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# SEDIMENT CHARACTERIZATION REPORT

*Prepared for*

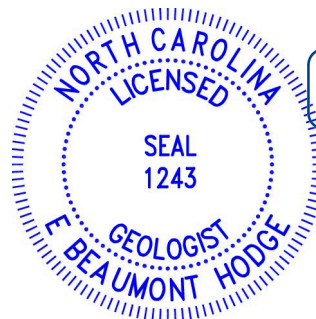
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DocuSigned by:

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## ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
CFRW	Cape Fear River Watch
cfs	cubic feet per second
CTE	central tendency exposure
DO	dissolved oxygen
DQOs	data quality objectives
DVM	data verification module
EIM	Environnemental Information Management
EPC	Exposure Point Concentration
EU	Exposure Unit
HFPO-DA	hexafluoropropylene oxide dimer acid
HHSLEA	Human Health Ecological Screening Level Exposure Assessment
HQ	Hazard quotients
NCDEQ	North Carolina Department of Environmental Quality
NCDHHS	North Carolina Department of Health and Human Services
ng/L	nanograms per liter
µg/kg	micrograms per kilogram
NVHOS	perfluoromethoxysulfonic acid
ORP	oxygen/reduction potential
Parsons	Parsons of NC
PFAS	per- and polyfluoroalkyl substances
PFMOAA	perfluoro-2-methoxyaceticacid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane Sulfonate
PFO2HxA	perfluoro(3,5-dioxahecanoic) acid
PFO3OA	perfluoro(3,5,7-trioxaoctanoic) acid

PFO4DA	perfluoro(3,5,7,9-tetraoxadecanoic) acid
PFO5DA	perfluoro-3,5,7,9,11-pentaoxadodecanoic acid
PMPA	perfluoromethoxypropyl carboxylic acid
POTW	publicly owned treatment works
PS Acid	phosphatidylserine
R-PSDA	ethanesulfonic acid, 1,1,2,2-tetrafluoro-2 -1,2,2,3,3-pentafluoro-1-(trifluoromethyl) propoxy
RME	Reasonable Maximum Exposure
RPD	relative percent differences
SLEA	Screening Level Exposure Assessment
SOP	standard operating procedure
TOC	Total organic carbon
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Society
WWTP	wastewater treatment plant

## EXECUTIVE SUMMARY

This report was prepared by Geosyntec Consultants of NC, P.C. (Geosyntec) for The Chemours Company, FC, LLC (Chemours) pursuant to Paragraph 11.2 of the executed Consent Order (CO) dated 25 February 2019 among the North Carolina Department of Environmental Quality (NCDEQ), Cape Fear River Watch (CFRW), and the Chemours Company FC, LLC (Chemours). Paragraph 11.2 requires an assessment of the nature and extent of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in sediment in the Cape Fear River originating from the Facility.

PFAS are a category of chemicals comprised of many thousands of compounds (Wang et al., 2017). PFAS compounds are widely detected in environmental samples across the country and are introduced into watersheds via common sources including discharge from industrial processes, effluent from wastewater treatment plants, leachate from landfills, and releases of firefighting foams (ITRC, 2020; Hu et al., 2016). This sampling program evaluated the nature and extent of PFAS in the Cape Fear River which can be analyzed by two methods currently available: Method 537M and the Table 3+ Method. Method 537M PFAS compounds are often associated with effluents from wastewater treatment plants and firefighting foams, amongst other sources. Table 3+ Method PFAS compounds are often related to operations at the Chemours Fayetteville Works Site (the Site).

Surface water and sediment samples were collected in the Cape Fear River from nine transects along the length of the River in May and June 2020 to evaluate PFAS concentrations upstream of, adjacent to, and downstream of the Site. Sediment and surface water samples were analyzed by the Table 3+ Method and Method 537M. Sediment samples were also analyzed for geotechnical properties including grain size and total organic carbon content.

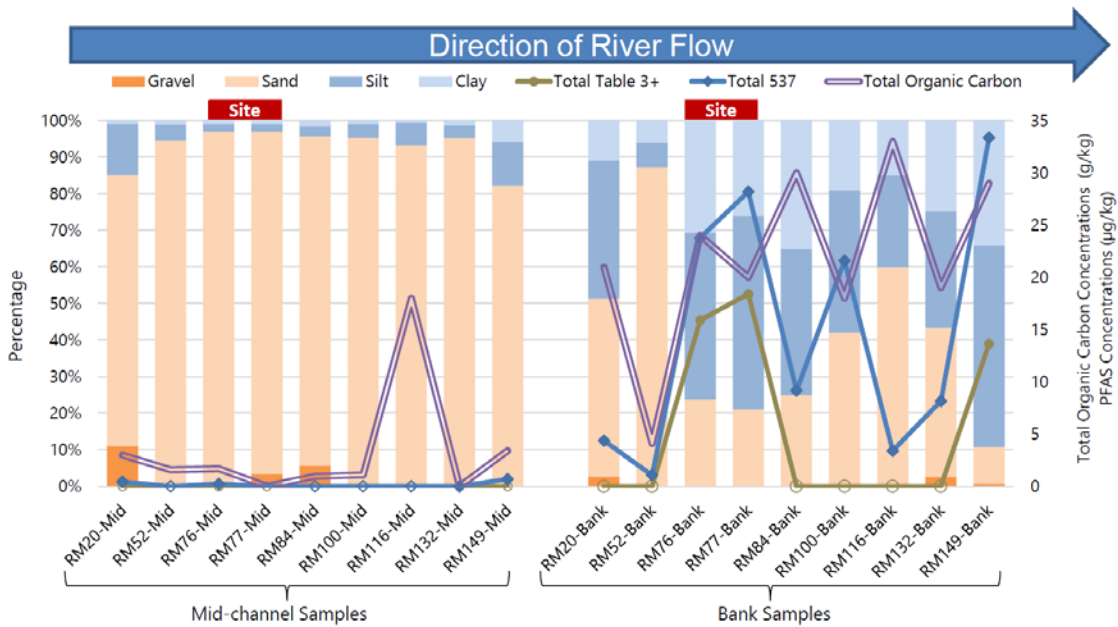
Sediment samples were collected from riverbank and mid-channel River segments. A higher relative percentage of fine-grained sediment was found in riverbank samples compared mid-channel samples (see inset figure below), consistent with expected river dynamics where banks with lower water velocities are more depositional than thalweg<sup>1</sup> areas with higher water velocities. Higher fines contents were also associated with higher total organic carbon contents. Many compounds preferentially adsorb to finer grained sediments (often the total organic carbon component), which makes grain size

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<sup>1</sup> The thalweg is a line connecting the deepest points of successive cross-sections along the course of a river.

distributions and total organic carbon concentrations indicators of areas with potential sediment impacts (ITRC, 2014).

The inset figure below shows PFAS detections were generally found in finer grained sediment with higher total organic carbon concentrations. Method 537M PFAS were detected above reporting limits in sediment from all nine transects; Table 3+ PFAS were detected above reporting limits in sediment in three transects, which were located alongside the Site and in a depositional area downstream of the Site.



### Sediment Grain Size, Total Organic Carbon, and PFAS Data

Method 537M PFAS have been identified in upstream sources collected by NCDEQ and the PFAST Network (NCDEQ, 2020; PFAST Network, 2020). In general, the presence of Method 537M PFAS in the watershed is consistent with known patterns of PFAS contributions to watersheds from upgradient sources such as effluent from wastewater treatment plants, leachate from landfills, and releases of firefighting foams (ITRC, 2020; Hu et al., 2016). In this program, Method 537M PFAS were detected in surface water above reporting limits at each sampling transect. The total concentration of Method 537M PFAS did not change meaningfully upstream or downstream of the Site. Past investigations conducted by Chemours have also demonstrated that Method 537M PFAS do not increase in concentration from immediately upstream to downstream of the Site (Geosyntec, 2018). Table 3+ PFAS were detected in surface water above reporting limits at each sampling transect with concentrations becoming highest downstream of the Site



where Site inputs of Table 3+ PFAS to the Cape Fear River are well mixed across the river water column.

The sediment and surface water samples collected in this program were compared to data collected and interpretations made in the 2019 Human Health and Ecological SLEAs (Geosyntec, 2019a). The results of this program are consistent with the findings of the SLEAs that, based on presently available information for HFPO-DA exposures quantified, there are no anticipated hazards to human or ecological receptors from exposures to HFPO-DA in surface water or sediment. Concentrations of HFPO-DA were below the 140 ng/L HFPO-DA provisional health goal (NCDEQ and North Carolina Department of Health and Human Services [NCDHHS], 2018). Additionally, in the Cape Fear River, the combined concentrations of PFOA and PFOS (Method 537M) in surface water from all locations sampled in this program were below the 70 ng/L USEPA Lifetime Health Advisory level (USEPA, 2016b, 2016c).

## 1 INTRODUCTION

Geosyntec Consultants of NC, P.C. (Geosyntec) has prepared this Sediment Characterization report for The Chemours Company, FC, LLC (Chemours) pursuant to requirements of Paragraph 11.2 of the executed Consent Order (CO) among Chemours, North Carolina Department of Environmental Quality (NCDEQ) and Cape Fear River Watch (CFRW) dated 25 February 2019. Chemours operates the Fayetteville Works facility in Bladen County, North Carolina (the Site).

In August 2019, pursuant to requirements of CO Paragraph 11.2, Geosyntec developed a plan to assess the nature and extent of per- and polyfluoroalkyl substances (PFAS) contamination originating from the Site in Cape Fear River sediments; the Plan was amended following one round of comments by NCDEQ and accepted by NCDEQ in April 2020 (Sediment Characterization Plan, Geosyntec, 2020a). This Characterization Plan included the selection of transects for collection of sediment and surface water samples upstream, adjacent to, and downstream of the Site, as well as near raw water intakes of downstream public water utilities. The Sediment Characterization Plan described the intended sampling locations and methods.

The objective of this Sediment Characterization Report is to describe the findings of surface water and sediment samples collected during the Sediment Characterization (referred to herein as “this program”) of the Cape Fear River. Data collected were used to assess Total Table 3+ and Method 537M per- and polyfluoroalkyl substances (PFAS) in the Cape Fear River sediment and surface water. The Table 3+ Method was developed by Chemours and its analytical laboratory partners. Certain compounds analyzed by the Table 3+ method were identified by non-targeted analysis of samples collected from the Site; non-targeted analysis is a specialized analytical approach that evaluates samples for the presence of unknown compounds. Based on the non-targeted analysis results, the Table 3+ method was then developed to enable a targeted analytical method to analyze for these PFAS. Presently, the grouping of PFAS referred to as Table 3+ are analyzed by the Table 3+ Method, and PFAS referred to as Method 537M are analyzed by a modification to the EPA Method 537.

The remainder of this report is organized as follows:

- **Setting and Approach** – This section describes the approach used to achieve the CO objectives for the Sediment Characterization and the reason for selecting each sampling transect in the Cape Fear River;
- **Scope and Methods** – This section describes the sampling performed and methods used in the sampling activities;

- **Sampling Results** – This section presents the results of the Cape Fear River Table 3+ PFAS and Method 537M sampling in Sediment and Surface Water;
- **Discussion of Sampling Results** – This section describes river sediment transport dynamics, then analyzes the results of Cape Fear River sediment and surface water sampling results including sediment grainsize, Total organic carbon (TOC) and PFAS data, and provides an interpretation of results with regard to the Human Health and Ecological Screening Level Exposure Assessments (SLEAs); and
- **Summary** – This section summarizes the objectives and findings of this report.

## 2 SETTING AND APPROACH

The Cape Fear River flows 191 miles from its start at the confluence of the Deep and Haw Rivers to its mouth in the Atlantic Ocean near the city of Wilmington, NC (Figure 1). Along its course, the Cape Fear River receives contributions from a variety of sources including the Little River, various creeks, direct groundwater discharge to the Cape Fear River, and discharges from multiple publicly owned treatment works (POTWs). The Site is located approximately 76 miles from the confluence of the Deep and Haw Rivers (Figure 2).

The objective of this Characterization was to assess the nature and extent of PFAS originating from the Site to Cape Fear River sediments. To achieve this objective, samples were collected from Cape Fear River sediments and surface water in upstream, Site-adjacent, and downstream reaches of the Cape Fear River. This approach was detailed in the NCDEQ-approved Sediment Characterization Plan (Geosyntec, 2020a). Nine transects (Figure series 3a-h) were selected for sampling; the reason for selecting each transect is as follows:

- Cape Fear River Mile 20<sup>2</sup>: Intended to be collected near the surface water sample collected at River Mile 20 in June 2018. This transect was selected to be representative of background conditions. It is located near United States Geologic Society (USGS) Stream Gage 02102500 and Harnett County's drinking water intake.
- Cape Fear River Mile 52: Intended to be collected near the surface water sample collected at River Mile 52 in June 2018. This transect was selected to be

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<sup>2</sup> River miles are numbered from upstream to downstream. River Mile Zero corresponds with the beginning of the Cape Fear River.

representative of background conditions. It is located near the City of Fayetteville's drinking water intake.

- Cape Fear River Mile 76: Transect collected directly upstream of the confluence with Willis Creek. This transect was intended to be collected near the CFR-05 surface water samples collected September 2017 and May 2018. This transect is considered adjacent to the Site.
- Cape Fear River Mile 77: Transect located immediately downstream of Outfall 002, upstream of dam. This transect is considered adjacent to the Site.
- Cape Fear River Mile 84: Intended to be collected near the surface water sample collected at River Mile 84 in June 2018 in which the highest concentration of Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) was detected above reporting limits during the June 2018 surface water sampling event. This transect is downstream of Site; and located upstream of and within 1,000 feet of the Bladen Bluff Drinking Water Intake (River Mile 84.8).
- Cape Fear River Mile 100: Intended to be collected near the surface water sample collected at River Mile 100 in June 2018. This transect is downstream of Site. The Elizabethtown Wastewater Treatment Plant (WWTP) outfall discharge is located near this sample.
- Cape Fear River Mile 116: Intended to be collected near the surface water sample collected at River Mile 116 in June 2018. This transect is downstream of Site.
- Cape Fear River Mile 132: Intended to be collected near the surface water sample collected at River Mile 132 in June 2018. This transect is downstream of Site. Sample co-located with the Kings Bluff Intake Canal operated by the Lower Cape Fear Sewer and Water Authority and distributes water to CFPWA (New Hanover county), Brunswick County and Pender County.
- Cape Fear River Mile 149: Located downstream of Cape Fear River Lock and Dam #1 and Kings Bluff Intake Canal, located 42 miles upstream from where the Cape Fear River empties into the Atlantic Ocean. This transect is 72 river miles downstream of Site.

### **3 SCOPE AND METHODS**

For this Characterization, sampling was conducted by Geosyntec and Parsons of NC (Parsons) staff in May and June 2020. The scope of the sampling programs and methods employed to collect field data are summarized below.

### **3.1 Sampling Locations**

Transect locations were field-adjusted so at least one sample along each transect was confirmed to contain at least 20% fine-grained material (confirmed by field-sieving with a #200 mesh screen). Each transect was then divided into three segments. Facing upstream, the left bank segment was given an “A” designation, the mid-channel segment was given a “B” designation and, and the right bank segment was given a “C” designation (Figure series 3a-h). Collectively samples from “A” and “C” segments are referred to as bank samples while samples from the “B” segments are referred to as mid-channel samples.

Water column samples were collected from the mid-channel segment (“B” designation) in each transect. Where water depths exceeded 3 feet, two water column samples were collected, one from one to two feet above the sediment surface, and one from the approximate midpoint of the water column (this occurred at 7 transects; Table 2). Where water depths were shallower than 3 feet, one water column sample was collected from the approximate midpoint of the water column (this occurred at two transects; Table 2).

Surficial sediment samples were collected from each segment along each transect (“A”, “B”, and “C” designations). Samples were collected from the sediment surface to a depth of approximately four inches.

Transects were located in the main Cape Fear River channel except for the transect at River Mile 149, which was located in a secondary flow channel from the main channel. Sampling segments are shown in Figure series 3a-h. Sample segment coordinates, which were recorded by a Garmin Glo GPS unit, are provided in Table 1.

### **3.2 Sampling Methods**

#### **3.2.1 Sediment Sampling Procedures**

Sediment sampling was conducted in general accordance with United States Environmental Protection Agency (USEPA) standard operating procedure (SOP) SESDPROC-200-R3 Sediment Sampling (USEPA, 2014) and the approved Characterization Plan (Geosyntec, 2020a).

Sediment samples were collected from all segments with a Wildco<sup>®</sup> stainless steel petite ponar (referred to herein as a ponar), except for one sample which was composed of tight clay which the ponar could not penetrate; this sample was hand collected from sediment just above the waterline using a stainless-steel spoon (River Mile 116, segment “A”). At the request of NCDEQ, duplicate samples from three segments were additionally

collected using a push-tube device (River Miles 76, 84, and 149). Split samples were collected at River Miles 52 and 149 using a ponar. Additional material was collected from sediment segments collected from “A”, “B”, and “C” segments from River Miles 100, 116, and 149 for split sampling with NCDEQ.

Sediment samples were collected from the sediment surface to a depth of approximately 4 inches below the sediment surface. The minimum acceptable recovery was two inches of material depth retained in the sampler for a grab sample to be retained for compositing.

Multiple grab samples were collected using the specified sampling device to obtain sufficient material to satisfy sample volume requirements as specified in the Characterization Plan (Geosyntec, 2020a). The grab samples were composited together in a decontaminated stainless-steel container and homogenized using a decontaminated stainless-steel spoon prior to filling sample bottles. Large materials present in the sediment (e.g., gravel, vegetation) were avoided when filling sample bottles. Sediment texture and other relevant observations were noted on field forms (Appendix A). Each sampling container was capped, labeled, and stored on ice ( $4 \pm 2^{\circ}\text{C}$ ). Sampling details are provided in Table 1.

### **3.2.2 Surface Water Sampling Procedures**

Water column sampling was conducted in general accordance with USEPA SOP SESDPROC-201-R4 Surface Water Sampling (USEPA, 2016a) and the approved Characterization Plan (Geosyntec, 2020a). Water column samples were collected from the mid-channel (“B”) segment of each transect and were collected prior to sediment sample collection at the same segment. Sampling details are provided in Table 2. Sampling depths were selected as described in Section 3.1. A total of 16 surface water samples were collected.

Water column samples were collected using a peristaltic pump, new dedicated high-density polyethylene tubing, and new dedicated silicone tubing for the pump head at each sample. The tubing was lowered to the sampling depth using an anchor weight and the fastened tubing was pointed upwards at the tubing intake. Surface water was pumped directly from the submerged tubing through the pump head to a flow-through cell. Field parameters (turbidity, pH, temperature, specific conductance, dissolved oxygen [DO], oxygen/reduction potential [ORP]) were recorded until parameters stabilized (Table 3). The flow-through cell was then disconnected, the end of the tubing previously connected to the flow-through cell was cut off, and grab samples were collected from the discharge of the peristaltic pump into new, laboratory-supplied bottleware. Each sampling container was capped, labeled, and stored on ice ( $4 \pm 2^{\circ}\text{C}$ ).

### **3.3 Analytical Methods**

Sediment samples were analyzed by the following methods:

- PFAS by Method 537M and Table 3+;
- Grain size by American Society for Testing and Materials (ASTM) D422-63;
- Moisture content by ASTM D2216-90; and
- TOC by Lloyd Khan.

Water column samples were analyzed by the following methods:

- PFAS compounds by Method 537M and Table 3+;
- Total suspended solids by ASTM 2540 D-1997; and
- Dissolved organic carbon and TOC by SW-846 9060A.

Samples were shipped to either Eurofins Lancaster Laboratories, Inc. or TestAmerica Laboratories, Inc. for analysis.

### **3.4 Sampling Conditions**

Surface water and sediment sampling was intended to target base flow conditions, and the Work Plan stated sampling would not occur within 72 hours of a rain event. Base flow conditions were further defined as no more than 0.3 inches of cumulative rainfall over the preceding 72 hours<sup>3</sup> and a gage height specified at the nearest USGS gage coinciding with typical base flow conditions<sup>4</sup>.

As a result of several rain events which occurred during the sampling schedule, sampling was delayed several times and was conducted over a span of 43 days (Tables 1 and 2); additionally, samples were not always collected sequentially upstream to downstream. The results presented herein should be viewed with the consideration that the samples were collected over this timespan. During the 43 day period, River flow rates ranged from 678 to 26,194 cubic feet per second (cfs); sampling was conducted during flow rates of

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<sup>3</sup> as measured at the nearest Cape Fear River rain gage. Baseline conditions were monitored according to the USGS website for W.O. Huske Lock ([STPN7](#)) and Lock & Dam #1 ([CPFN7](#)). Forecasted precipitation for each location was monitored according to the USGS National Water Information System website for W.O. Huske Lock (02105500) and Lock & Dam #1 (02105769).

<sup>4</sup> Flow rates used were measured at the nearest gage. The flow rates corresponding to stage heights of approximately 4.5 feet for the W.O. Huske Dam and 17.9 feet at Lock & Dam #1.

approximately 700 to approximately 8,900 cfs (Figure 4; Table 4). Sampling dates and other details for each sampling segment are provided in Tables 1 and 2, and a summary of Cape Fear River flow rates is provided in Table 4.

## 4 SAMPLING RESULTS

This section presents results from the sampling activities described in Section 3. Specifically, this section describes data quality regarding data included in this report and then describes the analytical and geotechnical results from the sampling program.

### 4.1 Data Quality

The analytical data were reviewed using the Data Verification Module (DVM) within the Locus™ Environmental Information Management (EIM) system, a commercial software program used to manage data. Following the DVM process, a manual review of the data was conducted. The DVM and the manually reviewed results were combined in a data review narrative report for each set of sample results, which were consistent with Stage 2b of the USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (USEPA-540-R-08-005, 2009). The narrative report summarizes which samples were qualified (if any), the specific reasons for the qualification, and any potential bias in reported results (Appendix B). The data usability, in view of the project's data quality objectives (DQOs), was assessed, and the data were entered into the EIM system.

The data were evaluated by the DVM against the following data usability checks:

- Hold time criteria;
- Field and laboratory blank contamination;
- Completeness of quality assurance/quality control samples;
- Matrix spike/matrix spike duplicate recoveries and the relative percent differences (RPD) between these spikes;
- Laboratory control sample/control sample duplicate recoveries and the RPD between these spikes;
- Surrogate spike recoveries for organic analyses; and
- RPD between field duplicate sample pairs.

A manual review of the data was also conducted, which included a review of instrument-related quality control results for calibration standards, blanks, and recoveries.



The data review process (DVM plus manual review) applied the following data evaluation qualifiers to the analytical results as required:

- J Analyte present, reported value may not be accurate or precise;
- UJ Analyte not present below the reporting limit, reporting limit may not be accurate or precise; and
- B Analyte present in a blank sample, reported value may have a high bias.

Results are reported in the data validation white book (Appendix B).

Following the automated and manual data validation reported in the white book, additional manual validation was conducted:

- Chromatograms for all analytes in all field samples were reviewed for peak shape and retention time against the peak shape and retention time of the appropriate standards;
- Calibration for PMPA and PFMOAA were verified (recalculated);
- Approximately 10% of the PMPA and PFMOAA detections in the field samples were verified (recalculated);
- Non-detects for all compounds were verified via visual examination of the chromatograms.

This additional manual validation revealed no further data quality issues.

The DQOs were met for the analytical results for accuracy and precision. The data collected are believed to be complete, representative and comparable, with the exception of three compounds: R-PSDA, Hydrolyzed PSDA, and R-EVE. As reported in the *Matrix Interference During Analysis of Table 3+ Compounds* memorandum (Geosyntec, 2020b), matrix interference studies conducted by the analytical laboratory (TestAmerica Laboratories, Inc., Sacramento) have shown that the quantitation of these three compounds (R-PSDA, Hydrolyzed PSDA, and R-EVE) is inaccurate due to interferences by the sample matrix, and that the interference results in over-estimation of these concentrations. Consequently, all results above the reporting limit for R-PSDA, Hydrolyzed PSDA, and R-EVE in the sediment and surface water results have been J-qualified as estimated.

Given the matrix interference issues, Total Table 3+ PFAS concentrations are calculated and presented two ways in this report: (i) summing over 17 of the 20 Table 3+ compounds “Total Table 3+ (sum of 17 compounds)”, i.e., excluding results of R-PSDA, Hydrolyzed

PSDA, and R-EVE, and (ii) summing over 20 of the Table 3+ compounds “Total Table 3+ (sum of 20 compounds)”. Expressing these data as a range represents possible values of what these results might be without matrix interferences. In other words, the sum of the 17 compounds is an underestimate of the actual value while the sum of the 20 compounds is likely an overestimate of the actual value.

HFPO-DA can be analyzed by either Method 537M or by the Table 3+ Method. The laboratory selects the method depending on their current analyte lists; results from both methods are considered accurate and comparable. For this sample set, HFPO-DA was analyzed in some samples by Method 537M and in some samples by both methods. If HFPO-DA was measured by both methods, the reported concentration was determined as follows: the higher concentration was reported when both results were detected above reporting limits; the detected value was reported when one result was detected and the other was a not detected above reporting limits, and; the lower reporting limit was reported when both results were not detected above reporting limits. In this Report, regardless of the method used for analysis, HFPO-DA is grouped with Table 3+ compounds for totaling concentrations in tables and figures in order to be consistent with past reports.

## **4.2 Analysis of Cape Fear River Sediment**

Samples collected in this program were intended to be collected during baseline conditions (see Section 3.4), and as a result, samples were collected over approximately six weeks. The Cape Fear River flow varied during the sampling period (Figure 4). Sampling dates, flow conditions, concentrations at each segment, and surface water mass discharge are provided in Table 3. Sampling results are provided in Tables 5A, 5B, and 5C.

### **4.2.1 Geotechnical Properties in Sediment**

Sediment samples ranged from 97% coarse grained (sand + gravel fractions), at the mid-channel segment at River Mile 76 to 11% coarse grained (89% fine grained) in the secondary channel where River Mile 149 was collected (“C” segment; Table 5C). In general, samples collected in the mid-channel segments contained coarser grained material than samples collected along bank (“A” and “C”) segments.

