID | 21     |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFHpA     | PFAS by ID | 4.9    |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFHxA     | PFAS by ID | 19     |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFNA      | PFAS by ID | 2.4    | J | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFOA      | PFAS by ID | 7.6    |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFPeA     | PFAS by ID | 11     |   | ng/L  | 39   |
| 015       | MW-103    | Aqueous | PFOS      | PFAS by ID | 460    |   | ng/L  | 39   |
| 016       | GP-20     | Aqueous | 8:2 FTS   | PFAS by ID | 15     |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | 6:2 FTS   | PFAS by ID | 8300   |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | 10:2 FTS  | PFAS by ID | 9.3    |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFBS      | PFAS by ID | 50     |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFHpS     | PFAS by ID | 270    |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFPeS     | PFAS by ID | 310    |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFHxS     | PFAS by ID | 3100   |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFBA      | PFAS by ID | 210    |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFDA      | PFAS by ID | 5.4    |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFDoA     | PFAS by ID | 11     |   | ng/L  | 41   |
| 016       | GP-20     | Aqueous | PFHpA     | PFAS by ID | 620    |   | ng/L  | 41   |

# Detection Summary (Continued)

Lot Number: VH11089

| Sample | Sample ID | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|--------|-----------|---------|-----------|------------|--------|---|-------|------|
| 016    | GP-20     | Aqueous | PFHxA     | PFAS by ID | 650    |   | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFNA      | PFAS by ID | 610    |   | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFOA      | PFAS by ID | 460    |   | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFPeA     | PFAS by ID | 760    |   | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFTeDA    | PFAS by ID | 1.2    | J | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFUdA     | PFAS by ID | 3.7    |   | ng/L  | 41   |
| 016    | GP-20     | Aqueous | PFOS      | PFAS by ID | 2200   |   | ng/L  | 41   |
| 017    | GP-21     | Aqueous | 6:2 FTS   | PFAS by ID | 7.1    | J | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFBS      | PFAS by ID | 4.6    |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFHpS     | PFAS by ID | 1.1    | J | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFPeS     | PFAS by ID | 4.1    |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFHxS     | PFAS by ID | 25     |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFBA      | PFAS by ID | 91     |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFDA      | PFAS by ID | 11     |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFHpA     | PFAS by ID | 32     |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFHxA     | PFAS by ID | 99     |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFNA      | PFAS by ID | 130    |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFOA      | PFAS by ID | 200    |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFPeA     | PFAS by ID | 140    |   | ng/L  | 43   |
| 017    | GP-21     | Aqueous | PFOS      | PFAS by ID | 100    |   | ng/L  | 43   |
| 021    | DUP #1    | Aqueous | 6:2 FTS   | PFAS by ID | 24     |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFBS      | PFAS by ID | 4.9    |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFHpS     | PFAS by ID | 3.5    | J | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFPeS     | PFAS by ID | 2.4    | J | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFHxS     | PFAS by ID | 91     |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFBA      | PFAS by ID | 20     |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFHpA     | PFAS by ID | 3.6    | J | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFHxA     | PFAS by ID | 9.5    |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFNA      | PFAS by ID | 1.2    | J | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFOA      | PFAS by ID | 4.7    |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFPeA     | PFAS by ID | 6.6    |   | ng/L  | 51   |
| 021    | DUP #1    | Aqueous | PFOS      | PFAS by ID | 360    |   | ng/L  | 51   |

(219 detections)

PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-001            |
| Description: GP-1                     | Matrix: Aqueous                       |
| Date Sampled: 08/03/2020 1530         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2319 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 1.6    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 1.9    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 36     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 6.1    |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 3.8    |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 15     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 21     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 9.2    |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 120    | B | 3.7 | 0.94 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 74               | 25-150            |
| 13C2_6:2FTS |   | 48               | 25-150            |
| 13C2_8:2FTS |   | 33               | 25-150            |
| 13C2_PFDaA  | N | 9.1              | 25-150            |
| 13C2_PFHxDA | N | 1.7              | 25-150            |
| 13C2_PFTeDA | N | 2.6              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)  
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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-001            |
| Description: GP-1                     | Matrix: Aqueous                       |
| Date Sampled: 08/03/2020 1530         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 40                  | 25-150               |
| 13C3_PFHxS   |   | 26                  | 25-150               |
| 13C3-HFPO-DA |   | 65                  | 25-150               |
| 13C4_PFBa    |   | 76                  | 25-150               |
| 13C4_PFHpA   |   | 58                  | 25-150               |
| 13C5_PFHxA   |   | 66                  | 25-150               |
| 13C5_PFPeA   |   | 73                  | 25-150               |
| 13C6_PFDa    |   | 32                  | 25-150               |
| 13C7_PFUdA   | N | 21                  | 25-150               |
| 13C8_PFOA    |   | 49                  | 25-150               |
| 13C8_PFOs    | N | 14                  | 25-150               |
| 13C8_PFOsA   |   | 37                  | 10-150               |
| 13C9_PFNa    |   | 41                  | 25-150               |
| d-EtFOsA     | N | 9.0                 | 10-150               |
| d5-EtFOsAA   | N | 20                  | 25-150               |
| d9-EtFOsE    | N | 9.2                 | 10-150               |
| d-MeFOsA     |   | 11                  | 10-150               |
| d3-MeFOsAA   |   | 25                  | 25-150               |
| d7-MeFOsE    | N | 9.7                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-002            |
| Description: GP-2                     | Matrix: Aqueous                       |
| Date Sampled: 08/03/2020 1500         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2330 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1506 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 21     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 2.4    | J | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 33     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 1300   |   | 23  | 5.7 | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 27     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 19     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 48     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 250    |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 49     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 33     | B | 4.5 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 67               | 25-150            |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 54               | 25-150            |   | 90               | 25-150            |
| 13C2_8:2FTS |   | 42               | 25-150            |   | 91               | 25-150            |
| 13C2_PFDaA  |   | 25               | 25-150            |   | 88               | 25-150            |
| 13C2_PFHxDA | N | 1.9              | 25-150            |   | 79               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-002            |
| Description: GP-2                     | Matrix: Aqueous                       |
| Date Sampled: 08/03/2020 1500         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  | N | 9.7                 | 25-150               |   | 77                  | 25-150               |
| 13C3_PFBS    |   | 55                  | 25-150               |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 38                  | 25-150               |   | 82                  | 25-150               |
| 13C3-HFPO-DA |   | 66                  | 25-150               |   | 93                  | 25-150               |
| 13C4_PFBFA   |   | 78                  | 25-150               |   | 97                  | 25-150               |
| 13C4_PFHpA   |   | 61                  | 25-150               |   | 95                  | 25-150               |
| 13C5_PFHxA   |   | 66                  | 25-150               |   | 98                  | 25-150               |
| 13C5_PFPeA   |   | 71                  | 25-150               |   | 97                  | 25-150               |
| 13C6_PFDA    |   | 47                  | 25-150               |   | 92                  | 25-150               |
| 13C7_PFUdA   |   | 37                  | 25-150               |   | 91                  | 25-150               |
| 13C8_PFOA    |   | 59                  | 25-150               |   | 89                  | 25-150               |
| 13C8_PFOS    |   | 26                  | 25-150               |   | 78                  | 25-150               |
| 13C8_PFOSA   |   | 58                  | 10-150               |   | 101                 | 10-150               |
| 13C9_PFNA    |   | 56                  | 25-150               |   | 90                  | 25-150               |
| d-EtFOSA     |   | 17                  | 10-150               |   | 83                  | 10-150               |
| d5-EtFOSAA   |   | 29                  | 25-150               |   | 80                  | 25-150               |
| d9-EtFOSE    | N | 9.4                 | 10-150               |   | 81                  | 10-150               |
| d-MeFOSA     |   | 20                  | 10-150               |   | 82                  | 10-150               |
| d3-MeFOSAA   |   | 35                  | 25-150               |   | 89                  | 25-150               |
| d7-MeFOSE    | N | 7.4                 | 10-150               |   | 100                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-003            |
| Description: GP-3                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 0830         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1330 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 2.4    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 2.7    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 72     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 5.0    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 3.9    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 6.0    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 1.2    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 5.4    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 3.8    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 88     | B | 3.7 | 0.93 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 73               | 25-150            |
| 13C2_6:2FTS |   | 64               | 25-150            |
| 13C2_8:2FTS |   | 45               | 25-150            |
| 13C2_PFDaA  |   | 35               | 25-150            |
| 13C2_PFHxDA | N | 9.0              | 25-150            |
| 13C2_PFTeDA | N | 19               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-003            |
| Description: GP-3                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 0830         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 52                  | 25-150               |
| 13C3_PFHxS   |   | 35                  | 25-150               |
| 13C3-HFPO-DA |   | 72                  | 25-150               |
| 13C4_PFBa    |   | 80                  | 25-150               |
| 13C4_PFHpA   |   | 71                  | 25-150               |
| 13C5_PFHxA   |   | 77                  | 25-150               |
| 13C5_PFPeA   |   | 77                  | 25-150               |
| 13C6_PFDA    |   | 49                  | 25-150               |
| 13C7_PFUdA   |   | 40                  | 25-150               |
| 13C8_PFOA    |   | 59                  | 25-150               |
| 13C8_PFOS    | N | 19                  | 25-150               |
| 13C8_PFOSA   |   | 72                  | 10-150               |
| 13C9_PFNA    |   | 53                  | 25-150               |
| d-EtFOSA     |   | 51                  | 10-150               |
| d5-EtFOSAA   |   | 37                  | 25-150               |
| d9-EtFOSE    |   | 29                  | 10-150               |
| d-MeFOSA     |   | 55                  | 10-150               |
| d3-MeFOSAA   |   | 44                  | 25-150               |
| d7-MeFOSE    |   | 39                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-004            |
| Description: GP-4                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 0915         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 2351 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.6  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 3.2    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 2.7    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 30     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 1.3    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 1.2    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 1.9    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 1.4    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 9.6    | B | 3.6 | 0.91 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 67               | 25-150            |
| 13C2_8:2FTS |   | 55               | 25-150            |
| 13C2_PFDaA  |   | 46               | 25-150            |
| 13C2_PFHxDA | N | 23               | 25-150            |
| 13C2_PFTeDA |   | 33               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-004            |
| Description: GP-4                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 09:15        | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 60                  | 25-150               |
| 13C3_PFHxS   |   | 46                  | 25-150               |
| 13C3-HFPO-DA |   | 84                  | 25-150               |
| 13C4_PFBa    |   | 89                  | 25-150               |
| 13C4_PFHpA   |   | 81                  | 25-150               |
| 13C5_PFHxA   |   | 83                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 60                  | 25-150               |
| 13C7_PFUdA   |   | 53                  | 25-150               |
| 13C8_PFOA    |   | 73                  | 25-150               |
| 13C8_PFOS    |   | 35                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 65                  | 25-150               |
| d-EtFOsA     |   | 50                  | 10-150               |
| d5-EtFOsAA   |   | 54                  | 25-150               |
| d9-EtFOSE    |   | 68                  | 10-150               |
| d-MeFOsA     |   | 65                  | 10-150               |
| d3-MeFOsAA   |   | 58                  | 25-150               |
| d7-MeFOSE    |   | 63                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-005            |
| Description: GP-5                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1000         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0002 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 16  | 4.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 1.4    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 1.6    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 20     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 3.4    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 1.3    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 2.0    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 380    | B | 4.0 | 1.0 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 67               | 25-150            |
| 13C2_8:2FTS |   | 58               | 25-150            |
| 13C2_PFDaA  |   | 39               | 25-150            |
| 13C2_PFHxDA | N | 9.5              | 25-150            |
| 13C2_PFTeDA | N | 18               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-005            |
| Description: GP-5                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1000         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 60                  | 25-150               |
| 13C3_PFHxS   |   | 44                  | 25-150               |
| 13C3-HFPO-DA |   | 82                  | 25-150               |
| 13C4_PFBa    |   | 89                  | 25-150               |
| 13C4_PFHpA   |   | 77                  | 25-150               |
| 13C5_PFHxA   |   | 80                  | 25-150               |
| 13C5_PFPeA   |   | 83                  | 25-150               |
| 13C6_PFDa    |   | 60                  | 25-150               |
| 13C7_PFUdA   |   | 53                  | 25-150               |
| 13C8_PFOA    |   | 76                  | 25-150               |
| 13C8_PFOS    |   | 31                  | 25-150               |
| 13C8_PFOSA   |   | 76                  | 10-150               |
| 13C9_PFNA    |   | 67                  | 25-150               |
| d-EtFOSA     |   | 41                  | 10-150               |
| d5-EtFOSAA   |   | 45                  | 25-150               |
| d9-EtFOSE    |   | 21                  | 10-150               |
| d-MeFOSA     |   | 60                  | 10-150               |
| d3-MeFOSAA   |   | 52                  | 25-150               |
| d7-MeFOSE    |   | 36                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-006            |
| Description: GP-6                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1050         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0012 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1516 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 14  | 3.6  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 57     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 66     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 75     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 950    |   | 18  | 4.5  | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 20     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 3.9    |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 39     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 17     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 14     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.6 | 0.90 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 1600   | B | 18  | 4.5  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |   | 101              | 25-150            |
| 13C2_6:2FTS |   | 75               | 25-150            |   | 93               | 25-150            |
| 13C2_8:2FTS |   | 64               | 25-150            |   | 101              | 25-150            |
| 13C2_PFDa   |   | 53               | 25-150            |   | 99               | 25-150            |
| 13C2_PFHxDA | N | 20               | 25-150            |   | 87               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-006            |
| Description: GP-6                     | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1050         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Run 1 |            |                   | Run 2 |            |                   |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
|              | Q     | % Recovery | Acceptance Limits | Q     | % Recovery | Acceptance Limits |
| 13C2_PFTeDA  |       | 32         | 25-150            |       | 89         | 25-150            |
| 13C3_PFBS    |       | 70         | 25-150            |       | 95         | 25-150            |
| 13C3_PFHxS   |       | 54         | 25-150            |       | 95         | 25-150            |
| 13C3-HFPO-DA |       | 83         | 25-150            |       | 98         | 25-150            |
| 13C4_PFBA    |       | 93         | 25-150            |       | 102        | 25-150            |
| 13C4_PFHpA   |       | 78         | 25-150            |       | 97         | 25-150            |
| 13C5_PFHxA   |       | 79         | 25-150            |       | 100        | 25-150            |
| 13C5_PFPeA   |       | 88         | 25-150            |       | 97         | 25-150            |
| 13C6_PFDA    |       | 68         | 25-150            |       | 99         | 25-150            |
| 13C7_PFUdA   |       | 63         | 25-150            |       | 96         | 25-150            |
| 13C8_PFOA    |       | 75         | 25-150            |       | 93         | 25-150            |
| 13C8_PFOS    |       | 44         | 25-150            |       | 88         | 25-150            |
| 13C8_PFOSA   |       | 80         | 10-150            |       | 107        | 10-150            |
| 13C9_PFNA    |       | 77         | 25-150            |       | 100        | 25-150            |
| d-EtFOSA     |       | 69         | 10-150            |       | 100        | 10-150            |
| d5-EtFOSAA   |       | 59         | 25-150            |       | 91         | 25-150            |
| d9-EtFOSE    |       | 46         | 10-150            |       | 95         | 10-150            |
| d-MeFOSA     |       | 75         | 10-150            |       | 99         | 10-150            |
| d3-MeFOSAA   |       | 71         | 25-150            |       | 105        | 25-150            |
| d7-MeFOSE    |       | 61         | 10-150            |       | 103        | 10-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-007            |
| Description: GP-10                    | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1345         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1341 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 17  | 4.3 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 2.7    | J | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 4.7    |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 4.0    | J | 4.3 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 110    |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 3.7    | J | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 4.0    | J | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 5.2    |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 1.6    | J | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 320    | B | 4.3 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 69               | 25-150            |
| 13C2_6:2FTS |   | 60               | 25-150            |
| 13C2_8:2FTS |   | 47               | 25-150            |
| 13C2_PFDaA  |   | 26               | 25-150            |
| 13C2_PFHxDA | N | 2.6              | 25-150            |
| 13C2_PFTeDA | N | 8.1              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-007            |
| Description: GP-10                    | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1345         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 51                  | 25-150               |
| 13C3_PFHxS   |   | 41                  | 25-150               |
| 13C3-HFPO-DA |   | 61                  | 25-150               |
| 13C4_PFBa    |   | 70                  | 25-150               |
| 13C4_PFHpA   |   | 61                  | 25-150               |
| 13C5_PFHxA   |   | 65                  | 25-150               |
| 13C5_PFPeA   |   | 65                  | 25-150               |
| 13C6_PFDa    |   | 51                  | 25-150               |
| 13C7_PFUdA   |   | 37                  | 25-150               |
| 13C8_PFOA    |   | 59                  | 25-150               |
| 13C8_PFOS    | N | 24                  | 25-150               |
| 13C8_PFOsA   |   | 53                  | 10-150               |
| 13C9_PFNa    |   | 54                  | 25-150               |
| d-EtFOSA     |   | 31                  | 10-150               |
| d5-EtFOSAA   |   | 34                  | 25-150               |
| d9-EtFOSE    |   | 15                  | 10-150               |
| d-MeFOSA     |   | 39                  | 10-150               |
| d3-MeFOSAA   |   | 39                  | 25-150               |
| d7-MeFOSE    |   | 28                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-008            |
| Description: GP-11                    | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1615         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0044 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1527 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 21  | 5.2 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 14     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 32     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 18     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 520    |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 4.7    | J | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 2.0    | J | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 7.1    |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 10  | 2.6 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 14     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 2.7    | J | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 5.2 | 1.3 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 1700   | B | 26  | 6.4 | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 66               | 25-150            |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 63               | 25-150            |   | 86               | 25-150            |
| 13C2_8:2FTS |   | 54               | 25-150            |   | 100              | 25-150            |
| 13C2_PFDaA  |   | 41               | 25-150            |   | 90               | 25-150            |
| 13C2_PFHxDA |   | 25               | 25-150            |   | 81               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-008            |
| Description: GP-11                    | Matrix: Aqueous                       |
| Date Sampled: 08/04/2020 1615         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 29                  | 25-150               |   | 84                  | 25-150               |
| 13C3_PFBs    |   | 58                  | 25-150               |   | 94                  | 25-150               |
| 13C3_PFHxS   |   | 52                  | 25-150               |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 64                  | 25-150               |   | 90                  | 25-150               |
| 13C4_PFBa    |   | 71                  | 25-150               |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 65                  | 25-150               |   | 93                  | 25-150               |
| 13C5_PFHxA   |   | 64                  | 25-150               |   | 92                  | 25-150               |
| 13C5_PFPeA   |   | 68                  | 25-150               |   | 88                  | 25-150               |
| 13C6_PFDa    |   | 58                  | 25-150               |   | 93                  | 25-150               |
| 13C7_PFUdA   |   | 55                  | 25-150               |   | 90                  | 25-150               |
| 13C8_PFOa    |   | 64                  | 25-150               |   | 88                  | 25-150               |
| 13C8_PFOs    |   | 46                  | 25-150               |   | 86                  | 25-150               |
| 13C8_PFOsA   |   | 59                  | 10-150               |   | 97                  | 10-150               |
| 13C9_PFNa    |   | 57                  | 25-150               |   | 83                  | 25-150               |
| d-EtFOsA     |   | 41                  | 10-150               |   | 100                 | 10-150               |
| d5-EtFOsAA   |   | 49                  | 25-150               |   | 91                  | 25-150               |
| d9-EtFOsE    |   | 43                  | 10-150               |   | 95                  | 10-150               |
| d-MeFOsA     |   | 51                  | 10-150               |   | 91                  | 10-150               |
| d3-MeFOsAA   |   | 54                  | 25-150               |   | 93                  | 25-150               |
| d7-MeFOsE    |   | 31                  | 10-150               |   | 99                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-009            |
| Description: GP-14                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 0900         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1548 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 50       | 08/18/2020 1537 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 64     |   | 48  | 12  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 4900   |   | 480 | 120 | ng/L  | 2   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | 24     | J | 48  | 12  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 96  | 24  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 94     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 100    |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 14     | J | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 190    |   | 24  | 6.0 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 2700   |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 92     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 6.6    | J | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 39     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 370    |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 7.9    | J | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 48  | 12  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 160    |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 380    |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 24  | 6.0 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 9500   | B | 240 | 60  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 102              | 25-150            |   | 103              | 25-150            |
| 13C2_6:2FTS |   | 82               | 25-150            |   | 96               | 25-150            |
| 13C2_8:2FTS |   | 86               | 25-150            |   | 103              | 25-150            |
| 13C2_PFDa   |   | 85               | 25-150            |   | 106              | 25-150            |
| 13C2_PFHxDA |   | 78               | 25-150            |   | 100              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-009            |
| Description: GP-14                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 0900         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 78                  | 25-150               |   | 100                 | 25-150               |
| 13C3_PFBS    |   | 93                  | 25-150               |   | 101                 | 25-150               |
| 13C3_PFHxS   |   | 87                  | 25-150               |   | 100                 | 25-150               |
| 13C3-HFPO-DA |   | 94                  | 25-150               |   | 99                  | 25-150               |
| 13C4_PFBA    |   | 95                  | 25-150               |   | 100                 | 25-150               |
| 13C4_PFHpA   |   | 96                  | 25-150               |   | 100                 | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |   | 100                 | 25-150               |
| 13C6_PFDA    |   | 96                  | 25-150               |   | 106                 | 25-150               |
| 13C7_PFUdA   |   | 90                  | 25-150               |   | 102                 | 25-150               |
| 13C8_PFOA    |   | 83                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOS    |   | 81                  | 25-150               |   | 99                  | 25-150               |
| 13C8_PFOSA   |   | 100                 | 10-150               |   | 109                 | 10-150               |
| 13C9_PFNA    |   | 82                  | 25-150               |   | 102                 | 25-150               |
| d-EtFOSA     |   | 96                  | 10-150               |   | 107                 | 10-150               |
| d5-EtFOSAA   |   | 86                  | 25-150               |   | 100                 | 25-150               |
| d9-EtFOSE    |   | 86                  | 10-150               |   | 102                 | 10-150               |
| d-MeFOSA     |   | 92                  | 10-150               |   | 107                 | 10-150               |
| d3-MeFOSAA   |   | 91                  | 25-150               |   | 108                 | 25-150               |
| d7-MeFOSE    |   | 94                  | 10-150               |   | 127                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-010            |
| Description: GP-15                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1225         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 5        | 08/18/2020 1620 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 50       | 08/18/2020 1609 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 720    |   | 36  | 9.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 73  | 18  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 17     | J | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 41     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | 110    |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 37     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 15     | J | 18  | 4.5 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 1300   |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 25     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 30     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 77     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 83     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 120    |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 36  | 9.1 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 150    |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 29     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 15000  | B | 180 | 45  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 107              | 25-150            |   | 101              | 25-150            |
| 13C2_6:2FTS |   | 97               | 25-150            |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 103              | 25-150            |   | 100              | 25-150            |
| 13C2_PFDaA  |   | 100              | 25-150            |   | 99               | 25-150            |
| 13C2_PFHxDA |   | 89               | 25-150            |   | 95               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-010            |
| Description: GP-15                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1225         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 94                  | 25-150               |   | 95                  | 25-150               |
| 13C3_PFBs    |   | 100                 | 25-150               |   | 95                  | 25-150               |
| 13C3_PFHxS   |   | 93                  | 25-150               |   | 98                  | 25-150               |
| 13C3-HFPO-DA |   | 101                 | 25-150               |   | 98                  | 25-150               |
| 13C4_PFBa    |   | 104                 | 25-150               |   | 98                  | 25-150               |
| 13C4_PFHpA   |   | 101                 | 25-150               |   | 98                  | 25-150               |
| 13C5_PFHxA   |   | 105                 | 25-150               |   | 100                 | 25-150               |
| 13C5_PFPeA   |   | 105                 | 25-150               |   | 97                  | 25-150               |
| 13C6_PFDA    |   | 99                  | 25-150               |   | 99                  | 25-150               |
| 13C7_PFUdA   |   | 100                 | 25-150               |   | 98                  | 25-150               |
| 13C8_PFOA    |   | 100                 | 25-150               |   | 92                  | 25-150               |
| 13C8_PFOS    |   | 83                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOSA   |   | 106                 | 10-150               |   | 102                 | 10-150               |
| 13C9_PFNA    |   | 76                  | 25-150               |   | 93                  | 25-150               |
| d-EtFOSA     |   | 106                 | 10-150               |   | 107                 | 10-150               |
| d5-EtFOSAA   |   | 96                  | 25-150               |   | 99                  | 25-150               |
| d9-EtFOSE    |   | 96                  | 10-150               |   | 111                 | 10-150               |
| d-MeFOSA     |   | 96                  | 10-150               |   | 98                  | 10-150               |
| d3-MeFOSAA   |   | 95                  | 25-150               |   | 102                 | 25-150               |
| d7-MeFOSE    |   | 116                 | 10-150               |   | 109                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-011            |
| Description: GP-16                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1245         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1351 | SES     | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 8.5    |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 0.96   | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 7.6    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 2.2    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 1.4    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 1.9    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 3.5    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 1.4    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.3 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 3.1    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 3.2    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 160    | B | 3.7 | 0.92 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 82               | 25-150            |
| 13C2_8:2FTS |   | 72               | 25-150            |
| 13C2_PFDaA  |   | 57               | 25-150            |
| 13C2_PFHxDA | N | 21               | 25-150            |
| 13C2_PFTeDA |   | 37               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-011            |
| Description: GP-16                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1245         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 64                  | 25-150               |
| 13C3_PFHxS   |   | 57                  | 25-150               |
| 13C3-HFPO-DA |   | 74                  | 25-150               |
| 13C4_PFBa    |   | 82                  | 25-150               |
| 13C4_PFHpA   |   | 78                  | 25-150               |
| 13C5_PFHxA   |   | 80                  | 25-150               |
| 13C5_PFPeA   |   | 78                  | 25-150               |
| 13C6_PFDa    |   | 71                  | 25-150               |
| 13C7_PFUdA   |   | 59                  | 25-150               |
| 13C8_PFOA    |   | 73                  | 25-150               |
| 13C8_PFOS    |   | 42                  | 25-150               |
| 13C8_PFOSA   |   | 78                  | 10-150               |
| 13C9_PFNA    |   | 73                  | 25-150               |
| d-EtFOSA     |   | 62                  | 10-150               |
| d5-EtFOSAA   |   | 57                  | 25-150               |
| d9-EtFOSE    |   | 49                  | 10-150               |
| d-MeFOSA     |   | 71                  | 10-150               |
| d3-MeFOSAA   |   | 60                  | 25-150               |
| d7-MeFOSE    |   | 65                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-012            |
| Description: GP-17                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1330         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 10       | 08/18/2020 1702 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 100      | 08/18/2020 1652 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 8300   |   | 110 | 27  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 650    |   | 110 | 27  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 220 | 55  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 160    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 160    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 17     | J | 55  | 14  | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 260    |   | 55  | 14  | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 6700   |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 430    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 300    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 750    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 2500   |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 270    |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 110 | 27  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 1500   |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 1100   |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 55  | 14  | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 26000  | B | 550 | 140 | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 103              | 25-150            |   | 103              | 25-150            |
| 13C2_6:2FTS |   | 85               | 25-150            |   | 97               | 25-150            |
| 13C2_8:2FTS |   | 90               | 25-150            |   | 104              | 25-150            |
| 13C2_PFDaA  |   | 95               | 25-150            |   | 100              | 25-150            |
| 13C2_PFHxDA |   | 85               | 25-150            |   | 103              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-012            |
| Description: GP-17                    | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1330         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 85                  | 25-150               |   | 96                  | 25-150               |
| 13C3_PFBs    |   | 90                  | 25-150               |   | 102                 | 25-150               |
| 13C3_PFHxS   |   | 84                  | 25-150               |   | 102                 | 25-150               |
| 13C3-HFPO-DA |   | 89                  | 25-150               |   | 103                 | 25-150               |
| 13C4_PFBa    |   | 100                 | 25-150               |   | 104                 | 25-150               |
| 13C4_PFHpA   |   | 91                  | 25-150               |   | 103                 | 25-150               |
| 13C5_PFHxA   |   | 96                  | 25-150               |   | 101                 | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |   | 100                 | 25-150               |
| 13C6_PFDA    |   | 90                  | 25-150               |   | 105                 | 25-150               |
| 13C7_PFUdA   |   | 92                  | 25-150               |   | 101                 | 25-150               |
| 13C8_PFOA    |   | 84                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOS    |   | 83                  | 25-150               |   | 103                 | 25-150               |
| 13C8_PFOsA   |   | 97                  | 10-150               |   | 114                 | 10-150               |
| 13C9_PFNA    |   | 79                  | 25-150               |   | 103                 | 25-150               |
| d-EtFOSA     |   | 92                  | 10-150               |   | 103                 | 10-150               |
| d5-EtFOSAA   |   | 86                  | 25-150               |   | 103                 | 25-150               |
| d9-EtFOSE    |   | 89                  | 10-150               |   | 103                 | 10-150               |
| d-MeFOSA     |   | 84                  | 10-150               |   | 101                 | 10-150               |
| d3-MeFOSAA   |   | 94                  | 25-150               |   | 101                 | 25-150               |
| d7-MeFOSE    |   | 107                 | 10-150               |   | 117                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-013            |
| Description: MW-101                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1410         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1910 | SES     | 08/15/2020 1011 | 63632 |
| 2   | SOP SPE     | PFAS by ID SOP    | 10       | 08/18/2020 1724 | KMM2    | 08/15/2020 1011 | 63632 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 620    |   | 11  | 2.7 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 61     |   | 11  | 2.7 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | 64     |   | 11  | 2.7 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | 7.0    | J | 11  | 2.7 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 22  | 5.4 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 16     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | 2.8    | J | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 20     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | 4.6    | J | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 19     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 13     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 510    |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 24     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 39     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | 6.9    |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 52     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 150    |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 25     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 11  | 2.7 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 65     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 56     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | 7.1    |   | 5.4 | 1.4 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 2500   | B | 54  | 14  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 81               | 25-150            |   | 100              | 25-150            |
| 13C2_6:2FTS |   | 65               | 25-150            |   | 94               | 25-150            |
| 13C2_8:2FTS |   | 58               | 25-150            |   | 102              | 25-150            |
| 13C2_PFDaA  |   | 36               | 25-150            |   | 98               | 25-150            |
| 13C2_PFHxDA | N | 4.9              | 25-150            |   | 90               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-013            |
| Description: MW-101                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1410         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  | N | 14                  | 25-150               |   | 92                  | 25-150               |
| 13C3_PFBS    |   | 51                  | 25-150               |   | 95                  | 25-150               |
| 13C3_PFHxS   |   | 41                  | 25-150               |   | 92                  | 25-150               |
| 13C3-HFPO-DA |   | 57                  | 25-150               |   | 94                  | 25-150               |
| 13C4_PFBA    |   | 68                  | 25-150               |   | 99                  | 25-150               |
| 13C4_PFHpA   |   | 62                  | 25-150               |   | 97                  | 25-150               |
| 13C5_PFHxA   |   | 65                  | 25-150               |   | 99                  | 25-150               |
| 13C5_PFPeA   |   | 61                  | 25-150               |   | 96                  | 25-150               |
| 13C6_PFDA    |   | 53                  | 25-150               |   | 96                  | 25-150               |
| 13C7_PFUdA   |   | 47                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOA    |   | 57                  | 25-150               |   | 93                  | 25-150               |
| 13C8_PFOS    |   | 35                  | 25-150               |   | 91                  | 25-150               |
| 13C8_PFOSA   |   | 59                  | 10-150               |   | 102                 | 10-150               |
| 13C9_PFNA    |   | 51                  | 25-150               |   | 96                  | 25-150               |
| d-EtFOSA     |   | 24                  | 10-150               |   | 98                  | 10-150               |
| d5-EtFOSAA   |   | 37                  | 25-150               |   | 87                  | 25-150               |
| d9-EtFOSE    |   | 17                  | 10-150               |   | 90                  | 10-150               |
| d-MeFOSA     |   | 35                  | 10-150               |   | 86                  | 10-150               |
| d3-MeFOSAA   |   | 44                  | 25-150               |   | 97                  | 25-150               |
| d7-MeFOSE    |   | 28                  | 10-150               |   | 118                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-014            |
| Description: MW-102                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1115         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1402 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 3.9    | J | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 150    |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 1.2    | J | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 1.8    | J | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 1.5    | J | 3.8 | 0.94 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 14     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 8.1    |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 1.5    | J | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 8.6    |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 4.4    |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 7.0    |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.8 | 0.94 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 250    |   | 3.8 | 0.94 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 84               | 25-150            |
| 13C2_8:2FTS |   | 76               | 25-150            |
| 13C2_PFDaA  |   | 66               | 25-150            |
| 13C2_PFHxDA |   | 27               | 25-150            |
| 13C2_PFTeDA |   | 43               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-014            |
| Description: MW-102                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1115         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 80                  | 25-150               |
| 13C3_PFHxS   |   | 73                  | 25-150               |
| 13C3-HFPO-DA |   | 83                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 84                  | 25-150               |
| 13C5_PFHxA   |   | 86                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 78                  | 25-150               |
| 13C7_PFUdA   |   | 74                  | 25-150               |
| 13C8_PFOA    |   | 79                  | 25-150               |
| 13C8_PFOS    |   | 67                  | 25-150               |
| 13C8_PFOsA   |   | 81                  | 10-150               |
| 13C9_PFNa    |   | 81                  | 25-150               |
| d-EtFOsA     |   | 55                  | 10-150               |
| d5-EtFOsAA   |   | 68                  | 25-150               |
| d9-EtFOsE    |   | 39                  | 10-150               |
| d-MeFOsA     |   | 62                  | 10-150               |
| d3-MeFOsAA   |   | 79                  | 25-150               |
| d7-MeFOsE    |   | 50                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-015            |
| Description: MW-103                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1140         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0159 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 3.6    | J | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 39     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 16  | 4.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 4.1    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 3.0    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 2.4    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 72     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 21     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 4.9    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 19     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 2.4    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 7.6    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 11     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 460    |   | 4.0 | 1.0 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 77               | 25-150            |
| 13C2_6:2FTS |   | 56               | 25-150            |
| 13C2_8:2FTS |   | 34               | 25-150            |
| 13C2_PFDaA  | N | 21               | 25-150            |
| 13C2_PFHxDA | N | 2.2              | 25-150            |
| 13C2_PFTeDA | N | 7.5              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-015            |
| Description: MW-103                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1140         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 39                  | 25-150               |
| 13C3_PFHxS   | N | 22                  | 25-150               |
| 13C3-HFPO-DA |   | 76                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 65                  | 25-150               |
| 13C5_PFHxA   |   | 70                  | 25-150               |
| 13C5_PFPeA   |   | 81                  | 25-150               |
| 13C6_PFDA    |   | 36                  | 25-150               |
| 13C7_PFUdA   |   | 30                  | 25-150               |
| 13C8_PFOA    |   | 51                  | 25-150               |
| 13C8_PFOS    | N | 13                  | 25-150               |
| 13C8_PFOsA   |   | 61                  | 10-150               |
| 13C9_PFNAA   |   | 44                  | 25-150               |
| d-EtFOSA     |   | 44                  | 10-150               |
| d5-EtFOSAA   |   | 27                  | 25-150               |
| d9-EtFOSE    | N | 2.1                 | 10-150               |
| d-MeFOSA     |   | 59                  | 10-150               |
| d3-MeFOSAA   |   | 32                  | 25-150               |
| d7-MeFOSE    | N | 4.9                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-016            |
| Description: GP-20                    | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1135         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0210 | SES     | 08/16/2020 1423 | 63701 |
| 2   | SOP SPE     | PFAS by ID SOP    | 20       | 08/19/2020 1615 | KMM2    | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 15     |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 8300   |   | 140 | 36   | ng/L  | 2   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | 9.3    |   | 7.2 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 14  | 3.6  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 50     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 270    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 310    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 3100   |   | 72  | 18   | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 210    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 5.4    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | 11     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 620    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 650    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 610    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.2 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 460    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 760    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | 1.2    | J | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | 3.7    |   | 3.6 | 0.91 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 2200   |   | 72  | 18   | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 95               | 25-150            |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 84               | 25-150            |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 76               | 25-150            |   | 106              | 25-150            |
| 13C2_PFDaA  |   | 76               | 25-150            |   | 91               | 25-150            |
| 13C2_PFHxDA |   | 45               | 25-150            |   | 97               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-016            |
| Description: GP-20                    | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1135         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 52                  | 25-150               |   | 92                  | 25-150               |
| 13C3_PFBs    |   | 82                  | 25-150               |   | 91                  | 25-150               |
| 13C3_PFHxS   |   | 68                  | 25-150               |   | 88                  | 25-150               |
| 13C3-HFPO-DA |   | 95                  | 25-150               |   | 95                  | 25-150               |
| 13C4_PFBA    |   | 103                 | 25-150               |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |   | 93                  | 25-150               |
| 13C5_PFHxA   |   | 89                  | 25-150               |   | 96                  | 25-150               |
| 13C5_PFPeA   |   | 92                  | 25-150               |   | 91                  | 25-150               |
| 13C6_PFDA    |   | 84                  | 25-150               |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 85                  | 25-150               |   | 92                  | 25-150               |
| 13C8_PFOA    |   | 86                  | 25-150               |   | 95                  | 25-150               |
| 13C8_PFOS    |   | 73                  | 25-150               |   | 103                 | 25-150               |
| 13C8_PFOSA   |   | 91                  | 10-150               |   | 100                 | 10-150               |
| 13C9_PFNA    |   | 84                  | 25-150               |   | 94                  | 25-150               |
| d-EtFOSA     |   | 58                  | 10-150               |   | 103                 | 10-150               |
| d5-EtFOSAA   |   | 75                  | 25-150               |   | 96                  | 25-150               |
| d9-EtFOSE    |   | 72                  | 10-150               |   | 94                  | 10-150               |
| d-MeFOSA     |   | 64                  | 10-150               |   | 94                  | 10-150               |
| d3-MeFOSAA   |   | 81                  | 25-150               |   | 97                  | 25-150               |
| d7-MeFOSE    |   | 77                  | 10-150               |   | 107                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-017            |
| Description: GP-21                    | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1220         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 1413 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 7.1    | J | 7.4 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 4.6    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 1.1    | J | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 4.1    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 25     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 91     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 11     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 32     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 99     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 130    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 200    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 140    |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 100    |   | 3.7 | 0.92 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 76               | 25-150            |
| 13C2_8:2FTS |   | 59               | 25-150            |
| 13C2_PFDaA  |   | 40               | 25-150            |
| 13C2_PFHxDA | N | 14               | 25-150            |
| 13C2_PFTeDA | N | 22               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-017            |
| Description: GP-21                    | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1220         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 66                  | 25-150               |
| 13C3_PFHxS   |   | 50                  | 25-150               |
| 13C3-HFPO-DA |   | 84                  | 25-150               |
| 13C4_PFBa    |   | 97                  | 25-150               |
| 13C4_PFHpA   |   | 84                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 58                  | 25-150               |
| 13C7_PFUdA   |   | 55                  | 25-150               |
| 13C8_PFOA    |   | 74                  | 25-150               |
| 13C8_PFOS    |   | 35                  | 25-150               |
| 13C8_PFOSA   |   | 86                  | 10-150               |
| 13C9_PFNA    |   | 70                  | 25-150               |
| d-EtFOSA     |   | 67                  | 10-150               |
| d5-EtFOSAA   |   | 45                  | 25-150               |
| d9-EtFOSE    |   | 54                  | 10-150               |
| d-MeFOSA     |   | 68                  | 10-150               |
| d3-MeFOSAA   |   | 47                  | 25-150               |
| d7-MeFOSE    |   | 61                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-018            |
| Description: FIELD BLANK              | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1250         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 1832 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.8  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 3.7 | 0.92 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 105              | 25-150            |
| 13C2_6:2FTS |   | 113              | 25-150            |
| 13C2_8:2FTS |   | 108              | 25-150            |
| 13C2_PFDaA  |   | 101              | 25-150            |
| 13C2_PFHxDA |   | 124              | 25-150            |
| 13C2_PFTeDA |   | 100              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-018            |
| Description: FIELD BLANK              | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1250         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 105                 | 25-150               |
| 13C3_PFHxS   |   | 108                 | 25-150               |
| 13C3-HFPO-DA |   | 110                 | 25-150               |
| 13C4_PFBa    |   | 112                 | 25-150               |
| 13C4_PFHpA   |   | 104                 | 25-150               |
| 13C5_PFHxA   |   | 109                 | 25-150               |
| 13C5_PFPeA   |   | 109                 | 25-150               |
| 13C6_PFDa    |   | 110                 | 25-150               |
| 13C7_PFUdA   |   | 105                 | 25-150               |
| 13C8_PFOA    |   | 115                 | 25-150               |
| 13C8_PFOS    |   | 108                 | 25-150               |
| 13C8_PFOSA   |   | 105                 | 10-150               |
| 13C9_PFNA    |   | 108                 | 25-150               |
| d-EtFOSA     |   | 67                  | 10-150               |
| d5-EtFOSAA   |   | 109                 | 25-150               |
| d9-EtFOSE    |   | 111                 | 10-150               |
| d-MeFOSA     |   | 77                  | 10-150               |
| d3-MeFOSAA   |   | 110                 | 25-150               |
| d7-MeFOSE    |   | 102                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-019            |
| Description: PERISTALTIC BLANK        | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1405         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 1843 | SES     | 08/16/2020 1423 | 63701 |