TOC ranged from below the reporting limit at mid-channel segments at River Mile 77 and River Mile 132 to 33,000 mg/kg at River Mile 116 (“C” segment). TOC was generally observed to be higher in bank (“A” and “C”) segment samples than in mid-channel (“B”) segment samples (Table 5C). Transects with the highest TOC content (River Miles 76,

77, and 149) were also the transects with the highest fines contents (River Miles 76, 77, 84, and 149).

#### **4.2.2 Cape Fear River Table 3+ PFAS in Sediment**

Of the nine transects sampled, Table 3+ compounds were detected above reporting limits in sediment samples from three transects: River Miles 76 and 77, which are adjacent to the Site, and River Mile 149, which is downstream of the Site (Figure 5). The highest concentrations of Table 3+ compounds were found in sediment samples from River Mile 77. Table 3+ compounds were not detected above reporting limits in sediment upstream from the Site or in any mid-channel sample from any transect. The concentrations of Total Table 3+ (20 or 17 compounds) ranged from below the reporting limits in several samples to a maximum concentration of 18.4 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) at River Mile 77 (“A” segment, collected on the western riverbank, alongside the facility). The highest individual compound concentration was perfluoro-2-methoxyacetic acid (PFMOAA) at 9.9  $\mu\text{g}/\text{kg}$  from the sample collected at River Mile 149 (“C” segment). In total, eight of the 20 Table 3+ compounds (including HFPO-DA) were detected above reporting limits in samples from this event (Table 5A).

The distribution of PFAS in sediment is further discussed in Section 5.

#### **4.2.3 Cape Fear River Method 537M PFAS in Sediment**

In contrast to Table 3+ compounds, Method 537M compounds were detected above reporting limits in samples from each of the nine transects sampled including areas upstream of, adjacent to, and downstream of the Site. The highest total concentration was detected at River Mile 149 (Figure 5). Generally, Method 537M concentrations were lower or not detected above the reporting limit in mid-channel (“B”) segments. The total concentrations of Method 537M PFAS ranged from below the reporting limits in several samples to a maximum concentration of 33.36  $\mu\text{g}/\text{kg}$  at River Mile 149 (“C” segment). The greatest number of Method 537M PFAS detected above reporting limits at a segment was 17 compounds, from River Mile 76 (“A” segment); River Mile 76 is adjacent to the Site and downstream of the city of Fayetteville and the farther upstream location RM-52 (Figure 3c).

The most frequently detected above reporting limits and highest measured Method 537M PFAS was 2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol found both upstream and downstream of the Site. It was detected above reporting limits in 22 of the 32 sediment samples analyzed and it was detected in at least one segment along each transect, including upstream of, adjacent to, and downstream of the Site. The highest detection was

at River Mile 100 “C” segment (opposite the Elizabethtown WWTP) at 15 µg/kg (Table 5B). In total, 19 of the 35 Method 537M compounds were detected above reporting limits in samples collected from this event (Table 5B).

The distribution of PFAS in sediment are further discussed in Section 5.

### **4.3 Analysis of Cape Fear River Surface Water**

Samples collected in this program were intended to be collected during baseline conditions (see Section 3.4), and as a result, samples were collected over a span of 43 days. The Cape Fear River flow varied during the sampling period. Sampling dates, flow conditions, and concentrations at each segment are provided in Table 2 and Figure 4. Sampling results are provided in Tables 6A, 6B, and 6C.

Samples were collected at two depths in seven of the nine transects (as described in Section 3.1). Table 3+ concentrations were similar between the two sampling depths (Table 6A).

#### **4.3.1 Cape Fear River Table 3+ PFAS Sampling Results**

Table 3+ PFAS were detected above the reporting limit in all surface water samples collected during the sampling program, spanning from River Mile 20 through River Mile 149. Concentrations varied by River Mile (Figure 6a). However, mass discharge is greater downstream of the Site, as shown in Figure 6b. Results are listed in Table 6A.

Fewer Table 3+ compounds were detected above the reporting limit in the samples collected upstream of the Site relative to samples collected downstream. Analytes detected above reporting limits in upstream samples were limited to three compounds<sup>5</sup>; the analytes detected above reporting limits in downstream samples ranged from six to 10 compounds, with several compounds<sup>6</sup> found in every downstream sample.

The concentrations of Total Table 3+ (17 and 20 compounds) ranged from 2.4 nanograms per liter (ng/L) at River Mile 77 (18 feet below water surface) to a maximum concentration of 131 ng/L at River Mile 100 (17 feet below water surface). The highest individual Table 3+ compound concentration was perfluoromethoxypropyl carboxylic acid (PMPA) at 42 ng/L from the sample collected at River Mile 100 (17 feet below water

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<sup>5</sup> Perfluoromethoxysulfonic Acid [NVHOS], perfluoromethoxypropyl carboxylic acid [PMPA], and Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-[1,2,2,3,3-pentafluoro-1-(trifluoromethyl)propoxy] [R-PSDA]

<sup>6</sup> HFPO-DA, Perfluoro-2-methoxyacetic acid [PFMOAA], Perfluoro(3,5-dioxahexanoic) Acid [PFO2HxA], Perfluoro(3,5,7-trioxaoctanoic) Acid [PFO3OA], and 1,2,2,3,3-pentafluoro-1-(trifluoromethyl)propoxy [Hydrolyzed PSDA]

surface). In total, 10 Table 3+ compounds (including HFPO-DA) were reported in samples from this event (Table 6A).

The distribution of PFAS in surface water are further discussed in Section 5.

#### 4.3.2 Cape Fear River Method 537M PFAS Sampling Results

Method 537M were detected above the reporting limit in all surface water samples collected during the sampling program, spanning from River Mile 20 through River Mile 149. Several Method 537M compounds were detected in relatively consistent concentrations above the reporting limit in the surface water samples from River Mile 20 through River Mile 149 (Figure 6a). Results are listed in Table 6B.

Compounds detected above the reporting limit were Perfluorobutane Sulfonic Acid, Perfluorobutanoic Acid, Perfluoroheptanoic Acid, Perfluorooctanoic Acid (PFOA), and Perfluorooctane Sulfonate (PFOS). There were no other Method 537M compounds detected above reporting limits.

Total Method 537M compounds ranged from 48.5 ng/L at River Mile 149 (1.5 feet below water surface) to a maximum concentration of 72.5 ng/L at River Mile 52 (1.6 feet below water surface). The highest individual Method 537M compound concentration was PFOS at River Mile 84 (18 feet below water surface) at 15 ng/L (Table 6B). PFOS is not produced or used at the Site or present in Site process water samples (Chemours, 2019; Geosyntec, 2019f).

The distribution of PFAS in surface water are further discussed in Section 5.

## 5 DISCUSSION

Along its course, the Cape Fear River receives contributions from a variety of sources which have associated PFAS discharges, including the Little River, various creeks, direct groundwater discharge to the Cape Fear River, and discharges from multiple POTWs and industrial dischargers (NCDEQ, 2020; PFAST Network, 2020). Between River Miles 76 and 77, there are several Site-related inputs into the Cape Fear River which have also been identified as sources of PFAS to the River<sup>7</sup>. The Cape Fear River then transports dissolved-phase chemicals from these inputs (Geosyntec, 2020c) and also transports and, subsequently deposits, sediments suspended in the water column.

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<sup>7</sup> Site-related impacts include Willis Creek, onsite Seeps, Old Outfall 002, and onsite groundwater, all of which have been identified as transport pathways of PFAS to the Cape Fear River (Geosyntec, 2019a, 2019b, 2020e)

This section presents a summary of the Cape Fear River sediment grainsize data, a discussion of the distributions of Table 3+ and Method 537M PFAS detected in sediment samples and surface water samples, and a contextualization of the results of this program relative to the 2019 Human Health and Ecological Screening Level Exposure Assessments (Geosyntec, 2019a).

## **5.1 Cape Fear River Sediment Grainsize and TOC Data**

The distribution of riverbed sediments in the Cape Fear River is a product of the underlying geology, sediment load inputs, and water velocities in the Cape Fear River. Water generally flows fastest in the thalweg (i.e., the deepest point of river cross section) and is a function of channel slope (i.e. gradient of the river), channel width, and flow, which results in higher water velocities in areas with steeper terrain or a narrower channel and lower water velocities in flatter-areas or areas with a wider channel. Where water carrying suspended sediment moves from a high-velocity environment to a lower-velocity environment, sediment is often deposited, and erosion is less likely to occur.

Samples collected during this program indicate a higher relative percentage of fine-grained material is distributed along the banks of the Cape Fear River (“A” and “C” segments) compared with the center channel (Figure 7a). Consistent with expected river dynamics, faster currents in the center channel appear to prevent finer grained sediment accumulation in the center channel sections of the Cape Fear River.

The transect segment with the highest proportion of silts and clays (i.e., fine grained material) sampled in this program was at River Mile 149 (“C” segment bank sample; Figure 7a, Table 5C). The proportion of fines (combined clay and silt fractions of 89%) found in this area of River Mile 149 suggests that this is a depositional environment. The River Mile 149 transect is off the main channel of the River in a secondary flow channel that likely experiences lower water velocities. Bathymetry data from the US Army Corps of Engineers indicates the slope of the Cape Fear River Channel is essentially zero for six miles upstream and five miles downstream of this sampling transect, which will reduce water velocities in this area. Additionally, water velocities in this reach of the Cape Fear River are expected to be further reduced due to backwater effects from strong tidal currents nearer the mouth of the Cape Fear River (Bowen et. al, 2009). All of these factors contribute to the depositional environment at this location.

Riverbank samples from River Miles 76, 77, and 84 also contained relatively elevated proportions of fines (over 60%). Transects at River Miles 76 and 77 are upstream of and

potentially influenced by the W.O. Huske Dam; the Dam may create areas of lower water velocity upstream of the Dam in which suspended sediments may deposit.

TOC content in Cape Fear River sediments is generally correlated with finer sediment grain sizes (Figure 7b); this is consistent with expectations, as TOC is often associated with finer particulates (Horowitz, 1991). TOC was observed to be higher in bank (“A” and “C”) segment samples than in mid-channel (“B”) segment samples (Figures 7b and 7c). Transects with the highest TOC content (River Miles 76, 77, and 149) were also the transects with the highest fines content (Figure 7c).

Contaminants in river systems are more likely to be found in finer-grained, higher organic content sediment than in sediment which is coarser grained with lower organic content (ITRC, 2014). This association is due to contaminants preferentially adsorbing to finer grained sediments, often the TOC component, which makes TOC and grain size distribution potential indicators of areas of sediment impacts (ITRC, 2014). Literature suggests that PFAS compounds, especially longer-chained PFAS, have a greater potential for adsorption to particulate matter in the environment (Kucharzyk et al, 2017).

## **5.2 Table 3+ and Method 537M PFAS Distribution in Sediment**

Table 3+ PFAS were detected above reporting limits at three of the nine sampling transects: River Miles 76 and 77, which are adjacent to the Site, and River Mile 149, which is downstream of the Site. Table 3+ compounds were only detected above reporting limits in bank samples. As noted in Section 5.1, River Miles 76 and 77 may have some depositional areas due to influences of the W.O. Huske Dam, and River Mile 149 is expected to be depositional environment. Upstream of the Site, transects at River Miles 20 and 52 were in areas with coarser grained sediment which are not expected to be depositional areas.

Eight individual Table 3+ PFAS were detected above reporting limits from the bank (“A” and “C”) segments at the transects at River Miles 76 and 77<sup>8</sup>. At the River Mile 76 sampling transect, Table 3+ PFAS were detected above reporting limits in both “A” and “C” bank segments with the higher concentration from the western shore (Site-adjacent) sample (segment “A”); the Total Table 3+ PFAS at segment “A” was 15.9 µg/kg; at segment “C”, the Total Table 3+ concentration was 5.9 µg/kg. At River Mile 77,

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<sup>8</sup> Compounds detected above reporting limits were HFPO-DA, PFMOAA, PFO2HxA, PFO3OA, PFO4DA, PFO5DA, PMPA, PS Acid.

Table 3+ PFAS were only detected above reporting limits in the western shore segment (“A”) with a total concentration of 18.4 µg/kg.

Table 3+ PFAS were not detected above the reporting limit in samples from the next four downstream transects (River Miles 84, 100, 116, and 132). Table 3+ PFAS were detected above reporting limits in one bank segment at River Mile 149 (“C” segment) with a maximum concentration among the three samples collected at this segment of 13.64 µg/kg.

In contrast to Table 3+ PFAS, Method 537M PFAS compounds were detected above reporting limits in samples from each of the nine transect sampled, including areas upstream of, adjacent to, and downstream of the Site. The highest concentration sample was at River Mile 149, segment “C”, at 33.36 µg/kg. This is the same sample location which had downstream detections of Table 3+ PFAS above reporting limits, further confirming the depositional nature of this segment.

The segment with the greatest number of Method 537M PFAS was River Mile 76, segment “A” with 17 compounds detected above reporting limits followed by River Mile 76, segment “C”, and River Mile 77 segment “C” both with 11 compounds detected above reporting limits. As noted earlier, River Miles 76 and 77 are potentially located in a depositional environment, particularly compared to the next upstream location at River Mile 52 where far fewer fines were present in the sediment samples. Upstream watershed data from POTWs and industrial discharges (NCDEQ, 2020) and upstream watershed water data collected by the PFAST Network (2020) indicate that all the compounds detected in sediment at River Miles 76 and 77 were positively identified in upstream samples with the exception of two compounds, which were not analyzed in the referenced assessments<sup>9</sup>. These detections are consistent with known patterns of PFAS contamination to watersheds and upgradient source types such as wastewater treatment plants, landfills, and releases of firefighting foams (ITRC, 2020; Hu et al., 2016). These upstream detections suggest the potential for deposition and accumulation of these compounds in the more depositional environments of River Miles 76 and 77.

### **5.3 Table 3+ and Method 537M PFAS Distribution in Surface Water**

Sampling during this program was intended to target base flow conditions, as noted in Sections 3.4 and 4.3. Due to the weather conditions during the sampling schedule,

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<sup>9</sup> The two compounds not quantitated in upstream samples collected by NCDEQ or the PFAST Network were 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol and 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol.



sampling was delayed several times and was conducted over a span of 43 days (Tables 1 and 2). During this time, the flows in the Cape Fear River varied considerably (Figure 4; Table 4).

Variation in flow directly affects the concentrations of PFAS measured in samples, as a large fraction of the Table 3+ PFAS mass load in the Cape Fear River comes from onsite transport pathways which are unaffected by River stage (Onsite Seeps and Old Outfall 002 [Geosyntec, 2020d]). These PFAS loads will then mix in the Cape Fear River and final concentrations will be a factor of the volume of water present in the River. More water in the Cape Fear River (i.e., higher River flows) will lead to lower PFAS concentrations.

Table 3+ PFAS were detected above the reporting limit in the surface water samples collected during the sampling program, spanning from River Mile 20 through River Mile 149 (Table 6A). Table 3+ analytes PFAS PMPA, perfluoromethoxysulfonic acid (NVHOS), and R-PSDA were detected above reporting limits in transects located at River Miles 20, 52, and 76. Beginning at River Mile 77 and continuing downstream, a greater number of Table 3+ PFAS compounds were detected above reporting limits in surface water samples. While concentrations varied by River Mile (Figure 6a), the mass discharge of well-mixed Cape Fear River samples downstream of the Site (i.e., River Mile 84 to River Mile 149) was relatively constant (between 7 and 10 milligrams per second for 17 Table 3+ compounds; between 8 and 11 mg/s for 20 Table 3+ compounds), with the exception of one measurement with a higher value at River Mile 116 (Table 4; Figure 6b).

The sample collected at River Mile 77 had the lowest concentration and second lowest calculated mass discharge over the sampling program (Figures 6a and 6b). The lower concentrations and mass load at River Mile 77 may be related to incomplete mixing of the Cape Fear River directly adjacent to the Site; inputs from the Site are not fully mixed into the Cape Fear River until further downstream nearer River Mile 81 (Figure 8).

Similar to past investigations (Geosyntec 2018, 2020c), Method 537M compounds were detected above the reporting limit throughout the length of the sampled Cape Fear River. These compounds have been detected above reporting limits in past sampling events in the Deep and Haw Rivers which meet to form the Cape Fear River (Geosyntec, 2018, 2020c). Consistent with past sampling results, Method 537M concentrations remained relatively constant directly upstream, adjacent to and downstream of the Site (Figure 6a; Figure 9).

## **5.4 Comparison of Sediment Results to Human Health and Ecological Screening Level Exposure Assessments**

The information and results of the 2019 SLEA (Geosyntec, 2019a) were used to provide context for the newly collected PFAS data with respect to potential human and ecological hazards. As discussed in the SLEA (Geosyntec, 2019a), the lack of available toxicity information inhibits the full quantification of potential risks for the majority of Table 3+ PFAS. Sufficient toxicity information is available only for HFPO-DA to perform hazard characterization.

The data collected to support the Sediment Characterization were not intended to provide a revised hazard characterization in the Human Health or Ecological components of the Screening Level Exposure Assessment (HHSLEA and Eco-SLEA; SLEA, Geosyntec 2019a). Also of note, the extent of the Sediment Characterization along the Cape Fear River was more expansive than that applied in the 2019 Screening Level Exposure Assessment (SLEA, Geosyntec 2019a).

### **5.4.1 Data Comparison: Human Health SLEA**

Overall, the surface water data from this program exhibit lower associated concentrations of HFPO-DA when compared with data underpinning the 2019 SLEA. Differences between the assessment discussed here and the 2019 SLEA are that first, fish tissue sampling was not part of this sampling program, so no new data were available. The second difference is that this evaluation also considers direct contact with sediment as a line of evidence for understanding human health components. In light of available data, this comparative assessment focuses on surface water exposures, with an ancillary consideration for sediment and fish complete exposure pathways.

The following notes describe how this comparison was performed:

- Data collected from this program at River Mile 52 were compared to data underpinning SLEA Exposure Unit (EU) 13, representing conditions upgradient from the facility, based on Cape Fear River flow;
- Data collected from this program at River Miles 76 and 77 were compared to data underpinning SLEA EU14, representing River conditions adjacent to the facility;
- Data collected from this program at River Mile 84 were compared to data underpinning SLEA EU16, in an assessment of downgradient conditions at the Bladen Bluffs surface water intake; and

- Data collected from this program River Mile 132 were compared to data underpinning SLEA EU17, in an assessment of far downgradient conditions at the Kings Bluff surface water intake.
- Data collected from River Miles 20, 100, 116 and 149 represent investigation areas not previously assessed within the context of the SLEA.

### Surface Water

Surface water data collected during this program generally exhibit an order of magnitude lower level of HFPO-DA than the data used in the 2019 SLEA (Table 7). In the 2019 SLEA, the reasonable maximum exposure (RME)-based exposure point concentration (EPC) represents either an upper-bound estimate on the mean or the maximum detected concentration (Table 7). In recognition of dynamic conditions in a river, including fluctuating flow volumes and flow rates as well as sediment and suspended particle loading, the preferred metric for this comparison is the central tendency exposure (CTE)-based EPC, which reflects the dataset mean. In an assessment of the CTE EPCs, the trends in comparison between the surface water data sets from this program and the 2019 SLEA are consistent, with the more recent data reflecting an order of magnitude lower HFPO-DA concentration.

In a refinement of the assessment outlined above, comparing the 2019 SLEA total dataset with the corresponding data from this program, the SLEA dataset was queried to isolate only data from the 2019 sampling year. Based on this comparison, the surface water data from this program still represent a substantive decrease in recorded HFPO-DA concentrations in Cape Fear River surface water, with the concentrations from this program reported as less than half those associated with the 2019 data averages (in corresponding EUs) (Table 7).

Combined concentrations of PFOA and PFOS in surface water from all locations sampled in this program were below the 70 ng/L USEPA Lifetime Health Advisory level (USEPA, 2016b, 2016c). Combined PFOA and PFOS concentrations ranged from 17.8 ng/L (River Mile 20) to 22.2 ng/L (River Mile 84).

Concentrations of HFPO-DA were below the 140 ng/L HFPO-DA provisional health goal (NCDEQ and NCDHHS, 2018). Surface water HFPO-DA concentrations ranged from below reporting limits to 15 ng/L (River Mile 100). HFPO-DA was only reported in samples downstream of the Fayetteville Works facility.

### HHSLEA – Sediment

Sediment data collected during this program are summarized for HFPO-DA and are presented in Table 8. HFPO-DA was detected above reporting limits in only three transects. HFPO-DA was detected above reporting limits in three of four samples from River Mile 76 and one of three samples from River Mile 77, both transects are considered facility-adjacent. The highest reported transect-specific EPC HFPO-DA occurred at River Mile 77 at a concentration of 2.5 µg/kg. HFPO-DA was also detected above reporting limits downstream at River Mile 149 in one of five samples, at a maximum detected concentration of 0.34 µg/kg, a value nearly an order of magnitude less than the levels associated with the facility-adjacent transects.

### HHSLEA – 2020 Data Impact on Risk Characterization

As discussed in the SLEA (Geosyntec, 2019a), the lack of available toxicity information inhibits the full quantification of potential risks for the majority of Table 3+ PFAS. Neither surface water nor sediment exposures to HFPO-DA, based on conditions assessed in the 2019 SLEA or based on data from this program, contribute unacceptable exposures to relevant human populations based on the USEPA target hazard index. Complete exposure pathways associated with these contact media are several orders of magnitude below the driving pathways of concern.

Recreational user direct contact with sediment was not a component of the complete exposure pathways in the human health component of the 2019 SLEA and fish tissue data were not collected in this program. Surface water data results were the line of evidence supporting an assessment of potential impact on the 2019 SLEA outcomes.

Surface water data collected in this program are associated with HFPO-DA concentrations that are lower than surface water concentrations evaluated in the 2019 SLEA. The findings of the SLEA did not indicate excess hazard levels for the maximally exposed population (e.g., recreational child) and the reduced concentrations evident in the data from this program suggest even lower associated hazard.

In the 2019 SLEA, recreational population direct contact hazards associated with HFPO-DA in Cape Fear River surface water were greatest for a child recreator. Associated child recreator hazard was greatest at EU16, where fish tissue data were available to support consumption exposure; however, surface water exposure-alone for this population, based on HFPO-DA, was greatest in EU14, adjacent to the site. In EU14, RME-child recreator hazard based on surface water direct contact was calculated to be 4.8E-04, a value roughly 4 orders of magnitude below USEPA's target hazard quotient of unity and the threshold to define unacceptable exposure. Based on lower recorded

HFPO-DA level results in surface water data from this program, associated hazard for a child recreator is projected to be lower, approximately  $2.7E-05$ .

The highest recorded concentration of HFPO-DA in the sediment dataset from this program occurred at River Mile 77, with a concentration of  $2.5 \mu\text{g}/\text{kg}$ . Presuming consideration of recreational parameter values consistent with a child recreator (e.g., 12 days/year, body weight of 15 kg, exposure duration of 6 years) in combination with a conservative sediment incidental ingestion rate consistent with residential soil (i.e., 200 mg/day), associated HFPO-DA hazard is approximately  $1.1E-05$ . At River Mile 77, the total surface water and sediment hazard attributable to a recreational child is approximately  $3.8E-05$ , a value more than 10,000 times lower EPA's hazard threshold of one.

Fish tissue data were not collected at River Mile 77 (coincident with EU14); however, if recreational child fish tissue hazard (0.1) is taken from River Mile 86 (coincident with EU16), and added to the updated surface water ( $2.7E-05$ ) and sediment ( $3.8E-05$ ) hazards calculated for River Mile 77, cumulative hazard for HFPO-DA is 0.1, a value equal to the highest projected hazard for this population in the 2019 SLEA and below EPA's hazard threshold of one.

## 5.4.2 Ecological SLEA Data Comparison

### PFAS Profiles

The profile of Table 3+ PFAS detected above reporting limits in surface water in this program was similar to those detected above reporting limits in the Eco-SLEA dataset in 2019. PEPA was newly detected above reporting limits in the sediment characterization program surface water samples, but R-EVE was not detected above reporting limits, having been previously detected above reporting limits in the SLEA dataset (Table 9).

In the Eco-SLEA dataset, only HFPO-DA had been detected above reporting limits in the surface sediment samples collected adjacent to the facility ( $n = 6$ ). Additional Table 3+ PFAS were detected above reporting limits in sediment samples from this program (Table 9). Many of the Table 3+ PFAS detected above reporting limits in sediment that were not previously detected above reporting limits are consistent with those previously detected above reporting limits in fish, including PFOMAA, perfluoro(3,5,7,9-tetraoxadecanoic) acid (PFO4DA), perfluoro-3,5,7,9,11-pentaoxadodecanoic acid (PFO5DA), PMPA, and R-EVE. However, perfluoro(3,5-dioxahexanoic) acid (PFO2HxA), perfluoro(3,5,7-trioxaoctanoic) acid (PFO3OA), and phosphatidylserine (PS Acid) have been detected above reporting limits in sediment samples from this program but were not

detected above reporting limits in fish samples from the 2019 Eco-SLEA. The relative uptake of PFAS from sediment versus surface water for various fish species is not well understood at this time.

#### Potential Hazard from HFPO-DA Exposures

Concentrations of HFPO-DA were generally consistent with those included in the Offsite Aquatic EU of the SLEA (maximum concentration in the SLEA dataset was also 15 ng/L HFPO-DA). This program covered a larger area than the Aquatic EU in the Eco-SLEA; concentrations of HFPO-DA in surface water samples from within this EU (River Miles 76 and 77) are significantly lower in comparison with data in the SLEA (2.2 ng/L vs. 15 ng/L). These concentrations are orders of magnitude below the Probable No Effect Concentrations for aquatic-life exposure to HFPO-DA (108,000 ng/L) and do not suggest aquatic-life risks due to HFPO-DA. Even the highest concentration of Total Table 3+ PFAS (130 ng/L) are well below this benchmark.

Concentrations of HFPO-DA in sediments were also consistent between the Eco-SLEA and this program and are well below the available benchmarks for benthic toxicity (518 µg/kg dry weight).

Hazard quotients (HQs) for aquatic wildlife in the Eco-SLEA ranged from 0.018 to 0.0000018 for HFPO-DA; indicating daily exposures lower by more than 10 to 100,000 times the available toxicity benchmarks for HFPO-DA. Given the similar range of concentrations in both sediment and surface water, these new data do not indicate a potential for wildlife risks from HFPO-DA.

#### Table 3+ PFAS as a Component of Total PFAS

As discussed in the Eco-SLEA (2019), a number of recent studies have evaluated the presence of both Table 3+ PFAS and non-site associated PFAS (primarily perfluoroalkyl acids) in biota in the Cape Fear River Estuary (Robuck et al. 2019; Guillette et al. 2019). These studies found that in shore birds, Striped bass, and American alligators, PFOS was the predominant PFAS in tissue samples. The sediment data also support that PFOS is widely detected above reporting limits in sediment, resulting in bioaccumulation in the Cape Fear River food web. The current understanding of relative bioaccumulation potential indicates that PFOS continues to be one of the most bioaccumulative of the PFAS studied (Conder et al. 2020) indicating that it will likely to remain an ecological risk-driver in the Cape Fear River system.

## 6 SUMMARY

Surface water and sediment samples were collected from nine transects along the length of the Cape Fear River in May and June 2020. These samples were collected to evaluate the nature and extent of PFAS upstream of, adjacent to, and downstream of the Site in the Cape Fear River.

Across the sampling program, a higher relative percentage of fine-grained material was located in riverbank sediment samples compared with the mid-channel samples, consistent with expected river dynamics where banks with lower water velocities are more depositional. Sediment sampling locations with higher fines contents were also associated with higher TOC contents. Contaminants preferentially adsorb to finer grained sediments, often the TOC component, which makes TOC and grain size distribution indicators of areas with potential sediment impacts (ITRC, 2014). The sediment sample with the highest fines content was observed in a bank sample at River Mile 149. This transect is off the main channel of the River in a secondary flow channel that likely experiences lower water velocities. Bank samples from River Miles 76 and 77 also contained relatively elevated proportions of fines (over 60%), possibly due to their location upstream of the W.O. Huske Dam, which may create areas of lower water velocity upstream of the Dam in which suspended sediments deposit. These two transects are downstream of the city of Fayetteville and adjacent to the Site, and the banks of these transects indicate more depositional conditions than upstream bank sampling locations.

Table 3+ PFAS were detected above reporting limits in sediment from the riverbanks at these areas that appear to be depositional with higher fines contents: River Miles 76 and 77, which are adjacent to the Site, and River Mile 149, which is downstream of the Site. Across the sampling program, Method 537M compounds were detected in sediment from all nine sampled transects. All of the Method 537M compounds detected in sediment at River Miles 76 and 77 were positively identified in upstream aqueous samples collected by NCDEQ and the PFAST Network, with the exception of two compounds, which were not analyzed in the referenced assessments (NCDEQ, 2020; PFAST Network, 2020). Detected compounds are consistent with known patterns of PFAS contributions to watersheds from upgradient sources such as effluent from wastewater treatment plants, leachate from landfills, and releases of firefighting foams (ITRC, 2020; Hu et al., 2016). The fraction of total PFAS (Method 537M and Table 3+ combined) comprised of Table 3+ compounds in sediment is approximately 40% at River Miles 76 and 77, and 29% at River Mile 149.

Table 3+ PFAS were detected in surface water above reporting limits at each sampling transect. Concentrations generally vary based on the flow of the Cape Fear River, resulting in a relatively constant mass discharge downstream of the Site. Method 537M PFAS were detected above reporting limits in surface water samples along the length of the Cape Fear River. The total concentration of Method 537M PFAS did not change meaningfully upstream or downstream of the Site.

The sediment and surface water samples collected in this program were evaluated and compared to data collected and interpretations made in the 2019 Human Health and Ecological SLEAs. The results of this program are consistent with the findings of the SLEAs that, based on presently available information for HFPO-DA exposures quantified, there are no anticipated hazards to human or ecological receptors from exposures to HFPO-DA in surface water or sediment. Concentrations of HFPO-DA were below the 140 ng/L HFPO-DA provisional health goal (NCDEQ and NCDHHS, 2018). Additionally, in the Cape Fear River, the combined concentrations of PFOA and PFOS (Method 537M) in surface water from all locations sampled in this program were below the 70 ng/L USEPA Lifetime Health Advisory level (USEPA, 2016b, 2016c).



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# TABLES

**TABLE 1**  
**SUMMARY OF SEDIMENT SAMPLES COLLECTED**  
**Chemours Fayetteville Works, North Carolina**

Sample Location Code	Segment	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Sample Date	Days from Start of Program	Water Column Height (ft) <sup>1</sup>	Sampling Device	Sample ID
RM-20	A	35.3977667	-78.773850	05/18/2020	0	1.5	Ponar	FAY-SED-RM-20-A-05182020
RM-20	B	35.3981333	-78.773350	05/18/2020	0	15.4	Ponar	FAY-SED-RM-20-B-05182020
RM-20	C	35.3984333	-78.773233	05/18/2020	0	2.6	Ponar	FAY-SED-RM-20-C-05182020
RM-52	A	35.1076167	-78.856583	05/18/2020	0	1	Ponar	FAY-SED-RM-52-A-05182020
RM-52	B	35.1074833	-78.856400	05/18/2020	0	3.2	Ponar	FAY-SED-RM-52-B-05182020
RM-52	C	35.1075667	-78.856067	05/18/2020	0	0.54	Ponar	FAY-SED-RM-52-C-05182020
RM-76	A	34.8517667	-78.827133	06/09/2020	22	0.54	Ponar	FAY-SED-RM-76-A-06092020
RM-76	B	34.8515833	-78.826667	06/09/2020	22	24	Ponar	FAY-SED-RM-76-B-06092020
RM-76	C	34.8517167	-78.826350	06/09/2020	22	3.53	Ponar	FAY-SED-RM-76-C-06092020
RM-76	A	34.8517667	-78.827133	06/09/2020	22	0.54	Push-tube	FAY-SED-RM-76-A-06092020-PT
RM-77	A	34.8384167	-78.823733	06/10/2020	23	1.73	Ponar	FAY-SED-RM-77-A-06102020
RM-77	B	34.8384500	-78.823283	06/10/2020	23	20.8	Ponar	FAY-SED-RM-77-B-06102020
RM-77	C	34.8384333	-78.822767	06/10/2020	23	4.4	Ponar	FAY-SED-RM-77-C-06102020
RM-84	A	34.7724333	-78.798533	06/10/2020	23	0.25	Ponar	FAY-SED-RM-84-A-06102020
RM-84	B	34.7722500	-78.798033	06/10/2020	23	20	Ponar	FAY-SED-RM-84-B-06102020
RM-84	C	34.7725833	-78.797767	06/10/2020	23	0.8	Ponar	FAY-SED-RM-84-C-06102020
RM-84	C	34.7725833	-78.797767	06/10/2020	23	0.8	Push-tube	FAY-SED-RM-84-C-06102020-PT
RM-100	A	34.6275667	-78.562333	06/29/2020	42	2	Ponar	FAY-SED-RM-100-A-06292020
RM-100	B	34.6277167	-78.562417	06/29/2020	42	10.9	Ponar	FAY-SED-RM-100-B-06292020
RM-100	C	34.6281667	-78.562283	06/29/2020	42	2.5	Ponar	FAY-SED-RM-100-C-06292020
RM-116	A	34.5344000	-78.439917	06/29/2020	42	0.17	Stainless steel spoon <sup>2</sup>	FAY-SED-RM-116-A-06292020
RM-116	B	34.5343667	-78.439483	06/29/2020	42	15	Ponar	FAY-SED-RM-116-B-06292020
RM-116	C	34.5345000	-78.439100	06/29/2020	42	2.3	Ponar	FAY-SED-RM-116-C-06292020
RM-132	A	34.4063667	-78.295200	06/11/2020	24	3.9	Ponar	FAY-SED-RM-132-A-06112020
RM-132	B	34.4064833	-78.294700	06/11/2020	24	12	Ponar	FAY-SED-RM-132-B-06112020
RM-132	C	34.4068833	-78.294383	06/11/2020	24	3.1	Ponar	FAY-SED-RM-132-C-06112020
RM-149	A	34.3519167	-78.083883	06/30/2020	43	3.9	Ponar	FAY-SED-RM-149-A-06302020
RM-149	B	34.3520667	-78.084100	06/30/2020	43	2.5	Ponar	FAY-SED-RM-149-B-06302020
RM-149	C	34.3521833	-78.084283	06/30/2020	43	1.8	Ponar	FAY-SED-RM-149-C-06302020
RM-149	C	34.3521833	-78.084283	06/30/2020	43	1.8	Push-tube	FAY-SED-RM-149-C-06302020-PT

**Notes:**

mg/s - milligrams per second

PT - Indicates sample was collected using a push-tube device.

Samples from RM-100, -132, and -149 were split with NC DEQ.

<sup>1</sup> Field measurement of water column

<sup>2</sup> Sediment was collected at this location using a stainless-steel spoon due to a clay layer that was impenetrable

**TABLE 2**  
**SUMMARY OF SURFACE WATER SAMPLES COLLECTED**  
**Chemours Fayetteville Works, North Carolina**

Sample Location Code	Segment	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Water Sample Collection Depth (ft)	Sample Date	Days from Start of Program	Sample ID
RM-20	B	35.3981333	-78.773350	6.7	5/18/2020	0	FAY-SW-RM-20-B-6.7-05182020
RM-20	B	35.3981333	-78.773350	20	5/18/2020	0	FAY-SW-RM-20-B-20-05182020
RM-52 <sup>1</sup>	B	35.1074833	-78.856400	1.6	5/18/2020	0	FAY-SW-RM-52-B-1.6-05182020
RM-76	B	34.8515833	-78.826667	13	6/9/2020	22	FAY-SW-RM-76-B-13-06092020
RM-76	B	34.8515833	-78.826667	21	6/9/2020	22	FAY-SW-RM-76-B-21-06092020
RM-77	B	34.8384500	-78.823283	10	6/9/2020	22	FAY-SW-RM-77-B-10-06102020
RM-77	B	34.8384500	-78.823283	18	6/9/2020	22	FAY-SW-RM-77-B-18-06102020
RM-84	B	34.7722500	-78.798033	10	6/10/2020	23	FAY-SW-RM-84-B-10-06102020
RM-84	B	34.7722500	-78.798033	18	6/10/2020	23	FAY-SW-RM-84-B-18-06102020
RM-100	B	34.6277167	-78.562417	9.5	6/29/2020	42	FAY-SW-RM-100-B-9.5-06292020
RM-100	B	34.6277167	-78.562417	17	6/29/2020	42	FAY-SW-RM-100-B-17-06292020
RM-116	B	34.5343667	-78.439483	7.5	6/29/2020	42	FAY-SW-RM-116-B-7.5-06292020
RM-116	B	34.5343667	-78.439483	13	6/29/2020	42	FAY-SW-RM-116-B-13-06292020
RM-132	B	34.4064833	-78.294700	6	6/11/2020	24	FAY-SW-RM-132-B-6-06112020
RM-132	B	34.4064833	-78.294700	10	6/11/2020	24	FAY-SW-RM-132-B-10-06112020
RM-149 <sup>1</sup>	B	34.3520667	-78.084100	1.5	6/30/2020	43	FAY-SW-RM-149-B-1.5-06302020

**Notes:**

ft - feet

mg/s - milligrams per second

Samples from RM-100, -132, and -149 were split with North Carolina Department of Environmental Quality.

<sup>1</sup> One sample at this location due to limited depth

**TABLE 3**  
**SURFACE WATER FIELD PARAMETERS**  
**Chemours Fayetteville Works, North Carolina**

Location	Date	Sample Time	Latitude	Longitude	pH (S.U.)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Specific Conductivity (mS/cm)	Temperature (°C)	Color	Odor
FAY-SW-RM20-B-6.7-051820	05/18/20	17:45	35.3980941	-78.773434	7.61	8.86	83.40	3.14	0.00	25.74	Clear	No
FAY-SW-RM20-B-12-051820	05/18/20	18:00	35.3980941	-78.773434	8.05	9.23	74.60	3.22	0.110	24.35	Clear	No
FAY-SW-RM52-B-1.6-051820	05/18/20	13:45	35.1075280	-78.856326	7.33	7.39	29.50	5.10	0.11	24.14	Clear	No
FAY-SW-RM76-B-13-060920	06/09/20	12:30	34.8516700	-78.826670	7.10	6.75	32.20	33.29	0.10	26.66	Light Brown	None
FAY-SW-RM76-B-21-060920	06/09/20	12:00	34.8516700	-78.826670	6.90	6.65	50.00	48.80	0.160	27.05	Light Brown	None
FAY-SW-RM77-B-10-060920	06/09/20	15:45	34.9186100	-78.926940	6.55	6.90	69.70	31.31	0.10	26.31	Light Brown	None
FAY-SW-RM77-B-18-060920	06/09/20	15:45	34.9186100	-78.926940	6.36	6.92	78.50	58.34	0.100	25.74	Light Brown	None
FAY-SW-RM84-B-10-061020	06/10/20	14:00	34.8597200	-79.028330	7.03	6.85	30.70	18.55	0.09	27.62	Light Brown	None
FAY-SW-RM84-B-18-061020	06/10/20	14:00	34.8597200	-79.028330	7.04	6.86	22.70	18.37	0.090	26.68	Light Brown	None
FAY-SW-RM100-B-9.5-62920	06/29/20	09:15	34.6279471	-78.562135	6.23	6.27	132.80	16.24	0.09	26.28	Murky	None
FAY-SW-RM100-B-17-062920	06/29/20	09:15	34.6279471	-78.562135	7.12	7.66	38.40	18.77	0.090	26.64	Murky	None
FAY-SW-RM116-B-7.5-062920	06/29/20	13:30	34.5343908	-78.439541	6.48	5.63	116.30	16.30	0.08	29.38	Murky	None
FAY-SW-RM116-B-13-062920	06/29/20	13:30	34.5343908	-78.439541	6.44	5.70	125.10	16.35	0.080	27.58	Murky	None
FAY-SW-RM132-B-6-061120	06/11/20	09:45	34.5077800	-78.472780	6.42	5.25	100.10	21.19	0.10	26.44	Light Brown	None
FAY-SW-RM132-B-10-061120	06/11/20	09:45	34.5077800	-78.472780	6.52	5.30	122.60	20.60	0.100	26.02	Light Brown	None
FAY-SW-RM149-B-1.5-063020	06/30/20	09:30	34.3520565	-78.084179	6.47	5.05	24.00	8.89	0.07	27.43	Murky	None

**Notes:**

°C - Degrees Celsius

mg/L - Milligrams per liter

mS/cm - Millisiemens per centimeter

mV - Millivolts

NTU - Nephelometric Turbidity units

S.U. - standard units

**TABLE 4**  
**SAMPLING LOCATION RIVER FLOW VELOCITIES**  
**AND SURFACE WATER TABLE 3+ MASS DISCHARGE**  
**Chemours Fayetteville Works, North Carolina**

Sample Location Code	Segment	Sediment Sampling						Surface Water								
		Sample Date	Days from Start of Program	Sample Collection Time (24-hour clock)	Water Column Height (ft) <sup>1</sup>	Estimated River Flow <sup>2</sup> (cfs)	Total Table 3+ (17) Concentrations (µg/kg)	Water Sample Collection Depth (ft) <sup>1</sup>	Sample Date	Days from Start of Program	Sample Collection Time (24-hour clock)	Estimated River Flow <sup>2</sup> (cfs)	Total Table 3+ (17) Concentrations (ng/L)	Table 3+ (17) Mass Discharge (mg/s)	Total Table 3+ (20) Concentrations (ng/L)	Table 3+ (20) Mass Discharge (mg/sec)
RM-20	A	05/18/2020	0	19:00	1.5	700	ND									
RM-20	B	05/18/2020	0	18:45	15.4	700	ND	6.7	5/18/2020	0	17:45	678	35.5	0.7	35.5	0.7
								20	5/18/2020	0	18:00	678	39.1	0.8	39.1	0.8
RM-20	C	05/18/2020	0	16:50	2.6	700	ND									
RM-52	A	05/18/2020	0	11:38	1	1,200	ND									
RM-52	B	05/18/2020	0	14:00	3.2	1,200	ND	1.6	5/18/2020	0	13:45	1,200	32.0	1.1	51	1.0
RM-52	C	05/18/2020	0	13:00	0.5	1,200	ND									
RM-76	A	06/09/2020	22	10:15	0.54	8,900	6.8									
RM-76	B	06/09/2020	22	13:45	24	7,900	ND	13	6/9/2020	22	12:30	8,270	22.0	5.2	22	0.4
								21	6/9/2020	22	12:00	8,420	23.0	5.5	23	0.4
RM-76	C	06/09/2020	22	14:45	3.5	7,700	5.9									
RM-76	A	06/09/2020	22	10:15	0.54	7,900	15.9									
RM-77	A	06/10/2020	23	08:00	1.7	5,000	18.4									
RM-77	B	06/10/2020	23	09:00	20.8	5,000	ND	10	6/9/2020	22	15:45	7,360	2.4	0.5	2.4	0.0
								18	6/9/2020	22	15:45	7,360	4.8	1.0	4.8	0.1
RM-77	C	06/10/2020	23	08:45	4.4	5,000	ND									
RM-84	A	06/10/2020	23	16:00	0.25	5,500	ND									
RM-84	B	06/10/2020	23	14:45	20	5,400	ND	10	6/10/2020	23	14:00	5,290	47.5	7.1	55.5	1.1
								18	6/10/2020	23	14:00	5,290	51.5	7.7	64	1.2
RM-84	C	06/10/2020	23	12:30	0.8	5,500	ND									
RM-84		06/10/2020	23	13:15	0.8	5,200	ND									
RM-100	A	06/29/2020	42	11:15	2	2,900	ND									
RM-100	B	06/29/2020	42	10:00	10.9	2,900	ND	9.5	6/29/2020	42	09:15	2,900	110.8	9.1	124.1	2.4
								17	6/29/2020	42	09:15	2,900	117.5	9.6	130.6	2.5
RM-100	C	06/29/2020	42	08:30	2.5	2,900	ND									
RM-116	A	06/29/2020	42	15:00	0.17	3,900	ND									
RM-116	B	06/29/2020	42	14:00	15	3,900	ND	7.5	6/29/2020	42	13:30	3,910	87.0	9.6	100.4	1.9
								13	6/29/2020	42	13:30	3,910	102.3	11.3	113.3	2.2
RM-116	C	06/29/2020	42	13:00	2.3	3,900	ND									
RM-132	A	06/11/2020	24	11:45	3.9	6,400	ND									
RM-132	B	06/11/2020	24	11:15	12	6,400	ND	6	6/11/2020	24	09:45	6,460	40.2	7.4	49.5	1.0
								10	6/11/2020	24	09:45	6,460	40.2	7.4	52	1.0
RM-132	C	06/11/2020	24	12:30	3.1	6,400	ND									
RM-149	A	06/30/2020	43	10:45	3.9	3,500	ND									
RM-149	B	06/30/2020	43	10:00	2.5	3,500	ND	1.5	6/30/2020	43	09:30	3,510	85.3	8.5	88	1.7
RM-149	C	06/30/2020	43	08:00	1.8	3,500	1.1 / 13.5									
RM-149	C	06/30/2020	43	08:00	1.8	3,500	13.6									

**Notes:**

ft - feet

mg/s - milligrams per second

cfs - cubic feet per second

µg/kg - microgram per kilogram

ng/L - nanogram per liter

ND - Compounds not detected above the reporting limit.

<sup>1</sup> Water column height and collection depth measured in the field.

<sup>2</sup> Flow rate at the time of sample collection for River Mile 20 was obtained from the USGS gauge at Lillington (#02102500). For River Miles 52, 76, 77, 84, 100, flow rate was obtained from USGS gauge at Huske Dam (#02105500). For River Miles 116, 132, and 149, flow



**TABLE 5A  
SEDIMENT TABLE 3+  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76
Location in Transect	A	B	C	A	A	B	C	A	A	B	C
Field Sample ID	FAY-SED-RM20-A-051820	FAY-SED-RM20-B-051820	FAY-SED-RM20-C-051820	FAY-SED-RM52-A-051820	FAY-SED-RM52-A-051820-D	FAY-SED-RM52-B-051820	FAY-SED-RM52-C-051820	FAY-SED-RM76-A-060920	FAY-SED-RM76-A-060920-PT	FAY-SED-RM76-B-060920	FAY-SED-RM76-C-060920
Sample Date	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Table 3+ Lab SOP (µg/kg)</i>											
Hfpo Dimer Acid*	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<b>2 J</b>	<b>2.2</b>	<0.25	<b>2.2</b>
PFMOAA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
PFO2HxA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<b>3.3 J</b>	<b>7.6 J</b>	<1 UJ	<b>1.8 J</b>
PFO3OA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<b>2.2 J</b>	<1 UJ	<1 UJ
PFO4DA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<b>1.4 J</b>	<1 UJ	<1 UJ
PFO5DA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<b>1.4 J</b>	<1 UJ	<1 UJ
PMPA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<b>1.5 J</b>	<b>1.1 J</b>	<1 UJ	<b>1.9 J</b>
PEPA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
PS Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Hydro-PS Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
R-PSDA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Hydrolyzed PSDA	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ
R-PSDCA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
NVHOS	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
EVE Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Hydro-EVE Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
R-EVE	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ
PES	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
PFECA B	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
PFECA-G	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Total Table 3+ (17 compounds)	0	0	0	0	0	0	0	<b>6.8</b>	<b>15.9</b>	0	<b>5.9</b>
Total Table 3+ (20 compounds)	0	0	0	0	0	0	0	<b>6.8</b>	<b>15.9</b>	0	<b>5.9</b>

**TABLE 5A  
SEDIMENT TABLE 3+  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 116
Location in Transect	A	B	C	A	B	C	C	A	B	C	A
Field Sample ID	FAY-SED-RM77-A-061020	FAY-SED-RM77-B-061020	FAY-SED-RM77-C-061020	FAY-SED-RM84-A-061020	FAY-SED-RM84-B-061020	FAY-SED-RM84-C-061020	FAY-SED-RM84-C-061020-PT	FAY-SED-RM100-A-062020	FAY-SED-RM100-B-062920	FAY-SED-RM100-C-062920	FAY-SED-RM116-A-062920
Sample Date	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Table 3+ Lab SOP (µg/kg)</i>											
Hfpo Dimer Acid*	2.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25 UJ	<0.25
PFMOAA	7.3 J	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFO2HxA	3.9 J	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFO3OA	1.6 J	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFO4DA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFO5DA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PMPA	1.3 J	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PEPA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PS Acid	1.8 J	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Hydro-PS Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
R-PSDA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Hydrolyzed PSDA	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2	<2
R-PSDCA	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
NVHOS	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
EVE Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Hydro-EVE Acid	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
R-EVE	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2	<2
PES	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFECA B	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
PFECA-G	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Total Table 3+ (17 compounds)	18.4	0	0	0	0	0	0	0	0	0	0
Total Table 3+ (20 compounds)	18.4	0	0	0	0	0	0	0	0	0	0

**TABLE 5A  
SEDIMENT TABLE 3+  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149
Location in Transect	B	C	A	B	C	A	B	C	C	C
Field Sample ID	FAY-SED-RM116-B-062920	FAY-SED-RM116-C-062920	FAY-SED-RM132-A-061120	FAY-SED-RM132-B-061120	FAY-SED-RM132-C-061120	FAY-SED-RM149-A-063020	FAY-SED-RM149-B-063020	FAY-SED-RM149-C-063020	FAY-SED-RM149-C-063020-D	FAY-SED-RM149-C-063020-PT
Sample Date	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/11/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample
<i>Table 3+ Lab SOP (ug/kg)</i>										
Hfpo Dimer Acid*	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<0.25	<0.28	<0.42	<b>0.34</b>
PFMOAA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<b>9.9</b>
PFO2HxA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<b>2.2</b>
PFO3OA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
PFO4DA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1.2	<1	<1	<1.6	<1.2
PFO5DA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1.1	<1	<1	<1.5	<1.1
PMPA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<b>1.1</b>	<b>1.5</b>	<b>1.2</b>
PEPA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
PS Acid	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
Hydro-PS Acid	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
R-PSDA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1.3	<1
Hydrolyzed PSDA	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2	<2.2	<2
R-PSDCA	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
NVHOS	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
EVE Acid	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
Hydro-EVE Acid	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
R-EVE	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2	<2	<2
PES	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
PFECA B	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1	<1
PFECA-G	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1.3	<1
Total Table 3+ (17 compounds)	0	0	0	0	0	0	0	<b>1.1</b>	<b>1.5</b>	<b>13.64</b>
Total Table 3+ (20 compounds)	0	0	0	0	0	0	0	<b>1.1</b>	<b>1.5</b>	<b>13.64</b>

**TABLE 5A  
SEDIMENT TABLE 3+  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A	N/A
Location in Transect	N/A	N/A	N/A	N/A	N/A	N/A
Field Sample ID	EQBLK-1-051820	EQBLK-2-060920	EQBLK-3-061020	EQBLK-4-061120	FAY-EQBLK-5-062920	FAY-EQBLK-6-063020
Sample Date	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank
<b>Table 3+ Lab SOP (µg/kg)</b>						
Hfpo Dimer Acid*	<0.002	<b>0.0036</b>	<0.002	<0.002	<0.002	<0.002
PFMOAA	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002
PFO2HxA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFO3OA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFO4DA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFO5DA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PMPA	<0.01	<0.013	<0.013	<0.013	<0.013	<0.013
PEPA	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002
PS Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Hydro-PS Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
R-PSDA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Hydrolyzed PSDA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
R-PSDCA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
NVHOS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EVE Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Hydro-EVE Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
R-EVE	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PES	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFECA B	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFECA-G	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Table 3+ (17 compounds)	0	<b>0.0036</b>	0	0	0	0
Total Table 3+ (20 compounds)	0	<b>0.0036</b>	0	0	0	0

**Notes:**

**Bold** - Analyte detected above associated reporting limit.  
**B** - Analyte detected in an associated blank.  
**J** - Analyte detected. Reported value may not be accurate or precise.  
**<** - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for TOC, TSS, DOC.  
**UJ** - Analyte not detected. Reporting limit may not be accurate or precise.  
**QA/QC** - Quality assurance/Quality control  
**SOP** - Standard Operating Procedures  
**"A"** - Facing upstream, left bank location in transect.  
**"B"** - Middle of channel location in transect.  
**"C"** - Facing upstream, right bank location in transect.  
**µg/kg** - micrograms per kilogram  
**"-PT"** in the sample ID indicates sample was collected with a push tube.