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

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 106              | 25-150            |
| 13C2_6:2FTS |   | 100              | 25-150            |
| 13C2_8:2FTS |   | 95               | 25-150            |
| 13C2_PFDaA  |   | 98               | 25-150            |
| 13C2_PFHxDA |   | 124              | 25-150            |
| 13C2_PFTeDA |   | 98               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-019            |
| Description: PERISTALTIC BLANK        | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1405         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 103                 | 25-150               |
| 13C3_PFHxS   |   | 102                 | 25-150               |
| 13C3-HFPO-DA |   | 104                 | 25-150               |
| 13C4_PFBa    |   | 108                 | 25-150               |
| 13C4_PFHpA   |   | 106                 | 25-150               |
| 13C5_PFHxA   |   | 103                 | 25-150               |
| 13C5_PFPeA   |   | 104                 | 25-150               |
| 13C6_PFDa    |   | 103                 | 25-150               |
| 13C7_PFUdA   |   | 105                 | 25-150               |
| 13C8_PFOA    |   | 108                 | 25-150               |
| 13C8_PFOS    |   | 102                 | 25-150               |
| 13C8_PFOsA   |   | 106                 | 10-150               |
| 13C9_PFNa    |   | 108                 | 25-150               |
| d-EtFOSA     |   | 82                  | 10-150               |
| d5-EtFOSAA   |   | 93                  | 25-150               |
| d9-EtFOSE    |   | 112                 | 10-150               |
| d-MeFOSA     |   | 83                  | 10-150               |
| d3-MeFOSAA   |   | 103                 | 25-150               |
| d7-MeFOSE    |   | 101                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-020            |
| Description: AUGER BLANK              | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1025         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/17/2020 1853 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| Perfluoro-1-butanefluoro sulfonic acid (PFBS)                     | 375-73-5    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-butanefluoro sulfonic acid (PFBA)                     | 375-22-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 8.9 | 2.2 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 113              | 25-150            |
| 13C2_6:2FTS |   | 104              | 25-150            |
| 13C2_8:2FTS |   | 106              | 25-150            |
| 13C2_PFDaA  |   | 105              | 25-150            |
| 13C2_PFHxDA |   | 133              | 25-150            |
| 13C2_PFTeDA |   | 108              | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-020            |
| Description: AUGER BLANK              | Matrix: Aqueous                       |
| Date Sampled: 08/06/2020 1025         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 108                 | 25-150               |
| 13C3_PFHxS   |   | 105                 | 25-150               |
| 13C3-HFPO-DA |   | 115                 | 25-150               |
| 13C4_PFBa    |   | 115                 | 25-150               |
| 13C4_PFHpA   |   | 118                 | 25-150               |
| 13C5_PFHxA   |   | 113                 | 25-150               |
| 13C5_PFPeA   |   | 117                 | 25-150               |
| 13C6_PFDa    |   | 116                 | 25-150               |
| 13C7_PFUdA   |   | 106                 | 25-150               |
| 13C8_PFOA    |   | 116                 | 25-150               |
| 13C8_PFOS    |   | 105                 | 25-150               |
| 13C8_PFOsA   |   | 107                 | 10-150               |
| 13C9_PFNa    |   | 117                 | 25-150               |
| d-EtFOsA     |   | 81                  | 10-150               |
| d5-EtFOsAA   |   | 106                 | 25-150               |
| d9-EtFOSE    |   | 116                 | 10-150               |
| d-MeFOsA     |   | 80                  | 10-150               |
| d3-MeFOsAA   |   | 108                 | 25-150               |
| d7-MeFOSE    |   | 101                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-021            |
| Description: DUP #1                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1145         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/18/2020 0346 | SES     | 08/16/2020 1423 | 63701 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 24     |   | 9.2 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 18  | 4.6 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 4.9    |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 3.5    | J | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 2.4    | J | 4.6 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 91     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 20     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 3.6    | J | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 9.5    |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 1.2    | J | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 9.2 | 2.3 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 4.7    |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 6.6    |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.6 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 360    |   | 4.6 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 73               | 25-150            |
| 13C2_6:2FTS |   | 61               | 25-150            |
| 13C2_8:2FTS |   | 53               | 25-150            |
| 13C2_PFDaA  |   | 47               | 25-150            |
| 13C2_PFHxDA | N | 6.1              | 25-150            |
| 13C2_PFTeDA | N | 18               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH11089-021            |
| Description: DUP #1                   | Matrix: Aqueous                       |
| Date Sampled: 08/05/2020 1145         | Project Name: LACROSSE Well #23 & #24 |
| Date Received: 08/11/2020             | Project Number: 40212540              |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 44                  | 25-150               |
| 13C3_PFHxS   |   | 27                  | 25-150               |
| 13C3-HFPO-DA |   | 77                  | 25-150               |
| 13C4_PFBa    |   | 80                  | 25-150               |
| 13C4_PFHpA   |   | 71                  | 25-150               |
| 13C5_PFHxA   |   | 73                  | 25-150               |
| 13C5_PFPeA   |   | 78                  | 25-150               |
| 13C6_PFDa    |   | 60                  | 25-150               |
| 13C7_PFUdA   |   | 51                  | 25-150               |
| 13C8_PFOA    |   | 62                  | 25-150               |
| 13C8_PFOS    | N | 21                  | 25-150               |
| 13C8_PFOsA   |   | 62                  | 10-150               |
| 13C9_PFNa    |   | 60                  | 25-150               |
| d-EtFOSA     |   | 27                  | 10-150               |
| d5-EtFOSAA   |   | 44                  | 25-150               |
| d9-EtFOSE    | N | 6.2                 | 10-150               |
| d-MeFOSA     |   | 43                  | 10-150               |
| d3-MeFOSAA   |   | 53                  | 25-150               |
| d7-MeFOSE    |   | 15                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## QC Summary