**TABLE 5B**  
**SEDIMENT METHOD 537M**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76
Location in Transect	A	B	C	A	A	B	C	A	A	B	C
Field Sample ID	FAY-SED-RM20-A-051820	FAY-SED-RM20-B-051820	FAY-SED-RM20-C-051820	FAY-SED-RM52-A-051820	FAY-SED-RM52-A-051820-D	FAY-SED-RM52-B-051820	FAY-SED-RM52-C-051820	FAY-SED-RM76-A-060920	FAY-SED-RM76-A-060920-PT	FAY-SED-RM76-B-060920	FAY-SED-RM76-C-060920
Sample Date	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Method 537M Lab SOP (µg/kg)</i>											
10:2 Fluorotelomer sulfonate	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
11Cl-PF3OUdS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<b>0.8</b>	<b>4.2</b>	<b>2.1</b>	<b>0.23 J</b>	<b>0.24 J</b>	<0.2 UJ	<0.2 UJ	<b>2.8 J</b>	<b>1.3</b>	<0.2	<b>2.3</b>
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<0.2	<0.2	<b>0.38</b>	<b>0.24 J</b>	<b>0.26 J</b>	<0.2 UJ	<0.2 UJ	<b>0.77 J</b>	<b>1.2</b>	<0.2	<b>1.1</b>
6:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
DONA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-ethyl perfluorooctane sulfonamidoacetic acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
N-ethylperfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2	<0.2	<0.2	<0.2
N-methyl perfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2	<0.2	<0.2	<0.2
N-methyl perfluorooctane sulfonamidoacetic acid	<2	<2	<2	<2	<2	<2	<2	<2	<b>2</b>	<2	<2
Perfluorobutane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic Acid	<0.2	<0.2	<b>0.33</b>	<0.2	<0.2	<0.2	<0.2	<b>0.64 J</b>	<b>0.41</b>	<b>0.23</b>	<b>0.59</b>
Perfluorodecane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.26</b>	<0.2	<0.2
Perfluorodecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.44 J</b>	<b>1.8</b>	<0.2	<0.2
Perfluorododecane sulfonic acid (PFDoS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorododecanoic Acid	<0.2	<0.2	<b>0.25</b>	<0.2	<0.2	<0.2	<0.2	<b>0.61 J</b>	<b>1.5</b>	<0.2	<b>0.32</b>
Perfluoroheptane sulfonic acid (PFHpS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoroheptanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.42</b>	<0.2	<0.2
Perfluorohexadecanoic acid (PFHxDA)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.27 J</b>	<b>0.3</b>	<0.2	<0.2
Perfluorohexanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.25</b>	<0.2	<0.2
Perfluorononanesulfonic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorononanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.22 J</b>	<b>1</b>	<0.2
Perfluorooctadecanoic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane Sulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentane sulfonic acid (PFPeS)	<0.2	<0.2	<0.2	<0.2 UJ	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.24</b>	<0.2	<0.2
Perfluorotetradecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.43</b>	<0.2	<0.2
Perfluorotridecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.21 J</b>	<b>0.57</b>	<0.2	<0.2
Perfluoroundecanoic Acid	<0.2	<0.2	<b>0.31</b>	<0.2	<0.2	<0.2	<0.2	<b>0.58 J</b>	<b>1.8</b>	<0.2	<b>0.29</b>
PFOA	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.33 J</b>	<b>1.4</b>	<0.2	<0.2
PFOS	<b>0.58</b>	<0.5	<b>1</b>	<0.5 UJ	<b>0.57 J</b>	<0.5	<0.5	<b>2.7 J</b>	<b>8.9</b>	<0.5	<b>2</b>
Total Method 537 PFAS	<b>1.38</b>	<b>0</b>	<b>4.37</b>	<b>0.47</b>	<b>1.07</b>	<b>0</b>	<b>0</b>	<b>9.57</b>	<b>23.78</b>	<b>0.23</b>	<b>6.60</b>

**TABLE 5B  
SEDIMENT METHOD 537M  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 116
Location in Transect	A	B	C	A	B	C	C	A	B	C	A
Field Sample ID	FAY-SED-RM77-A-061020	FAY-SED-RM77-B-061020	FAY-SED-RM77-C-061020	FAY-SED-RM84-A-061020	FAY-SED-RM84-B-061020	FAY-SED-RM84-C-061020	FAY-SED-RM84-C-061020-PT	FAY-SED-RM100-A-062020	FAY-SED-RM100-B-062920	FAY-SED-RM100-C-062920	FAY-SED-RM116-A-062920
Sample Date	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Method 537M Lab SOP (µg/kg)</i>											
10:2 Fluorotelomer sulfonate	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
11Cl-PF3OUdS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 UJ	<2
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 UJ	<2
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<b>4.5</b>	<0.2	<b>2.3 J</b>	<b>2.6</b>	<0.2	<b>3.1</b>	<b>3.1</b>	<b>0.47</b>	<0.2	<b>15 J</b>	<0.2
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<b>3.9</b>	<0.2	<b>1.5 J</b>	<b>0.8</b>	<0.2	<b>0.91</b>	<b>0.57</b>	<0.2	<0.2	<b>2.3 J</b>	<0.2
6:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 UJ	<2
9Cl-PF3ONS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
DONA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002 UJ	<0.0002
N-ethyl perfluorooctane sulfonamidoacetic acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2 UJ	<2
N-ethylperfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
N-methyl perfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
N-methyl perfluorooctane sulfonamidoacetic acid	<b>11</b>	<2	<b>4.6 J</b>	<2	<2	<2	<2	<2	<2	<2 UJ	<2
Perfluorobutane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorobutanoic Acid	<b>0.39</b>	<0.2	<b>0.47 J</b>	<b>0.65</b>	<0.2	<b>0.6</b>	<b>0.45</b>	<b>0.22</b>	<0.2	<b>0.52 J</b>	<0.2
Perfluorodecane Sulfonic Acid	<b>0.3</b>	<0.2	<b>0.28 J</b>	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorodecanoic Acid	<b>0.25</b>	<0.2	<b>0.23 J</b>	<b>0.33</b>	<0.2	<b>0.28</b>	<b>0.37</b>	<0.2	<0.2	<b>0.26 J</b>	<0.2
Perfluorododecane sulfonic acid (PFDoS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorododecanoic Acid	<b>1.1</b>	<0.2	<b>0.62 J</b>	<b>0.53</b>	<0.2	<b>0.46</b>	<b>0.62</b>	<0.2	<0.2	<b>0.5 J</b>	<0.2
Perfluoroheptane sulfonic acid (PFHpS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluoroheptanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorohexadecanoic acid (PFHxDA)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorohexane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.24</b>	<b>0.23</b>	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorohexanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorononanesulfonic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorononanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorooctadecanoic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorooctane Sulfonamide	<b>0.38</b>	<0.2	<b>0.52 J</b>	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluoropentane sulfonic acid (PFPeS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluoropentanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorotetradecanoic Acid	<b>0.38</b>	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 UJ	<0.2
Perfluorotridecanoic Acid	<b>0.52</b>	<0.2	<b>0.21 J</b>	<0.2	<0.2	<0.2	<b>0.21</b>	<0.2	<0.2	<b>0.21 J</b>	<0.2
Perfluoroundecanoic Acid	<b>0.77</b>	<0.2	<b>0.9 J</b>	<b>0.45</b>	<0.2	<b>0.33</b>	<b>0.47</b>	<0.2	<0.2	<b>0.52 J</b>	<0.2
PFOA	<0.2	<0.2	<0.2	<0.2	<0.2	<b>0.21</b>	<b>0.33</b>	<0.2	<0.2	<0.2 UJ	<0.2
PFOS	<b>4.7</b>	<0.5	<b>1.4 J</b>	<b>2.9</b>	<0.5	<b>2.3</b>	<b>2.8</b>	<0.5	<0.5	<b>2.3 J</b>	<b>0.68</b>
Total Method 537 PFAS	<b>28.19</b>	0	<b>13.03</b>	<b>8.26</b>	0	<b>8.43</b>	<b>9.16</b>	<b>0.69</b>	0	<b>21.61</b>	<b>0.68</b>

**TABLE 5B**  
**SEDIMENT METHOD 537M**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149
Location in Transect	B	C	A	B	C	A	B	C	C	C
Field Sample ID	FAY-SED-RM116-B-062920	FAY-SED-RM116-C-062920	FAY-SED-RM132-A-061120	FAY-SED-RM132-B-061120	FAY-SED-RM132-C-061120	FAY-SED-RM149-A-063020	FAY-SED-RM149-B-063020	FAY-SED-RM149-C-063020	FAY-SED-RM149-C-063020-D	FAY-SED-RM149-C-063020-PT
Sample Date	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/11/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample
<i>Method 537M Lab SOP (µg/kg)</i>										
10:2 Fluorotelomer sulfonate	<0.2	<0.2	<0.2	<0.2	<0.2	<0.66	<0.2	<0.2	<0.2	<0.2
11Cl-PF3OUdS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.29	<0.2	<0.2	<0.2	<0.2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<2	<2	<2	<2	<2	<3.3	<2	<2	<2	<2
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<2	<2	<2	<2	<2	<4.9	<2	<2	<2	<2
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<0.2	<b>1.7</b>	<b>1.4 J</b>	<0.2	<b>2.5</b>	<b>5.2</b>	<b>0.48</b>	<b>5.8</b>	<b>7 J</b>	<0.2
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<0.2	<0.2	<b>0.56 J</b>	<0.2	<b>0.65</b>	<0.93	<0.2	<0.2	<0.27 UJ	<b>4.1</b>
6:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.35	<0.2	<0.2	<0.2	<0.2
DONA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00024	<0.0002	<0.0002	<0.0002	<0.0002
N-ethyl perfluorooctane sulfonamidoacetic acid	<2	<2	<2	<2	<2	<4.9	<2	<2	<2	<b>10</b>
N-ethylperfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.32 UJ	<0.2	<0.2	<0.2	<0.2
N-methyl perfluoro-1-octanesulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<0.54 UJ	<0.2	<0.2	<0.2	<0.2
N-methyl perfluorooctane sulfonamidoacetic acid	<2	<2	<2	<2	<b>2.2</b>	<5.1	<2	<b>2</b>	<b>3.2</b>	<b>14</b>
Perfluorobutane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.33	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic Acid	<0.2	<b>0.44</b>	<b>0.38 J</b>	<0.2	<b>0.58</b>	<b>2.3</b>	<b>0.2</b>	<b>0.58</b>	<b>0.72</b>	<b>0.53</b>
Perfluorodecane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.51	<0.2	<0.2	<0.2	<0.2
Perfluorodecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.29	<0.2	<0.2	<0.2	<0.2
Perfluorododecane sulfonic acid (PFDoS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.79	<0.2	<0.2	<0.23	<0.2
Perfluorododecanoic Acid	<0.2	<0.2	<b>0.23 J</b>	<0.2	<b>0.48</b>	<0.88	<0.2	<b>0.37</b>	<b>0.56</b>	<b>0.4</b>
Perfluoroheptane sulfonic acid (PFHpS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.46	<0.2	<0.2	<0.2	<0.2
Perfluoroheptanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.38	<0.2	<0.2	<0.2	<0.2
Perfluorohexadecanoic acid (PFHxDA)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.58	<0.2	<0.2	<0.2	<0.2
Perfluorohexane Sulfonic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.41	<0.2	<b>0.24</b>	<b>0.32 J</b>	<b>0.28 J</b>
Perfluorohexanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.55	<0.2	<0.2	<0.2	<0.2
Perfluorononanesulfonic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.26	<0.2	<0.2	<0.2	<0.2
Perfluorononanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.47	<0.2	<0.2	<0.2	<0.2
Perfluorooctadecanoic acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.37	<0.2	<0.2	<0.2	<0.2
Perfluorooctane Sulfonamide	<0.2	<0.2	<0.2	<0.2	<0.2	<1.1	<0.2	<0.21	<0.31	<b>1.5</b>
Perfluoropentane sulfonic acid (PFPeS)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.26	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.29	<0.2
Perfluorotetradecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.71	<0.2	<0.2	<b>0.23</b>	<0.2
Perfluorotridecanoic Acid	<0.2	<0.2	<0.2	<0.2	<0.2	<0.67	<0.2	<b>0.21</b>	<b>0.29</b>	<b>0.28</b>
Perfluoroundecanoic Acid	<0.2	<0.2	<0.2	<0.2	<b>0.36</b>	<0.47	<0.2	<b>0.31 J</b>	<b>0.44</b>	<b>0.47</b>
PFOA	<0.2	<b>0.26</b>	<0.2	<0.2	<0.2	<1.1	<0.2	<0.22	<0.33	<0.23
PFOS	<0.5	<b>1</b>	<b>0.59 J</b>	<0.5	<b>1.4</b>	<b>3.1</b>	<0.5	<b>1.4</b>	<b>2</b>	<b>1.8</b>
Total Method 537 PFAS	0	<b>3.40</b>	<b>3.16</b>	0	<b>8.17</b>	<b>10.60</b>	<b>0.68</b>	<b>11.11</b>	<b>14.76</b>	<b>33.36</b>

**TABLE 5B  
SEDIMENT METHOD 537M  
PFAS ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A	N/A
Location in Transect	N/A	N/A	N/A	N/A	N/A	N/A
Field Sample ID	EQBLK-1-051820	EQBLK-2-060920	EQBLK-3-061020	EQBLK-4-061120	FAY-EQBLK-5-062920	FAY-EQBLK-6-063020
Sample Date	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank
<i>Method 537M Lab SOP (µg/kg)</i>						
10:2 Fluorotelomer sulfonate	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11CI-PF3OUdS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
6:2 Fluorotelomer sulfonate	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9CI-PF3ONS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
DONA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
N-ethyl perfluorooctane sulfonamidoacetic acid	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-ethylperfluoro-1-octanesulfonamide	<0.002	<0.002 UJ	<0.002	<0.002	<0.002	<0.002
N-methyl perfluoro-1-octanesulfonamide	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
N-methyl perfluorooctane sulfonamidoacetic acid	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane Sulfonic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorodecane Sulfonic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorodecanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecane sulfonic acid (PFDoS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroheptane sulfonic acid (PFHpS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroheptanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexadecanoic acid (PFHxDA)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexane Sulfonic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorononanesulfonic acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorononanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctadecanoic acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane Sulfonamide	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoropentane sulfonic acid (PFPeS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoropentanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorotetradecanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorotridecanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic Acid	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFOA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
PFOS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Method 537 PFAS	0	0	0	0	0	0

**Notes**

**Bold** - Analyte detected above associated reporting limit.  
 B - Analyte detected in an associated blank.  
 J - Analyte detected. Reported value may not be accurate or precise.  
 < - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for TOC, TSS, DOC.  
 UJ - Analyte not detected. Reporting limit may not be accurate or precise.  
 QA/QC - Quality assurance/Quality control  
 SOP - Standard Operating Procedures  
 "A"- Facing upstream, left bank location in transect.  
 "B"- Middle of channel location in transect.  
 "C"- Facing upstream, right bank location in transect.  
 µg/kg - micrograms per kilogram  
 "-PT" in the sample ID indicates sample was collected with a push tube.



**TABLE 5C  
SEDIMENT GEOTECHNICAL DATA RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 76
Location in Transect	A	B	C	A	A	B	C	A	A	B	C
Field Sample ID	FAY-SED-RM20- A-051820	FAY-SED-RM20- B-051820	FAY-SED-RM20- C-051820	FAY-SED-RM52- A-051820	FAY-SED-RM52- A-051820-D	FAY-SED-RM52- B-051820	FAY-SED-RM52- C-051820	FAY-SED-RM76- A-060920	FAY-SED-RM76- A-060920-PT	FAY-SED-RM76- B-060920	FAY-SED-RM76- C-060920
Sample Date	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	5/18/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Geotechnical Parameters (% unless noted otherwise)</i>											
Total Organic Carbon (mg/kg)	2,500	3,000	21,000	4,100	3,700	1,600	4,000	24,000	17,000	1,700	22,000
Percent Moisture	33 J	22 J	56 J	23 J	33 J	22 J	23 J	53	43	24	53
Percent Solids	67 J	78 J	44 J	78 J	67 J	78 J	77 J	48	57	76	47
Clay	2.5	0.9	11	5.8	6.1	1.1	7.7	22	31	1	19
Silt	7.2	14	38	12 J	6.7 J	4.3	20	47	46	2	40
Sand	90	74	49	82	87	94	65	32	24	97	41
Coarse Sand	0.2	16	0.7	0.7 J	0.3 J	1.5	5.1	2.9	0.4	0.2	1
Medium Sand	3.9	50	2.8	1.4	1.4	74	18	3	3.7	66	1.3
Fine Sand	86	8.5	45	80	86	19	42	26	20	31	38
Gravel	0	11	2.7	0	0	0.7	7	0	0	0	0
Sieve Size 3 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 2 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 1.5 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 1 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 0.75 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 0.375 inch - percent finer	100	95	100	100	100	100	96	100	100	100	100
Sieve Size #4 - percent finer	100	89	97	100	100	99	93	100	100	100	100
Sieve Size #10 - percent finer	100	73	97	99	100	98	88	97	100	100	99
Sieve Size #20 - percent finer	99	45	95	99	100	79	81	96	99	92	98
Sieve Size #40 - percent finer	96	23	94	98	98	24	70	94	96	34	98
Sieve Size #60 - percent finer	63	19	91	76	74	6.6	55	92	94	5	96
Sieve Size #80 - percent finer	35	18	87	52	47	5.9	46	87	91	3.3	89
Sieve Size #100 - percent finer	24	17	81	39	34	5.5	40	83	88	3.1	82
Sieve Size #200 - percent finer	9.7	15	49	18	13	5.3	28	69	76	3	59
Hydrometer Reading 1 - Percent Finer	4.8	1.7	22	9.7	10	1.5	20	37	57	1.5	34
Hydrometer Reading 2 - Percent Finer	3.6	1.3	18	9.1	9.3	1.5	16	35	48	1	30
Hydrometer Reading 3 - Percent Finer	3.1	1.3	16	8	8.2	1.1	13	31	41	1	26
Hydrometer Reading 4 - Percent Finer	2.5	1.3	13	6.9	7.1	1.1	9.8	26	34	1	22
Hydrometer Reading 5 - Percent Finer	2.5	0.9	11	5.8	6.1	1.1	7.7	22	31	1	19
Hydrometer Reading 6 - Percent Finer	1.8	0.8	7.8	3.4	4.4	1	4.4	16	23	1	15
Hydrometer Reading 7 - Percent Finer	1.2	0.8	5.7	2.3	2.8	0.5	2.8	11	16	0.5	10

**TABLE 5C**  
**SEDIMENT GEOTECHNICAL DATA RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 100	Cape Fear River Mile 116
Location in Transect	A	B	C	A	B	C	C	A	B	C	A
Field Sample ID	FAY-SED-RM77-A-061020	FAY-SED-RM77-B-061020	FAY-SED-RM77-C-061020	FAY-SED-RM84-A-061020	FAY-SED-RM84-B-061020	FAY-SED-RM84-C-061020	FAY-SED-RM84-C-061020-PT	FAY-SED-RM100-A-062020	FAY-SED-RM100-B-062920	FAY-SED-RM100-C-062920	FAY-SED-RM116-A-062920
Sample Date	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/10/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Geotechnical Parameters (% unless noted otherwise)</i>											
Total Organic Carbon (mg/kg)	20,000	<1,000	18,000	30,000	960 J	16,000	26,000	20,000	1,100	18,000	25,000
Percent Moisture	44 J	23 J	51 J	55 J	21 J	54 J	52 J	30 J	22 J	47 J	33 J
Percent Solids	56 J	77 J	49 J	45 J	79 J	47 J	48 J	70 J	78 J	53 J	67 J
Clay	26	1	24	30	1.6	22	35	3.5	1	19	30
Silt	53	2	39	52	2.7	43	40	1.6	3.7	39	42
Sand	21	94	38	18	90	35	25	95	95	42	29
Coarse Sand	1.2	6.6	1.5	1.7	6.7	1.4	1.3	0.1	1.3	0.4	0
Medium Sand	2.2	60	1.2	1.9	74	2.5	4.1	0.7	61	3.4	1.7
Fine Sand	18	27	35	14	8.9	31	20	94	33	38	27
Gravel	0	3.4	0	0	5.7	0	0	0	0	0	0
Sieve Size 3 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 2 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 1.5 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 1 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 0.75 inch - percent finer	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 0.375 inch - percent finer	100	100	100	100	96	100	100	100	100	100	100
Sieve Size #4 - percent finer	100	97	100	100	94	100	100	100	100	100	100
Sieve Size #10 - percent finer	99	90	99	98	88	99	99	100	99	100	100
Sieve Size #20 - percent finer	98	73	98	97	53	97	97	100	80	98	100
Sieve Size #40 - percent finer	97	30	97	96	13	96	95	99	38	96	98
Sieve Size #60 - percent finer	93	5.9	95	95	5.9	92	91	85	10	93	97
Sieve Size #80 - percent finer	90	3.5	87	93	4.8	85	87	44	6.3	83	94
Sieve Size #100 - percent finer	87	3.2	81	91	4.6	79	84	22	5.2	75	89
Sieve Size #200 - percent finer	79	3	62	82	4.4	65	75	5.1	4.6	59	71
Hydrometer Reading 1 - Percent Finer	46	1.9	38	53	2.1	36	59	5.2	1.4	34	60
Hydrometer Reading 2 - Percent Finer	42	1.4	35	47	1.6	35	51	5.2	1.4	32	45
Hydrometer Reading 3 - Percent Finer	34	1.4	31	43	1.6	31	44	4.6	1.4	28	40
Hydrometer Reading 4 - Percent Finer	30	1	27	36	1.6	26	40	4.6	1.4	25	35
Hydrometer Reading 5 - Percent Finer	26	1	24	30	1.6	22	35	3.5	1	19	30
Hydrometer Reading 6 - Percent Finer	20	0.5	18	22	1.1	17	26	2.4	0.5	14	24
Hydrometer Reading 7 - Percent Finer	14	0.5	12	16	0.6	12	18	1.8	0.5	9.8	19

**TABLE 5C  
SEDIMENT GEOTECHNICAL DATA RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	Cape Fear River Mile 149	N/A
Location in Transect	B	C	A	B	C	A	B	C	C	C	N/A
Field Sample ID	FAY-SED-RM116-B-062920	FAY-SED-RM116-C-062920	FAY-SED-RM132-A-061120	FAY-SED-RM132-B-061120	FAY-SED-RM132-C-061120	FAY-SED-RM149-A-063020	FAY-SED-RM149-B-063020	FAY-SED-RM149-C-063020	FAY-SED-RM149-C-063020-D	FAY-SED-RM149-C-063020-PT	EQBLK-1-051820
Sample Date	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/11/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020	6/30/2020	5/18/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Equipment Blank
<i>Geotechnical Parameters (% unless noted otherwise)</i>											
Total Organic Carbon (mg/kg)	18,000	33,000	17,000	<1,000	19,000	28,000	3,400	29,000	--	--	--
Percent Moisture	23 J	43 J	43	25	51	62 J	31 J	62 J	75 J	63 J	--
Percent Solids	78 J	57 J	57	75	49	38 J	69 J	38 J	25 J	37 J	--
Clay	0.5	15	17	1.3	25	30	5.8	34	--	--	--
Silt	6.2	25	42	3.5	32	50	12	55	--	--	--
Sand	93	60	40	95	41	19	82	10	--	--	--
Coarse Sand	1.6	0.2	0.6	0.1	0.1	0.2	0.1	0.2	--	--	--
Medium Sand	70	1.7	12	54	2	2.2	0.7	2.2	--	--	--
Fine Sand	21	58	28	41	39	17	81	7.8	--	--	--
Gravel	0	0	1.3	0.5	2.6	0	0	0.7	--	--	--
Sieve Size 3 inch - percent finer	100	100	100	100	100	100	100	100	--	--	--
Sieve Size 2 inch - percent finer	100	100	100	100	100	100	100	100	--	--	--
Sieve Size 1.5 inch - percent finer	100	100	100	100	100	100	100	100	--	--	--
Sieve Size 1 inch - percent finer	100	100	100	100	100	100	100	100	--	--	--
Sieve Size 0.75 inch - percent finer	100	100	100	100	100	100	100	100	--	--	--
Sieve Size 0.375 inch - percent finer	100	100	100	100	98	100	100	100	--	--	--
Sieve Size #4 - percent finer	100	100	99	100	97	100	100	99	--	--	--
Sieve Size #10 - percent finer	98	100	98	99	97	100	100	99	--	--	--
Sieve Size #20 - percent finer	78	99	95	92	97	99	100	98	--	--	--
Sieve Size #40 - percent finer	28	98	87	45	95	98	99	97	--	--	--
Sieve Size #60 - percent finer	8.9	90	78	9.2	87	97	94	96	--	--	--
Sieve Size #80 - percent finer	7.4	73	75	5.1	75	95	69	95	--	--	--
Sieve Size #100 - percent finer	7	61	73	4.9	68	93	40	94	--	--	--
Sieve Size #200 - percent finer	6.8	40	59	4.9	56	81	18	89	--	--	--
Hydrometer Reading 1 - Percent Finer	0.9	27	38	2.2	45	54	12	58	--	--	--
Hydrometer Reading 2 - Percent Finer	0.9	26	33	2.2	42	47	9.8	55	--	--	--
Hydrometer Reading 3 - Percent Finer	0.5	23	26	1.8	33	40	8.6	48	--	--	--
Hydrometer Reading 4 - Percent Finer	0.5	20	20	1.8	28	35	6.9	41	--	--	--
Hydrometer Reading 5 - Percent Finer	0.5	15	17	1.3	25	30	5.8	34	--	--	--
Hydrometer Reading 6 - Percent Finer	0.07	11	12	0.9	19	24	4.1	27	--	--	--
Hydrometer Reading 7 - Percent Finer	0.07	8.6	8.7	0.9	14	16	2.9	17	--	--	--

**TABLE 5C  
SEDIMENT GEOTECHNICAL DATA RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A
Location in Transect	N/A	N/A	N/A	N/A	N/A
Field Sample ID	EQBLK-2-060920	EQBLK-3-061020	EQBLK-4-061120	FAY-EQBLK-5-062920	FAY-EQBLK-6-063020
Sample Date	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank
<i>Geotechnical Parameters (% unless noted otherwise)</i>					
Total Organic Carbon (mg/kg)	<1.1	<1.1	<1.1	2.8 J	2.4 J
Percent Moisture	<0.35	<0.35	<0.35	<0.35	0.39 J
Percent Solids	<350,000	500,000 J	<350,000	<350,000	<350,000
Clay	--	--	--	--	--
Silt	--	--	--	--	--
Sand	--	--	--	--	--
Coarse Sand	--	--	--	--	--
Medium Sand	--	--	--	--	--
Fine Sand	--	--	--	--	--
Gravel	--	--	--	--	--
Sieve Size 3 inch - percent finer	--	--	--	--	--
Sieve Size 2 inch - percent finer	--	--	--	--	--
Sieve Size 1.5 inch - percent finer	--	--	--	--	--
Sieve Size 1 inch - percent finer	--	--	--	--	--
Sieve Size 0.75 inch - percent finer	--	--	--	--	--
Sieve Size 0.375 inch - percent finer	--	--	--	--	--
Sieve Size #4 - percent finer	--	--	--	--	--
Sieve Size #10 - percent finer	--	--	--	--	--
Sieve Size #20 - percent finer	--	--	--	--	--
Sieve Size #40 - percent finer	--	--	--	--	--
Sieve Size #60 - percent finer	--	--	--	--	--
Sieve Size #80 - percent finer	--	--	--	--	--
Sieve Size #100 - percent finer	--	--	--	--	--
Sieve Size #200 - percent finer	--	--	--	--	--
Hydrometer Reading 1 - Percent Finer	--	--	--	--	--
Hydrometer Reading 2 - Percent Finer	--	--	--	--	--
Hydrometer Reading 3 - Percent Finer	--	--	--	--	--
Hydrometer Reading 4 - Percent Finer	--	--	--	--	--
Hydrometer Reading 5 - Percent Finer	--	--	--	--	--
Hydrometer Reading 6 - Percent Finer	--	--	--	--	--
Hydrometer Reading 7 - Percent Finer	--	--	--	--	--

*Notes*

B - Analyte detected in an associated blank.  
 J - Analyte detected. Reported value may not be accurate or precise.  
 < - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for TOC, TSS, DOC.  
 UJ - Analyte not detected. Reporting limit may not be accurate or precise.  
 QA/QC - Quality assurance/Quality control  
 SOP - Standard Operating Procedures  
 "A"- Facing upstream, left bank location in transect.  
 "B"- Middle of channel location in transect.  
 "C"- Facing upstream, right bank location in transect.  
 mg/kg - miligrams per kilogram  
 "--" indicates analysis not performed.