PFAS by LC/MS/MS - MB

Sample ID: VQ63632-001

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Parameter    | Result | Q | Dil | LOQ | DL  | Units | Analysis Date   |
|--------------|--------|---|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| 11CI-PF3OUdS | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| 8:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| 6:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| 10:2 FTS     | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| 4:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| GenX         | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| ADONA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| EtFOSA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| EtFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| EtFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| MeFOSA       | ND     |   | 1   | 16  | 4.0 | ng/L  | 08/17/2020 1625 |
| MeFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| MeFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| PFBS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFDS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFHpS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFNS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFOSA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFPeS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFDOS        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| PFHxS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFBA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFDA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFDoA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFHpA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFHxDA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| PFHxA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFNA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFODA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1625 |
| PFOA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFPeA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFTeDA       | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFTTrDA      | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFUdA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |
| PFOS         | 1.3    | J | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1625 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 90    | 25-150           |
| 13C2_6:2FTS |   | 88    | 25-150           |
| 13C2_8:2FTS |   | 83    | 25-150           |
| 13C2_PFDoA  |   | 83    | 25-150           |
| 13C2_PFHxDA |   | 89    | 25-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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



PFAS by LC/MS/MS - MB

Sample ID: VQ63632-001

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 82    | 25-150           |
| 13C3_PFBs    |   | 84    | 25-150           |
| 13C3_PFHxS   |   | 87    | 25-150           |
| 13C3-HFPO-DA |   | 91    | 25-150           |
| 13C4_PFBa    |   | 94    | 25-150           |
| 13C4_PFHpA   |   | 91    | 25-150           |
| 13C5_PFHxA   |   | 90    | 25-150           |
| 13C5_PFPeA   |   | 92    | 25-150           |
| 13C6_PFDa    |   | 85    | 25-150           |
| 13C7_PFUdA   |   | 90    | 25-150           |
| 13C8_PFOA    |   | 97    | 25-150           |
| 13C8_PFOs    |   | 78    | 25-150           |
| 13C8_PFOsA   |   | 96    | 10-150           |
| 13C9_PFNa    |   | 89    | 25-150           |
| d-EtFOsA     |   | 77    | 10-150           |
| d5-EtFOsAA   |   | 84    | 25-150           |
| d9-EtFOsE    |   | 105   | 10-150           |
| d-MeFOsA     |   | 94    | 10-150           |
| d3-MeFOsAA   |   | 87    | 25-150           |
| d7-MeFOsE    |   | 91    | 10-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ63632-002

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 15            |                  | 1   | 104   | 50-150      | 08/17/2020 1635 |
| 11CI-PF3OUdS | 15                  | 14            |                  | 1   | 93    | 50-150      | 08/17/2020 1635 |
| 8:2 FTS      | 15                  | 15            |                  | 1   | 99    | 50-150      | 08/17/2020 1635 |
| 6:2 FTS      | 15                  | 16            |                  | 1   | 106   | 50-150      | 08/17/2020 1635 |
| 10:2 FTS     | 15                  | 16            |                  | 1   | 103   | 50-150      | 08/17/2020 1635 |
| 4:2 FTS      | 15                  | 16            |                  | 1   | 110   | 50-150      | 08/17/2020 1635 |
| GenX         | 32                  | 34            |                  | 1   | 106   | 50-150      | 08/17/2020 1635 |
| ADONA        | 15                  | 18            |                  | 1   | 120   | 50-150      | 08/17/2020 1635 |
| EtFOSA       | 16                  | 19            |                  | 1   | 118   | 50-150      | 08/17/2020 1635 |
| EtFOSAA      | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/17/2020 1635 |
| EtFOSE       | 16                  | 16            |                  | 1   | 101   | 50-150      | 08/17/2020 1635 |
| MeFOSA       | 16                  | 16            |                  | 1   | 100   | 50-150      | 08/17/2020 1635 |
| MeFOSAA      | 16                  | 18            |                  | 1   | 111   | 50-150      | 08/17/2020 1635 |
| MeFOSE       | 16                  | 17            |                  | 1   | 108   | 50-150      | 08/17/2020 1635 |
| PFBS         | 14                  | 15            |                  | 1   | 103   | 50-150      | 08/17/2020 1635 |
| PFDS         | 15                  | 14            |                  | 1   | 92    | 50-150      | 08/17/2020 1635 |
| PFHpS        | 15                  | 17            |                  | 1   | 110   | 50-150      | 08/17/2020 1635 |
| PFNS         | 15                  | 17            |                  | 1   | 108   | 50-150      | 08/17/2020 1635 |
| PFOSA        | 16                  | 18            |                  | 1   | 112   | 50-150      | 08/17/2020 1635 |
| PFPeS        | 15                  | 15            |                  | 1   | 101   | 50-150      | 08/17/2020 1635 |
| PFDOS        | 15                  | 13            |                  | 1   | 86    | 50-150      | 08/17/2020 1635 |
| PFHxS        | 15                  | 16            |                  | 1   | 111   | 50-150      | 08/17/2020 1635 |
| PFBA         | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/17/2020 1635 |
| PFDA         | 16                  | 18            |                  | 1   | 112   | 50-150      | 08/17/2020 1635 |
| PFDoA        | 16                  | 18            |                  | 1   | 114   | 50-150      | 08/17/2020 1635 |
| PFHpA        | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/17/2020 1635 |
| PFHxDA       | 16                  | 16            |                  | 1   | 98    | 50-150      | 08/17/2020 1635 |
| PFHxA        | 16                  | 16            |                  | 1   | 101   | 50-150      | 08/17/2020 1635 |
| PFNA         | 16                  | 17            |                  | 1   | 107   | 50-150      | 08/17/2020 1635 |
| PFODA        | 16                  | 16            |                  | 1   | 101   | 50-150      | 08/17/2020 1635 |
| PFOA         | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/17/2020 1635 |
| PFPeA        | 16                  | 18            |                  | 1   | 113   | 50-150      | 08/17/2020 1635 |
| PFTeDA       | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/17/2020 1635 |
| PFTrDA       | 16                  | 19            |                  | 1   | 116   | 50-150      | 08/17/2020 1635 |
| PFUdA        | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/17/2020 1635 |
| PFOS         | 15                  | 15            |                  | 1   | 100   | 50-150      | 08/17/2020 1635 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |             |                 |
| 13C2_4:2FTS  |                     | 91            | 25-150           |     |       |             |                 |
| 13C2_6:2FTS  |                     | 86            | 25-150           |     |       |             |                 |
| 13C2_8:2FTS  |                     | 91            | 25-150           |     |       |             |                 |
| 13C2_PFDoA   |                     | 82            | 25-150           |     |       |             |                 |
| 13C2_PFHxDA  |                     | 91            | 25-150           |     |       |             |                 |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ63632-002

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 88    | 25-150           |
| 13C3_PFBs    |   | 89    | 25-150           |
| 13C3_PFHxS   |   | 87    | 25-150           |
| 13C3-HFPO-DA |   | 94    | 25-150           |
| 13C4_PFBa    |   | 92    | 25-150           |
| 13C4_PFHpA   |   | 96    | 25-150           |
| 13C5_PFHxA   |   | 91    | 25-150           |
| 13C5_PFPeA   |   | 92    | 25-150           |
| 13C6_PFDa    |   | 91    | 25-150           |
| 13C7_PFUdA   |   | 92    | 25-150           |
| 13C8_PFOA    |   | 93    | 25-150           |
| 13C8_PFOS    |   | 87    | 25-150           |
| 13C8_PFOsA   |   | 94    | 10-150           |
| 13C9_PFNA    |   | 92    | 25-150           |
| d-EtFOsA     |   | 55    | 10-150           |
| d5-EtFOsAA   |   | 86    | 25-150           |
| d9-EtFOsE    |   | 97    | 10-150           |
| d-MeFOsA     |   | 63    | 10-150           |
| d3-MeFOsAA   |   | 89    | 25-150           |
| d7-MeFOsE    |   | 79    | 10-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - LCSD

Sample ID: VQ63632-003

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------|-------------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 15            |                  | 1   | 97    | 6.3   | 50-150      | 30          | 08/17/2020 1646 |
| 11CI-PF3OUdS | 15                  | 15            |                  | 1   | 102   | 9.0   | 50-150      | 30          | 08/17/2020 1646 |
| 8:2 FTS      | 15                  | 15            |                  | 1   | 96    | 3.6   | 50-150      | 30          | 08/17/2020 1646 |
| 6:2 FTS      | 15                  | 15            |                  | 1   | 101   | 4.8   | 50-150      | 30          | 08/17/2020 1646 |
| 10:2 FTS     | 15                  | 18            |                  | 1   | 117   | 13    | 50-150      | 30          | 08/17/2020 1646 |
| 4:2 FTS      | 15                  | 17            |                  | 1   | 113   | 3.0   | 50-150      | 30          | 08/17/2020 1646 |
| GenX         | 32                  | 35            |                  | 1   | 108   | 2.5   | 50-150      | 30          | 08/17/2020 1646 |
| ADONA        | 15                  | 17            |                  | 1   | 110   | 9.1   | 50-150      | 30          | 08/17/2020 1646 |
| EtFOSA       | 16                  | 15            |                  | 1   | 94    | 23    | 50-150      | 30          | 08/17/2020 1646 |
| EtFOSAA      | 16                  | 16            |                  | 1   | 102   | 6.5   | 50-150      | 30          | 08/17/2020 1646 |
| EtFOSE       | 16                  | 15            |                  | 1   | 93    | 7.5   | 50-150      | 30          | 08/17/2020 1646 |
| MeFOSA       | 16                  | 18            |                  | 1   | 115   | 14    | 50-150      | 30          | 08/17/2020 1646 |
| MeFOSAA      | 16                  | 17            |                  | 1   | 105   | 5.6   | 50-150      | 30          | 08/17/2020 1646 |
| MeFOSE       | 16                  | 17            |                  | 1   | 108   | 0.28  | 50-150      | 30          | 08/17/2020 1646 |
| PFBS         | 14                  | 15            |                  | 1   | 103   | 0.040 | 50-150      | 30          | 08/17/2020 1646 |
| PFDS         | 15                  | 15            |                  | 1   | 96    | 5.0   | 50-150      | 30          | 08/17/2020 1646 |
| PFHpS        | 15                  | 15            |                  | 1   | 98    | 12    | 50-150      | 30          | 08/17/2020 1646 |
| PFNS         | 15                  | 17            |                  | 1   | 112   | 3.5   | 50-150      | 30          | 08/17/2020 1646 |
| PFOSA        | 16                  | 16            |                  | 1   | 102   | 8.9   | 50-150      | 30          | 08/17/2020 1646 |
| PFPeS        | 15                  | 16            |                  | 1   | 106   | 4.9   | 50-150      | 30          | 08/17/2020 1646 |
| PFDOS        | 15                  | 13            |                  | 1   | 87    | 1.2   | 50-150      | 30          | 08/17/2020 1646 |
| PFHxS        | 15                  | 16            |                  | 1   | 109   | 1.7   | 50-150      | 30          | 08/17/2020 1646 |
| PFBA         | 16                  | 18            |                  | 1   | 110   | 0.58  | 50-150      | 30          | 08/17/2020 1646 |
| PFDA         | 16                  | 17            |                  | 1   | 108   | 4.0   | 50-150      | 30          | 08/17/2020 1646 |
| PFDoA        | 16                  | 17            |                  | 1   | 106   | 7.0   | 50-150      | 30          | 08/17/2020 1646 |
| PFHpA        | 16                  | 17            |                  | 1   | 106   | 1.2   | 50-150      | 30          | 08/17/2020 1646 |
| PFHxDA       | 16                  | 16            |                  | 1   | 98    | 0.70  | 50-150      | 30          | 08/17/2020 1646 |
| PFHxA        | 16                  | 17            |                  | 1   | 105   | 3.3   | 50-150      | 30          | 08/17/2020 1646 |
| PFNA         | 16                  | 16            |                  | 1   | 102   | 4.9   | 50-150      | 30          | 08/17/2020 1646 |
| PFODA        | 16                  | 16            |                  | 1   | 100   | 1.1   | 50-150      | 30          | 08/17/2020 1646 |
| PFOA         | 16                  | 16            |                  | 1   | 100   | 6.3   | 50-150      | 30          | 08/17/2020 1646 |
| PFPeA        | 16                  | 17            |                  | 1   | 104   | 7.7   | 50-150      | 30          | 08/17/2020 1646 |
| PFTeDA       | 16                  | 16            |                  | 1   | 100   | 3.7   | 50-150      | 30          | 08/17/2020 1646 |
| PFTrDA       | 16                  | 17            |                  | 1   | 108   | 7.1   | 50-150      | 30          | 08/17/2020 1646 |
| PFUdA        | 16                  | 15            |                  | 1   | 96    | 13    | 50-150      | 30          | 08/17/2020 1646 |
| PFOS         | 15                  | 14            |                  | 1   | 92    | 8.8   | 50-150      | 30          | 08/17/2020 1646 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |       |             |             |                 |
| 13C2_4:2FTS  |                     | 91            | 25-150           |     |       |       |             |             |                 |
| 13C2_6:2FTS  |                     | 88            | 25-150           |     |       |       |             |             |                 |
| 13C2_8:2FTS  |                     | 91            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFDoA   |                     | 86            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFHxDA  |                     | 89            | 25-150           |     |       |       |             |             |                 |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - LCSD

Sample ID: VQ63632-003

Matrix: Aqueous

Batch: 63632

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/15/2020 1011

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 87    | 25-150           |
| 13C3_PFBs    |   | 87    | 25-150           |
| 13C3_PFHxS   |   | 90    | 25-150           |
| 13C3-HFPO-DA |   | 92    | 25-150           |
| 13C4_PFBa    |   | 93    | 25-150           |
| 13C4_PFHpA   |   | 94    | 25-150           |
| 13C5_PFHxA   |   | 93    | 25-150           |
| 13C5_PFPeA   |   | 94    | 25-150           |
| 13C6_PFDa    |   | 91    | 25-150           |
| 13C7_PFUdA   |   | 96    | 25-150           |
| 13C8_PFOA    |   | 93    | 25-150           |
| 13C8_PFOS    |   | 89    | 25-150           |
| 13C8_PFOsA   |   | 94    | 10-150           |
| 13C9_PFNa    |   | 94    | 25-150           |
| d-EtFOsA     |   | 63    | 10-150           |
| d5-EtFOsAA   |   | 85    | 25-150           |
| d9-EtFOsE    |   | 102   | 10-150           |
| d-MeFOsA     |   | 71    | 10-150           |
| d3-MeFOsAA   |   | 92    | 25-150           |
| d7-MeFOsE    |   | 83    | 10-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - MB

Sample ID: VQ63701-001

Matrix: Aqueous

Batch: 63701

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/16/2020 1423

| Parameter    | Result | Q | Dil | LOQ | DL  | Units | Analysis Date   |
|--------------|--------|---|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| 11CI-PF3OUdS | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| 8:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| 6:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| 10:2 FTS     | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| 4:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| GenX         | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| ADONA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| EtFOSA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| EtFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| EtFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| MeFOSA       | ND     |   | 1   | 16  | 4.0 | ng/L  | 08/17/2020 1542 |
| MeFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| MeFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| PFBS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFDS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFHpS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFNS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFOSA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFPeS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFDOS        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| PFHxS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFBA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFDA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFDoA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFHpA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFHxDA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| PFHxA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFNA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFODA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/17/2020 1542 |
| PFOA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFPeA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFTeDA       | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFTTrDA      | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFUdA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |
| PFOS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/17/2020 1542 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 94    | 25-150           |
| 13C2_6:2FTS |   | 95    | 25-150           |
| 13C2_8:2FTS |   | 87    | 25-150           |
| 13C2_PFDoA  |   | 100   | 25-150           |
| 13C2_PFHxDA |   | 97    | 25-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - MB

Sample ID: VQ63701-001

Matrix: Aqueous

Batch: 63701

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/16/2020 1423

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 90    | 25-150           |
| 13C3_PFBs    |   | 87    | 25-150           |
| 13C3_PFHxS   |   | 92    | 25-150           |
| 13C3-HFPO-DA |   | 95    | 25-150           |
| 13C4_PFBa    |   | 97    | 25-150           |
| 13C4_PFHpA   |   | 95    | 25-150           |
| 13C5_PFHxA   |   | 97    | 25-150           |
| 13C5_PFPeA   |   | 94    | 25-150           |
| 13C6_PFDa    |   | 94    | 25-150           |
| 13C7_PFUdA   |   | 98    | 25-150           |
| 13C8_PFOA    |   | 97    | 25-150           |
| 13C8_PFOs    |   | 87    | 25-150           |
| 13C8_PFOsA   |   | 90    | 10-150           |
| 13C9_PFNa    |   | 100   | 25-150           |
| d-EtFOsA     |   | 52    | 10-150           |
| d5-EtFOsAA   |   | 94    | 25-150           |
| d9-EtFOsE    |   | 89    | 10-150           |
| d-MeFOsA     |   | 64    | 10-150           |
| d3-MeFOsAA   |   | 96    | 25-150           |
| d7-MeFOsE    |   | 78    | 10-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ63701-002

Matrix: Aqueous

Batch: 63701

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/16/2020 1423

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 16            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |
| 11CI-PF3OUdS | 15                  | 15            |   | 1   | 101   | 50-150      | 08/17/2020 1553 |
| 8:2 FTS      | 15                  | 15            |   | 1   | 99    | 50-150      | 08/17/2020 1553 |
| 6:2 FTS      | 15                  | 15            |   | 1   | 98    | 50-150      | 08/17/2020 1553 |
| 10:2 FTS     | 15                  | 21            |   | 1   | 133   | 50-150      | 08/17/2020 1553 |
| 4:2 FTS      | 15                  | 16            |   | 1   | 107   | 50-150      | 08/17/2020 1553 |
| GenX         | 32                  | 36            |   | 1   | 112   | 50-150      | 08/17/2020 1553 |
| ADONA        | 15                  | 16            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |
| EtFOSA       | 16                  | 22            |   | 1   | 140   | 50-150      | 08/17/2020 1553 |
| EtFOSAA      | 16                  | 18            |   | 1   | 115   | 50-150      | 08/17/2020 1553 |
| EtFOSE       | 16                  | 17            |   | 1   | 105   | 50-150      | 08/17/2020 1553 |
| MeFOSA       | 16                  | 16            |   | 1   | 101   | 50-150      | 08/17/2020 1553 |
| MeFOSAA      | 16                  | 20            |   | 1   | 125   | 50-150      | 08/17/2020 1553 |
| MeFOSE       | 16                  | 15            |   | 1   | 92    | 50-150      | 08/17/2020 1553 |
| PFBS         | 14                  | 16            |   | 1   | 112   | 50-150      | 08/17/2020 1553 |
| PFDS         | 15                  | 17            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |
| PFHpS        | 15                  | 16            |   | 1   | 107   | 50-150      | 08/17/2020 1553 |
| PFNS         | 15                  | 16            |   | 1   | 104   | 50-150      | 08/17/2020 1553 |
| PFOSA        | 16                  | 17            |   | 1   | 105   | 50-150      | 08/17/2020 1553 |
| PFPeS        | 15                  | 15            |   | 1   | 101   | 50-150      | 08/17/2020 1553 |
| PFDOS        | 15                  | 16            |   | 1   | 104   | 50-150      | 08/17/2020 1553 |
| PFHxS        | 15                  | 15            |   | 1   | 105   | 50-150      | 08/17/2020 1553 |
| PFBA         | 16                  | 18            |   | 1   | 110   | 50-150      | 08/17/2020 1553 |
| PFDA         | 16                  | 17            |   | 1   | 105   | 50-150      | 08/17/2020 1553 |
| PFDoA        | 16                  | 17            |   | 1   | 108   | 50-150      | 08/17/2020 1553 |
| PFHpA        | 16                  | 17            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |
| PFHxDA       | 16                  | 16            |   | 1   | 98    | 50-150      | 08/17/2020 1553 |
| PFHxA        | 16                  | 16            |   | 1   | 100   | 50-150      | 08/17/2020 1553 |
| PFNA         | 16                  | 17            |   | 1   | 105   | 50-150      | 08/17/2020 1553 |
| PFODA        | 16                  | 16            |   | 1   | 98    | 50-150      | 08/17/2020 1553 |
| PFOA         | 16                  | 17            |   | 1   | 108   | 50-150      | 08/17/2020 1553 |
| PFPeA        | 16                  | 17            |   | 1   | 108   | 50-150      | 08/17/2020 1553 |
| PFTeDA       | 16                  | 18            |   | 1   | 111   | 50-150      | 08/17/2020 1553 |
| PFTrDA       | 16                  | 17            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |
| PFUdA        | 16                  | 16            |   | 1   | 103   | 50-150      | 08/17/2020 1553 |
| PFOS         | 15                  | 16            |   | 1   | 109   | 50-150      | 08/17/2020 1553 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 92    | 25-150           |
| 13C2_6:2FTS |   | 94    | 25-150           |
| 13C2_8:2FTS |   | 93    | 25-150           |
| 13C2_PFDoA  |   | 97    | 25-150           |
| 13C2_PFHxDA |   | 109   | 25-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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



PFAS by LC/MS/MS - LCS

Sample ID: VQ63701-002

Matrix: Aqueous

Batch: 63701

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/16/2020 1423

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 96    | 25-150           |
| 13C3_PFBs    |   | 92    | 25-150           |
| 13C3_PFHxS   |   | 93    | 25-150           |
| 13C3-HFPO-DA |   | 95    | 25-150           |
| 13C4_PFBa    |   | 97    | 25-150           |
| 13C4_PFHpA   |   | 97    | 25-150           |
| 13C5_PFHxA   |   | 94    | 25-150           |
| 13C5_PFPeA   |   | 96    | 25-150           |
| 13C6_PFDa    |   | 98    | 25-150           |
| 13C7_PFUdA   |   | 97    | 25-150           |
| 13C8_PFOA    |   | 97    | 25-150           |
| 13C8_PFOs    |   | 92    | 25-150           |
| 13C8_PFOsA   |   | 96    | 10-150           |
| 13C9_PFNa    |   | 97    | 25-150           |
| d-EtFOsA     |   | 56    | 10-150           |
| d5-EtFOsAA   |   | 93    | 25-150           |
| d9-EtFOsE    |   | 91    | 10-150           |
| d-MeFOsA     |   | 69    | 10-150           |
| d3-MeFOsAA   |   | 95    | 25-150           |
| d7-MeFOsE    |   | 95    | 10-150           |

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

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

Chain of Custody  
and  
Miscellaneous Documents

# Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI  
 Cert. Needed:  Yes  No



Workorder: 40212540      Workorder Name: LACROSSE WELL #23 & #24

Owner Received Date: 8/7/2020      Results Requested By: 8/31/2020

| Report To   |                 | Subcontract To   |                   | Requested Analysts |        |            |                      |   |   |   |                                 |                   |     |              |
|---|-----------------|--|-------------------|--------------------|--------|------------|----------------------|---|---|---|---------------------------------|-------------------|-----|--------------|
| Christopher Hyska<br>Pace Analytical Green Bay<br>1241 Bellevue Street<br>Suite 9<br>Green Bay, WI 54302<br>Phone (920)469-2436 |                 | Pace Analytical West Columbia<br>106 Vantage Point Drive<br>West Columbia, SC 29172<br>Phone (803)791-9700 |                   |                    |        |            |                      |   |   |   |                                 |                   |     |              |
| Item  | Sample ID       | Sample Type  | Collect Date/Time | Lab ID             | Matrix | L/Preserve | Preserved Containers |   |   |   | WT 50 PFS by Testscope Dilution | % TS / Dry Weight | NMS | LAB USE ONLY |
|   |                 |  |                   |                    |        |            | 1                    | 2 | 3 | 4 |                                 |                   |     |              |
| 40  | GP-20 11-15'    | PS   | 8/6/2020 11:30    | 40212540040        | Solid  | 1          |                      |   |   |   | X                               | X                 |     |              |
| 41  | GP-21 E 5-10.5' | PS   | 8/6/2020 12:10    | 40212540041        | Solid  | 1          |                      |   |   |   | X                               | X                 |     |              |
| 42  | DUP #1          | PS   | 8/5/2020 12:20    | 40212540042        | Solid  | 1          |                      |   |   |   | X                               | X                 |     |              |
| 43  | DUP #2          | PS   | 8/5/2020 13:50    | 40212540043        | Solid  | 1          |                      |   |   |   | X                               | X                 |     |              |
| 44  | DUP #3          | PS   | 8/5/2020 11:05    | 40212540044        | Solid  | 1          |                      |   |   |   | X                               | X                 |     |              |
| 45  | GP-1            | PS   | 8/3/2020 15:30    | 40212540045        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 46  | GP-2            | PS   | 8/3/2020 15:00    | 40212540046        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 47  | GP-3            | PS   | 8/4/2020 08:30    | 40212540047        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 48  | GP-4            | PS   | 8/4/2020 09:15    | 40212540048        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 49  | GP-5            | PS   | 8/4/2020 10:00    | 40212540049        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 50  | GP-6            | PS   | 8/4/2020 10:50    | 40212540050        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 51  | GP-10           | PS   | 8/4/2020 13:45    | 40212540051        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 52  | GP-11           | PS   | 8/4/2020 16:15    | 40212540052        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 53  | GP-14           | PS   | 8/5/2020 09:00    | 40212540053        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 54  | GP-15           | PS   | 8/5/2020 12:25    | 40212540054        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 55  | GP-16           | PS   | 8/5/2020 12:45    | 40212540055        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 56  | GP-17           | PS   | 8/5/2020 13:30    | 40212540056        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 57  | MW-101          | PS   | 8/5/2020 14:10    | 40212540057        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 58  | MW-102          | PS   | 8/5/2020 11:15    | 40212540058        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |
| 59  | MW-103          | PS   | 8/5/2020 11:40    | 40212540059        | Water  | 2          |                      |   |   |   | X                               |                   |     |              |



# Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI  
 Cert. Needed:  Yes  No  
 Owner Received Date: 8/7/2020 Results Requested By: 8/31/2020



Workorder: 40212540 Workorder Name: I ACROSSE WELL #23 & #24

| Report To  |                   | Subcontract To   |                      |             |        | Requested Analysis   |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
|--|-------------------|--|----------------------|-------------|--------|----------------------|--------------|---|---|---|---|--------------------|---|---|---|---|----|----|----|-----|--------------|
| Christopher Hyska<br>Pace Analytical Green Bay<br>241 Bellevue Street<br>Suite B<br>Green Bay, WI 54302<br>Phone (920)469-2436 |                   | Pace Analytical West Columbia<br>106 Vantage Point Drive<br>West Columbia, SC 29172<br>Phone (803)791-8700 |                      |             |        |                      |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
|  |                   |  |                      |             |        |                      |              |   |   |   |   | <br><b>VH11089</b> |   |   |   |   |    |    |    |     |              |
| Item   | Sample ID         | Sampling Type  | Collection Date/Time | Lab ID      | Matrix | Preserved Containers | Preservation | 1 | 2 | 3 | 4 | 5                  | 6 | 7 | 8 | 9 | 10 | 11 | 12 | NMS | LAB USE ONLY |
| 60   | GP-20             | PS   | 8/6/2020 11:35       | 40212540060 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
| 61   | GP-21             | PS   | 8/6/2020 12:20       | 40212540061 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
| 62   | FIELD BLANK       | PS   | 8/5/2020 12:50       | 40212540062 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
| 63   | PERISTALTIC BLANK | PS   | 8/5/2020 14:05       | 40212540063 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
| 64   | AUGER BLANK       | PS   | 8/6/2020 10:25       | 40212540064 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |
| 65   | DUP #1            | PS   | 8/5/2020 11:45       | 40212540065 | Water  | 2                    |              |   |   |   |   |                    |   |   |   |   |    |    |    |     |              |

| Transfers          |                 |                    |                 |  |  | Comments      |
|--------------------|-----------------|--------------------|-----------------|--|--|---------------|
| Released By        | Date/Time       | Received By        | Date/Time       |  |  |               |
| <i>[Signature]</i> | 8/10/2020 11:00 | <i>[Signature]</i> |                 |  |  | MDL Reporting |
|                    |                 |                    |                 |  |  |               |
| FedEx              | 8/11/2020 11:10 | <i>[Signature]</i> | 8/11/2020 11:10 |  |  |               |

Cooler Temperature on Receipt \_\_\_\_\_ °C    Custody Seal  or N    Received on Ice  Y or N    Samples Intact  Y or N

\*\*\*In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services, LLC (formerly Sheehy Environmental Services, Inc.)  
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com  
 Page 64 of 68  
 Page 202 of 206

PACE ANALYTICAL SERVICES, LLC







# PACE ANALYTICAL SERVICES, LLC

Shealy Environmental Services, Inc.  
Document Number: MF2018C-14

Page 1 of 1  
Effective Date: 8/2/2018

## Sample Receipt Checklist (SRC)

Client: The OS Group LLC Cooler Inspected by/date: MHZ / 8/11/2020 Lot #: VH1108161-089

|   |   |
|---|---|
| Means of receipt: <input type="checkbox"/> SFSI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other:                            |   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 1. Were custody seals present on the cooler?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA   | 2. If custody seals were present, were they intact and unbroken?  |
| pH Strip ID: <u>N/A</u> Chlorine Strip ID: <u>N/A</u> Tested by: <u>N/A</u>   |   |
| Original temperature upon receipt: <u>19.19 °C</u> Derived (Corrected) temperature upon receipt: <u>N/A °C</u> %Solid Snap-Cup ID: <u>N/A</u>   |   |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C  |   |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None  |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).                  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA   | 4. Is the commercial courier's packing slip attached to this form?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 5. Were proper custody procedures (relinquished/received) followed?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 6. Were sample IDs listed on the COC?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 7. Were sample IDs listed on all sample containers?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 8. Was collection date & time listed on the COC?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 9. Was collection date & time listed on all sample containers?  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 10. Did all container label information (ID, date, time) agree with the COC?  |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 11. Were tests to be performed listed on the COC?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?   |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 13. Was adequate sample volume available?   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?   |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 16. For VOA and RSK-175 samples, were bubbles present >"pca-size" (>1/8" or 6mm in diameter) in any of the VOA vials?   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 17. Were all DRO/metals/nutrient samples received at a pH of < 2?   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 19. Were all applicable NH <sub>3</sub> /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA   | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 21. Was the quote number listed on the container label? If yes, Quote # <u>23492</u>  |
| <b>Sample Preservation</b> (Must be completed for any sample(s) incorrectly preserved or with headspace.)   |   |
| Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____  |   |
| Time of preservation _____. If more than one preservative is needed, please note in the comments below.   |   |
| Sample(s) _____ were received with bubbles >6 mm in diameter.   |   |
| Sample(s) _____ were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) with Shealy ID: _____ |   |
| SR barcode labels applied by: <u>MHZ</u> Date: <u>8/11/2020</u>   |   |

Comments: Sample "GP-21" labeled as "MHZ" sample was verified by date and time on container that matched the COC.



September 08, 2020

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

RE: Project: LACROSSE WELLS #23 & #24  
Pace Project No.: 40212977


Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on August 14, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,



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

Enclosures

cc: John Storlie, The OS Group, LLC



## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: LACROSSE WELLS #23 & #24  
Pace Project No.: 40212977

| Lab ID      | Sample ID             | Matrix | Date Collected | Date Received  |
|-------------|-----------------------|--------|----------------|----------------|
| 40212977001 | MW-3 16-17'           | Solid  | 08/10/20 14:35 | 08/14/20 10:45 |
| 40212977002 | MW-4 17-18'           | Solid  | 08/11/20 08:00 | 08/14/20 10:45 |
| 40212977003 | MW-104I 9-10'         | Solid  | 08/11/20 12:40 | 08/14/20 10:45 |
| 40212977004 | MW-104I 24-25'        | Solid  | 08/11/20 13:00 | 08/14/20 10:45 |
| 40212977005 | PZ-105I 9-10'         | Solid  | 08/12/20 14:05 | 08/14/20 10:45 |
| 40212977006 | PZ-105I 18-19'        | Solid  | 08/12/20 14:10 | 08/14/20 10:45 |
| 40212977007 | PZ-106 9-10'          | Solid  | 08/13/20 07:25 | 08/14/20 10:45 |
| 40212977008 | PZ-106 14-15'         | Solid  | 08/13/20 07:30 | 08/14/20 10:45 |
| 40212977009 | DUP #4                | Solid  | 08/10/20 14:40 | 08/14/20 10:45 |
| 40212977010 | DUP #5                | Solid  | 08/11/20 13:05 | 08/14/20 10:45 |
| 40212977011 | MW-3                  | Water  | 08/10/20 14:50 | 08/14/20 10:45 |
| 40212977012 | MW-4                  | Water  | 08/11/20 08:20 | 08/14/20 10:45 |
| 40212977013 | MW-104I 55-59'        | Water  | 08/11/20 16:00 | 08/14/20 10:45 |
| 40212977014 | PZ-105 WT             | Water  | 08/12/20 14:15 | 08/14/20 10:45 |
| 40212977015 | PZ-106 WT             | Water  | 08/13/20 08:30 | 08/14/20 10:45 |
| 40212977016 | DUP #2                | Water  | 08/10/20 14:55 | 08/14/20 10:45 |
| 40212977017 | DUP #3                | Water  | 08/11/20 16:05 | 08/14/20 10:45 |
| 40212977018 | FIELD BLANK #2        | Water  | 08/11/20 13:10 | 08/14/20 10:45 |
| 40212977019 | DISCRETE SAMPLE BLANK | Water  | 08/11/20 15:45 | 08/14/20 10:45 |
| 40212977020 | DECON BLANK #2        | Water  | 08/12/20 18:20 | 08/14/20 10:45 |

## REPORT OF LABORATORY ANALYSIS

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**PACE ANALYTICAL SERVICES, LLC**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.pacelabs.com

Number 110473

40212977

Page 3 of 74

|  |                    |   |                                      |  |                                  |                           |                       |
|--|--------------------|---|--------------------------------------|--|----------------------------------|---------------------------|-----------------------|
| Client<br><b>The OS Group, LLC</b>             |                    | Report to Contact<br><b>Steven Osesek</b>     |                                      | Telephone No. / E-mail<br><b>608-433-9388</b> <b>STEVE.OSESEK@THEOSGRP.COM</b> |                                  | Quote No.                 |                       |
| Address<br><b>444 21st Street S</b>            |                    | Sampler's Signature<br><b>X Steven Osesek</b> |                                      | Analysis (Attach list if more space is needed)                                 |                                  | Page <b>1</b> of <b>2</b> |                       |
| City<br><b>Lo Crosse, WI</b>                   | State<br><b>WI</b> | Zip Code<br><b>54601</b>                      | Printed Name<br><b>STEVEN OSESEK</b> |  | Lot # Bar Code<br>(lab use only) |                           | Remarks / Cooler I.D. |
| Project Name<br><b>Lo Crosse Wells # 23+24</b> |                    |   |                                      |  |                                  |                           |                       |

| Project No. | P.O. No. | Sample ID / Description<br>(Containers for each sample may be combined on one line.) | Collection Date(s) | Collection Time (Military) | G-Crab C-Composite | Matrix  |       |             |         | No of Containers by Preservative Type |      |     |      |          |                | WI PFAS 3C | Remarks / Cooler I.D. |
|-------------|----------|--|--------------------|----------------------------|--------------------|---------|-------|-------------|---------|---------------------------------------|------|-----|------|----------|----------------|------------|-----------------------|
|             |          |  |                    |                            |                    | Aqueous | Solid | Non-Aqueous | Unpres. | H2SO4                                 | HNO3 | HCl | NaOH | 5035 Kit | Field Filtered |            |                       |
| 001         |          | MW-3 <del>8-10</del> 16-17'  | 8-10-20            | 2:35                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 002         |          | MW-4 17-18'  | 8-11-20            | 8:00                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 003         |          | MW 104I 9-10'  | 8-11-20            | 12:40                      | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 004         |          | MW-104I 24-25'   | 8-11-20            | 1:00                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 005         |          | P2-105I 9-10'  | 8-12-20            | 2:05                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 006         |          | P2-105I 18-19'   | 8-12-20            | 2:10                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 007         |          | P2-106 9-10'   | 8-13-20            | 7:25                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 008         |          | P2-106 14-15'  | 8-13-20            | 7:30                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 009         |          | Dup #4   | 8-10-20            | 2:40                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |
| 010         |          | Dup #5   | 8-11-20            | 1:05                       | G                  | X       |       |             | 1       |                                       |      |     |      |          |                | X          |                       |

|  |  |   |                           |
|--|--|---|---------------------------|
| Turn Around Time Required (Prior lab approval required for expedited TAT.)<br><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) | Sample Disposal<br><input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab | Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input checked="" type="checkbox"/> Unknown | QC Requirements (Specify) |
|--|--|---|---------------------------|


|  |                        |                     |                                      |                        |                     |
|--|------------------------|---------------------|--------------------------------------|------------------------|---------------------|
| 1. Relinquished by<br><b>Steven Osesek</b> | Date<br><b>8-13-20</b> | Time<br><b>3:00</b> | 1. Received by                       | Date                   | Time                |
| 2. Relinquished by<br><b>Fedex</b>         | Date<br><b>8/14/20</b> | Time<br><b>1045</b> | 2. Received by<br><i>[Signature]</i> | Date<br><b>8/14/20</b> | Time<br><b>1045</b> |
| 3. Relinquished by                         | Date                   | Time                | 3. Received by                       | Date                   | Time                |
| 4. Relinquished by                         | Date                   | Time                | 4. Laboratory received by            | Date                   | Time                |

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

|              |  |                             |   |
|--------------|--|-----------------------------|---|
| LAB USE ONLY | Received on Ice (Circle) <b>(No)</b> Yes No Ice Pack | Receipt Temp. <b>POS</b> °C | Temp Blank <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |
|--------------|--|-----------------------------|---|






|   |  |  |
|---|--|--|
| <br>1241 Bellevue Street, Green Bay, WI 54302 | Document Name:<br>Sample Condition Upon Receipt (SCUR) | Document Revised: 26Mar2020              |
|   | Document No.:<br>ENV-FRM-GBAY-0014-Rev.00              | Author:<br>Pace Green Bay Quality Office |

### Sample Condition Upon Receipt Form (SCUR)

Client Name: The OS Group  
 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

Project #: \_\_\_\_\_

**WO#: 40212977**



40212977

Tracking #: 3957 9450 9470  
 Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - NA    Type of Ice:  Wet  Blue  Dry  None     Samples on ice, cooling process has begun

Cooler Temperature    Uncorr: 6.5 /Corr: \_\_\_\_\_

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

Temp should be above freezing to 6°C.

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

|   |
|---|
| Person examining contents:<br>Date: <u>8/14/20</u> /Initials: <u>HP</u> |
| Labeled By Initials: <u>EMW</u>   |

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

Client Notification/ Resolution: \_\_\_\_\_    If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_    Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

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



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## Report of Analysis

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

Project Name: OS Group LLC

Project Number: 40212977

Lot Number: **VH18034**

Date Completed: 08/30/2020

*N. Saikaly*

09/06/2020 7:16 AM

Approved and released by:  
Project Manager II: **Nisreen Saikaly**



The electronic signature above is the equivalent of a handwritten signature.  
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

# PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

## Case Narrative Pace Analytical Services, LLC Lot Number: VH18034

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

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

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

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" qualifier

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

### PFAS

Surrogate recovery for the following samples was outside control limits: VH18034-011, VH18034-012, VH18034-013, VH18034-014, VH18034-016, VH18034-017. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.



# PACE ANALYTICAL SERVICES, LLC

Sample Summary  
Pace Analytical Services, LLC  
Lot Number: VH18034  
Project Name: OS Group LLC  
Project Number: 40212977

| Sample Number | Sample ID             | Matrix  | Date Sampled    | Date Received |
|---------------|-----------------------|---------|-----------------|---------------|
| 001           | MW-3 16-17'           | Solid   | 08/10/2020 1435 | 08/18/2020    |
| 002           | MW-4 17-18'           | Solid   | 08/11/2020 0800 | 08/18/2020    |
| 003           | MW-104I 9-10'         | Solid   | 08/11/2020 1240 | 08/18/2020    |
| 004           | MW-104I 24-25'        | Solid   | 08/11/2020 1300 | 08/18/2020    |
| 005           | PZ-105I 9-10'         | Solid   | 08/12/2020 1405 | 08/18/2020    |
| 006           | PZ-105I 18-19'        | Solid   | 08/12/2020 1410 | 08/18/2020    |
| 007           | PZ-106 9-10'          | Solid   | 08/13/2020 0725 | 08/18/2020    |
| 008           | PZ-106 14-15'         | Solid   | 08/13/2020 0730 | 08/18/2020    |
| 009           | DUP #4                | Solid   | 08/10/2020 1440 | 08/18/2020    |
| 010           | DUP #5                | Solid   | 08/11/2020 1305 | 08/18/2020    |
| 011           | MW-3                  | Aqueous | 08/10/2020 1450 | 08/18/2020    |
| 012           | MW-4                  | Aqueous | 08/11/2020 0820 | 08/18/2020    |
| 013           | MW-104I 55-59'        | Aqueous | 08/11/2020 1600 | 08/18/2020    |
| 014           | PZ-105 WT             | Aqueous | 08/12/2020 1415 | 08/18/2020    |
| 015           | PZ-106 WT             | Aqueous | 08/13/2020 0830 | 08/18/2020    |
| 016           | DUP #2                | Aqueous | 08/10/2020 1455 | 08/18/2020    |
| 017           | DUP #3                | Aqueous | 08/11/2020 1605 | 08/18/2020    |
| 018           | FIELD BLANK #2        | Aqueous | 08/11/2020 1310 | 08/18/2020    |
| 019           | DISCRETE SAMPLE BLANK | Aqueous | 08/11/2020 1545 | 08/18/2020    |
| 020           | DECON BLANK #2        | Aqueous | 08/12/2020 1820 | 08/18/2020    |

(20 samples)

# PACE ANALYTICAL SERVICES, LLC

Detection Summary  
 Pace Analytical Services, LLC  
 Lot Number: VH18034  
 Project Name: OS Group LLC  
 Project Number: 40212977

| Sample | Sample ID     | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|--------|---------------|---------|-----------|------------|--------|---|-------|------|
| 001    | MW-3 16-17'   | Solid   | 6:2 FTS   | PFAS by ID | 0.71   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFBS      | PFAS by ID | 0.32   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFPeS     | PFAS by ID | 0.34   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFHxS     | PFAS by ID | 0.52   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFHxA     | PFAS by ID | 0.48   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFPeA     | PFAS by ID | 0.58   | J | ug/kg | 8    |
| 001    | MW-3 16-17'   | Solid   | PFOS      | PFAS by ID | 0.40   | J | ug/kg | 8    |
| 002    | MW-4 17-18'   | Solid   | 6:2 FTS   | PFAS by ID | 3.1    |   | ug/kg | 10   |
| 002    | MW-4 17-18'   | Solid   | PFBS      | PFAS by ID | 0.37   | J | ug/kg | 10   |
| 002    | MW-4 17-18'   | Solid   | PFPeS     | PFAS by ID | 0.71   | J | ug/kg | 10   |
| 002    | MW-4 17-18'   | Solid   | PFHxS     | PFAS by ID | 5.0    |   | ug/kg | 10   |
| 002    | MW-4 17-18'   | Solid   | PFHxA     | PFAS by ID | 0.48   | J | ug/kg | 10   |
| 002    | MW-4 17-18'   | Solid   | PFOS      | PFAS by ID | 1.7    |   | ug/kg | 10   |
| 003    | MW-104I 9-10' | Solid   | 6:2 FTS   | PFAS by ID | 1.4    | J | ug/kg | 12   |
| 009    | DUP #4        | Solid   | PFBS      | PFAS by ID | 0.24   | J | ug/kg | 24   |
| 009    | DUP #4        | Solid   | PFPeS     | PFAS by ID | 0.22   | J | ug/kg | 24   |
| 009    | DUP #4        | Solid   | PFHxS     | PFAS by ID | 0.51   | J | ug/kg | 24   |
| 009    | DUP #4        | Solid   | PFHxA     | PFAS by ID | 0.43   | J | ug/kg | 24   |
| 009    | DUP #4        | Solid   | PFPeA     | PFAS by ID | 0.44   | J | ug/kg | 24   |
| 009    | DUP #4        | Solid   | PFOS      | PFAS by ID | 0.30   | J | ug/kg | 24   |
| 010    | DUP #5        | Solid   | 6:2 FTS   | PFAS by ID | 1.6    | J | ug/kg | 26   |
| 011    | MW-3          | Aqueous | 8:2 FTS   | PFAS by ID | 8.1    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | 6:2 FTS   | PFAS by ID | 290    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFBS      | PFAS by ID | 210    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFHpS     | PFAS by ID | 120    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFOSA     | PFAS by ID | 2.5    | J | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFPeS     | PFAS by ID | 400    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFHxS     | PFAS by ID | 2600   |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFBA      | PFAS by ID | 120    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFDA      | PFAS by ID | 5.3    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFDoA     | PFAS by ID | 2.1    | J | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFHpA     | PFAS by ID | 64     |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFHxA     | PFAS by ID | 320    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFNA      | PFAS by ID | 2.9    | J | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFOA      | PFAS by ID | 170    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFPeA     | PFAS by ID | 300    |   | ng/L  | 28   |
| 011    | MW-3          | Aqueous | PFOS      | PFAS by ID | 1700   |   | ng/L  | 28   |
| 012    | MW-4          | Aqueous | 6:2 FTS   | PFAS by ID | 8.0    |   | ng/L  | 30   |
| 012    | MW-4          | Aqueous | PFBS      | PFAS by ID | 48     |   | ng/L  | 30   |
| 012    | MW-4          | Aqueous | PFHpS     | PFAS by ID | 18     |   | ng/L  | 30   |
| 012    | MW-4          | Aqueous | PFOSA     | PFAS by ID | 1.0    | J | ng/L  | 30   |
| 012    | MW-4          | Aqueous | PFPeS     | PFAS by ID | 53     |   | ng/L  | 30   |
| 012    | MW-4          | Aqueous | PFHxS     | PFAS by ID | 370    |   | ng/L  | 30   |