**TABLE 6A**  
**SURFACE WATER TABLE 3+**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 100
Field Sample ID	FAY-SW-RM-20-B-6.7-05182020	FAY-SW-RM-20-B-20-05182020	FAY-SW-RM-52-B-1.6-05182020	FAY-SW-RM-52-B-1.6-05182020	FAY-SW-RM-76-B-13-06092020	FAY-SW-RM-76-B-21-06092020	FAY-SW-RM-77-B-10-06092020	FAY-SW-RM-77-B-18-06092020	FAY-SW-RM-84-B-10-06102020	FAY-SW-RM-84-B-18-06102020	FAY-SW-RM-100-B-9.5-06292020
Sample Depth from Surface (ft)	6.7	12	1.6	1.6	13	21	10	18	10	18	9.5
Sample Date	5/18/2020	5/18/2020	5/18/2020	5/18/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020	6/10/2020	6/10/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Table 3+ Lab SOP (ng/L)</i>											
Hfpo Dimer Acid	<2	<2	<2	<2	<2	<2	<2	2.2	11 J	11	15
PFMOAA	<5	<5	<5	<5	<2	<2 UJ	<2	<2	18 J	18	24 J
PFO2HxA	<2	<2	<2	<2	<2	<2	2.4	2.6	15	16	23
PFO3OA	<2	<2	<2	<2	<2	<2	<2	<2	3.5	3.4	5.3
PFO4DA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.6
PFO5DA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PMPA	28	31	27	28	22	23	<13	<13	<13	<13	34
PEPA	<20	<20	<20	<20	<2	<2	<2	<2	<2	3.1	4.9
PS Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Hydro-PS Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
R-PSDA	<2	<2	19 J	21 J	<2	<2	<2	<2	<2	3.8 J	3.7 J
Hydrolyzed PSDA	<2	<2	<2	<2	<2	<2	<2	<2	8 J	8.7 J	9.6 J
R-PSDCA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
NVHOS	7.5	8.1	5	4.6	<2	<2	<2	<2	<2	<2	2
EVE Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Hydro-EVE Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
R-EVE	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PES	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFECA B	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFECA-G	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Table 3+ (17 compounds)	35.5	39.1	32	32.6	22	23	2.4	4.8	47.5	51.5	110.8
Total Table 3+ (20 compounds)	35.5	39.1	51	53.6	22	23	2.4	4.8	55.5	64	124.1

**TABLE 6A**  
**SURFACE WATER TABLE 3+**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 100	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FAY-SW-RM-100-B-17-06292020	FAY-SW-RM-116-B-7.5-06292020	FAY-SW-RM-116-B-13-06292020	FAY-SW-RM-132-B-6-06112020	FAY-SW-RM-132-B-10-06112020	FAY-SW-RM-149-B-1.5-06302020	TBLK-1-051820	TBLK-2-060920	TBLK-3-061020	TBLK-4-061120	FAY-TBLK-5-062920
Sample Depth from Surface (ft)	17	7.5	13	6	10	1.5	N/A	N/A	N/A	N/A	N/A
Sample Date	6/29/2020	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/30/2020	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
<i>Table 3+ Lab SOP (ng/L)</i>											
Hfpo Dimer Acid	14	13	12	5.9	6	11	<2	<2	<4	<2	<2
PFMOAA	26	24	23	17 J	18	27 J	<5	<2	<2	<2	<2
PFO2HxA	23	21	20	14	13	21	<2	<2	<2	<2	<2
PFO3OA	5.7	4.3	4.4	3.3	3.2	4.6	<2	<2	<2	<2	<2
PFO4DA	<2	<2	2.1	<2	<2	2.1	<2	<2	<2	<2	<2
PFO5DA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PMPA	42	21	37	<13	<13	17	<10	<13	<13	<13	<13
PEPA	4.5	3.7	3.8	<2	<2	2.6	<20	<2	<2	<2	<2
PS Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Hydro-PS Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
R-PSDA	3.6 J	2.4 J	3.0 J	4.8 J	6.6 J	<2	<2	<2	<2	<2	<2
Hydrolyzed PSDA	9.5 J	11 J	8.0 J	4.5 J	5.2 J	2.7 J	<2	<2	<2	<2	<2
R-PSDCA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
NVHOS	2.3	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EVE Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Hydro-EVE Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
R-EVE	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PES	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFECA B	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFECA-G	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Table 3+ (17 compounds)	117.5	87	102.3	40.2	40.2	85.3	0	0	0	0	0
Total Table 3+ (20 compounds)	130.6	100.4	113.3	49.5	52	88	0	0	0	0	0

**TABLE 6A**  
**SURFACE WATER TABLE 3+**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FAY-TBLK-6-063020	FBLK-1-051820	FBLK-2-060920	FBLK-3-061020	FBLK-4-061120	FAY-FBLK-5-062920	FAY-FBLK-6-063020
Sample Depth from Surface (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Date	6/30/2020	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Trip Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank
<i>Table 3+ Lab SOP (ng/L)</i>							
Hfpo Dimer Acid	<2	<2	<2	<2	<2	<2	<2
PFMOAA	<2	<5	<2	<2	<2	<2	<2
PFO2HxA	<2	<2	<2	<2	<2	<2	<2
PFO3OA	<2	<2	<2	<2	<2	<2	<2
PFO4DA	<2	<2	<2	<2	<2	<2	<2
PFO5DA	<2	<2	<2	<2	<2	<2	<2
PMPA	<13	<10	<13	<13	<13	<13	<13
PEPA	<2	<20	<2	<2	<2	<2	<2
PS Acid	<2	<2	<2	<2	<2	<2	<2
Hydro-PS Acid	<2	<2	<2	<2	<2	<2	<2
R-PSDA	<2	<2	<2	<2	<2	<2	<2
Hydrolyzed PSDA	<2	<2	<2	<2	<2	<2	<2
R-PSDCA	<2	<2	<2	<2	<2	<2	<2
NVHOS	<2	<2	<2	<2	<2	<2	<2
EVE Acid	<2	<2	<2	<2	<2	<2	<2
Hydro-EVE Acid	<2	<2	<2	<2	<2	<2	<2
R-EVE	<2	<2	<2	<2	<2	<2	<2
PES	<2	<2	<2	<2	<2	<2	<2
PFECA B	<2	<2	<2	<2	<2	<2	<2
PFECA-G	<2	<2	<2	<2	<2	<2	<2
Total Table 3+ (17 compounds)	0	0	0	0	0	0	0
Total Table 3+ (20 compounds)	0	0	0	0	0	0	0

*Notes:*

**Bold** - Analyte detected above associated reporting limit.  
**B** - Analyte detected in an associated blank.  
**J** - Analyte detected. Reported value may not be accurate or precise.  
**<** - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for TOC, TSS, DOC.  
**UJ** - Analyte not detected. Reporting limit may not be accurate or precise.  
**QA/QC** - Quality assurance/Quality control  
**SOP** - Standard Operating Procedures  
**ng/L** - nanograms per liter

**TABLE 6B**  
**SURFACE WATER METHOD 537M**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 20	Cape Fear River Mile 20	Cape Fear River Mile 52	Cape Fear River Mile 52	Cape Fear River Mile 76	Cape Fear River Mile 76	Cape Fear River Mile 77	Cape Fear River Mile 77	Cape Fear River Mile 84	Cape Fear River Mile 84	Cape Fear River Mile 100
Field Sample ID	FAY-SW-RM-20-B-6.7-05182020	FAY-SW-RM-20-B-20-05182020	FAY-SW-RM-52-B-1.6-05182020	FAY-SW-RM-52-B-1.6-05182020	FAY-SW-RM-76-B-13-06092020	FAY-SW-RM-76-B-21-06092020	FAY-SW-RM-77-B-10-06092020	FAY-SW-RM-77-B-18-06092020	FAY-SW-RM-84-B-10-06102020	FAY-SW-RM-84-B-18-06102020	FAY-SW-RM-100-B-9.5-06292020
Sample Depth from Surface (ft)	6.7	12	1.6	1.6	13	21	10	18	10	18	9.5
Sample Date	5/18/2020	5/18/2020	5/18/2020	5/18/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020	6/10/2020	6/10/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
<i>Other PFAS (ng/L)</i>											
10:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
11Cl-PF3OUdS	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<20	<20	<20	<20	<20	<20	<20 UJ	<20 UJ	<20	<20	<20
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<20	<20	<20	<20	<20	<20	<20 UJ	<20 UJ	<20	<20	<20
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<4	<4	<4	<4	<4	<4	<4 UJ	<4 UJ	<4	<4	<4
6:2 Fluorotelomer sulfonate	<20	<20	<20	<20	<20	<20	<20 UJ	<20 UJ	<20	<20	<20
9Cl-PF3ONS	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
DONA	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
N-ethyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20 UJ	<20 UJ	<20	<20	<20
N-ethylperfluoro-1-octanesulfonamide	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2
N-methyl perfluoro-1-octanesulfonamide	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2 UJ	<2
N-methyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20 UJ	<20 UJ	<20	<20	<20
Perfluorobutane Sulfonic Acid	4	4.1	4.4	4.3	3.9	4	4.1 J	4.3 J	4.3 J	4.1	4.4
Perfluorobutanoic Acid	5.8	5.7	6.1	6	6.5	6.4	5.3 J	5.3 J	6.4 J	6.3 J	5.5
Perfluorodecane Sulfonic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluorodecanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluorododecane sulfonic acid (PFDoS)	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2	<2
Perfluorododecanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluoroheptane sulfonic acid (PFHpS)	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluoroheptanoic Acid	7	8.1	7.3	7.2	5.9	5.9	6.7 J	6 J	6.1 J	6.2	3.6
Perfluorohexadecanoic acid (PFHxDA)	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2 UJ
Perfluorohexane Sulfonic Acid	3.4	3.4	5.6	5.7	3.6	3.8	4.4 J	3.4 J	4 J	4	4.3
Perfluorohexanoic Acid	14	14	14	14	11	11	13 J	11 J	11 J	11	7.6
Perfluorononanesulfonic acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluorononanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluorooctadecanoic acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2 UJ
Perfluorooctane Sulfonamide	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluoropentane sulfonic acid (PFPeS)	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluoropentanoic Acid	10	11	13	12	8.9	8.8	10 J	9.6 J	9.5 J	9.6	7.9
Perfluorotetradecanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluorotridecanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
Perfluoroundecanoic Acid	<2	<2	<2	<2	<2	<2	<2 UJ	<2 UJ	<2	<2	<2
PFOA	8.3	6.8	7.1	6.9	7.6	7.3	7.8 J	8.1 J	7.2 J	7.2	7.3
PFOS	11	11	15	14	13	14	14 J	14 J	14 J	15	14
Total Method 537 PFAS	63.5	64.1	72.5	70.1	60.4	61.2	65.3	61.7	62.5	63.4	54.6



**TABLE 6B**  
**SURFACE WATER METHOD 537M**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 100	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FAY-SW-RM-100-B-17-06292020	FAY-SW-RM-116-B-7.5-06292020	FAY-SW-RM-116-B-13-06292020	FAY-SW-RM-132-B-6-06112020	FAY-SW-RM-132-B-10-06112020	FAY-SW-RM-149-B-1.5-06302020	TBLK-1-051820	TBLK-2-060920	TBLK-3-061020	TBLK-4-061120	FAY-TBLK-5-062920
Sample Depth from Surface (ft)	17	7.5	13	6	10	1.5	N/A	N/A	N/A	N/A	N/A
Sample Date	6/29/2020	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/30/2020	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
<i>Other PFAS (ng/L)</i>											
10:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
11Cl-PF3OUdS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
6:2 Fluorotelomer sulfonate	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
9Cl-PF3ONS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
DONA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
N-ethyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
N-ethylperfluoro-1-octanesulfonamide	<2	<2	<2	<2	<2	<2	<2	<2 UJ	<2	<2	<2
N-methyl perfluoro-1-octanesulfonamide	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
N-methyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Perfluorobutane Sulfonic Acid	<b>4.6</b>	<b>4</b>	<b>4</b>	<b>3.8</b>	<b>3.8</b>	<b>3.8</b>	<2	<2	<2	<2	<2
Perfluorobutanoic Acid	<b>5.2</b>	<b>5.1</b>	<b>5.2</b>	<b>5.5</b>	<b>5.8</b>	<b>4.7</b>	<2	<2	<2	<2	<2
Perfluorodecane Sulfonic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorodecanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorododecane sulfonic acid (PFDoS)	<2	<2	<2	<2	<2	<2 UJ	<2	<2	<2	<2	<2
Perfluorododecanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoroheptane sulfonic acid (PFHpS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoroheptanoic Acid	<b>3.8</b>	<b>3.6</b>	<b>3.5</b>	<b>5.4</b>	<b>5.6</b>	<b>3.1</b>	<2	<2	<2	<2	<2
Perfluorohexadecanoic acid (PFHxDA)	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2 UJ	<2	<2	<2	<2	<2
Perfluorohexane Sulfonic Acid	<b>4.5</b>	<b>4.2</b>	<b>4.2</b>	<b>3.5</b>	<b>3.6</b>	<b>4.4</b>	<2	<2	<2	<2	<2
Perfluorohexanoic Acid	<b>7.6</b>	<b>6.9</b>	<b>6.7</b>	<b>11</b>	<b>10</b>	<b>6.5</b>	<2	<2	<2	<2	<2
Perfluorononanesulfonic acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorononanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorooctadecanoic acid	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2 UJ	<2	<2	<2	<2	<2
Perfluorooctane Sulfonamide	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoropentane sulfonic acid (PFPeS)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoropentanoic Acid	<b>7.6</b>	<b>7.6</b>	<b>7.4</b>	<b>8.6</b>	<b>8.6</b>	<b>6.8</b>	<2	<2	<2	<2	<2
Perfluorotetradecanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorotridecanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoroundecanoic Acid	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFOA	<b>7.4</b>	<b>6.7</b>	<b>6.6</b>	<b>7.3</b>	<b>7.6</b>	<b>6.2</b>	<2	<2	<2	<2	<2
PFOS	<b>14</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>13</b>	<2	<2	<2	<2	<2
Total Method 537 PFAS	<b>54.7</b>	<b>51.1</b>	<b>51.6</b>	<b>59.1</b>	<b>59</b>	<b>48.5</b>	0	0	0	0	0

**TABLE 6B**  
**SURFACE WATER METHOD 537M**  
**PFAS ANALYTICAL RESULTS**  
**Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FAY-TBLK-6-063020	FBLK-1-051820	FBLK-2-060920	FBLK-3-061020	FBLK-4-061120	FAY-FBLK-5-062920	FAY-FBLK-6-063020
Sample Depth from Surface (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Date	6/30/2020	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Trip Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank
<i>Other PFAS (ng/L)</i>							
10:2 Fluorotelomer sulfonate	<2	<2	<2	<2	<2	<2	<2
11Cl-PF3OUdS	<2	<2	<2	<2	<2	<2	<2
1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	<20	<20	<20	<20	<20	<20	<20
1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	<20	<20	<20	<20	<20	<20	<20
2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	<2	<2	<2	<2	<2	<2	<2
2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	<4	<4	<4	<4	<4	<4	<4
6:2 Fluorotelomer sulfonate	<20	<20	<20	<20	<20	<20	<20
9Cl-PF3ONS	<2	<2	<2	<2	<2	<2	<2
DONA	<2	<2	<2	<2	<2	<2	<2
N-ethyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20
N-ethylperfluoro-1-octanesulfonamide	<2	<2	<2 UJ	<2	<2	<2	<2
N-methyl perfluoro-1-octanesulfonamide	<2	<2	<2	<2	<2	<2	<2
N-methyl perfluorooctane sulfonamidoacetic acid	<20	<20	<20	<20	<20	<20	<20
Perfluorobutane Sulfonic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorobutanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorodecane Sulfonic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorodecanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorododecane sulfonic acid (PFDoS)	<2	<2	<2	<2	<2	<2	<2
Perfluorododecanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluoroheptane sulfonic acid (PFHpS)	<2	<2	<2	<2	<2	<2	<2
Perfluoroheptanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorohexadecanoic acid (PFHxDA)	<2	<2	<2	<2	<2	<2	<2
Perfluorohexane Sulfonic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorohexanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorononanesulfonic acid	<2	<2	<2	<2	<2	<2	<2
Perfluorononanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorooctadecanoic acid	<2	<2	<2	<2	<2	<2	<2
Perfluorooctane Sulfonamide	<2	<2	<2	<2	<2	<2	<2
Perfluoropentane sulfonic acid (PFPeS)	<2	<2	<2	<2	<2	<2	<2
Perfluoropentanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorotetradecanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluorotridecanoic Acid	<2	<2	<2	<2	<2	<2	<2
Perfluoroundecanoic Acid	<2	<2	<2	<2	<2	<2	<2
PFOA	<2	<2	<2	<2	<2	<2	<2
PFOS	<2	<2	<2	<2	<2	<2	<2
Total Method 537 PFAS	0	0	0	0	0	0	0

**Notes:**

**Bold** - Analyte detected above associated reporting limit.  
**B** - Analyte detected in an associated blank.  
**J** - Analyte detected. Reported value may not be accurate or precise.  
**<** - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for TOC, TSS, DOC.  
**UJ** - Analyte not detected. Reporting limit may not be accurate or precise.  
**QA/QC** - Quality assurance/Quality control  
**SOP** - Standard Operating Procedures  
**ng/L** - nanograms per liter

**TABLE 6C  
OTHER SURFACE WATER ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

<b>Location ID</b>	<b>Cape Fear River Mile 20</b>	<b>Cape Fear River Mile 20</b>	<b>Cape Fear River Mile 52</b>	<b>Cape Fear River Mile 52</b>	<b>Cape Fear River Mile 76</b>	<b>Cape Fear River Mile 76</b>	<b>Cape Fear River Mile 77</b>	<b>Cape Fear River Mile 77</b>	<b>Cape Fear River Mile 84</b>	<b>Cape Fear River Mile 84</b>	<b>Cape Fear River Mile 100</b>	<b>Cape Fear River Mile 100</b>
<b>Field Sample ID</b>	<b>FAY-SW-RM-20- B-6.7-05182020</b>	<b>FAY-SW-RM-20- B-20-05182020</b>	<b>FAY-SW-RM-52- B-1.6-05182020</b>	<b>FAY-SW-RM-52- B-1.6-05182020</b>	<b>FAY-SW-RM-76- B-13-06092020</b>	<b>FAY-SW-RM-76- B-21-06092020</b>	<b>FAY-SW-RM-77- B-10-06092020</b>	<b>FAY-SW-RM-77- B-18-06092020</b>	<b>FAY-SW-RM-84- B-10-06102020</b>	<b>FAY-SW-RM-84- B-18-06102020</b>	<b>FAY-SW-RM-100- B-9.5-06292020</b>	<b>FAY-SW-RM-100- B-17-06292020</b>
<b>Sample Depth from Surface (ft)</b>	<b>6.7</b>	<b>12</b>	<b>1.6</b>	<b>1.6</b>	<b>13</b>	<b>21</b>	<b>10</b>	<b>18</b>	<b>10</b>	<b>18</b>	<b>9.5</b>	<b>17</b>
<b>Sample Date</b>	<b>5/18/2020</b>	<b>5/18/2020</b>	<b>5/18/2020</b>	<b>5/18/2020</b>	<b>6/9/2020</b>	<b>6/9/2020</b>	<b>6/9/2020</b>	<b>6/9/2020</b>	<b>6/10/2020</b>	<b>6/10/2020</b>	<b>6/29/2020</b>	<b>6/29/2020</b>
<b>QA/QC</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Duplicate</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>	<b>Field Sample</b>
<i>Other Parameters (mg/L)</i>												
Total Suspended Solids	<1.1	30	2.8 J	2.8 J	37	59	28	50	22	17	17 J	13 B
Total Organic Carbon	5.4	5.6	5.1	5.4	6.3	6.2	6.3	6.4	6.5	5.4	9.8	9.5
Dissolved Organic Carbon	5.2	5	4.7	4.7	6.4	6.5	6.2	6.2	6.2	5.6	5.1	9.9

**TABLE 6C  
OTHER SURFACE WATER ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	Cape Fear River Mile 116	Cape Fear River Mile 116	Cape Fear River Mile 132	Cape Fear River Mile 132	Cape Fear River Mile 149	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FAY-SW-RM-116-B-7.5-06292020	FAY-SW-RM-116-B-13-06292020	FAY-SW-RM-132-B-6-06112020	FAY-SW-RM-132-B-10-06112020	FAY-SW-RM-149-B-1.5-06302020	TBLK-1-051820	TBLK-2-060920	TBLK-3-061020	TBLK-4-061120	FAY-TBLK-5-062920	FAY-TBLK-6-063020	FBLK-1-051820
Sample Depth from Surface (ft)	7.5	13	6	10	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Date	6/29/2020	6/29/2020	6/11/2020	6/11/2020	6/30/2020	5/18/2020	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020	5/18/2020
QA/QC	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Field Blank
<i>Other Parameters (mg/L)</i>												
Total Suspended Solids	9.2 B	18 J	18	23	3.6 B	--	--	--	--	--	--	--
Total Organic Carbon	10	10	8.3	8.3	11	--	--	--	--	--	--	--
Dissolved Organic Carbon	11	11	8.5	8.2	11	--	--	--	--	--	--	--

**TABLE 6C  
OTHER SURFACE WATER ANALYTICAL RESULTS  
Chemours Fayetteville Works, North Carolina**

Location ID	N/A	N/A	N/A	N/A	N/A
Field Sample ID	FBLK-2-060920	FBLK-3-061020	FBLK-4-061120	FAY-FBLK-5-062920	FAY-FBLK-6-063020
Sample Depth from Surface (ft)	N/A	N/A	N/A	N/A	N/A
Sample Date	6/9/2020	6/10/2020	6/11/2020	6/29/2020	6/30/2020
QA/QC	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank
<i>Other Parameters (mg/L)</i>					
Total Suspended Solids	<1.1	<1.1	<1.1	1.2 J	<1.1 UJ
Total Organic Carbon	<0.35	<0.35	<0.35	<0.35	<0.35
Dissolved Organic Carbon	<0.35	<0.35	<0.35	<0.35	<0.35

*Notes:*

- B - Analyte detected in an associated blank.
- J - Analyte detected. Reported value may not be accurate or precise.
- < - Analyte not detected above associated reporting limit for PFAS or above the associated detection limit for total organic carbon, total suspended solids, dissolved organic carbon.
- UJ - Analyte not detected. Reporting limit may not be accurate or precise.
- QA/QC - Quality assurance/Quality control
- SOP - Standard Operating Procedures
- mg/L - milligrams per liter
- FS - Field Sample

**TABLE 7**  
**HFPO-DA SURFACE WATER DATA COMPARISON**  
**BETWEEN HUMAN HEALTH SLEA AND SEDIMENT CHARACTERIZATION**  
**Chemours Fayetteville Works, North Carolina**

Sample Location Code	Relevant Exposure Unit	Sediment Characterization Data (2020) - Surface Water Samples		Surface Water EPC from SLEA		2019 Surface Water Samples	
		Average HFPO-DA (ng/L)	Number of detects averaged	CTE EPC* (ng/L)	RME EPC** (ng/L)	Average from 2019 samples only (ng/L)	Detects/Samples Collected in 2019
RM-20	--	<2	0	--	--	--	--
RM-52	EU13	<2	0	5	5	5	1/5
RM-76	EU14	<2	0	23	34.98	5.98	9/12
RM-77	EU14	2.2	1	23	34.98	5.98	9/12
RM-84	EU16	11	2	133.6	318.6	32.7	3/3
RM-100	--	14.5	2	--	--	--	--
RM-116	--	12.5	2	--	--	--	--
RM-132	EU17	5.95	2	16.38	18.65	18.9	41/41
RM-149	--	11	1	--	--	--	--

**Notes:**

\*CTE EPC - central tendency exposure point concentration, corresponding to the arithmetic average concentration

\*\*RME EPC - reasonable maximum exposure point concentration, corresponding to either the 95% upper confidence limit on the mean or the maximum detected concentration if the UCL could not be reliably calculated.

**TABLE 8**  
**HFPO-DA CONCENTRATIONS**  
**IN CAPE FEAR RIVER SEDIMENT**  
**Chemours Fayetteville Works, North Carolina**

Sample Location Code	Relevant Exposure Unit	Average HFPO-DA ( $\mu\text{g}/\text{kg}$ )	Number of Detects Averaged
RM-20	--	<0.25	0/3
RM-52	EU13	<0.25	0/4
RM-76	EU14	2.13	3/4
RM-77	EU14	2.5	1/3
RM-84	EU16	<0.25	0/4
RM-100	--	<0.25	0/3
RM-116	--	<0.25	0/3
RM-132	EU17	<0.25	0/3
RM-149	--	0.34	1/5

**Notes**

\*Concentration of HFPODA in sediment samples (in  $\mu\text{g}/\text{kg}$ ) divided by concentration of HFPODA in surface water samples (in  $\text{ng}/\text{L}$ ), where one liter of water is assumed to weigh one kilogram. The higher this number is, the higher sediment concentrations are relative to surface water concentrations.

**TABLE 9**  
**COMPARISON OF TABLE 3+ PFAS PROFILES**  
**SEDIMENT CHARACTERIZATION VS. ECOLOGICAL SLEA**  
**Chemours Fayetteville Works, North Carolina**

	Surface Water				Sediment			
	2020		Eco-SLEA		2020		Eco-SLEA	
	Maximum	FOD	Maximum	FOD	Maximum	FOD	Maximum	FOD
<i>Table 3+ Lab SOP</i>	ng/L	%	ng/L	%	µg/kg	%	µg/kg	%
HFPO Dimer Acid	15	53%	15	78%	2.5	15%	2.6	17%
PFMOAA	27	47%	71	67%	9.9	6%	ND	0%
PFO2HxA	23	58%	25	100%	7.6	15%	ND	0%
PFO3OA	5.7	47%	6	33%	2.2	6%	ND	0%
PFO4DA	2.6	16%	2	11%	1.4	3%	ND	0%
PFO5DA	ND	0%	ND	0%	1.4	3%	ND	0%
PMPA	42	58%	19	33%	1.9	21%	ND	0%
PEPA	4.9	32%	ND	0%	0	0%	ND	0%
PS Acid	ND	0%	ND	0%	1.8	3%	ND	0%
Hydro-PS Acid	ND	0%	ND	0%	0	0%	ND	0%
R-PSDA	21	47%	9	89%	0	0%	ND	0%
Hydrolyzed PSDA	11	47%	19	67%	0	0%	ND	0%
R-PSDCA	ND	0%	ND	0%	0	0%	ND	0%
NVHOS	8.1	32%	7	100%	0	0%	ND	0%
EVE Acid	ND	0%	ND	0%	0	0%	ND	0%
Hydro-EVE Acid	ND	0%	ND	0%	0	0%	ND	0%
R-EVE	ND	0%	4	78%	12	3%	ND	0%
PES	ND	0%	ND	0%	0	0%	ND	0%
PFECA B	ND	0%	ND	0%	0	0%	ND	0%
PFECA-G	ND	0%	ND	0%	0	0%	ND	0%

**Notes:**

Eco -SLEA reflects data from the Cape Fear River Exposure Unit of the Ecological Screening Level Exposure Assessment.

FOD - frequency of detection

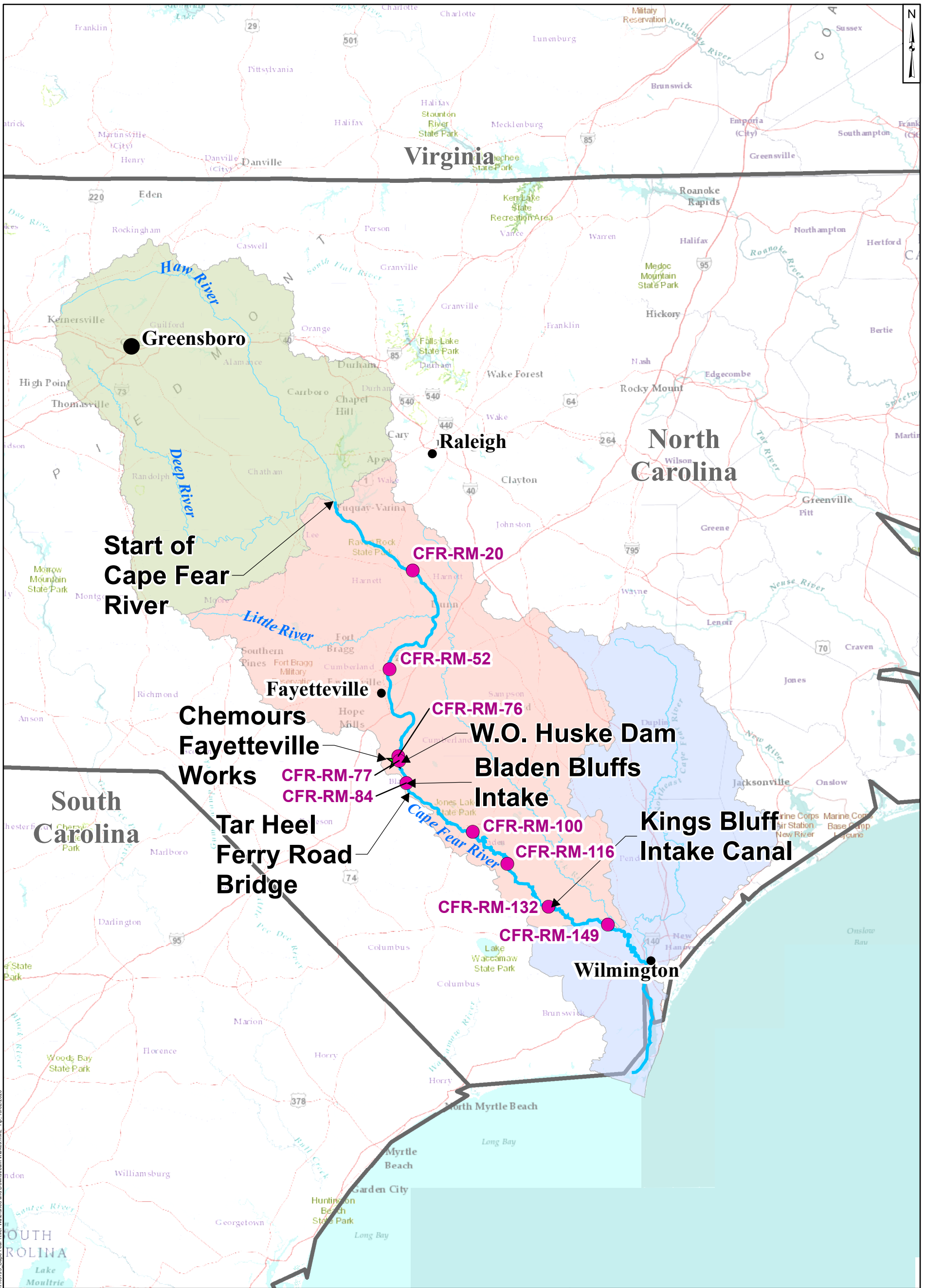
µg/kg - micrograms per kilogram

ng/L - nanograms per liter

ND - not detected above reporting limit



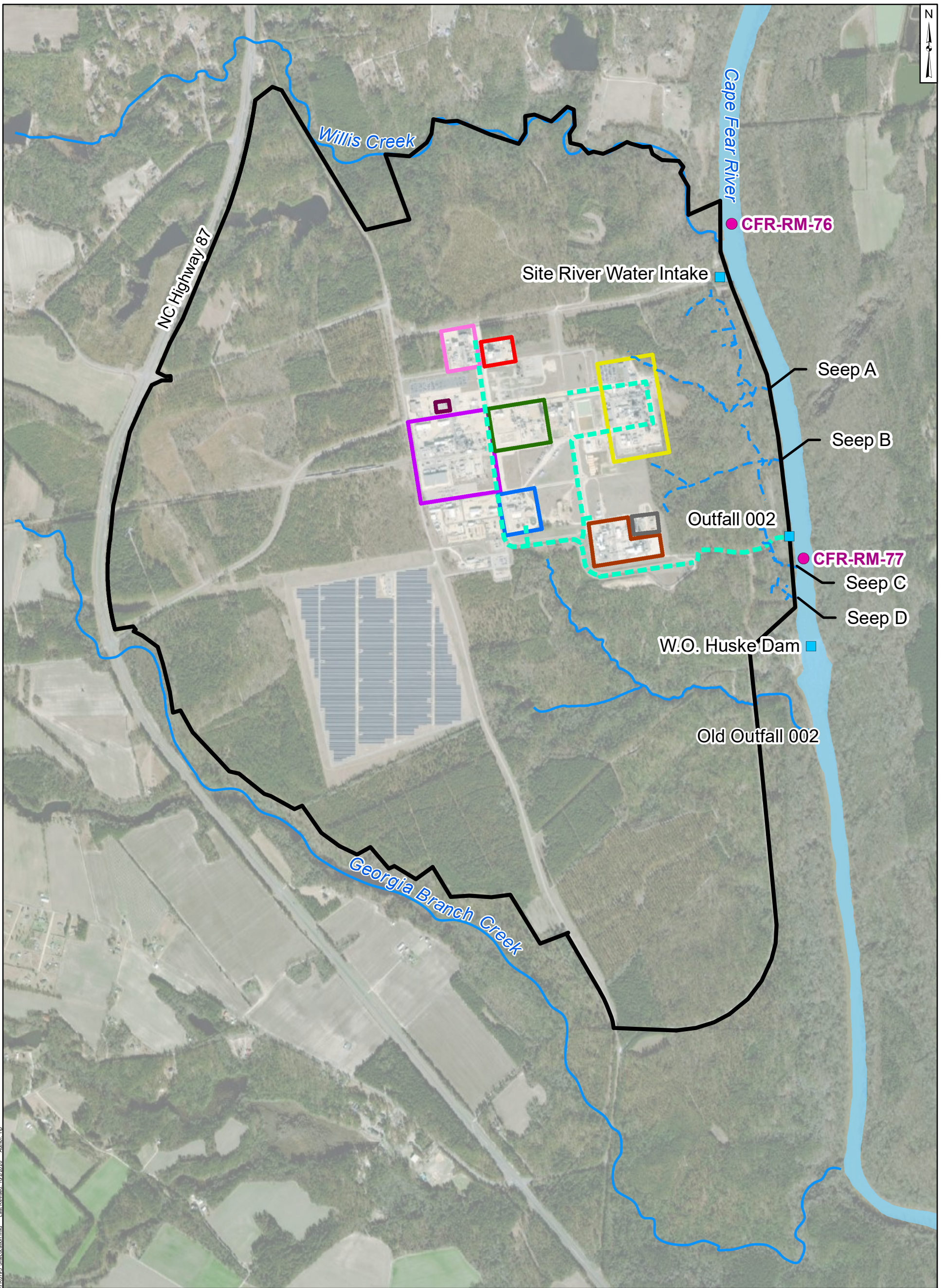
# FIGURES



<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="color: magenta;">●</span> Sediment Sample</li> <li><span style="color: green;">★</span> Chemours Fayetteville Works</li> <li><span style="background-color: #c8e6c9; border: 1px solid black; display: inline-block; width: 15px; height: 15px; margin-right: 5px;"></span> Upper Basin</li> <li><span style="background-color: #ffe0b2; border: 1px solid black; display: inline-block; width: 15px; height: 15px; margin-right: 5px;"></span> Middle Basin</li> <li><span style="background-color: #bbdefb; border: 1px solid black; display: inline-block; width: 15px; height: 15px; margin-right: 5px;"></span> Lower Basin</li> </ul>		<p>20 10 0 20 Miles</p>	
<p><b>Cape Fear River Watershed and Downstream Drinking Water Intakes</b> Chemours Fayetteville Works, North Carolina</p>			
<p><b>Geosyntec</b> consultants</p>		<p>Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295</p>	
<p>Raleigh</p>		<p>October 2020</p>	
			<p><b>Figure</b> <b>1</b></p>

Note: Basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet. Units in Foot US

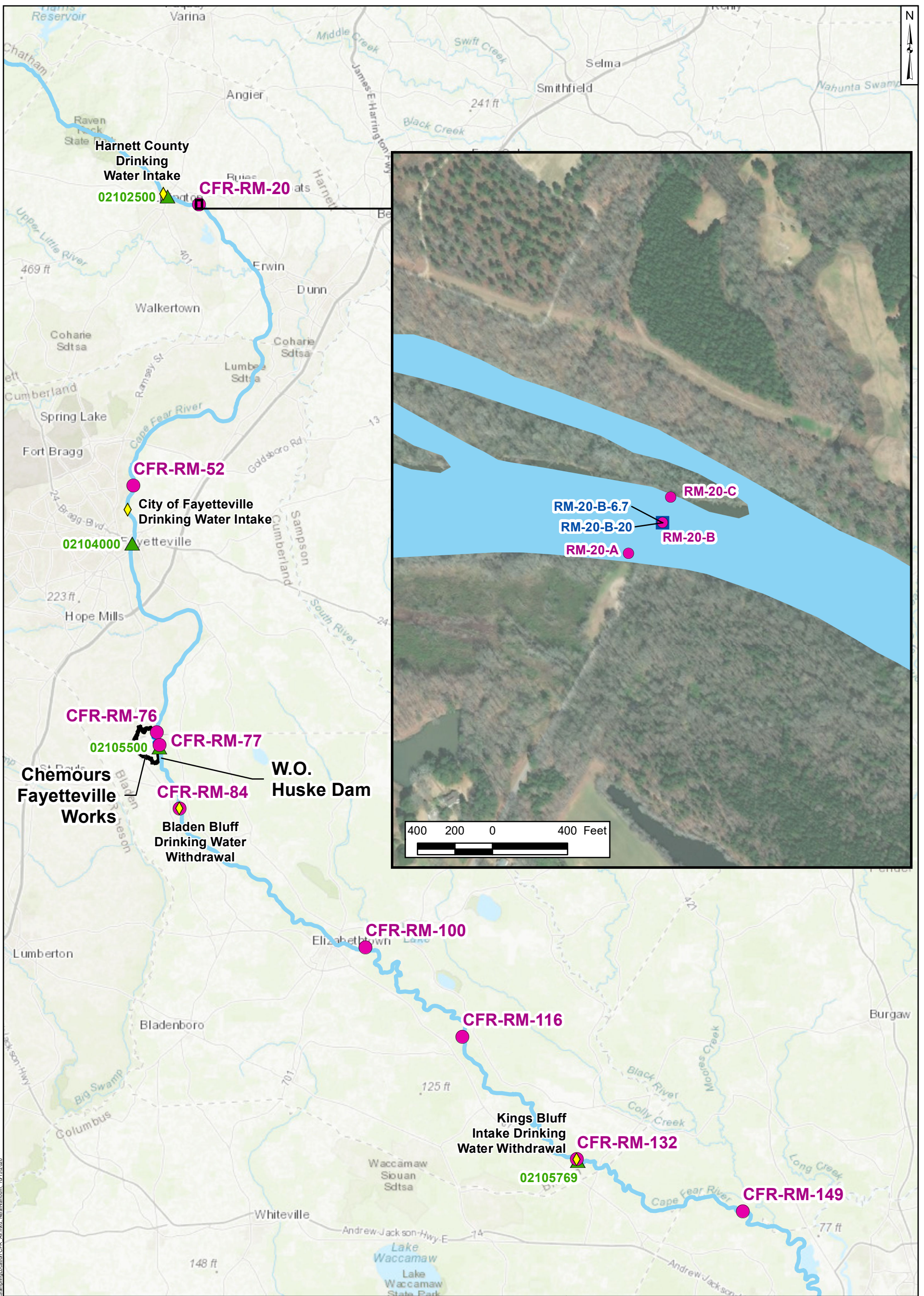


<b>Legend</b>		
<span style="color: pink;">●</span> Sediment Sample <sup>1</sup>	<span style="border: 1px solid yellow;">□</span> Areas at Site	<span style="border: 1px solid purple;">□</span> Kuraray Trosifol® Leased Area
<span style="color: blue;">■</span> Site Features	<span style="border: 1px solid red;">□</span> Chemours Polymer Processing Aid Area	<span style="border: 1px solid blue;">□</span> Wastewater Treatment Plant
<span style="border-bottom: 1px solid black;"> </span> Site Boundary	<span style="border: 1px solid brown;">□</span> DuPont Polyvinyl Fluoride Leased Area	<span style="border: 1px solid green;">□</span> Power - Filtered and Demineralized Water Production
<span style="color: blue;">—</span> Nearby Tributary	<span style="border: 1px solid grey;">□</span> Former DuPont PMDF Area	<span style="border: 1px solid purple;">□</span> Kuraray Laboratory
<span style="color: blue;">- - -</span> Observed Seep (Natural Drainage)	<span style="border: 1px solid pink;">□</span> Kuraray SentryGlas® Leased Area	
<span style="color: cyan;">- - -</span> Site Conveyance Network		

**Notes:**  
 1. Both sediment and surface water samples were collected at the indicated location.  
 2. The outline of Cape Fear River is approximate and is based on open data from ArcGIS Online and North Carolina Department of Environmental Quality Online GIS (MajorHydro shapefile).  
 3. Basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

1,000 500 0 1,000 Feet 	
<b>Site Location Map</b> Chemours Fayetteville Works, North Carolina	
<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295
Raleigh	October 2020
<b>Figure</b> <b>2</b>	

Path: P:\Projects\TR0795\SchematicCharacterization\Workshop\TR0795\_SiteLocation.mxd - Last Revised: 10/29/2020 - Author: TP



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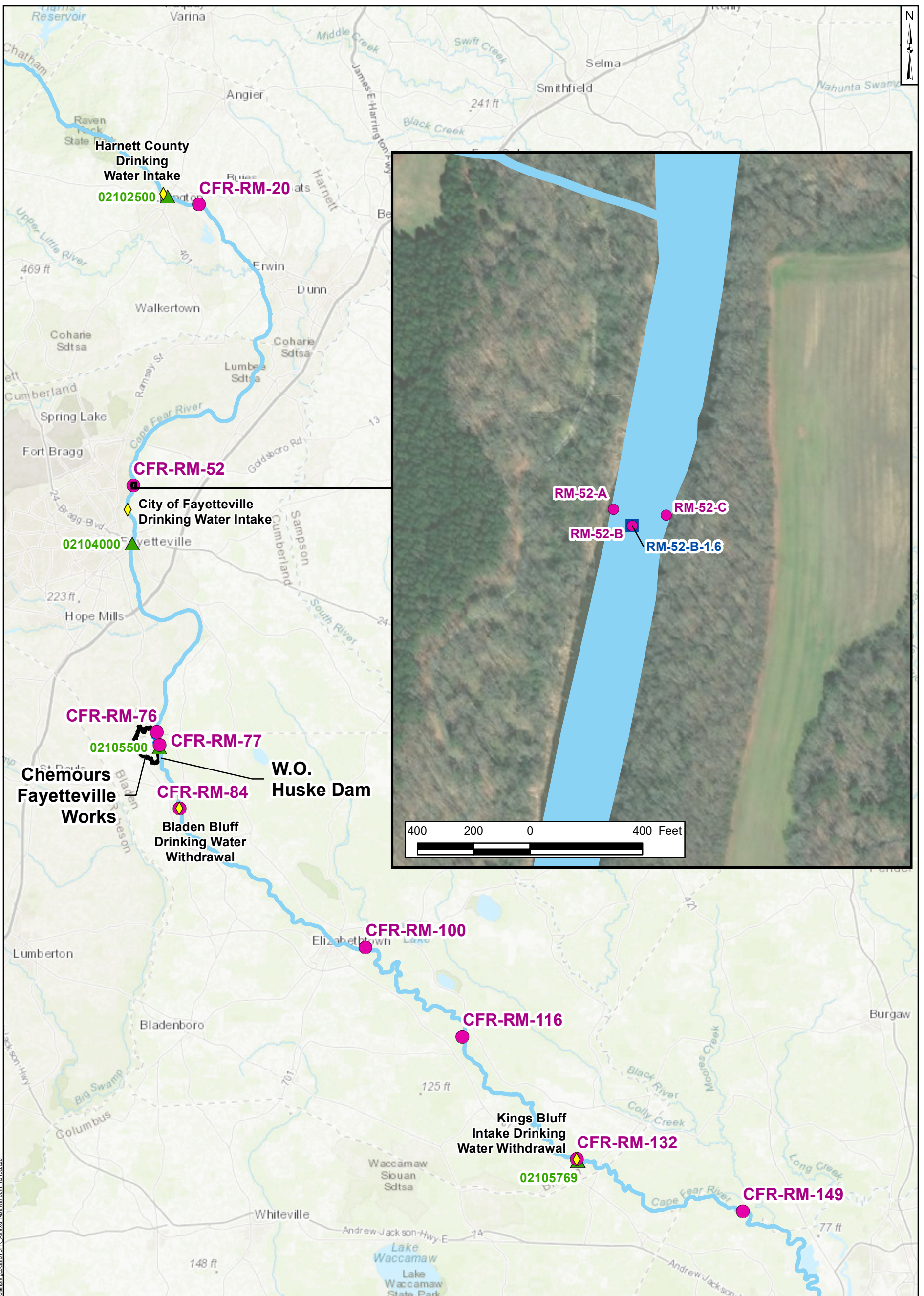
- Legend**
- Sediment Sample
  - Surface Water Sample
  - ▲ USGS Stream Gauge
  - ◆ Drinking Water Intake (Approximate)
  - Cape Fear River

- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORage and RETrieval (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

8    4    0    8 Miles

**Sampling Segments**  
**CFR-RM-20**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	<b>Figure</b>  <b>3a</b>
Raleigh	October 2020	



- Legend**
- Sediment Sample
  - Surface Water Sample
  - ▲ USGS Stream Gauge
  - ◆ Drinking Water Intake (Approximate)
  - ▬ Cape Fear River

- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORAGE and RETRIEVAL (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

8 4 0 8 Miles

**Sampling Segments**  
**CFR-RM-52**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

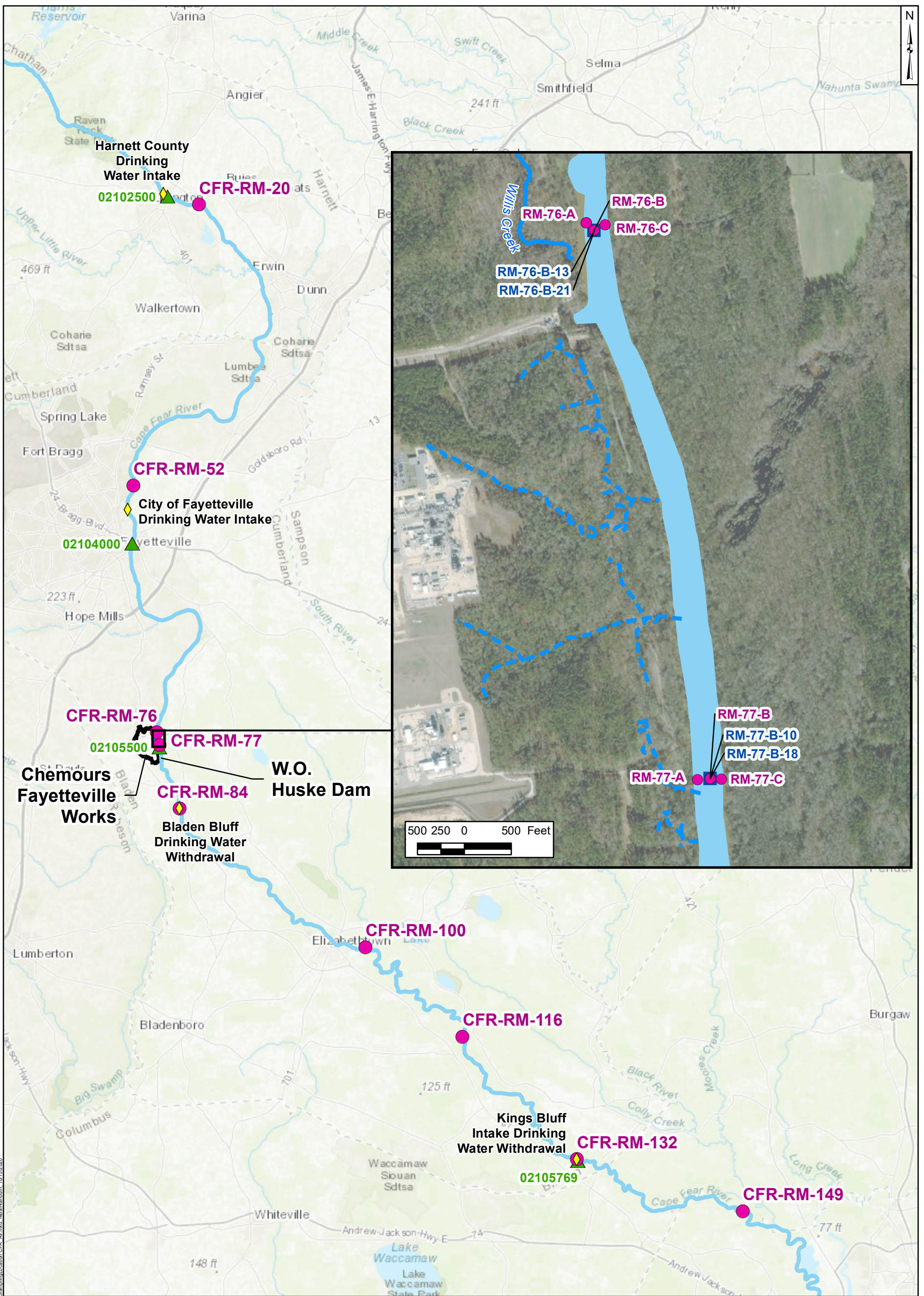
**Geosyntec**  
 consultants

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 NC License No.: C 3500 and C 295