# Detection Summary (Continued)

Lot Number: VH18034

| Sample | Sample ID      | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|--------|----------------|---------|-----------|------------|--------|---|-------|------|
| 012    | MW-4           | Aqueous | PFBA      | PFAS by ID | 27     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFDA      | PFAS by ID | 2.3    | J | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFHpA     | PFAS by ID | 57     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFHxA     | PFAS by ID | 93     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFNA      | PFAS by ID | 18     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFOA      | PFAS by ID | 52     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFPeA     | PFAS by ID | 55     |   | ng/L  | 30   |
| 012    | MW-4           | Aqueous | PFOS      | PFAS by ID | 670    |   | ng/L  | 30   |
| 013    | MW-104I 55-59' | Aqueous | 8:2 FTS   | PFAS by ID | 2.0    | J | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | 6:2 FTS   | PFAS by ID | 16     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFBS      | PFAS by ID | 12     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFHpS     | PFAS by ID | 13     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFPeS     | PFAS by ID | 26     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFHxS     | PFAS by ID | 810    |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFBA      | PFAS by ID | 38     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFHpA     | PFAS by ID | 83     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFHxA     | PFAS by ID | 160    |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFNA      | PFAS by ID | 17     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFOA      | PFAS by ID | 83     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFPeA     | PFAS by ID | 90     |   | ng/L  | 32   |
| 013    | MW-104I 55-59' | Aqueous | PFOS      | PFAS by ID | 2700   |   | ng/L  | 32   |
| 014    | PZ-105 WT      | Aqueous | 6:2 FTS   | PFAS by ID | 2.0    | J | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFBS      | PFAS by ID | 1.7    | J | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFHxS     | PFAS by ID | 6.0    |   | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFBA      | PFAS by ID | 6.4    |   | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFHxA     | PFAS by ID | 2.7    | J | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFOA      | PFAS by ID | 4.4    |   | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFPeA     | PFAS by ID | 2.4    | J | ng/L  | 34   |
| 014    | PZ-105 WT      | Aqueous | PFOS      | PFAS by ID | 21     |   | ng/L  | 34   |
| 015    | PZ-106 WT      | Aqueous | 6:2 FTS   | PFAS by ID | 2.7    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFBS      | PFAS by ID | 1.1    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFHxS     | PFAS by ID | 3.0    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFBA      | PFAS by ID | 5.6    |   | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFHxA     | PFAS by ID | 2.7    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFOA      | PFAS by ID | 2.8    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFPeA     | PFAS by ID | 1.2    | J | ng/L  | 36   |
| 015    | PZ-106 WT      | Aqueous | PFOS      | PFAS by ID | 12     |   | ng/L  | 36   |
| 016    | DUP #2         | Aqueous | 8:2 FTS   | PFAS by ID | 7.2    | J | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | 6:2 FTS   | PFAS by ID | 290    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFBS      | PFAS by ID | 220    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFHpS     | PFAS by ID | 130    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFOSA     | PFAS by ID | 2.2    | J | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFPeS     | PFAS by ID | 410    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFHxS     | PFAS by ID | 2900   |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFBA      | PFAS by ID | 120    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFDA      | PFAS by ID | 4.9    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFDoA     | PFAS by ID | 2.2    | J | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFHpA     | PFAS by ID | 68     |   | ng/L  | 38   |

# Detection Summary (Continued)

Lot Number: VH18034

| Sample | Sample ID      | Matrix  | Parameter | Method     | Result | Q | Units | Page |
|--------|----------------|---------|-----------|------------|--------|---|-------|------|
| 016    | DUP #2         | Aqueous | PFHxA     | PFAS by ID | 310    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFNA      | PFAS by ID | 3.2    | J | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFOA      | PFAS by ID | 170    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFPeA     | PFAS by ID | 310    |   | ng/L  | 38   |
| 016    | DUP #2         | Aqueous | PFOS      | PFAS by ID | 1700   |   | ng/L  | 38   |
| 017    | DUP #3         | Aqueous | 8:2 FTS   | PFAS by ID | 2.6    | J | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | 6:2 FTS   | PFAS by ID | 15     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFBS      | PFAS by ID | 13     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFHpS     | PFAS by ID | 13     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFPeS     | PFAS by ID | 26     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFHxS     | PFAS by ID | 780    |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFBA      | PFAS by ID | 39     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFHpA     | PFAS by ID | 71     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFHxA     | PFAS by ID | 150    |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFNA      | PFAS by ID | 16     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFOA      | PFAS by ID | 79     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFPeA     | PFAS by ID | 90     |   | ng/L  | 40   |
| 017    | DUP #3         | Aqueous | PFOS      | PFAS by ID | 2700   |   | ng/L  | 40   |
| 020    | DECON BLANK #2 | Aqueous | PFOS      | PFAS by ID | 2.1    | J | ng/L  | 46   |

(110 detections)

# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-001     |
| Description: MW-3 16-17'              | Matrix: Solid                  |
| Date Sampled: 08/10/2020 1435         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 80.6 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2054 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 0.71   | J | 2.5 | 0.62 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 5.0 | 1.2  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 0.32   | J | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 0.34   | J | 1.2 | 0.25 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 0.52   | J | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-butanolic acid (PFBA)                                 | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.5 | 0.62 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 0.48   | J | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 0.58   | J | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.2 | 0.25 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 0.40   | J | 1.2 | 0.25 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 86               | 25-150            |
| 13C2_8:2FTS |   | 80               | 25-150            |
| 13C2_PFDaA  |   | 81               | 25-150            |
| 13C2_PFHxDA |   | 88               | 25-150            |
| 13C2_PFTeDA |   | 85               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-001     |
| Description: MW-3 16-17'              | Matrix: Solid                  |
| Date Sampled: 08/10/2020 1435         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 80.6 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 80                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 81                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 85                  | 25-150               |
| 13C6_PFDA    |   | 77                  | 25-150               |
| 13C7_PFUdA   |   | 82                  | 25-150               |
| 13C8_PFOA    |   | 80                  | 25-150               |
| 13C8_PFOS    |   | 84                  | 25-150               |
| 13C8_PFOSA   |   | 83                  | 10-150               |
| 13C9_PFNA    |   | 81                  | 25-150               |
| d-EtFOSA     |   | 89                  | 10-150               |
| d5-EtFOSAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 91                  | 10-150               |
| d-MeFOSA     |   | 84                  | 10-150               |
| d3-MeFOSAA   |   | 85                  | 25-150               |
| d7-MeFOSE    |   | 87                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-002     |
| Description: MW-4 17-18'              | Matrix: Solid                  |
| Date Sampled: 08/11/2020 0800         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 80.7 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2104 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 3.1    |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.2 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 0.37   | J | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 0.71   | J | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 5.0    |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanolic acid (PFBA)                                 | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.52 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 0.48   | J | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 1.7    |   | 1.0 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 92               | 25-150            |
| 13C2_6:2FTS |   | 84               | 25-150            |
| 13C2_8:2FTS |   | 83               | 25-150            |
| 13C2_PFDaA  |   | 91               | 25-150            |
| 13C2_PFHxDA |   | 94               | 25-150            |
| 13C2_PFTeDA |   | 90               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-002     |
| Description: MW-4 17-18'              | Matrix: Solid                  |
| Date Sampled: 08/11/2020 0800         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 80.7 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |
| 13C3-HFPO-DA |   | 91                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |
| 13C5_PFHxA   |   | 85                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 80                  | 25-150               |
| 13C7_PFUdA   |   | 88                  | 25-150               |
| 13C8_PFOA    |   | 82                  | 25-150               |
| 13C8_PFOS    |   | 83                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 88                  | 25-150               |
| d-EtFOSA     |   | 89                  | 10-150               |
| d5-EtFOSAA   |   | 85                  | 25-150               |
| d9-EtFOSE    |   | 86                  | 10-150               |
| d-MeFOSA     |   | 88                  | 10-150               |
| d3-MeFOSAA   |   | 83                  | 25-150               |
| d7-MeFOSE    |   | 99                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-003     |
| Description: MW-104I 9-10'            | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1240         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 95.9 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2115 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 1.4    | J | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.1 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.0 | 0.51 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 89               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDaA  |   | 88               | 25-150            |
| 13C2_PFHxDA |   | 95               | 25-150            |
| 13C2_PFTeDA |   | 92               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-003     |
| Description: MW-104I 9-10'            | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1240         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 95.9 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 93                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 88                  | 25-150               |
| 13C5_PFHxA   |   | 89                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 85                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 83                  | 25-150               |
| 13C8_PFOS    |   | 86                  | 25-150               |
| 13C8_PFOSA   |   | 88                  | 10-150               |
| 13C9_PFNA    |   | 88                  | 25-150               |
| d-EtFOSA     |   | 95                  | 10-150               |
| d5-EtFOSAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 97                  | 10-150               |
| d-MeFOSA     |   | 92                  | 10-150               |
| d3-MeFOSAA   |   | 89                  | 25-150               |
| d7-MeFOSE    |   | 98                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-004     |
| Description: MW-104I 24-25'           | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1300         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 79.9 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2126 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.4 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.2 | 0.54 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUDA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.22 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 80               | 25-150            |
| 13C2_8:2FTS |   | 78               | 25-150            |
| 13C2_PFDoA  |   | 81               | 25-150            |
| 13C2_PFHxDA |   | 85               | 25-150            |
| 13C2_PFTeDA |   | 83               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-004     |
| Description: MW-104I 24-25'           | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1300         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 79.9 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 81                  | 25-150               |
| 13C3_PFHxS   |   | 81                  | 25-150               |
| 13C3-HFPO-DA |   | 83                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 81                  | 25-150               |
| 13C5_PFHxA   |   | 80                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 80                  | 25-150               |
| 13C7_PFUdA   |   | 81                  | 25-150               |
| 13C8_PFOA    |   | 77                  | 25-150               |
| 13C8_PFOS    |   | 78                  | 25-150               |
| 13C8_PFOSA   |   | 81                  | 10-150               |
| 13C9_PFNA    |   | 79                  | 25-150               |
| d-EtFOSA     |   | 76                  | 10-150               |
| d5-EtFOSAA   |   | 84                  | 25-150               |
| d9-EtFOSE    |   | 88                  | 10-150               |
| d-MeFOSA     |   | 80                  | 10-150               |
| d3-MeFOSAA   |   | 82                  | 25-150               |
| d7-MeFOSE    |   | 92                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-005     |
| Description: PZ-1051 9-10'            | Matrix: Solid                  |
| Date Sampled: 08/12/2020 1405         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 95.3 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2136 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.1 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| Perfluoro-1-butanefluoro-1-octanesulfonic acid (PFBS)             | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoro-1-octanesulfonic acid (PFBA)             | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.51 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 86               | 25-150            |
| 13C2_8:2FTS |   | 79               | 25-150            |
| 13C2_PFDoA  |   | 85               | 25-150            |
| 13C2_PFHxDA |   | 87               | 25-150            |
| 13C2_PFTeDA |   | 87               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-005     |
| Description: PZ-105I 9-10'            | Matrix: Solid                  |
| Date Sampled: 08/12/2020 1405         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 95.3 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 82                  | 25-150               |
| 13C3_PFHxS   |   | 78                  | 25-150               |
| 13C3-HFPO-DA |   | 84                  | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |
| 13C4_PFHpA   |   | 84                  | 25-150               |
| 13C5_PFHxA   |   | 84                  | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |
| 13C6_PFDa    |   | 82                  | 25-150               |
| 13C7_PFUdA   |   | 78                  | 25-150               |
| 13C8_PFOA    |   | 75                  | 25-150               |
| 13C8_PFOS    |   | 80                  | 25-150               |
| 13C8_PFOSA   |   | 87                  | 10-150               |
| 13C9_PFNA    |   | 82                  | 25-150               |
| d-EtFOSA     |   | 77                  | 10-150               |
| d5-EtFOSAA   |   | 76                  | 25-150               |
| d9-EtFOSE    |   | 89                  | 10-150               |
| d-MeFOSA     |   | 86                  | 10-150               |
| d3-MeFOSAA   |   | 79                  | 25-150               |
| d7-MeFOSE    |   | 85                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-006     |
| Description: PZ-105I 18-19'           | Matrix: Solid                  |
| Date Sampled: 08/12/2020 1410         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 85.5 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2147 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.54 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 89               | 25-150            |
| 13C2_6:2FTS |   | 91               | 25-150            |
| 13C2_8:2FTS |   | 86               | 25-150            |
| 13C2_PFDoA  |   | 97               | 25-150            |
| 13C2_PFHxDA |   | 97               | 25-150            |
| 13C2_PFTeDA |   | 96               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-006     |
| Description: PZ-105I 18-19'           | Matrix: Solid                  |
| Date Sampled: 08/12/2020 1410         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 85.5 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 86                  | 25-150               |
| 13C3-HFPO-DA |   | 95                  | 25-150               |
| 13C4_PFBa    |   | 92                  | 25-150               |
| 13C4_PFHpA   |   | 89                  | 25-150               |
| 13C5_PFHxA   |   | 91                  | 25-150               |
| 13C5_PFPeA   |   | 93                  | 25-150               |
| 13C6_PFDa    |   | 87                  | 25-150               |
| 13C7_PFUdA   |   | 87                  | 25-150               |
| 13C8_PFOa    |   | 85                  | 25-150               |
| 13C8_PFOs    |   | 83                  | 25-150               |
| 13C8_PFOsA   |   | 98                  | 10-150               |
| 13C9_PFNa    |   | 88                  | 25-150               |
| d-EtFOsA     |   | 98                  | 10-150               |
| d5-EtFOsAA   |   | 86                  | 25-150               |
| d9-EtFOsE    |   | 106                 | 10-150               |
| d-MeFOsA     |   | 97                  | 10-150               |
| d3-MeFOsAA   |   | 93                  | 25-150               |
| d7-MeFOsE    |   | 100                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-007     |
| Description: PZ-106 9-10'             | Matrix: Solid                  |
| Date Sampled: 08/13/2020 0725         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 95.7 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2157 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ  | DL   | Units | Run |
|---|-------------|-------------------|--------|---|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 3.6  | 0.89 | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Perfluoro-1-butanefluoro sulfonic acid (PFBS)                     | 375-73-5    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-butanefluoro sulfonic acid (PFBA)                     | 375-22-4    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 1.8  | 0.45 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 0.89 | 0.18 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 81               | 25-150            |
| 13C2_6:2FTS |   | 76               | 25-150            |
| 13C2_8:2FTS |   | 75               | 25-150            |
| 13C2_PFDaA  |   | 83               | 25-150            |
| 13C2_PFHxDA |   | 83               | 25-150            |
| 13C2_PFTeDA |   | 79               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-007     |
| Description: PZ-106 9-10'             | Matrix: Solid                  |
| Date Sampled: 08/13/2020 0725         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 95.7 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 72                  | 25-150               |
| 13C3_PFHxS   |   | 77                  | 25-150               |
| 13C3-HFPO-DA |   | 78                  | 25-150               |
| 13C4_PFBa    |   | 81                  | 25-150               |
| 13C4_PFHpA   |   | 77                  | 25-150               |
| 13C5_PFHxA   |   | 79                  | 25-150               |
| 13C5_PFPeA   |   | 80                  | 25-150               |
| 13C6_PFDa    |   | 78                  | 25-150               |
| 13C7_PFUdA   |   | 73                  | 25-150               |
| 13C8_PFOA    |   | 69                  | 25-150               |
| 13C8_PFOS    |   | 72                  | 25-150               |
| 13C8_PFOSA   |   | 79                  | 10-150               |
| 13C9_PFNA    |   | 73                  | 25-150               |
| d-EtFOSA     |   | 80                  | 10-150               |
| d5-EtFOSAA   |   | 75                  | 25-150               |
| d9-EtFOSE    |   | 88                  | 10-150               |
| d-MeFOSA     |   | 79                  | 10-150               |
| d3-MeFOSAA   |   | 74                  | 25-150               |
| d7-MeFOSE    |   | 81                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-008     |
| Description: PZ-106 14-15'            | Matrix: Solid                  |
| Date Sampled: 08/13/2020 0730         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 84.8 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2208 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| Perfluoro-1-butanefluoro-1-sulfonic acid (PFBS)                   | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-butanefluoro-1-sulfonic acid (PFBA)                   | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.0 | 0.50 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.0 | 0.20 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 88               | 25-150            |
| 13C2_6:2FTS |   | 88               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |
| 13C2_PFDaA  |   | 90               | 25-150            |
| 13C2_PFHxDA |   | 93               | 25-150            |
| 13C2_PFTeDA |   | 92               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-008     |
| Description: PZ-106 14-15'            | Matrix: Solid                  |
| Date Sampled: 08/13/2020 0730         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 84.8 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 82                  | 25-150               |
| 13C3_PFHxS   |   | 86                  | 25-150               |
| 13C3-HFPO-DA |   | 89                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 87                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 91                  | 25-150               |
| 13C6_PFDa    |   | 83                  | 25-150               |
| 13C7_PFUdA   |   | 88                  | 25-150               |
| 13C8_PFOA    |   | 84                  | 25-150               |
| 13C8_PFOS    |   | 82                  | 25-150               |
| 13C8_PFOSA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 87                  | 25-150               |
| d-EtFOSA     |   | 91                  | 10-150               |
| d5-EtFOSAA   |   | 83                  | 25-150               |
| d9-EtFOSE    |   | 100                 | 10-150               |
| d-MeFOSA     |   | 94                  | 10-150               |
| d3-MeFOSAA   |   | 88                  | 25-150               |
| d7-MeFOSE    |   | 97                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-009     |
| Description: DUP #4                   | Matrix: Solid                  |
| Date Sampled: 08/10/2020 1440         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 80.1 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2219 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.2 | 1.1  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 0.24   | J | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 0.22   | J | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 0.51   | J | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-butanolic acid (PFBA)                                 | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.1 | 0.53 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 0.43   | J | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 0.44   | J | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.1 | 0.21 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 0.30   | J | 1.1 | 0.21 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 86               | 25-150            |
| 13C2_6:2FTS |   | 87               | 25-150            |
| 13C2_8:2FTS |   | 85               | 25-150            |
| 13C2_PFDaA  |   | 88               | 25-150            |
| 13C2_PFHxDA |   | 93               | 25-150            |
| 13C2_PFTeDA |   | 91               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-009     |
| Description: DUP #4                   | Matrix: Solid                  |
| Date Sampled: 08/10/2020 1440         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 80.1 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 85                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 90                  | 25-150               |
| 13C4_PFBa    |   | 90                  | 25-150               |
| 13C4_PFHpA   |   | 88                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 88                  | 25-150               |
| 13C6_PFDa    |   | 87                  | 25-150               |
| 13C7_PFUdA   |   | 87                  | 25-150               |
| 13C8_PFOA    |   | 83                  | 25-150               |
| 13C8_PFOS    |   | 80                  | 25-150               |
| 13C8_PFOSA   |   | 90                  | 10-150               |
| 13C9_PFNA    |   | 83                  | 25-150               |
| d-EtFOSA     |   | 86                  | 10-150               |
| d5-EtFOSAA   |   | 86                  | 25-150               |
| d9-EtFOSE    |   | 81                  | 10-150               |
| d-MeFOSA     |   | 87                  | 10-150               |
| d3-MeFOSAA   |   | 89                  | 25-150               |
| d7-MeFOSE    |   | 105                 | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-010     |
| Description: DUP #5                   | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1305         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | % Solids: 85.6 08/19/2020 0040 |
| Project Number: 40212977              |                                |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 2229 | KMM2    | 08/27/2020 1059 | 64880 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 1.6    | J | 2.3 | 0.58 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 4.6 | 1.2  | ug/kg | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| Perfluoro-1-butanefluoro-1-sulfonic acid (PFBS)                   | 375-73-5    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-butanefluoro-1-sulfonic acid (PFBA)                   | 375-22-4    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 2.3 | 0.58 | ug/kg | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 1.2 | 0.23 | ug/kg | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 98               | 25-150            |
| 13C2_6:2FTS |   | 94               | 25-150            |
| 13C2_8:2FTS |   | 82               | 25-150            |
| 13C2_PFDoA  |   | 89               | 25-150            |
| 13C2_PFHxDA |   | 91               | 25-150            |
| 13C2_PFTeDA |   | 92               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                                |
|---------------------------------------|--------------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-010     |
| Description: DUP #5                   | Matrix: Solid                  |
| Date Sampled: 08/11/2020 1305         | Project Name: OS Group LLC     |
| Date Received: 08/18/2020             | Project Number: 40212977       |
|                                       | % Solids: 85.6 08/19/2020 0040 |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 84                  | 25-150               |
| 13C3_PFHxS   |   | 85                  | 25-150               |
| 13C3-HFPO-DA |   | 90                  | 25-150               |
| 13C4_PFBa    |   | 93                  | 25-150               |
| 13C4_PFHpA   |   | 91                  | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |
| 13C5_PFPeA   |   | 93                  | 25-150               |
| 13C6_PFDa    |   | 83                  | 25-150               |
| 13C7_PFUdA   |   | 83                  | 25-150               |
| 13C8_PFOa    |   | 84                  | 25-150               |
| 13C8_PFOs    |   | 83                  | 25-150               |
| 13C8_PFOsA   |   | 89                  | 10-150               |
| 13C9_PFNa    |   | 82                  | 25-150               |
| d-EtFOsA     |   | 94                  | 10-150               |
| d5-EtFOsAA   |   | 88                  | 25-150               |
| d9-EtFOsE    |   | 82                  | 10-150               |
| d-MeFOsA     |   | 88                  | 10-150               |
| d3-MeFOsAA   |   | 88                  | 25-150               |
| d7-MeFOsE    |   | 91                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-011 |
| Description: MW-3                     | Matrix: Aqueous            |
| Date Sampled: 08/10/2020 1450         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1153 | MMM     | 08/25/2020 1134 | 64563 |
| 2   | SOP SPE     | PFAS by ID SOP    | 10       | 08/27/2020 1042 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 8.1    |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 290    |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 16  | 3.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 210    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 120    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 2.5    | J | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 400    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 2600   |   | 39  | 9.8  | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 120    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 5.3    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | 2.1    | J | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 64     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 78  | 20   | ng/L  | 2   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 320    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 2.9    | J | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 78  | 20   | ng/L  | 2   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 170    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 300    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 1700   |   | 39  | 9.8  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 105              | 25-150            |   | 107              | 25-150            |
| 13C2_6:2FTS |   | 95               | 25-150            |   | 95               | 25-150            |
| 13C2_8:2FTS |   | 80               | 25-150            |   | 108              | 25-150            |
| 13C2_PFDaA  |   | 64               | 25-150            |   | 97               | 25-150            |
| 13C2_PFHxDA | N | 14               | 25-150            |   | 93               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-011 |
| Description: MW-3                     | Matrix: Aqueous            |
| Date Sampled: 08/10/2020 1450         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Run 1 |            |                   | Run 2 |            |                   |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
|              | Q     | % Recovery | Acceptance Limits | Q     | % Recovery | Acceptance Limits |
| 13C2_PFTeDA  |       | 29         | 25-150            |       | 96         | 25-150            |
| 13C3_PFBS    |       | 80         | 25-150            |       | 104        | 25-150            |
| 13C3_PFHxS   |       | 69         | 25-150            |       | 100        | 25-150            |
| 13C3-HFPO-DA |       | 90         | 25-150            |       | 100        | 25-150            |
| 13C4_PFBA    |       | 91         | 25-150            |       | 102        | 25-150            |
| 13C4_PFHpA   |       | 86         | 25-150            |       | 100        | 25-150            |
| 13C5_PFHxA   |       | 90         | 25-150            |       | 101        | 25-150            |
| 13C5_PFPeA   |       | 93         | 25-150            |       | 93         | 25-150            |
| 13C6_PFDA    |       | 84         | 25-150            |       | 101        | 25-150            |
| 13C7_PFUdA   |       | 75         | 25-150            |       | 91         | 25-150            |
| 13C8_PFOA    |       | 90         | 25-150            |       | 99         | 25-150            |
| 13C8_PFOS    |       | 59         | 25-150            |       | 96         | 25-150            |
| 13C8_PFOSA   |       | 88         | 10-150            |       | 102        | 10-150            |
| 13C9_PFNA    |       | 89         | 25-150            |       | 90         | 25-150            |
| d-EtFOSA     |       | 55         | 10-150            |       | 93         | 10-150            |
| d5-EtFOSAA   |       | 65         | 25-150            |       | 101        | 25-150            |
| d9-EtFOSE    |       | 51         | 10-150            |       | 90         | 10-150            |
| d-MeFOSA     |       | 73         | 10-150            |       | 107        | 10-150            |
| d3-MeFOSAA   |       | 72         | 25-150            |       | 102        | 25-150            |
| d7-MeFOSE    |       | 54         | 10-150            |       | 100        | 10-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-012 |
| Description: MW-4                     | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 0820         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 1104 | MMM     | 08/25/2020 1134 | 64563 |
| 2   | SOP SPE     | PFAS by ID SOP    | 5        | 08/27/2020 1053 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 8.0    |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 16  | 3.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 48     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 18     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 1.0    | J | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 53     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.8 | 2.0  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 370    |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 27     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 2.3    | J | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 57     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 39  | 9.8  | ng/L  | 2   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 93     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 18     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 39  | 9.8  | ng/L  | 2   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 52     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 55     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.9 | 0.98 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 670    |   | 20  | 4.9  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 103              | 25-150            |   | 109              | 25-150            |
| 13C2_6:2FTS |   | 92               | 25-150            |   | 105              | 25-150            |
| 13C2_8:2FTS |   | 76               | 25-150            |   | 102              | 25-150            |
| 13C2_PFDaA  |   | 60               | 25-150            |   | 95               | 25-150            |
| 13C2_PFHxDA | N | 22               | 25-150            |   | 89               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-012 |
| Description: MW-4                     | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 0820         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 46                  | 25-150               |   | 98                  | 25-150               |
| 13C3_PFBS    |   | 76                  | 25-150               |   | 99                  | 25-150               |
| 13C3_PFHxS   |   | 65                  | 25-150               |   | 94                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |   | 100                 | 25-150               |
| 13C4_PFBA    |   | 74                  | 25-150               |   | 103                 | 25-150               |
| 13C4_PFHpA   |   | 88                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |   | 110                 | 25-150               |
| 13C5_PFPeA   |   | 87                  | 25-150               |   | 99                  | 25-150               |
| 13C6_PFDA    |   | 79                  | 25-150               |   | 99                  | 25-150               |
| 13C7_PFUdA   |   | 70                  | 25-150               |   | 101                 | 25-150               |
| 13C8_PFOA    |   | 93                  | 25-150               |   | 102                 | 25-150               |
| 13C8_PFOS    |   | 52                  | 25-150               |   | 97                  | 25-150               |
| 13C8_PFOSA   |   | 85                  | 10-150               |   | 104                 | 10-150               |
| 13C9_PFNA    |   | 77                  | 25-150               |   | 97                  | 25-150               |
| d-EtFOSA     |   | 75                  | 10-150               |   | 103                 | 10-150               |
| d5-EtFOSAA   |   | 65                  | 25-150               |   | 103                 | 25-150               |
| d9-EtFOSE    |   | 54                  | 10-150               |   | 93                  | 10-150               |
| d-MeFOSA     |   | 86                  | 10-150               |   | 107                 | 10-150               |
| d3-MeFOSAA   |   | 74                  | 25-150               |   | 104                 | 25-150               |
| d7-MeFOSE    |   | 51                  | 10-150               |   | 103                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-013 |
| Description: MW-104I 55-59'           | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1600         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1214 | MMM     | 08/25/2020 1134 | 64563 |
| 2   | SOP SPE     | PFAS by ID SOP    | 10       | 08/27/2020 1125 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 2.0    | J | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 16     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 12     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 13     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 26     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 810    |   | 38  | 9.5  | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 38     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 83     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 76  | 19   | ng/L  | 2   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 160    |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 17     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 76  | 19   | ng/L  | 2   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 83     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 90     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 2700   |   | 38  | 9.5  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 95               | 25-150            |   | 107              | 25-150            |
| 13C2_6:2FTS |   | 96               | 25-150            |   | 99               | 25-150            |
| 13C2_8:2FTS |   | 91               | 25-150            |   | 103              | 25-150            |
| 13C2_PFDa   |   | 67               | 25-150            |   | 98               | 25-150            |
| 13C2_PFHxDA | N | 14               | 25-150            |   | 91               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-013 |
| Description: MW-104I 55-59'           | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1600         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 36                  | 25-150               |   | 97                  | 25-150               |
| 13C3_PFBs    |   | 85                  | 25-150               |   | 99                  | 25-150               |
| 13C3_PFHxS   |   | 83                  | 25-150               |   | 104                 | 25-150               |
| 13C3-HFPO-DA |   | 83                  | 25-150               |   | 111                 | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |   | 101                 | 25-150               |
| 13C4_PFHpA   |   | 84                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFHxA   |   | 88                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFPeA   |   | 92                  | 25-150               |   | 96                  | 25-150               |
| 13C6_PFDA    |   | 83                  | 25-150               |   | 96                  | 25-150               |
| 13C7_PFUdA   |   | 84                  | 25-150               |   | 100                 | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |   | 98                  | 25-150               |
| 13C8_PFOs    |   | 71                  | 25-150               |   | 99                  | 25-150               |
| 13C8_PFOsA   |   | 91                  | 10-150               |   | 100                 | 10-150               |
| 13C9_PFNAA   |   | 78                  | 25-150               |   | 91                  | 25-150               |
| d-EtFOSA     |   | 41                  | 10-150               |   | 94                  | 10-150               |
| d5-EtFOSAA   |   | 93                  | 25-150               |   | 103                 | 25-150               |
| d9-EtFOSE    |   | 32                  | 10-150               |   | 94                  | 10-150               |
| d-MeFOSA     |   | 92                  | 10-150               |   | 99                  | 10-150               |
| d3-MeFOSAA   |   | 79                  | 25-150               |   | 100                 | 25-150               |
| d7-MeFOSE    |   | 40                  | 10-150               |   | 98                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-014 |
| Description: PZ-105 WT                | Matrix: Aqueous            |
| Date Sampled: 08/12/2020 1415         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 1136 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 2.0    | J | 7.4 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 1.7    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 6.0    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-butyric acid (PFBA)                                   | 375-22-4    | PFAS by ID SOP    | 6.4    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 2.7    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.4 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 4.4    |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 2.4    | J | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.93 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 21     |   | 3.7 | 0.93 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 100              | 25-150            |
| 13C2_6:2FTS |   | 94               | 25-150            |
| 13C2_8:2FTS |   | 80               | 25-150            |
| 13C2_PFDaA  |   | 60               | 25-150            |
| 13C2_PFHxDA | N | 12               | 25-150            |
| 13C2_PFTeDA |   | 30               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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# PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-014 |
| Description: PZ-105 WT                | Matrix: Aqueous            |
| Date Sampled: 08/12/2020 1415         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 79                  | 25-150               |
| 13C3_PFHxS   |   | 71                  | 25-150               |
| 13C3-HFPO-DA |   | 88                  | 25-150               |
| 13C4_PFBa    |   | 91                  | 25-150               |
| 13C4_PFHpA   |   | 92                  | 25-150               |
| 13C5_PFHxA   |   | 95                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDa    |   | 76                  | 25-150               |
| 13C7_PFUdA   |   | 76                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |
| 13C8_PFOS    |   | 59                  | 25-150               |
| 13C8_PFOSA   |   | 88                  | 10-150               |
| 13C9_PFNA    |   | 77                  | 25-150               |
| d-EtFOSA     |   | 56                  | 10-150               |
| d5-EtFOSAA   |   | 68                  | 25-150               |
| d9-EtFOSE    |   | 47                  | 10-150               |
| d-MeFOSA     |   | 70                  | 10-150               |
| d3-MeFOSAA   |   | 74                  | 25-150               |
| d7-MeFOSE    |   | 63                  | 10-150               |