Raleigh

October 2020

**Figure**  
**3b**

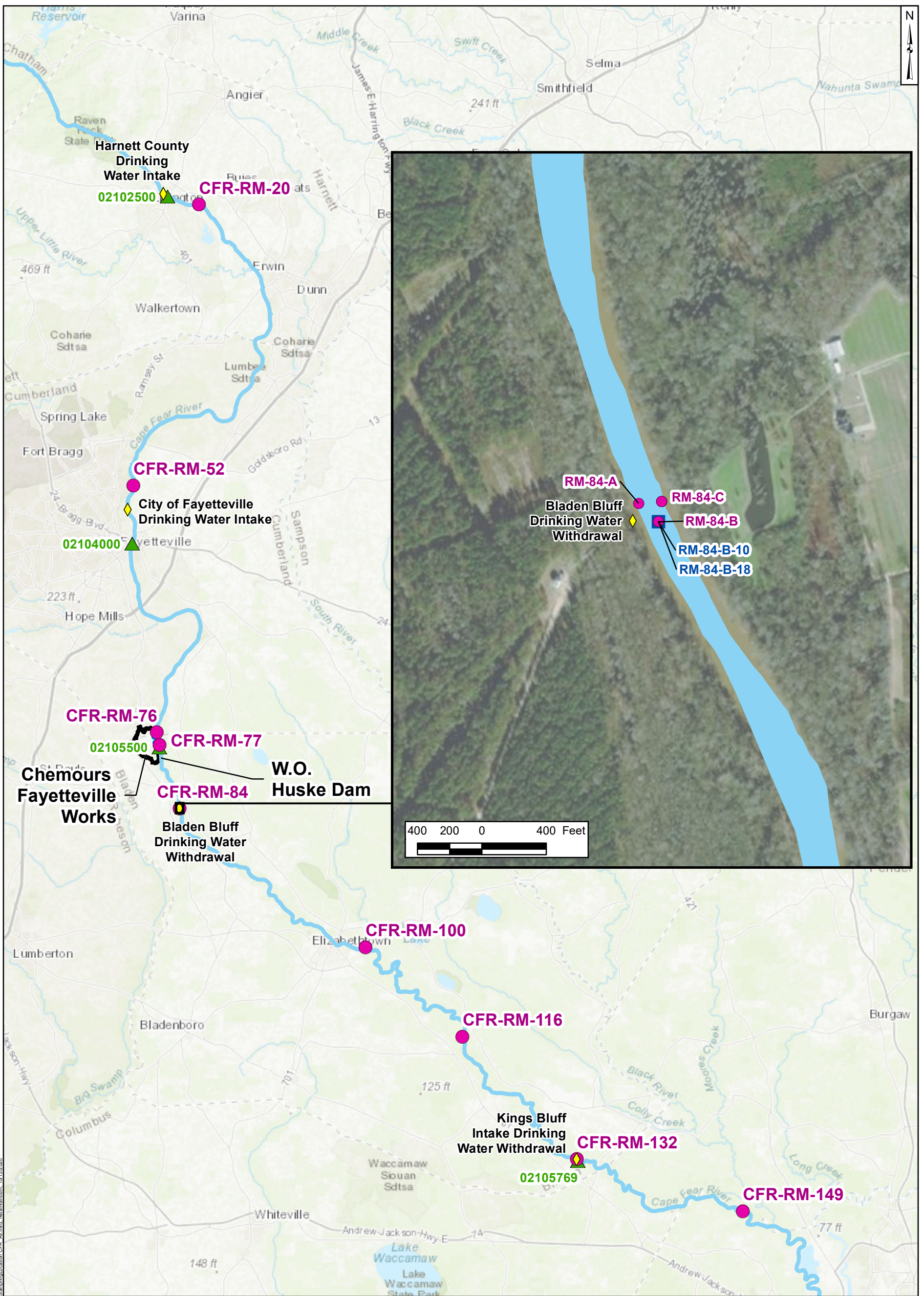


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Legend					
<span style="color: magenta;">●</span>	Sediment Sample	<span style="color: magenta;">◆</span>	Drinking Water Intake (Approximate)	<span style="color: blue;">---</span>	Observed Seep
<span style="color: blue;">■</span>	Surface Water Sample	<span style="color: blue;">■</span>	Cape Fear River		
<span style="color: green;">▲</span>	USGS Stream Gauge				

- Notes:
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORage and RETrieval (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

<b>Sampling Segments</b> <b>CFR-RM-76 and CFR-RM-77</b> Chemours Fayetteville Works Fayetteville, North Carolina	
	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295
Raleigh	October 2020
Figure <b>3c</b>	



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- Legend**
- Sediment Sample
  - ◆ Drinking Water Intake (Approximate)
  - Surface Water Sample
  - Cape Fear River
  - ▲ USGS Stream Gauge

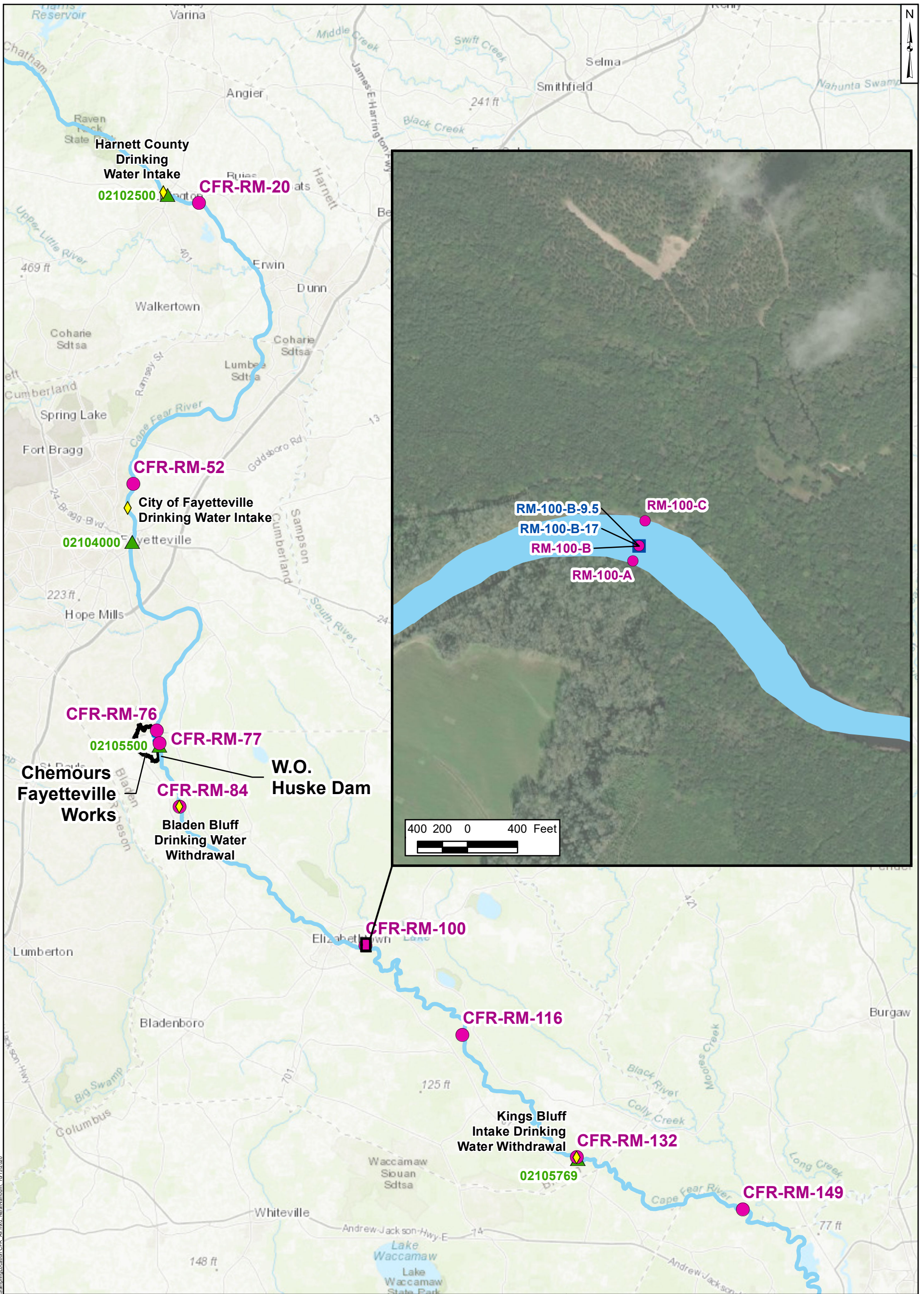
- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORAGE and RETRIEVAL (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

8 4 0 8 Miles

**Sampling Segments**  
**CFR-RM-84**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

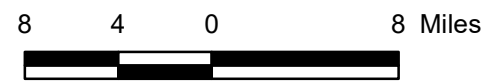
<p><b>Geosyntec</b> consultants</p>	<p>Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295</p>
Raleigh	October 2020

**Figure**  
**3d**



- Legend**
- Sediment Sample
  - Surface Water Sample
  - ▲ USGS Stream Gauge
  - ◆ Drinking Water Intake (Approximate)
  - ▬ Cape Fear River

- Notes:**
- Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  - Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  - The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  - City of Fayetteville drinking water intake location is provided by EPA STORage and RETrieval (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  - Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

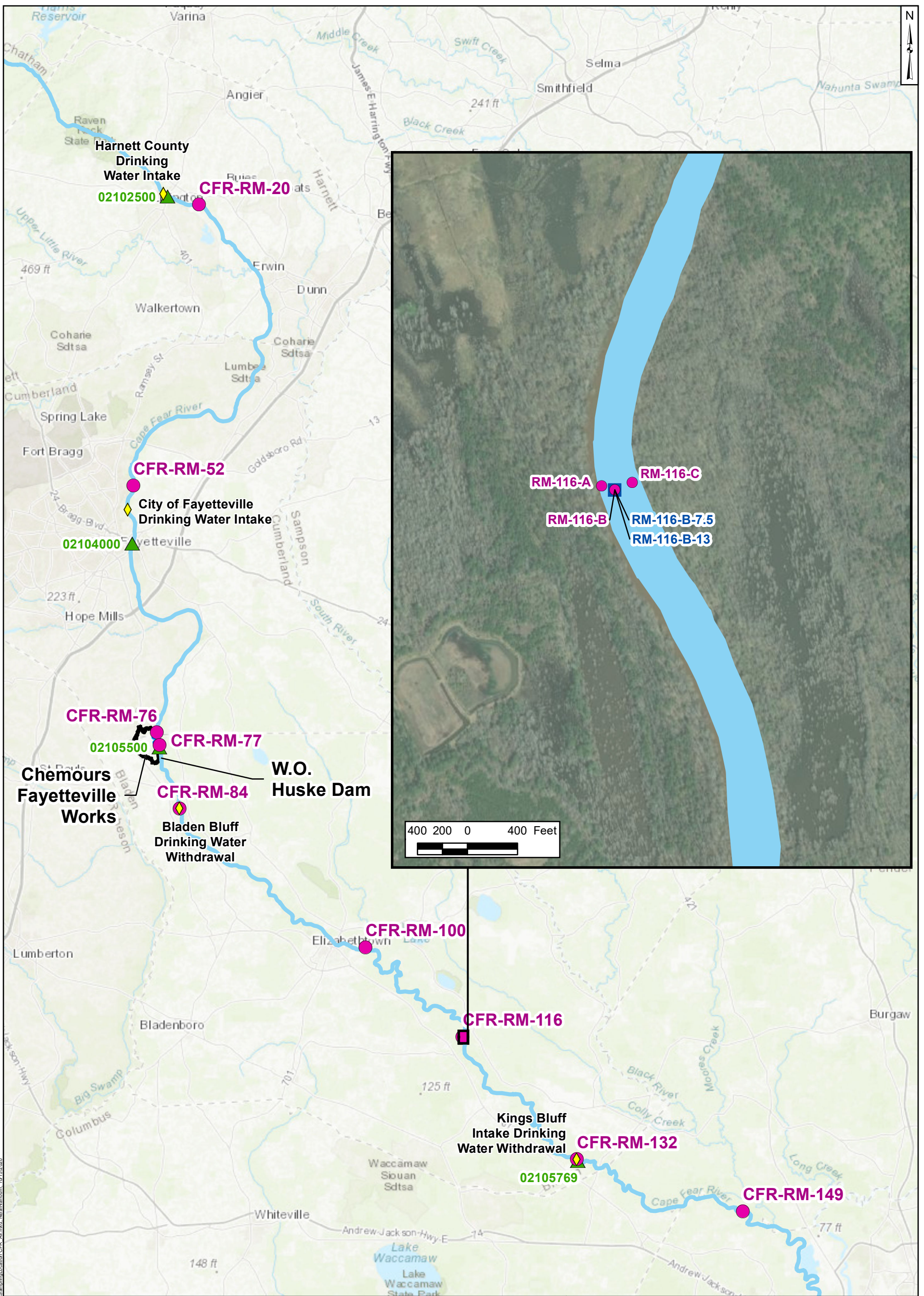


**Sampling Segments**  
**CFR-RM-100**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	<b>Figure</b> <b>3e</b>
	Raleigh	

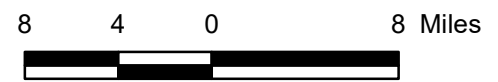
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- Legend**
- Sediment Sample
  - ◆ Drinking Water Intake (Approximate)
  - Surface Water Sample
  - Cape Fear River
  - ▲ USGS Stream Gauge

- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORage and RETrieval (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.



**Sampling Segments**  
**CFR-RM-116**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

**Geosyntec**  
 consultants

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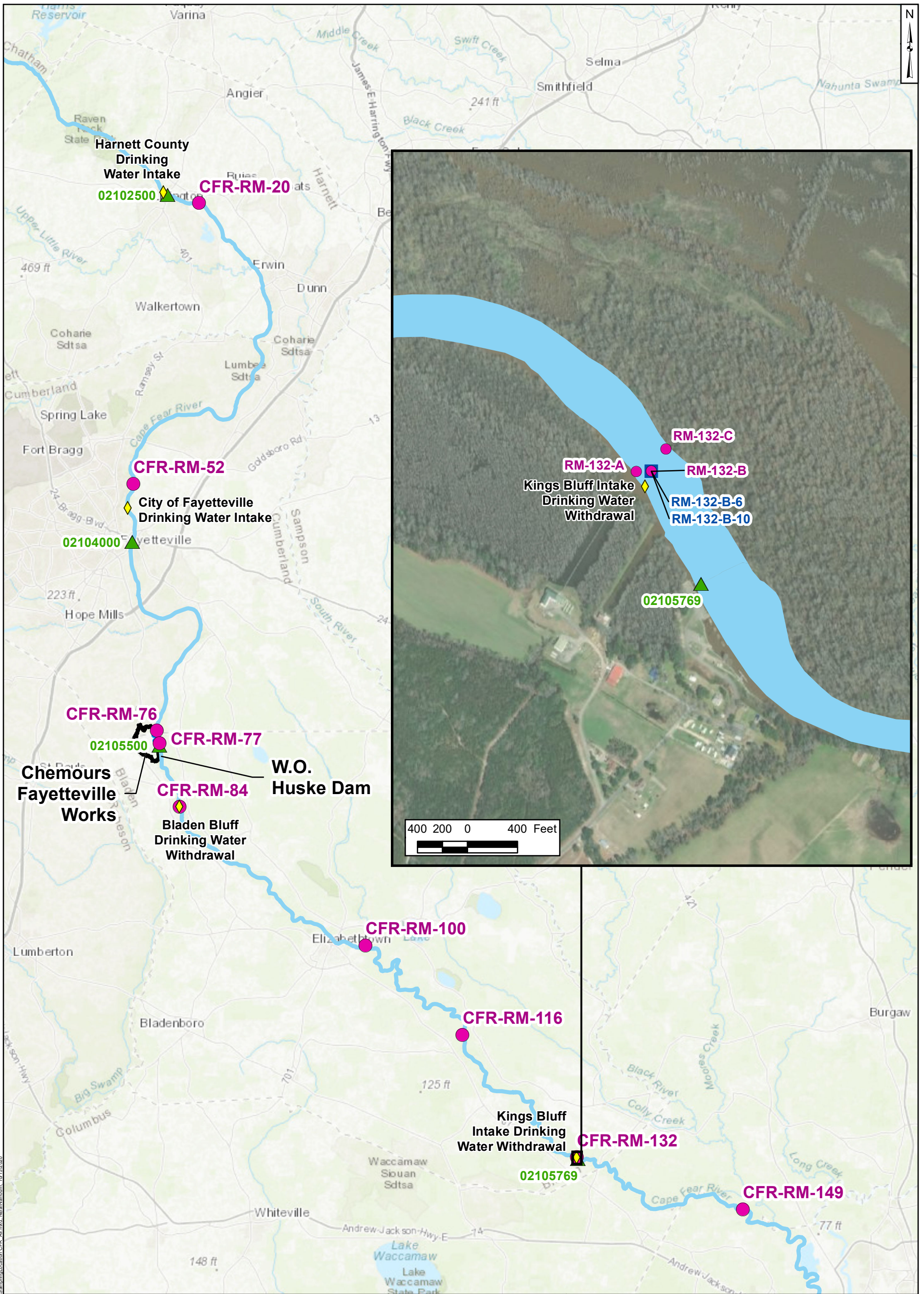
Raleigh

October 2020

**Figure**

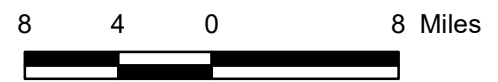
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- Legend**
- Sediment Sample
  - ◆ Drinking Water Intake (Approximate)
  - Surface Water Sample
  - Cape Fear River
  - ▲ USGS Stream Gauge

- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORAGE and RETRIEVAL (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.



**Sampling Segments**  
**CFR-RM-132**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

**Geosyntec**  
 consultants

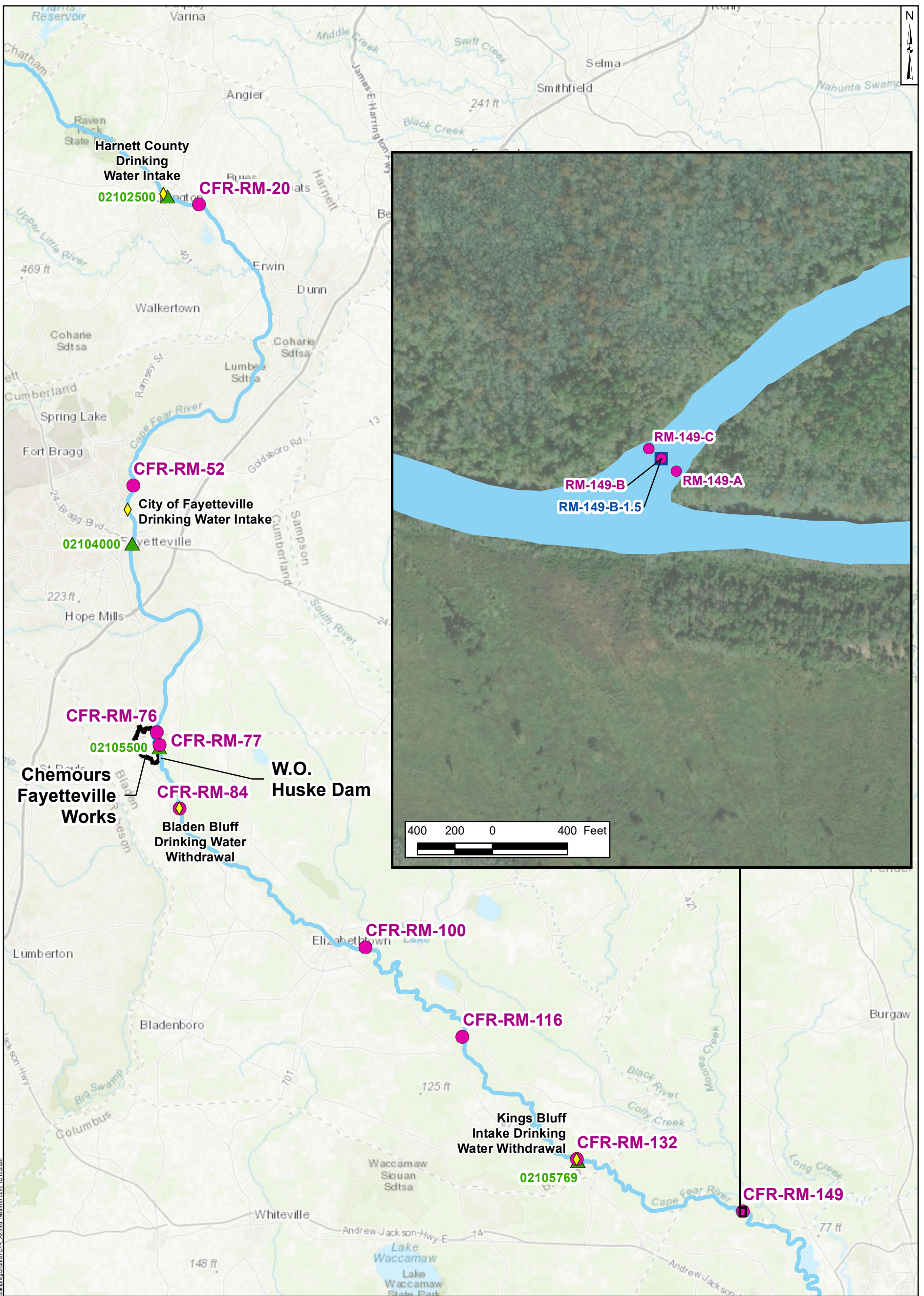
Geosyntec Consultants of NC, P.C.  
 NC License No.: C 3500 and C 295

Raleigh

October 2020

**Figure**

**3g**



- Legend**
- Sediment Sample
  - Surface Water Sample
  - ▲ USGS Stream Gauge
  - ◆ Drinking Water Intake (Approximate)
  - Cape Fear River

- Notes:**
1. Sediment and surface water samples were collected in May and June 2020. Locations shown are approximate.
  2. Sample IDs shown here are abbreviations (e.g. RM-20-A indicates Cape Fear River Mile 20, location A). See Report for full sample IDs.
  3. The depth at which surface water samples were collected (in feet below water surface) is indicated at the end of the location ID (e.g. RM-77-B-10 was collected 10 feet below the water surface).
  4. City of Fayetteville drinking water intake location is provided by EPA STORAGE and RETRIEVAL (STORET) Data Warehouse. Harnett County drinking water intake location is based on information in Harnett Regional Water's Water Quality Report 2018.
  5. Basemap source provided by ESRI OpenStreetMap contributors, and the GIS User Community.