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-015 |
| Description: PZ-106 WT                | Matrix: Aqueous            |
| Date Sampled: 08/13/2020 0830         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1236 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 2.7    | J | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.7  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 1.1    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 3.0    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 5.6    |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 2.7    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.5 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 2.8    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 1.2    | J | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.7 | 0.94 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 12     |   | 3.7 | 0.94 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 109              | 25-150            |
| 13C2_6:2FTS |   | 99               | 25-150            |
| 13C2_8:2FTS |   | 99               | 25-150            |
| 13C2_PFDaA  |   | 84               | 25-150            |
| 13C2_PFHxDA |   | 54               | 25-150            |
| 13C2_PFTeDA |   | 77               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-015 |
| Description: PZ-106 WT                | Matrix: Aqueous            |
| Date Sampled: 08/13/2020 0830         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 90                  | 25-150               |
| 13C3_PFHxS   |   | 87                  | 25-150               |
| 13C3-HFPO-DA |   | 91                  | 25-150               |
| 13C4_PFBa    |   | 94                  | 25-150               |
| 13C4_PFHpA   |   | 93                  | 25-150               |
| 13C5_PFHxA   |   | 98                  | 25-150               |
| 13C5_PFPeA   |   | 102                 | 25-150               |
| 13C6_PFDA    |   | 97                  | 25-150               |
| 13C7_PFUdA   |   | 91                  | 25-150               |
| 13C8_PFOA    |   | 94                  | 25-150               |
| 13C8_PFOS    |   | 87                  | 25-150               |
| 13C8_PFOSA   |   | 95                  | 10-150               |
| 13C9_PFNA    |   | 100                 | 25-150               |
| d-EtFOSA     |   | 76                  | 10-150               |
| d5-EtFOSAA   |   | 85                  | 25-150               |
| d9-EtFOSE    |   | 87                  | 10-150               |
| d-MeFOSA     |   | 81                  | 10-150               |
| d3-MeFOSAA   |   | 89                  | 25-150               |
| d7-MeFOSE    |   | 79                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-016 |
| Description: DUP #2                   | Matrix: Aqueous            |
| Date Sampled: 08/10/2020 1455         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1247 | MMM     | 08/25/2020 1134 | 64563 |
| 2   | SOP SPE     | PFAS by ID SOP    | 10       | 08/27/2020 1147 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 7.2    | J | 8.0 | 2.0 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 290    |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 16  | 4.0 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 220    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 130    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | 2.2    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 410    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.0 | 2.0 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 2900   |   | 40  | 10  | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 120    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | 4.9    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | 2.2    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 68     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 80  | 20  | ng/L  | 2   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 310    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 3.2    | J | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 80  | 20  | ng/L  | 2   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 170    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 310    |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.0 | 1.0 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 1700   |   | 40  | 10  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 105              | 25-150            |   | 101              | 25-150            |
| 13C2_6:2FTS |   | 86               | 25-150            |   | 94               | 25-150            |
| 13C2_8:2FTS |   | 77               | 25-150            |   | 99               | 25-150            |
| 13C2_PFDaA  |   | 61               | 25-150            |   | 91               | 25-150            |
| 13C2_PFHxDA | N | 15               | 25-150            |   | 92               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-016 |
| Description: DUP #2                   | Matrix: Aqueous            |
| Date Sampled: 08/10/2020 1455         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 29                  | 25-150               |   | 96                  | 25-150               |
| 13C3_PFBs    |   | 81                  | 25-150               |   | 99                  | 25-150               |
| 13C3_PFHxS   |   | 67                  | 25-150               |   | 96                  | 25-150               |
| 13C3-HFPO-DA |   | 82                  | 25-150               |   | 98                  | 25-150               |
| 13C4_PFBa    |   | 88                  | 25-150               |   | 102                 | 25-150               |
| 13C4_PFHpA   |   | 83                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |   | 104                 | 25-150               |
| 13C5_PFPeA   |   | 93                  | 25-150               |   | 100                 | 25-150               |
| 13C6_PFDA    |   | 84                  | 25-150               |   | 97                  | 25-150               |
| 13C7_PFUdA   |   | 78                  | 25-150               |   | 92                  | 25-150               |
| 13C8_PFOA    |   | 87                  | 25-150               |   | 98                  | 25-150               |
| 13C8_PFOS    |   | 62                  | 25-150               |   | 96                  | 25-150               |
| 13C8_PFOSA   |   | 86                  | 10-150               |   | 98                  | 10-150               |
| 13C9_PFNA    |   | 83                  | 25-150               |   | 92                  | 25-150               |
| d-EtFOSA     |   | 52                  | 10-150               |   | 95                  | 10-150               |
| d5-EtFOSAA   |   | 65                  | 25-150               |   | 98                  | 25-150               |
| d9-EtFOSE    |   | 50                  | 10-150               |   | 94                  | 10-150               |
| d-MeFOSA     |   | 63                  | 10-150               |   | 96                  | 10-150               |
| d3-MeFOSAA   |   | 77                  | 25-150               |   | 107                 | 25-150               |
| d7-MeFOSE    |   | 50                  | 10-150               |   | 104                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-017 |
| Description: DUP #3                   | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1605         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1257 | MMM     | 08/25/2020 1134 | 64563 |
| 2   | SOP SPE     | PFAS by ID SOP    | 10       | 08/27/2020 1157 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | 2.6    | J | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | 15     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | 13     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | 13     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | 26     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | 780    |   | 38  | 9.5  | ng/L  | 2   |
| Perfluoro-n-butanoic acid (PFBA)                                  | 375-22-4    | PFAS by ID SOP    | 39     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | 71     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 76  | 19   | ng/L  | 2   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | 150    |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | 16     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 76  | 19   | ng/L  | 2   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | 79     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | 90     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 2700   |   | 38  | 9.5  | ng/L  | 2   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 97               | 25-150            |   | 107              | 25-150            |
| 13C2_6:2FTS |   | 91               | 25-150            |   | 97               | 25-150            |
| 13C2_8:2FTS |   | 87               | 25-150            |   | 102              | 25-150            |
| 13C2_PFDa   |   | 74               | 25-150            |   | 97               | 25-150            |
| 13C2_PFHxDA | N | 17               | 25-150            |   | 94               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-017 |
| Description: DUP #3                   | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1605         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits | Q | Run 2<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C2_PFTeDA  |   | 47                  | 25-150               |   | 100                 | 25-150               |
| 13C3_PFBs    |   | 79                  | 25-150               |   | 108                 | 25-150               |
| 13C3_PFHxS   |   | 80                  | 25-150               |   | 102                 | 25-150               |
| 13C3-HFPO-DA |   | 82                  | 25-150               |   | 104                 | 25-150               |
| 13C4_PFBa    |   | 87                  | 25-150               |   | 104                 | 25-150               |
| 13C4_PFHpA   |   | 86                  | 25-150               |   | 111                 | 25-150               |
| 13C5_PFHxA   |   | 87                  | 25-150               |   | 106                 | 25-150               |
| 13C5_PFPeA   |   | 93                  | 25-150               |   | 99                  | 25-150               |
| 13C6_PFDA    |   | 89                  | 25-150               |   | 98                  | 25-150               |
| 13C7_PFUdA   |   | 86                  | 25-150               |   | 104                 | 25-150               |
| 13C8_PFOA    |   | 84                  | 25-150               |   | 101                 | 25-150               |
| 13C8_PFOS    |   | 68                  | 25-150               |   | 100                 | 25-150               |
| 13C8_PFOSA   |   | 90                  | 10-150               |   | 105                 | 10-150               |
| 13C9_PFNA    |   | 75                  | 25-150               |   | 95                  | 25-150               |
| d-EtFOSA     |   | 47                  | 10-150               |   | 93                  | 10-150               |
| d5-EtFOSAA   |   | 91                  | 25-150               |   | 111                 | 25-150               |
| d9-EtFOSE    |   | 47                  | 10-150               |   | 97                  | 10-150               |
| d-MeFOSA     |   | 85                  | 10-150               |   | 114                 | 10-150               |
| d3-MeFOSAA   |   | 85                  | 25-150               |   | 110                 | 25-150               |
| d7-MeFOSE    |   | 52                  | 10-150               |   | 106                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-018 |
| Description: FIELD BLANK #2           | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1310         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1308 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL   | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 15  | 3.8  | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 7.6 | 1.9  | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 3.8 | 0.95 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 112              | 25-150            |
| 13C2_6:2FTS |   | 123              | 25-150            |
| 13C2_8:2FTS |   | 98               | 25-150            |
| 13C2_PFDaA  |   | 95               | 25-150            |
| 13C2_PFHxDA |   | 103              | 25-150            |
| 13C2_PFTeDA |   | 94               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-018 |
| Description: FIELD BLANK #2           | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1310         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 104                 | 25-150               |
| 13C3_PFHxS   |   | 101                 | 25-150               |
| 13C3-HFPO-DA |   | 101                 | 25-150               |
| 13C4_PFBa    |   | 101                 | 25-150               |
| 13C4_PFHpA   |   | 103                 | 25-150               |
| 13C5_PFHxA   |   | 105                 | 25-150               |
| 13C5_PFPeA   |   | 108                 | 25-150               |
| 13C6_PFDa    |   | 103                 | 25-150               |
| 13C7_PFUdA   |   | 94                  | 25-150               |
| 13C8_PFOA    |   | 106                 | 25-150               |
| 13C8_PFOS    |   | 99                  | 25-150               |
| 13C8_PFOsA   |   | 103                 | 10-150               |
| 13C9_PFNa    |   | 104                 | 25-150               |
| d-EtFOsA     |   | 88                  | 10-150               |
| d5-EtFOsAA   |   | 95                  | 25-150               |
| d9-EtFOsE    |   | 103                 | 10-150               |
| d-MeFOsA     |   | 95                  | 10-150               |
| d3-MeFOsAA   |   | 94                  | 25-150               |
| d7-MeFOsE    |   | 100                 | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-019 |
| Description: DISCRETE SAMPLE BLANK    | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1545         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/27/2020 1345 | MMM     | 08/26/2020 0958 | 64716 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 18  | 4.5 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-1-butanefluoronic acid (PFBS)                           | 375-73-5    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-butanefluoronic acid (PFBA)                           | 375-22-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 9.0 | 2.3 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | ND     |   | 4.5 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 90               | 25-150            |
| 13C2_6:2FTS |   | 98               | 25-150            |
| 13C2_8:2FTS |   | 94               | 25-150            |
| 13C2_PFDaA  |   | 75               | 25-150            |
| 13C2_PFHxDA |   | 78               | 25-150            |
| 13C2_PFTeDA |   | 86               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-019 |
| Description: DISCRETE SAMPLE BLANK    | Matrix: Aqueous            |
| Date Sampled: 08/11/2020 1545         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBs    |   | 88                  | 25-150               |
| 13C3_PFHxS   |   | 90                  | 25-150               |
| 13C3-HFPO-DA |   | 86                  | 25-150               |
| 13C4_PFBa    |   | 90                  | 25-150               |
| 13C4_PFHpA   |   | 95                  | 25-150               |
| 13C5_PFHxA   |   | 93                  | 25-150               |
| 13C5_PFPeA   |   | 90                  | 25-150               |
| 13C6_PFDA    |   | 91                  | 25-150               |
| 13C7_PFUdA   |   | 89                  | 25-150               |
| 13C8_PFOA    |   | 96                  | 25-150               |
| 13C8_PFOS    |   | 88                  | 25-150               |
| 13C8_PFOSA   |   | 91                  | 10-150               |
| 13C9_PFNA    |   | 85                  | 25-150               |
| d-EtFOSA     |   | 52                  | 10-150               |
| d5-EtFOSAA   |   | 103                 | 25-150               |
| d9-EtFOSE    |   | 65                  | 10-150               |
| d-MeFOSA     |   | 83                  | 10-150               |
| d3-MeFOSAA   |   | 73                  | 25-150               |
| d7-MeFOSE    |   | 90                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-020 |
| Description: DECON BLANK #2           | Matrix: Aqueous            |
| Date Sampled: 08/12/2020 1820         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date   | Analyst | Prep Date       | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1   | SOP SPE     | PFAS by ID SOP    | 1        | 08/26/2020 1319 | MMM     | 08/25/2020 1134 | 64563 |

| Parameter   | CAS Number  | Analytical Method | Result | Q | LOQ | DL  | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)     | 756426-58-1 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)            | 39108-34-4  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)            | 27619-97-2  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)            | 120226-60-0 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)               | 757124-72-4 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Hexafluoropropylene oxide dimer acid (GenX)                       | 13252-13-6  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA)                       | 919005-14-4 | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA)                     | 4151-50-2   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)         | 2991-50-6   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)           | 1691-99-2   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamide (MeFOSA)                    | 31506-32-8  | PFAS by ID SOP    | ND     |   | 17  | 4.3 | ng/L  | 1   |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)        | 2355-31-9   | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)          | 24448-09-7  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-1-butanefluoro sulfonic acid (PFBS)                     | 375-73-5    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-decanesulfonic acid (PFDS)                            | 335-77-3    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-heptanesulfonic acid (PFHpS)                          | 375-92-8    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-nonanesulfonic acid (PFNS)                            | 68259-12-1  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-octanesulfonamide (PFOSA)                             | 754-91-6    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-1-pentanesulfonic acid (PFPeS)                          | 2706-91-4   | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluorododecanesulfonic acid (PFDOS)                            | 79780-39-5  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluorohexanesulfonic acid (PFHxS)                              | 355-46-4    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-butanefluoro sulfonic acid (PFBA)                     | 375-22-4    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-decanoic acid (PFDA)                                  | 335-76-2    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-dodecanoic acid (PFDoA)                               | 307-55-1    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-heptanoic acid (PFHpA)                                | 375-85-9    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-hexadecanoic acid (PFHxDA)                            | 67905-19-5  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-n-hexanoic acid (PFHxA)                                 | 307-24-4    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-nonanoic acid (PFNA)                                  | 375-95-1    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-octadecanoic acid (PFODA)                             | 16517-11-6  | PFAS by ID SOP    | ND     |   | 8.5 | 2.1 | ng/L  | 1   |
| Perfluoro-n-octanoic acid (PFOA)                                  | 335-67-1    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-pentanoic acid (PFPeA)                                | 2706-90-3   | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tetradecanoic acid (PFTeDA)                           | 376-06-7    | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-tridecanoic acid (PFTrDA)                             | 72629-94-8  | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluoro-n-undecanoic acid (PFUdA)                               | 2058-94-8   | PFAS by ID SOP    | ND     |   | 4.3 | 1.1 | ng/L  | 1   |
| Perfluorooctanesulfonic acid (PFOS)                               | 1763-23-1   | PFAS by ID SOP    | 2.1    | J | 4.3 | 1.1 | ng/L  | 1   |

| Surrogate   | Q | Run 1 % Recovery | Acceptance Limits |
|-------------|---|------------------|-------------------|
| 13C2_4:2FTS |   | 105              | 25-150            |
| 13C2_6:2FTS |   | 104              | 25-150            |
| 13C2_8:2FTS |   | 98               | 25-150            |
| 13C2_PFDaA  |   | 96               | 25-150            |
| 13C2_PFHxDA |   | 111              | 25-150            |
| 13C2_PFTeDA |   | 94               | 25-150            |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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PFAS by LC/MS/MS

|                                       |                            |
|---------------------------------------|----------------------------|
| Client: Pace Analytical Services, LLC | Laboratory ID: VH18034-020 |
| Description: DECON BLANK #2           | Matrix: Aqueous            |
| Date Sampled: 08/12/2020 1820         | Project Name: OS Group LLC |
| Date Received: 08/18/2020             | Project Number: 40212977   |

| Surrogate    | Q | Run 1<br>% Recovery | Acceptance<br>Limits |
|--------------|---|---------------------|----------------------|
| 13C3_PFBS    |   | 102                 | 25-150               |
| 13C3_PFHxS   |   | 101                 | 25-150               |
| 13C3-HFPO-DA |   | 99                  | 25-150               |
| 13C4_PFBA    |   | 101                 | 25-150               |
| 13C4_PFHpA   |   | 101                 | 25-150               |
| 13C5_PFHxA   |   | 104                 | 25-150               |
| 13C5_PFPeA   |   | 103                 | 25-150               |
| 13C6_PFDA    |   | 97                  | 25-150               |
| 13C7_PFUdA   |   | 93                  | 25-150               |
| 13C8_PFOA    |   | 104                 | 25-150               |
| 13C8_PFOS    |   | 90                  | 25-150               |
| 13C8_PFOSA   |   | 98                  | 10-150               |
| 13C9_PFNA    |   | 100                 | 25-150               |
| d-EtFOSA     |   | 92                  | 10-150               |
| d5-EtFOSAA   |   | 90                  | 25-150               |
| d9-EtFOSE    |   | 103                 | 10-150               |
| d-MeFOSA     |   | 96                  | 10-150               |
| d3-MeFOSAA   |   | 101                 | 25-150               |
| d7-MeFOSE    |   | 98                  | 10-150               |

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## QC Summary

PFAS by LC/MS/MS - MB

Sample ID: VQ64563-001

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Parameter    | Result | Q | Dil | LOQ | DL  | Units | Analysis Date   |
|--------------|--------|---|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| 11CI-PF3OUdS | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| 8:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| 6:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| 10:2 FTS     | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| 4:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| GenX         | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| ADONA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| EtFOSA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| EtFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| EtFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| MeFOSA       | ND     |   | 1   | 16  | 4.0 | ng/L  | 08/26/2020 1110 |
| MeFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| MeFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| PFBS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFDS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFHpS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFNS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFOSA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFPeS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFDOS        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| PFHxS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFBA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFDA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFDoA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFHpA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFHxDA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| PFHxA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFNA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFODA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/26/2020 1110 |
| PFOA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFPeA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFTeDA       | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFTTrDA      | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFUdA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |
| PFOS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/26/2020 1110 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 101   | 25-150           |
| 13C2_6:2FTS |   | 99    | 25-150           |
| 13C2_8:2FTS |   | 90    | 25-150           |
| 13C2_PFDoA  |   | 90    | 25-150           |
| 13C2_PFHxDA |   | 90    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MB

Sample ID: VQ64563-001

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 88    | 25-150           |
| 13C3_PFBs    |   | 96    | 25-150           |
| 13C3_PFHxS   |   | 94    | 25-150           |
| 13C3-HFPO-DA |   | 91    | 25-150           |
| 13C4_PFBa    |   | 94    | 25-150           |
| 13C4_PFHpA   |   | 92    | 25-150           |
| 13C5_PFHxA   |   | 91    | 25-150           |
| 13C5_PFPeA   |   | 95    | 25-150           |
| 13C6_PFDa    |   | 98    | 25-150           |
| 13C7_PFUdA   |   | 92    | 25-150           |
| 13C8_PFOA    |   | 99    | 25-150           |
| 13C8_PFOs    |   | 93    | 25-150           |
| 13C8_PFOsA   |   | 91    | 10-150           |
| 13C9_PFNa    |   | 95    | 25-150           |
| d-EtFOsA     |   | 76    | 10-150           |
| d5-EtFOsAA   |   | 86    | 25-150           |
| d9-EtFOsE    |   | 98    | 10-150           |
| d-MeFOsA     |   | 83    | 10-150           |
| d3-MeFOsAA   |   | 94    | 25-150           |
| d7-MeFOsE    |   | 95    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ64563-002

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 15            |                  | 1   | 104   | 50-150      | 08/26/2020 1121 |
| 11CI-PF3OUdS | 15                  | 15            |                  | 1   | 100   | 50-150      | 08/26/2020 1121 |
| 8:2 FTS      | 15                  | 15            |                  | 1   | 95    | 50-150      | 08/26/2020 1121 |
| 6:2 FTS      | 15                  | 17            |                  | 1   | 114   | 50-150      | 08/26/2020 1121 |
| 10:2 FTS     | 15                  | 15            |                  | 1   | 98    | 50-150      | 08/26/2020 1121 |
| 4:2 FTS      | 15                  | 17            |                  | 1   | 112   | 50-150      | 08/26/2020 1121 |
| GenX         | 32                  | 35            |                  | 1   | 109   | 50-150      | 08/26/2020 1121 |
| ADONA        | 15                  | 17            |                  | 1   | 112   | 50-150      | 08/26/2020 1121 |
| EtFOSA       | 16                  | 18            |                  | 1   | 110   | 50-150      | 08/26/2020 1121 |
| EtFOSAA      | 16                  | 18            |                  | 1   | 113   | 50-150      | 08/26/2020 1121 |
| EtFOSE       | 16                  | 13            |                  | 1   | 83    | 50-150      | 08/26/2020 1121 |
| MeFOSA       | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/26/2020 1121 |
| MeFOSAA      | 16                  | 17            |                  | 1   | 108   | 50-150      | 08/26/2020 1121 |
| MeFOSE       | 16                  | 13            |                  | 1   | 79    | 50-150      | 08/26/2020 1121 |
| PFBS         | 14                  | 15            |                  | 1   | 105   | 50-150      | 08/26/2020 1121 |
| PFDS         | 15                  | 14            |                  | 1   | 91    | 50-150      | 08/26/2020 1121 |
| PFHpS        | 15                  | 17            |                  | 1   | 110   | 50-150      | 08/26/2020 1121 |
| PFNS         | 15                  | 16            |                  | 1   | 107   | 50-150      | 08/26/2020 1121 |
| PFOSA        | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/26/2020 1121 |
| PFPeS        | 15                  | 16            |                  | 1   | 108   | 50-150      | 08/26/2020 1121 |
| PFDOS        | 15                  | 15            |                  | 1   | 97    | 50-150      | 08/26/2020 1121 |
| PFHxS        | 15                  | 15            |                  | 1   | 105   | 50-150      | 08/26/2020 1121 |
| PFBA         | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/26/2020 1121 |
| PFDA         | 16                  | 17            |                  | 1   | 108   | 50-150      | 08/26/2020 1121 |
| PFDoA        | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/26/2020 1121 |
| PFHpA        | 16                  | 17            |                  | 1   | 107   | 50-150      | 08/26/2020 1121 |
| PFHxDA       | 16                  | 14            |                  | 1   | 90    | 50-150      | 08/26/2020 1121 |
| PFHxA        | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/26/2020 1121 |
| PFNA         | 16                  | 17            |                  | 1   | 105   | 50-150      | 08/26/2020 1121 |
| PFODA        | 16                  | 14            |                  | 1   | 89    | 50-150      | 08/26/2020 1121 |
| PFOA         | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/26/2020 1121 |
| PFPeA        | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/26/2020 1121 |
| PFTeDA       | 16                  | 16            |                  | 1   | 102   | 50-150      | 08/26/2020 1121 |
| PFTTrDA      | 16                  | 18            |                  | 1   | 113   | 50-150      | 08/26/2020 1121 |
| PFUdA        | 16                  | 17            |                  | 1   | 105   | 50-150      | 08/26/2020 1121 |
| PFOS         | 15                  | 15            |                  | 1   | 102   | 50-150      | 08/26/2020 1121 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |             |                 |
| 13C2_4:2FTS  |                     | 95            | 25-150           |     |       |             |                 |
| 13C2_6:2FTS  |                     | 91            | 25-150           |     |       |             |                 |
| 13C2_8:2FTS  |                     | 96            | 25-150           |     |       |             |                 |
| 13C2_PFDoA   |                     | 84            | 25-150           |     |       |             |                 |
| 13C2_PFHxDA  |                     | 99            | 25-150           |     |       |             |                 |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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



PFAS by LC/MS/MS - LCS

Sample ID: VQ64563-002

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 90    | 25-150           |
| 13C3_PFBs    |   | 92    | 25-150           |
| 13C3_PFHxS   |   | 89    | 25-150           |
| 13C3-HFPO-DA |   | 89    | 25-150           |
| 13C4_PFBa    |   | 92    | 25-150           |
| 13C4_PFHpA   |   | 90    | 25-150           |
| 13C5_PFHxA   |   | 94    | 25-150           |
| 13C5_PFPeA   |   | 96    | 25-150           |
| 13C6_PFDa    |   | 95    | 25-150           |
| 13C7_PFUdA   |   | 91    | 25-150           |
| 13C8_PFOA    |   | 95    | 25-150           |
| 13C8_PFOs    |   | 91    | 25-150           |
| 13C8_PFOsA   |   | 94    | 10-150           |
| 13C9_PFNa    |   | 97    | 25-150           |
| d-EtFOsA     |   | 64    | 10-150           |
| d5-EtFOsAA   |   | 87    | 25-150           |
| d9-EtFOsE    |   | 92    | 10-150           |
| d-MeFOsA     |   | 79    | 10-150           |
| d3-MeFOsAA   |   | 95    | 25-150           |
| d7-MeFOsE    |   | 96    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCSD

Sample ID: VQ64563-003

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------|-------------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 15            |                  | 1   | 102   | 1.7   | 50-150      | 30          | 08/26/2020 1132 |
| 11CI-PF3OUdS | 15                  | 16            |                  | 1   | 103   | 3.1   | 50-150      | 30          | 08/26/2020 1132 |
| 8:2 FTS      | 15                  | 16            |                  | 1   | 105   | 9.8   | 50-150      | 30          | 08/26/2020 1132 |
| 6:2 FTS      | 15                  | 16            |                  | 1   | 102   | 11    | 50-150      | 30          | 08/26/2020 1132 |
| 10:2 FTS     | 15                  | 17            |                  | 1   | 113   | 14    | 50-150      | 30          | 08/26/2020 1132 |
| 4:2 FTS      | 15                  | 16            |                  | 1   | 107   | 4.3   | 50-150      | 30          | 08/26/2020 1132 |
| GenX         | 32                  | 31            |                  | 1   | 97    | 12    | 50-150      | 30          | 08/26/2020 1132 |
| ADONA        | 15                  | 17            |                  | 1   | 114   | 1.9   | 50-150      | 30          | 08/26/2020 1132 |
| EtFOSA       | 16                  | 17            |                  | 1   | 107   | 2.4   | 50-150      | 30          | 08/26/2020 1132 |
| EtFOSAA      | 16                  | 17            |                  | 1   | 107   | 5.3   | 50-150      | 30          | 08/26/2020 1132 |
| EtFOSE       | 16                  | 13            |                  | 1   | 80    | 3.5   | 50-150      | 30          | 08/26/2020 1132 |
| MeFOSA       | 16                  | 14            |                  | 1   | 85    | 22    | 50-150      | 30          | 08/26/2020 1132 |
| MeFOSAA      | 16                  | 18            |                  | 1   | 110   | 1.2   | 50-150      | 30          | 08/26/2020 1132 |
| MeFOSE       | 16                  | 15            |                  | 1   | 91    | 14    | 50-150      | 30          | 08/26/2020 1132 |
| PFBS         | 14                  | 14            |                  | 1   | 102   | 2.9   | 50-150      | 30          | 08/26/2020 1132 |
| PFDS         | 15                  | 15            |                  | 1   | 96    | 5.0   | 50-150      | 30          | 08/26/2020 1132 |
| PFHpS        | 15                  | 16            |                  | 1   | 108   | 1.9   | 50-150      | 30          | 08/26/2020 1132 |
| PFNS         | 15                  | 15            |                  | 1   | 100   | 6.5   | 50-150      | 30          | 08/26/2020 1132 |
| PFOSA        | 16                  | 16            |                  | 1   | 103   | 2.5   | 50-150      | 30          | 08/26/2020 1132 |
| PFPeS        | 15                  | 14            |                  | 1   | 94    | 14    | 50-150      | 30          | 08/26/2020 1132 |
| PFDOS        | 15                  | 14            |                  | 1   | 91    | 6.4   | 50-150      | 30          | 08/26/2020 1132 |
| PFHxS        | 15                  | 16            |                  | 1   | 109   | 4.0   | 50-150      | 30          | 08/26/2020 1132 |
| PFBA         | 16                  | 16            |                  | 1   | 102   | 4.2   | 50-150      | 30          | 08/26/2020 1132 |
| PFDA         | 16                  | 16            |                  | 1   | 99    | 8.4   | 50-150      | 30          | 08/26/2020 1132 |
| PFDaA        | 16                  | 17            |                  | 1   | 103   | 1.2   | 50-150      | 30          | 08/26/2020 1132 |
| PFHpA        | 16                  | 15            |                  | 1   | 97    | 10    | 50-150      | 30          | 08/26/2020 1132 |
| PFHxDA       | 16                  | 15            |                  | 1   | 91    | 1.1   | 50-150      | 30          | 08/26/2020 1132 |
| PFHxA        | 16                  | 16            |                  | 1   | 101   | 8.1   | 50-150      | 30          | 08/26/2020 1132 |
| PFNA         | 16                  | 17            |                  | 1   | 107   | 1.6   | 50-150      | 30          | 08/26/2020 1132 |
| PFOA         | 16                  | 13            |                  | 1   | 83    | 6.5   | 50-150      | 30          | 08/26/2020 1132 |
| PFOA         | 16                  | 16            |                  | 1   | 103   | 5.7   | 50-150      | 30          | 08/26/2020 1132 |
| PFPeA        | 16                  | 17            |                  | 1   | 109   | 4.1   | 50-150      | 30          | 08/26/2020 1132 |
| PFTeDA       | 16                  | 16            |                  | 1   | 99    | 3.5   | 50-150      | 30          | 08/26/2020 1132 |
| PFTrDA       | 16                  | 17            |                  | 1   | 105   | 7.1   | 50-150      | 30          | 08/26/2020 1132 |
| PFUdA        | 16                  | 17            |                  | 1   | 104   | 0.97  | 50-150      | 30          | 08/26/2020 1132 |
| PFOS         | 15                  | 14            |                  | 1   | 95    | 7.4   | 50-150      | 30          | 08/26/2020 1132 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |       |             |             |                 |
| 13C2_4:2FTS  |                     | 93            | 25-150           |     |       |       |             |             |                 |
| 13C2_6:2FTS  |                     | 100           | 25-150           |     |       |       |             |             |                 |
| 13C2_8:2FTS  |                     | 86            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFDaA   |                     | 88            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFHxDA  |                     | 96            | 25-150           |     |       |       |             |             |                 |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCSD

Sample ID: VQ64563-003

Matrix: Aqueous

Batch: 64563

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/25/2020 1134

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 89    | 25-150           |
| 13C3_PFBs    |   | 92    | 25-150           |
| 13C3_PFHxS   |   | 87    | 25-150           |
| 13C3-HFPO-DA |   | 96    | 25-150           |
| 13C4_PFBa    |   | 93    | 25-150           |
| 13C4_PFHpA   |   | 92    | 25-150           |
| 13C5_PFHxA   |   | 96    | 25-150           |
| 13C5_PFPeA   |   | 96    | 25-150           |
| 13C6_PFDa    |   | 95    | 25-150           |
| 13C7_PFUdA   |   | 90    | 25-150           |
| 13C8_PFOA    |   | 99    | 25-150           |
| 13C8_PFOs    |   | 88    | 25-150           |
| 13C8_PFOsA   |   | 89    | 10-150           |
| 13C9_PFNa    |   | 91    | 25-150           |
| d-EtFOsA     |   | 78    | 10-150           |
| d5-EtFOsAA   |   | 88    | 25-150           |
| d9-EtFOsE    |   | 98    | 10-150           |
| d-MeFOsA     |   | 87    | 10-150           |
| d3-MeFOsAA   |   | 90    | 25-150           |
| d7-MeFOsE    |   | 93    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MB

Sample ID: VQ64716-001

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Parameter    | Result | Q | Dil | LOQ | DL  | Units | Analysis Date   |
|--------------|--------|---|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| 11CI-PF3OUdS | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| 8:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| 6:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| 10:2 FTS     | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| 4:2 FTS      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| GenX         | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| ADONA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| EtFOSA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| EtFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| EtFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| MeFOSA       | ND     |   | 1   | 16  | 4.0 | ng/L  | 08/27/2020 1240 |
| MeFOSAA      | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| MeFOSE       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| PFBS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFDS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFHpS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFNS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFOSA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFPeS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFDOS        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| PFHxS        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFBA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFDA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFDoA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFHpA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFHxDA       | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| PFHxA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFNA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFODA        | ND     |   | 1   | 8.0 | 2.0 | ng/L  | 08/27/2020 1240 |
| PFOA         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFPeA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFTeDA       | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFTTrDA      | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFUdA        | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |
| PFOS         | ND     |   | 1   | 4.0 | 1.0 | ng/L  | 08/27/2020 1240 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 95    | 25-150           |
| 13C2_6:2FTS |   | 100   | 25-150           |
| 13C2_8:2FTS |   | 89    | 25-150           |
| 13C2_PFDoA  |   | 88    | 25-150           |
| 13C2_PFHxDA |   | 81    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MB

Sample ID: VQ64716-001

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 88    | 25-150           |
| 13C3_PFBs    |   | 94    | 25-150           |
| 13C3_PFHxS   |   | 93    | 25-150           |
| 13C3-HFPO-DA |   | 89    | 25-150           |
| 13C4_PFBa    |   | 96    | 25-150           |
| 13C4_PFHpA   |   | 97    | 25-150           |
| 13C5_PFHxA   |   | 102   | 25-150           |
| 13C5_PFPeA   |   | 92    | 25-150           |
| 13C6_PFDa    |   | 90    | 25-150           |
| 13C7_PFUdA   |   | 87    | 25-150           |
| 13C8_PFOA    |   | 99    | 25-150           |
| 13C8_PFOs    |   | 89    | 25-150           |
| 13C8_PFOsA   |   | 90    | 10-150           |
| 13C9_PFNa    |   | 85    | 25-150           |
| d-EtFOsA     |   | 73    | 10-150           |
| d5-EtFOsAA   |   | 89    | 25-150           |
| d9-EtFOsE    |   | 90    | 10-150           |
| d-MeFOsA     |   | 84    | 10-150           |
| d3-MeFOsAA   |   | 92    | 25-150           |
| d7-MeFOsE    |   | 102   | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ64716-002

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 14            |                  | 1   | 94    | 50-150      | 08/27/2020 1251 |
| 11CI-PF3OUdS | 15                  | 13            |                  | 1   | 89    | 50-150      | 08/27/2020 1251 |
| 8:2 FTS      | 15                  | 17            |                  | 1   | 114   | 50-150      | 08/27/2020 1251 |
| 6:2 FTS      | 15                  | 16            |                  | 1   | 102   | 50-150      | 08/27/2020 1251 |
| 10:2 FTS     | 15                  | 15            |                  | 1   | 99    | 50-150      | 08/27/2020 1251 |
| 4:2 FTS      | 15                  | 16            |                  | 1   | 110   | 50-150      | 08/27/2020 1251 |
| GenX         | 32                  | 33            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| ADONA        | 15                  | 17            |                  | 1   | 110   | 50-150      | 08/27/2020 1251 |
| EtFOSA       | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| EtFOSAA      | 16                  | 16            |                  | 1   | 101   | 50-150      | 08/27/2020 1251 |
| EtFOSE       | 16                  | 14            |                  | 1   | 85    | 50-150      | 08/27/2020 1251 |
| MeFOSA       | 16                  | 15            |                  | 1   | 95    | 50-150      | 08/27/2020 1251 |
| MeFOSAA      | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| MeFOSE       | 16                  | 14            |                  | 1   | 88    | 50-150      | 08/27/2020 1251 |
| PFBS         | 14                  | 15            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| PFDS         | 15                  | 14            |                  | 1   | 93    | 50-150      | 08/27/2020 1251 |
| PFHpS        | 15                  | 15            |                  | 1   | 97    | 50-150      | 08/27/2020 1251 |
| PFNS         | 15                  | 13            |                  | 1   | 87    | 50-150      | 08/27/2020 1251 |
| PFOSA        | 16                  | 16            |                  | 1   | 101   | 50-150      | 08/27/2020 1251 |
| PFPeS        | 15                  | 15            |                  | 1   | 100   | 50-150      | 08/27/2020 1251 |
| PFDOS        | 15                  | 14            |                  | 1   | 91    | 50-150      | 08/27/2020 1251 |
| PFHxS        | 15                  | 14            |                  | 1   | 98    | 50-150      | 08/27/2020 1251 |
| PFBA         | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| PFDA         | 16                  | 15            |                  | 1   | 95    | 50-150      | 08/27/2020 1251 |
| PFDoA        | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/27/2020 1251 |
| PFHpA        | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/27/2020 1251 |
| PFHxDA       | 16                  | 15            |                  | 1   | 91    | 50-150      | 08/27/2020 1251 |
| PFHxA        | 16                  | 17            |                  | 1   | 105   | 50-150      | 08/27/2020 1251 |
| PFNA         | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/27/2020 1251 |
| PFODA        | 16                  | 14            |                  | 1   | 85    | 50-150      | 08/27/2020 1251 |
| PFOA         | 16                  | 17            |                  | 1   | 104   | 50-150      | 08/27/2020 1251 |
| PFPeA        | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/27/2020 1251 |
| PFTeDA       | 16                  | 16            |                  | 1   | 103   | 50-150      | 08/27/2020 1251 |
| PFTTrDA      | 16                  | 17            |                  | 1   | 109   | 50-150      | 08/27/2020 1251 |
| PFUdA        | 16                  | 17            |                  | 1   | 106   | 50-150      | 08/27/2020 1251 |
| PFOS         | 15                  | 14            |                  | 1   | 95    | 50-150      | 08/27/2020 1251 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |             |                 |
| 13C2_4:2FTS  |                     | 86            | 25-150           |     |       |             |                 |
| 13C2_6:2FTS  |                     | 86            | 25-150           |     |       |             |                 |
| 13C2_8:2FTS  |                     | 80            | 25-150           |     |       |             |                 |
| 13C2_PFDoA   |                     | 81            | 25-150           |     |       |             |                 |
| 13C2_PFHxDA  |                     | 88            | 25-150           |     |       |             |                 |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ64716-002

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 88    | 25-150           |
| 13C3_PFBs    |   | 83    | 25-150           |
| 13C3_PFHxS   |   | 86    | 25-150           |
| 13C3-HFPO-DA |   | 91    | 25-150           |
| 13C4_PFBa    |   | 92    | 25-150           |
| 13C4_PFHpA   |   | 87    | 25-150           |
| 13C5_PFHxA   |   | 92    | 25-150           |
| 13C5_PFPeA   |   | 83    | 25-150           |
| 13C6_PFDa    |   | 87    | 25-150           |
| 13C7_PFUdA   |   | 83    | 25-150           |
| 13C8_PFOA    |   | 88    | 25-150           |
| 13C8_PFOS    |   | 83    | 25-150           |
| 13C8_PFOsA   |   | 89    | 10-150           |
| 13C9_PFNA    |   | 79    | 25-150           |
| d-EtFOsA     |   | 72    | 10-150           |
| d5-EtFOsAA   |   | 80    | 25-150           |
| d9-EtFOSE    |   | 87    | 10-150           |
| d-MeFOsA     |   | 71    | 10-150           |
| d3-MeFOsAA   |   | 89    | 25-150           |
| d7-MeFOSE    |   | 99    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCSD

Sample ID: VQ64716-003

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Parameter    | Spike Amount (ng/L) | Result (ng/L) | Q                | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date   |
|--------------|---------------------|---------------|------------------|-----|-------|-------|-------------|-------------|-----------------|
| 9CI-PF3ONS   | 15                  | 13            |                  | 1   | 90    | 4.7   | 50-150      | 30          | 08/27/2020 1302 |
| 11CI-PF3OUdS | 15                  | 14            |                  | 1   | 93    | 4.5   | 50-150      | 30          | 08/27/2020 1302 |
| 8:2 FTS      | 15                  | 15            |                  | 1   | 100   | 13    | 50-150      | 30          | 08/27/2020 1302 |
| 6:2 FTS      | 15                  | 15            |                  | 1   | 100   | 2.6   | 50-150      | 30          | 08/27/2020 1302 |
| 10:2 FTS     | 15                  | 16            |                  | 1   | 101   | 1.9   | 50-150      | 30          | 08/27/2020 1302 |
| 4:2 FTS      | 15                  | 15            |                  | 1   | 98    | 12    | 50-150      | 30          | 08/27/2020 1302 |
| GenX         | 32                  | 30            |                  | 1   | 93    | 11    | 50-150      | 30          | 08/27/2020 1302 |
| ADONA        | 15                  | 16            |                  | 1   | 105   | 4.8   | 50-150      | 30          | 08/27/2020 1302 |
| EtFOSA       | 16                  | 13            |                  | 1   | 81    | 24    | 50-150      | 30          | 08/27/2020 1302 |
| EtFOSAA      | 16                  | 16            |                  | 1   | 102   | 1.2   | 50-150      | 30          | 08/27/2020 1302 |
| EtFOSE       | 16                  | 12            |                  | 1   | 76    | 12    | 50-150      | 30          | 08/27/2020 1302 |
| MeFOSA       | 16                  | 15            |                  | 1   | 92    | 3.0   | 50-150      | 30          | 08/27/2020 1302 |
| MeFOSAA      | 16                  | 19            |                  | 1   | 120   | 14    | 50-150      | 30          | 08/27/2020 1302 |
| MeFOSE       | 16                  | 13            |                  | 1   | 84    | 5.6   | 50-150      | 30          | 08/27/2020 1302 |
| PFBS         | 14                  | 14            |                  | 1   | 98    | 5.7   | 50-150      | 30          | 08/27/2020 1302 |
| PFDS         | 15                  | 14            |                  | 1   | 89    | 4.3   | 50-150      | 30          | 08/27/2020 1302 |
| PFHpS        | 15                  | 15            |                  | 1   | 99    | 1.9   | 50-150      | 30          | 08/27/2020 1302 |
| PFNS         | 15                  | 15            |                  | 1   | 97    | 10    | 50-150      | 30          | 08/27/2020 1302 |
| PFOSA        | 16                  | 16            |                  | 1   | 103   | 1.4   | 50-150      | 30          | 08/27/2020 1302 |
| PFPeS        | 15                  | 14            |                  | 1   | 94    | 6.9   | 50-150      | 30          | 08/27/2020 1302 |
| PFDOS        | 15                  | 14            |                  | 1   | 93    | 2.0   | 50-150      | 30          | 08/27/2020 1302 |
| PFHxS        | 15                  | 14            |                  | 1   | 97    | 0.96  | 50-150      | 30          | 08/27/2020 1302 |
| PFBA         | 16                  | 16            |                  | 1   | 98    | 5.2   | 50-150      | 30          | 08/27/2020 1302 |
| PFDA         | 16                  | 16            |                  | 1   | 102   | 7.1   | 50-150      | 30          | 08/27/2020 1302 |
| PFDaA        | 16                  | 15            |                  | 1   | 95    | 10    | 50-150      | 30          | 08/27/2020 1302 |
| PFHpA        | 16                  | 15            |                  | 1   | 94    | 15    | 50-150      | 30          | 08/27/2020 1302 |
| PFHxDA       | 16                  | 13            |                  | 1   | 79    | 14    | 50-150      | 30          | 08/27/2020 1302 |
| PFHxA        | 16                  | 16            |                  | 1   | 97    | 7.5   | 50-150      | 30          | 08/27/2020 1302 |
| PFNA         | 16                  | 16            |                  | 1   | 98    | 11    | 50-150      | 30          | 08/27/2020 1302 |
| PFODA        | 16                  | 13            |                  | 1   | 82    | 4.4   | 50-150      | 30          | 08/27/2020 1302 |
| PFOA         | 16                  | 15            |                  | 1   | 94    | 10    | 50-150      | 30          | 08/27/2020 1302 |
| PFPeA        | 16                  | 16            |                  | 1   | 101   | 7.3   | 50-150      | 30          | 08/27/2020 1302 |
| PFTeDA       | 16                  | 15            |                  | 1   | 96    | 6.7   | 50-150      | 30          | 08/27/2020 1302 |
| PFTTrDA      | 16                  | 16            |                  | 1   | 101   | 7.8   | 50-150      | 30          | 08/27/2020 1302 |
| PFUdA        | 16                  | 16            |                  | 1   | 103   | 2.9   | 50-150      | 30          | 08/27/2020 1302 |
| PFOS         | 15                  | 14            |                  | 1   | 97    | 1.2   | 50-150      | 30          | 08/27/2020 1302 |
| Surrogate    | Q                   | % Rec         | Acceptance Limit |     |       |       |             |             |                 |
| 13C2_4:2FTS  |                     | 91            | 25-150           |     |       |       |             |             |                 |
| 13C2_6:2FTS  |                     | 86            | 25-150           |     |       |       |             |             |                 |
| 13C2_8:2FTS  |                     | 81            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFDaA   |                     | 81            | 25-150           |     |       |       |             |             |                 |
| 13C2_PFHxDA  |                     | 92            | 25-150           |     |       |       |             |             |                 |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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



PFAS by LC/MS/MS - LCSD

Sample ID: VQ64716-003

Matrix: Aqueous

Batch: 64716

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2020 0958

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 85    | 25-150           |
| 13C3_PFBs    |   | 86    | 25-150           |
| 13C3_PFHxS   |   | 83    | 25-150           |
| 13C3-HFPO-DA |   | 85    | 25-150           |
| 13C4_PFBa    |   | 91    | 25-150           |
| 13C4_PFHpA   |   | 94    | 25-150           |
| 13C5_PFHxA   |   | 89    | 25-150           |
| 13C5_PFPeA   |   | 86    | 25-150           |
| 13C6_PFDa    |   | 80    | 25-150           |
| 13C7_PFUdA   |   | 83    | 25-150           |
| 13C8_PFOA    |   | 92    | 25-150           |
| 13C8_PFOs    |   | 80    | 25-150           |
| 13C8_PFOsA   |   | 86    | 10-150           |
| 13C9_PFNa    |   | 78    | 25-150           |
| d-EtFOsA     |   | 82    | 10-150           |
| d5-EtFOsAA   |   | 84    | 25-150           |
| d9-EtFOsE    |   | 91    | 10-150           |
| d-MeFOsA     |   | 81    | 10-150           |
| d3-MeFOsAA   |   | 85    | 25-150           |
| d7-MeFOsE    |   | 100   | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MB

Sample ID: VQ64880-001

Matrix: Solid

Batch: 64880

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/27/2020 1059

| Parameter    | Result | Q | Dil | LOQ | DL   | Units | Analysis Date   |
|--------------|--------|---|-----|-----|------|-------|-----------------|
| 9CI-PF3ONS   | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| 11CI-PF3OUdS | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| 8:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| 6:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| 10:2 FTS     | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| 4:2 FTS      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| GenX         | ND     |   | 1   | 4.0 | 1.0  | ug/kg | 08/27/2020 2032 |
| ADONA        | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| EtFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| EtFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| EtFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| MeFOSA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| MeFOSAA      | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| MeFOSE       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| PFBS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFDS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFHpS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFNS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFOSA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFPeS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFDOS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFHxS        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFBA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFDA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFDoA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFHpA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFHxDA       | ND     |   | 1   | 2.0 | 0.50 | ug/kg | 08/27/2020 2032 |
| PFHxA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFNA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFODA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFOA         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFPeA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFTeDA       | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFTTrDA      | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFUdA        | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |
| PFOS         | ND     |   | 1   | 1.0 | 0.20 | ug/kg | 08/27/2020 2032 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 77    | 25-150           |
| 13C2_6:2FTS |   | 81    | 25-150           |
| 13C2_8:2FTS |   | 81    | 25-150           |
| 13C2_PFDoA  |   | 79    | 25-150           |
| 13C2_PFHxDA |   | 78    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MB

Sample ID: VQ64880-001

Matrix: Solid

Batch: 64880

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/27/2020 1059

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 79    | 25-150           |
| 13C3_PFBs    |   | 79    | 25-150           |
| 13C3_PFHxS   |   | 76    | 25-150           |
| 13C3-HFPO-DA |   | 83    | 25-150           |
| 13C4_PFBa    |   | 85    | 25-150           |
| 13C4_PFHpA   |   | 81    | 25-150           |
| 13C5_PFHxA   |   | 79    | 25-150           |
| 13C5_PFPeA   |   | 83    | 25-150           |
| 13C6_PFDa    |   | 77    | 25-150           |
| 13C7_PFUdA   |   | 78    | 25-150           |
| 13C8_PFOA    |   | 74    | 25-150           |
| 13C8_PFOs    |   | 77    | 25-150           |
| 13C8_PFOsA   |   | 81    | 10-150           |
| 13C9_PFNa    |   | 76    | 25-150           |
| d-EtFOsA     |   | 79    | 10-150           |
| d5-EtFOsAA   |   | 77    | 25-150           |
| d9-EtFOsE    |   | 82    | 10-150           |
| d-MeFOsA     |   | 80    | 10-150           |
| d3-MeFOsAA   |   | 80    | 25-150           |
| d7-MeFOsE    |   | 89    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ64880-002

Matrix: Solid

Batch: 64880

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/27/2020 1059

| Parameter    | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date   |
|--------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| 9CI-PF3ONS   | 1.9                  | 1.8            |   | 1   | 98    | 50-150      | 08/27/2020 2043 |
| 11CI-PF3OUdS | 1.9                  | 2.0            |   | 1   | 108   | 50-150      | 08/27/2020 2043 |
| 8:2 FTS      | 1.9                  | 2.0            |   | 1   | 104   | 50-150      | 08/27/2020 2043 |
| 6:2 FTS      | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/27/2020 2043 |
| 10:2 FTS     | 1.9                  | 1.9            |   | 1   | 99    | 50-150      | 08/27/2020 2043 |
| 4:2 FTS      | 1.9                  | 2.2            |   | 1   | 115   | 50-150      | 08/27/2020 2043 |
| GenX         | 4.0                  | 4.1            |   | 1   | 102   | 50-150      | 08/27/2020 2043 |
| ADONA        | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/27/2020 2043 |
| EtFOSA       | 2.0                  | 1.9            |   | 1   | 95    | 50-150      | 08/27/2020 2043 |
| EtFOSAA      | 2.0                  | 2.2            |   | 1   | 108   | 50-150      | 08/27/2020 2043 |
| EtFOSE       | 2.0                  | 2.0            |   | 1   | 98    | 50-150      | 08/27/2020 2043 |
| MeFOSA       | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/27/2020 2043 |
| MeFOSAA      | 2.0                  | 1.9            |   | 1   | 97    | 50-150      | 08/27/2020 2043 |
| MeFOSE       | 2.0                  | 2.1            |   | 1   | 106   | 50-150      | 08/27/2020 2043 |
| PFBS         | 1.8                  | 1.8            |   | 1   | 104   | 50-150      | 08/27/2020 2043 |
| PFDS         | 1.9                  | 1.7            |   | 1   | 91    | 50-150      | 08/27/2020 2043 |
| PFHpS        | 1.9                  | 2.0            |   | 1   | 106   | 50-150      | 08/27/2020 2043 |
| PFNS         | 1.9                  | 2.0            |   | 1   | 105   | 50-150      | 08/27/2020 2043 |
| PFOSA        | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/27/2020 2043 |
| PFPeS        | 1.9                  | 2.1            |   | 1   | 111   | 50-150      | 08/27/2020 2043 |
| PFDOS        | 1.9                  | 2.1            |   | 1   | 107   | 50-150      | 08/27/2020 2043 |
| PFHxS        | 1.8                  | 2.0            |   | 1   | 108   | 50-150      | 08/27/2020 2043 |
| PFBA         | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/27/2020 2043 |
| PFDA         | 2.0                  | 2.0            |   | 1   | 98    | 50-150      | 08/27/2020 2043 |
| PFDoA        | 2.0                  | 2.2            |   | 1   | 112   | 50-150      | 08/27/2020 2043 |
| PFHpA        | 2.0                  | 2.3            |   | 1   | 116   | 50-150      | 08/27/2020 2043 |
| PFHxDA       | 2.0                  | 1.9            |   | 1   | 96    | 50-150      | 08/27/2020 2043 |
| PFHxA        | 2.0                  | 2.0            |   | 1   | 102   | 50-150      | 08/27/2020 2043 |
| PFNA         | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/27/2020 2043 |
| PFODA        | 2.0                  | 1.6            |   | 1   | 80    | 50-150      | 08/27/2020 2043 |
| PFOA         | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/27/2020 2043 |
| PFPeA        | 2.0                  | 2.1            |   | 1   | 107   | 50-150      | 08/27/2020 2043 |
| PFTeDA       | 2.0                  | 2.2            |   | 1   | 109   | 50-150      | 08/27/2020 2043 |
| PFTrDA       | 2.0                  | 2.3            |   | 1   | 116   | 50-150      | 08/27/2020 2043 |
| PFUdA        | 2.0                  | 2.1            |   | 1   | 105   | 50-150      | 08/27/2020 2043 |
| PFOS         | 1.9                  | 1.9            |   | 1   | 100   | 50-150      | 08/27/2020 2043 |

| Surrogate   | Q | % Rec | Acceptance Limit |
|-------------|---|-------|------------------|
| 13C2_4:2FTS |   | 82    | 25-150           |
| 13C2_6:2FTS |   | 85    | 25-150           |
| 13C2_8:2FTS |   | 72    | 25-150           |
| 13C2_PFDoA  |   | 74    | 25-150           |
| 13C2_PFHxDA |   | 77    | 25-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - LCS

Sample ID: VQ64880-002

Matrix: Solid

Batch: 64880

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/27/2020 1059

| Surrogate    | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_PFTeDA  |   | 77    | 25-150           |
| 13C3_PFBs    |   | 76    | 25-150           |
| 13C3_PFHxS   |   | 73    | 25-150           |
| 13C3-HFPO-DA |   | 79    | 25-150           |
| 13C4_PFBa    |   | 82    | 25-150           |
| 13C4_PFHpA   |   | 74    | 25-150           |
| 13C5_PFHxA   |   | 78    | 25-150           |
| 13C5_PFPeA   |   | 81    | 25-150           |
| 13C6_PFDa    |   | 75    | 25-150           |
| 13C7_PFUdA   |   | 73    | 25-150           |
| 13C8_PFOA    |   | 71    | 25-150           |
| 13C8_PFOs    |   | 69    | 25-150           |
| 13C8_PFOsA   |   | 77    | 10-150           |
| 13C9_PFNa    |   | 76    | 25-150           |
| d-EtFOsA     |   | 75    | 10-150           |
| d5-EtFOsAA   |   | 77    | 25-150           |
| d9-EtFOsE    |   | 76    | 10-150           |
| d-MeFOsA     |   | 71    | 10-150           |
| d3-MeFOsAA   |   | 80    | 25-150           |
| d7-MeFOsE    |   | 86    | 10-150           |

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

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

Chain of Custody  
and  
Miscellaneous Documents

# Internal Transfer Chain of Custody

Samples Pre-Logged Into eCOC.

State Of Origin: WI  
 Cert. Needed:  Yes  No  
 Owner Received Date: 8/14/2020



Results Requested By: 9/9/2020

Workorder: 40212977      Workorder Name: LACROSSE WELLS #23 & #24

|  |  |                            |
|--|--|----------------------------|
| <b>Report To:</b><br>Christopher Hyska<br>Pace Analytical Green Bay<br>1241 Bellevue Street<br>Suite 9<br>Green Bay, WI 54302<br>Phone (920)469-2436 | <b>Subcontract To:</b><br>Pace Analytical West Columbia<br>106 Vantage Point Drive<br>West Columbia, SC 29172<br>Phone (803)791-9700 | <b>Requested Analysis:</b> |
|--|--|----------------------------|



NMS

LAB USE ONLY

| Item | Sample ID             | Sample Type | Collect Date/Time | Lab ID      | Matrix | Unpreserved | Preserved Containers |   |   |   | WT % PFAS by Isotope Dilution | % TS / Dry Weight | NMS |  |
|------|-----------------------|-------------|-------------------|-------------|--------|-------------|----------------------|---|---|---|-------------------------------|-------------------|-----|--|
|      |                       |             |                   |             |        |             | 1                    | 2 | 3 | 4 |                               |                   |     |  |
| 1    | MW-3 16-17'           | PS          | 8/10/2020 14:35   | 40212977001 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 2    | MW-4 17-18'           | PS          | 8/11/2020 06:00   | 40212977002 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 3    | MW-10#1 9-10'         | PS          | 8/11/2020 12:40   | 40212977003 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 4    | MW-10#1 24-25'        | PS          | 8/11/2020 13:00   | 40212977004 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 5    | PZ-105# 3-10'         | PS          | 8/12/2020 14:05   | 40212977005 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 6    | PZ-105# 18-19'        | PS          | 8/12/2020 14:10   | 40212977006 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 7    | PZ-106 9-10'          | PS          | 8/13/2020 07:25   | 40212977007 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 8    | PZ-106 14-15'         | PS          | 8/13/2020 07:30   | 40212977008 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 9    | DUP #4                | PS          | 8/10/2020 14:40   | 40212977009 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 10   | DUP #5                | PS          | 8/11/2020 13:05   | 40212977010 | Solid  | 1           |                      |   |   |   | X                             | X                 |     |  |
| 11   | MW-3                  | PS          | 8/10/2020 14:50   | 40212977011 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 12   | MW-4                  | PS          | 8/11/2020 08:20   | 40212977012 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 13   | MW-10#1 55-59'        | PS          | 8/11/2020 16:00   | 40212977013 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 14   | PZ-105 WT             | PS          | 8/12/2020 14:15   | 40212977014 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 15   | PZ-105 WT             | PS          | 8/13/2020 08:30   | 40212977015 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 16   | DUP #2                | PS          | 8/10/2020 14:55   | 40212977016 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 17   | DUP #3                | PS          | 8/11/2020 16:05   | 40212977017 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 18   | FIELD BLANK #2        | PS          | 8/11/2020 13:10   | 40212977018 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |
| 19   | DISCRETE SAMPLE BLANK | PS          | 8/11/2020 15:45   | 40212977019 | Water  | 2           |                      |   |   |   | X                             |                   |     |  |

Monday, August 17, 2020 9:47:20 AM

FMT-ALL-C-002rev.00 24March2006

Page 1 of 2



# Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI  
 Cert. Needed:  Yes  No  
 Owner Received Date: 8/14/2020 Results Requested By: 8/9/2020

Workorder: 40212977 Workorder Name: LACROSSE WELLS #23 & #24

|   |  |  |  |   |  |
|---|--|--|--|---|--|
| Report To:  |  | Subcontract To:  |  | Requested Analysis:                               |  |
| Christopher Hyska<br>Pace Analytical Green Bay<br>1241 Bellevue Street<br>Suite 3<br>Green Bay, WI 54302<br>Phone (920)469-2436 |  | Pace Analytical West Columbia<br>106 Vantage Point Drive<br>West Columbia, SC 29172<br>Phone (803)791-9700 |  | <br><b>VH18034</b><br><small>LAB USE ONLY</small> |  |

| Item | Sample ID      | Sample Type | Collect Date/Time | Lab ID      | Matrix | Preserved Containers |        | Comments |
|------|----------------|-------------|-------------------|-------------|--------|----------------------|--------|----------|
|      |                |             |                   |             |        | Container            | Volume |          |
| 20   | DECON BLANK #2 | PS          | 8/12/2020 18:20   | 40212977020 | Water  | 2                    |        | X        |
| 21   |                |             |                   |             |        |                      |        |          |
| 22   |                |             |                   |             |        |                      |        |          |
| 23   |                |             |                   |             |        |                      |        |          |
| 24   |                |             |                   |             |        |                      |        |          |

| Transfers | Released By        | Date/Time       | Received By        | Date/Time       | Comments                    |
|-----------|--------------------|-----------------|--------------------|-----------------|-----------------------------|
| 1         | <i>[Signature]</i> | 8/17/2020 11:00 |                    |                 | MDL Reporting - Quote 23492 |
| 2         |                    |                 |                    |                 |                             |
| 3         | Fed Ex             | 8/18/2020 11:57 | <i>[Signature]</i> | 8/18/2020 11:57 |                             |

Cooler Temperature on Receipt: 2.3 °C Custody Seal:  or N Received on Ice:  or N Samples Intact:  or N

\*\*\*In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.



# PACE ANALYTICAL SERVICES, LLC

Shealy Environmental Services, Inc.  
Document Number: MEG018C-14

Page 1 of 1  
Effective Date: 8/2/2018

## Sample Receipt Checklist (SRC)

Client: Pace - Green Bay Cooler Inspected by/date: MLH2, 8/18/2020 Lot #: VH18034

Means of receipt:  SESI  Client  UPS  FedEx  Other: \_\_\_\_\_

Yes  No 1. Were custody seals present on the cooler?

Yes  No  NA 2. If custody seals were present, were they intact and unbroken?

pH Strip ID: N/A Chlorine Strip ID: N/A Tested by: N/A

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: 20-1842  
23/23 °C N/A °C N/A °C N/A °C

Method:  Temperature Blank  Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant:  Wet Ice  Ice Packs  Dry Ice  None

|   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified?<br>PM was Notified by: phone / email / face-to-face (circle one).               |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            | 4. Is the commercial courier's packing slip attached to this form?  |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 5. Were proper custody procedures (relinquished/received) followed?   |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 6. Were sample IDs listed on the COC?   |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 7. Were sample IDs listed on all sample containers?   |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 8. Was collection date & time listed on the COC?  |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 9. Was collection date & time listed on all sample containers?  |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 10. Did all container label information (ID, date, time) agree with the COC?  |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 11. Were tests to be performed listed on the COC?   |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?   |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 13. Was adequate sample volume available?   |
| <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |  | 14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?   |
| <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |  | 15. Were any samples containers missing/excess (circle one) samples Not Listed on COC?  |
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?  |
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2?   |
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?  |
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 19. Were all applicable NH <sub>3</sub> /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?  |
| <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  | 21. Was the quote number listed on the container label? If yes, Quote # <u>23492</u>  |

**Sample Preservation** (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) \_\_\_\_\_ were received incorrectly preserved and were adjusted accordingly in sample receiving with \_\_\_\_\_ mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # \_\_\_\_\_

Time of preservation \_\_\_\_\_. If more than one preservative is needed, please note in the comments below.

Sample(s) \_\_\_\_\_ were received with bubbles >6 mm in diameter.

Samples(s) \_\_\_\_\_ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) with Shealy ID: \_\_\_\_\_

SR barcode labels applied by: MLH2 Date: 8/18/2020

Comments:

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# PACE ANALYTICAL SERVICES, LLC

|  |   |   |
|--|---|---|
| <br>1241 Bellevue Street, Green Bay, WI 54302 | Document Name:<br><b>Sample Condition Upon Receipt (SCUR)</b> | Document Revised: 26Mar2020                     |
|  | Document No.:<br><b>ENV-FRM-GBAY-0014-Rev.00</b>              | Author:<br><b>Pace Green Bay Quality Office</b> |

## Sample Condition Upon Receipt Form (SCUR)

**Client Name:** The OS Group  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

Project #:

WO#: 40212977



40212977

**Tracking #:** 3957 9450 9470  
**Custody Seal on Cooler/Box Present:**  yes  no    **Seals intact:**  yes  no  
**Custody Seal on Samples Present:**  yes  no    **Seals intact:**  yes  no  
**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other  
**Thermometer Used:** SR - NA    **Type of Ice:** Wet Blue Dry None     Samples on ice, cooling process has begun  
**Cooler Temperature:** Uncont: 60 /Cont: \_\_\_\_\_  
**Temp Blank Present:**  yes  no    **Biological Tissue is Frozen:**  yes  no  
 Temp should be above freezing to 6°C.  
 Biote Samples may be received at ≤ 0°C if shipped on Dry Ice.

|   |
|---|
| Person examining contents:                |
| Date: <u>8/14/20</u> Initials: <u>lhp</u> |
| Labeled By Initials: _____                |

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

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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