8 4 0 8 Miles

**Sampling Segments**  
**CFR-RM-149**  
 Chemours Fayetteville Works  
 Fayetteville, North Carolina

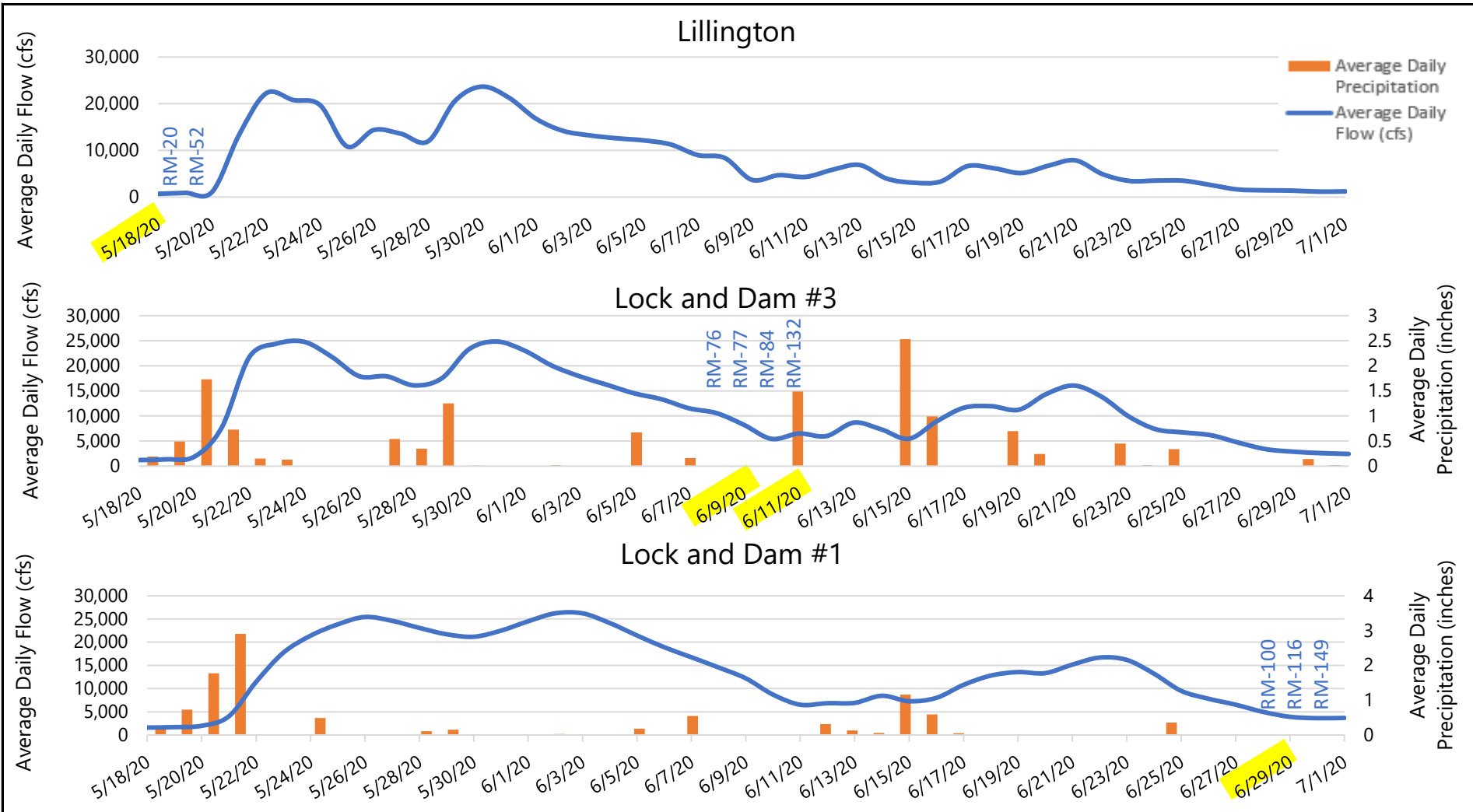
**Geosyntec**  
 consultants

Geosyntec Consultants of NC, P.C.  
 NC License No.: C 3500 and C 295

Raleigh October 2020

**Figure**  
**3h**

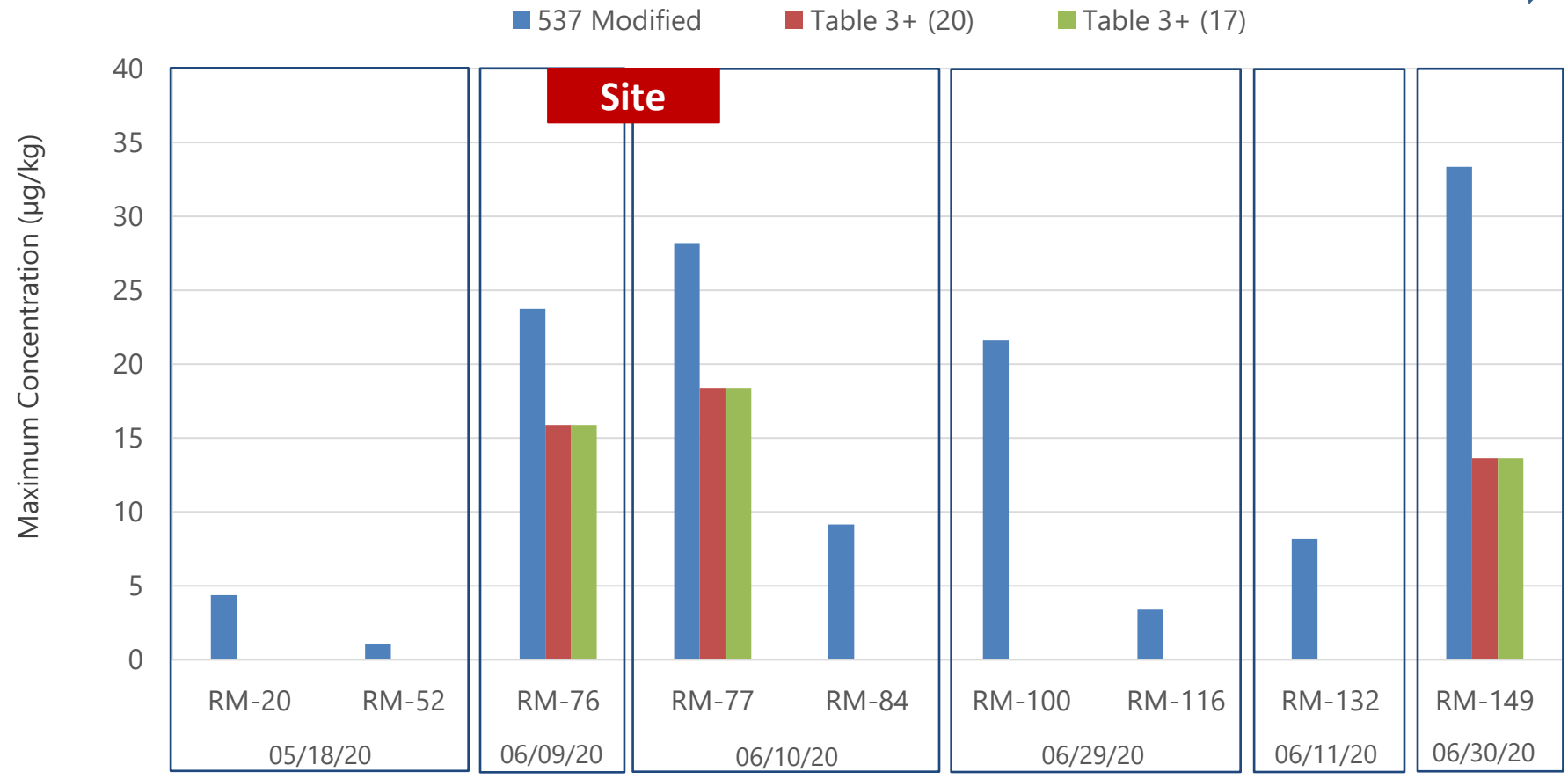
Path: P:\P\Projects\2020\2020\_Sediment Characterization\Workshop\SamplingLocations\_CFR\_AI.mxd; 10/15/2020



**Notes:**

1. cfs- cubic feet per second
2. Figures represent average daily flow and average daily precipitation values. obtained from United States Geological Survey station numbers 2102500 (Lillington), 2105500 (Lock & Dam #3), and 2105769 (Lock & Dam #1).
3. Lock and Dam #3 is also called W.O. Huske Dam.
4. Highlighted dates indicates when sampling activities occurred near the gauge.

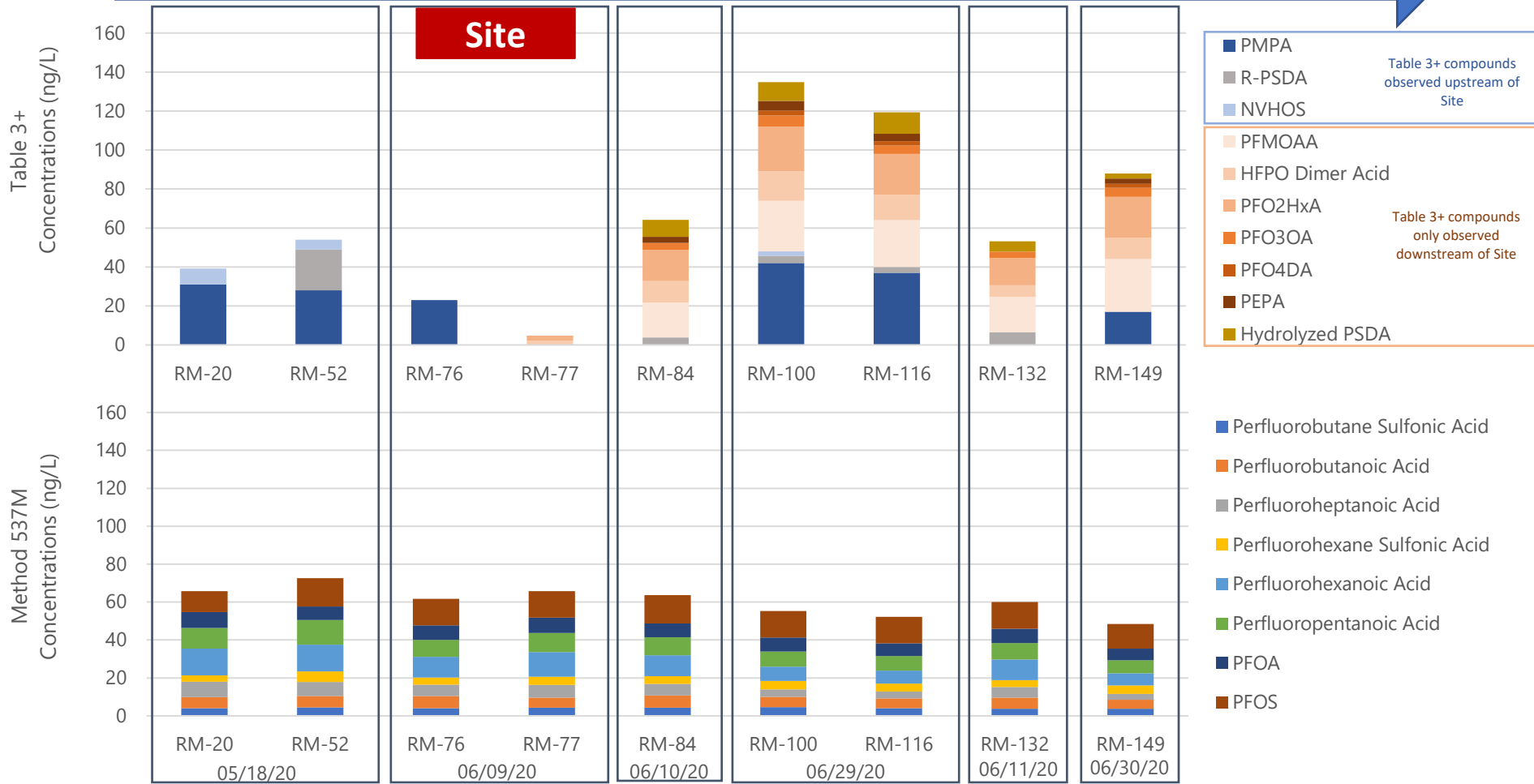
<b>Cape Fear River Flow and Precipitation at Lillington, Lock and Dam #3 and Lock and Dam #1</b> Chemours Fayetteville Works, North Carolina		<b>Figure</b>  4
<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	
Raleigh	October 2020	



**Notes:**

1. µg/kg- micrograms per kilogram
2. "RM-20" notation represents Cape Fear River Mile 20.
3. Bars represent the maximum concentrations of analytes detected above reporting limits from samples collected along a transect at each river mile location (i.e. the individual sample with the highest concentrations for a PFAS grouping in a transect is plotted here).
4. Date of sample collection is indicated underneath location labels.
5. The Site is located approximately between River Miles 76 and 77.
6. Samples with concentrations not detected above the reporting limit are not shown.

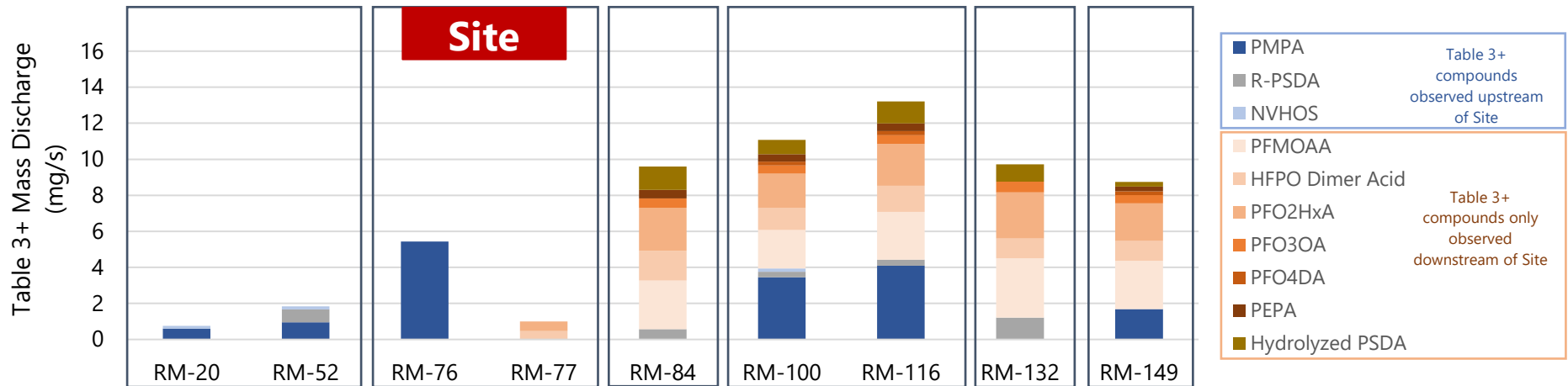
<b>PFAS Compounds Detected in Sediment above Reporting Limits</b> The Chemours Company, FC, LLC.	
	<small>Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295</small>
Raleigh	October 2020
<b>Figure 5</b>	



**Notes:**

1. ng/L: nanograms per liter
2. "RM-20" notation represents Cape Fear River Mile 20.
3. Bars represent the maximum concentrations of analytes detected above reporting limits from samples collected along a transect at each river mile location.
4. Date of sample collection is indicated underneath location labels.
5. The Site is located approximately between River Miles 76 and 77.
6. Samples with concentrations not detected above the reporting limit are not shown.

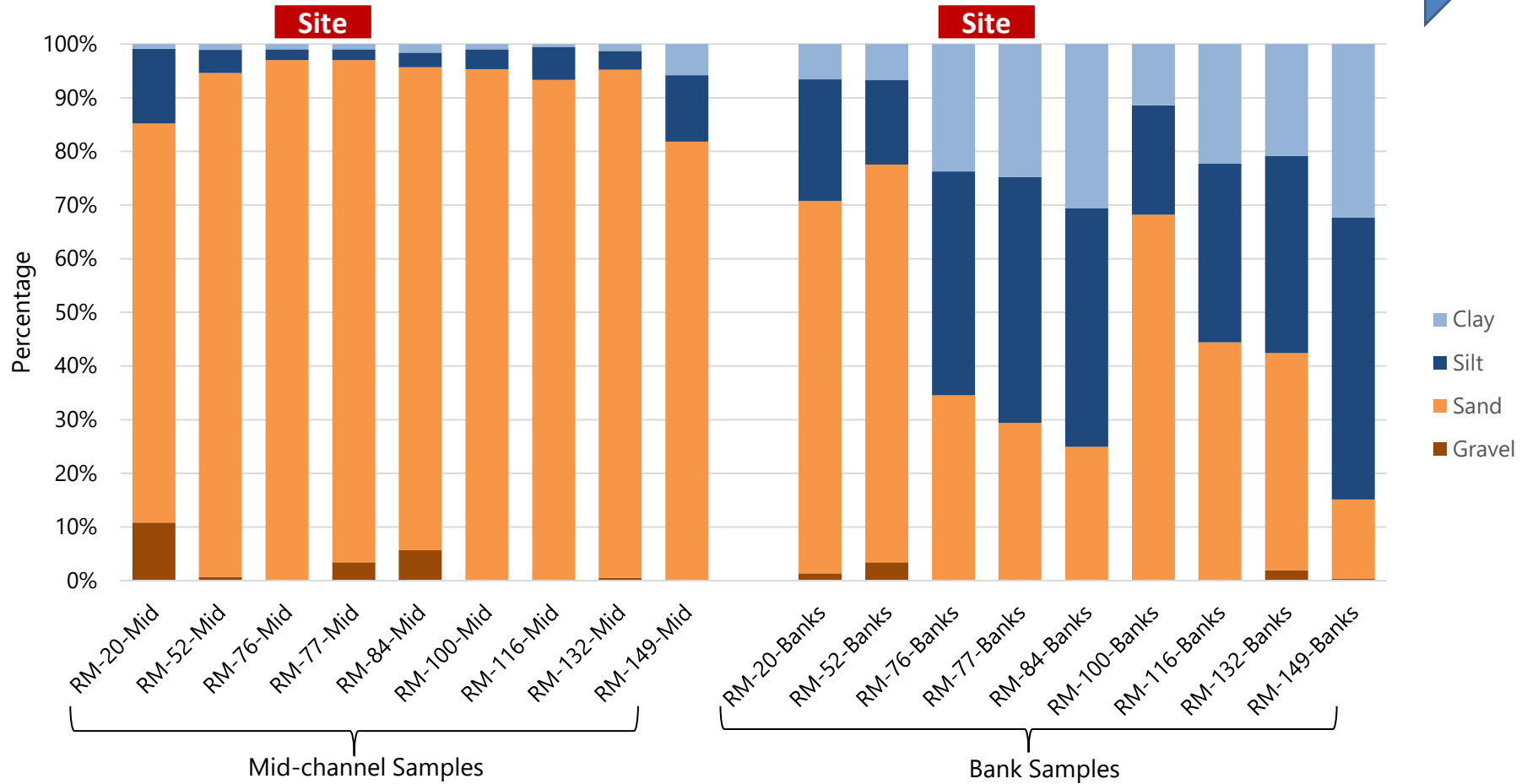
<b>PFAS Analytes Detected in Surface Water above Reporting Limits</b> The Chemours Company, FC, LLC.		<b>Figure 6a</b>
	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	
Raleigh	October 2020	



**Notes:**

1. mg/s: milligrams per second
2. "RM-20" notation represents Cape Fear River Mile 20.
3. Bars represent the maximum concentrations of analytes detected above reporting limits from samples collected along a transect at each river mile location
4. Date of sample collection is indicated underneath location labels.
5. The Site is located approximately between River Miles 76 and 77.
6. Samples with concentrations not detected above the reporting limit are not shown.

<b>PFAS Mass Discharge for Analytes Detected in Surface Water above Reporting Limits</b> The Chemours Company, FC, LLC.	
<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295
Raleigh	October 2020
<b>Figure 6b</b>	

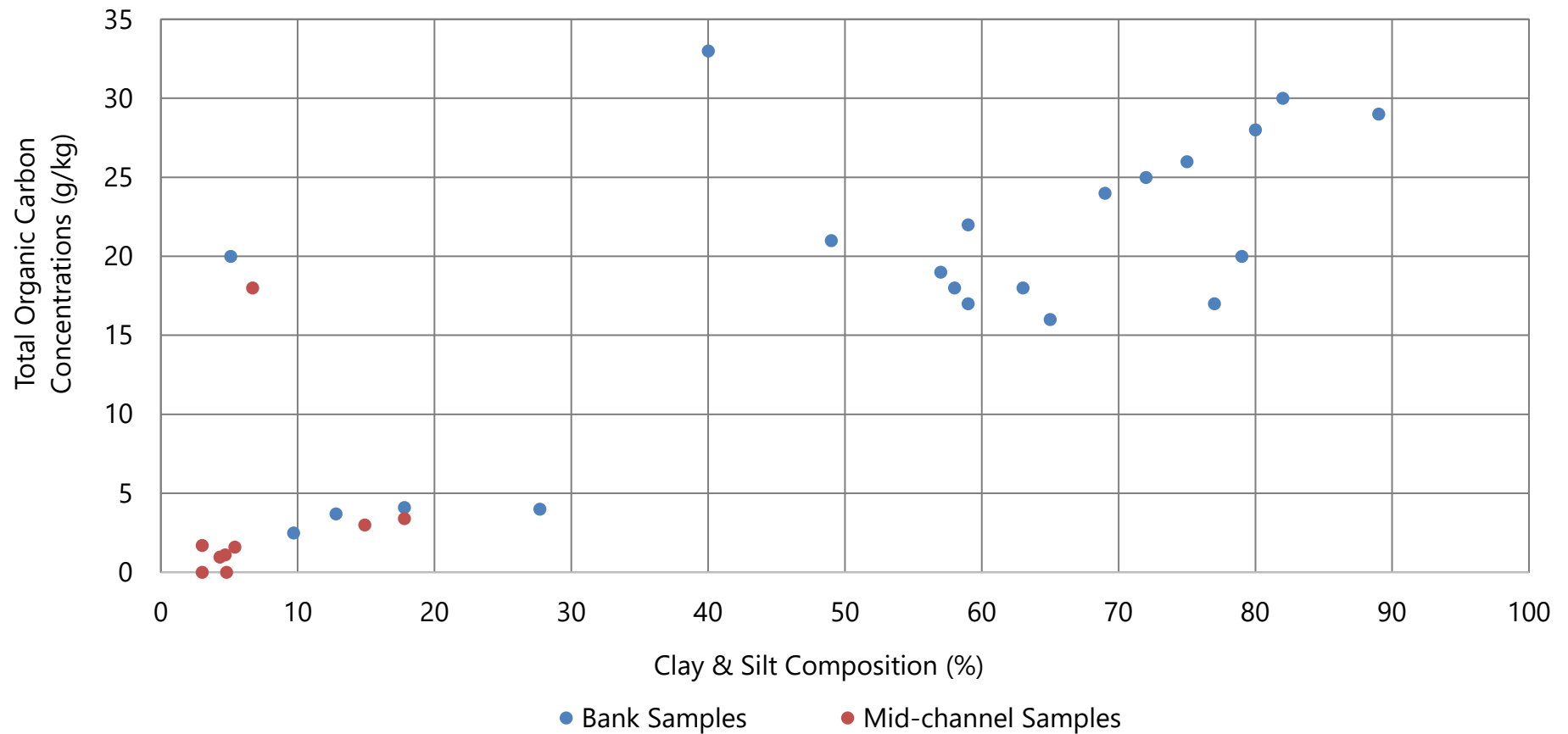


**Notes:**

1. Naming convention follows format River Mile, Sample Location, eg, "RM-20-Mid" notation represents Cape Fear River Mile 20, middle channel sample.
2. "Banks" - Represents an average of the results from samples collected along the riverbanks.
3. The Site is located approximately between River Miles 76 and 77.


<b>Sediment Grain Size Distribution</b> The Chemours Company, FC, LLC.		<b>Figure</b>  <b>7a</b>
	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	
Raleigh	October 2020	

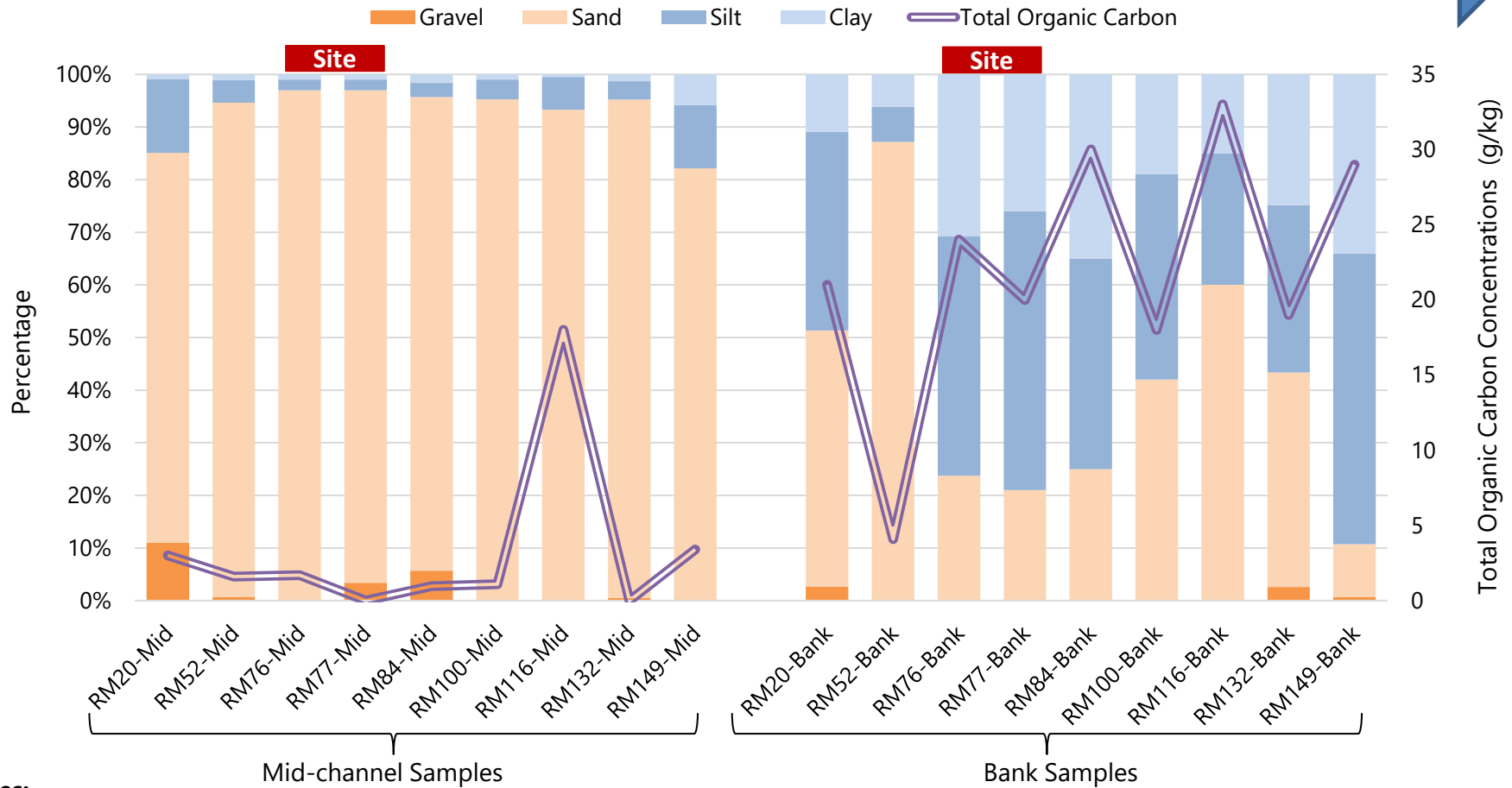




**Notes:**

1. g/kg - grams per kilogram
2. % indicates percentage
3. TOC - Total Organic Carbon
4. Clay and Silt composition indicates total percent of sample comprised of clay+silt fractions.

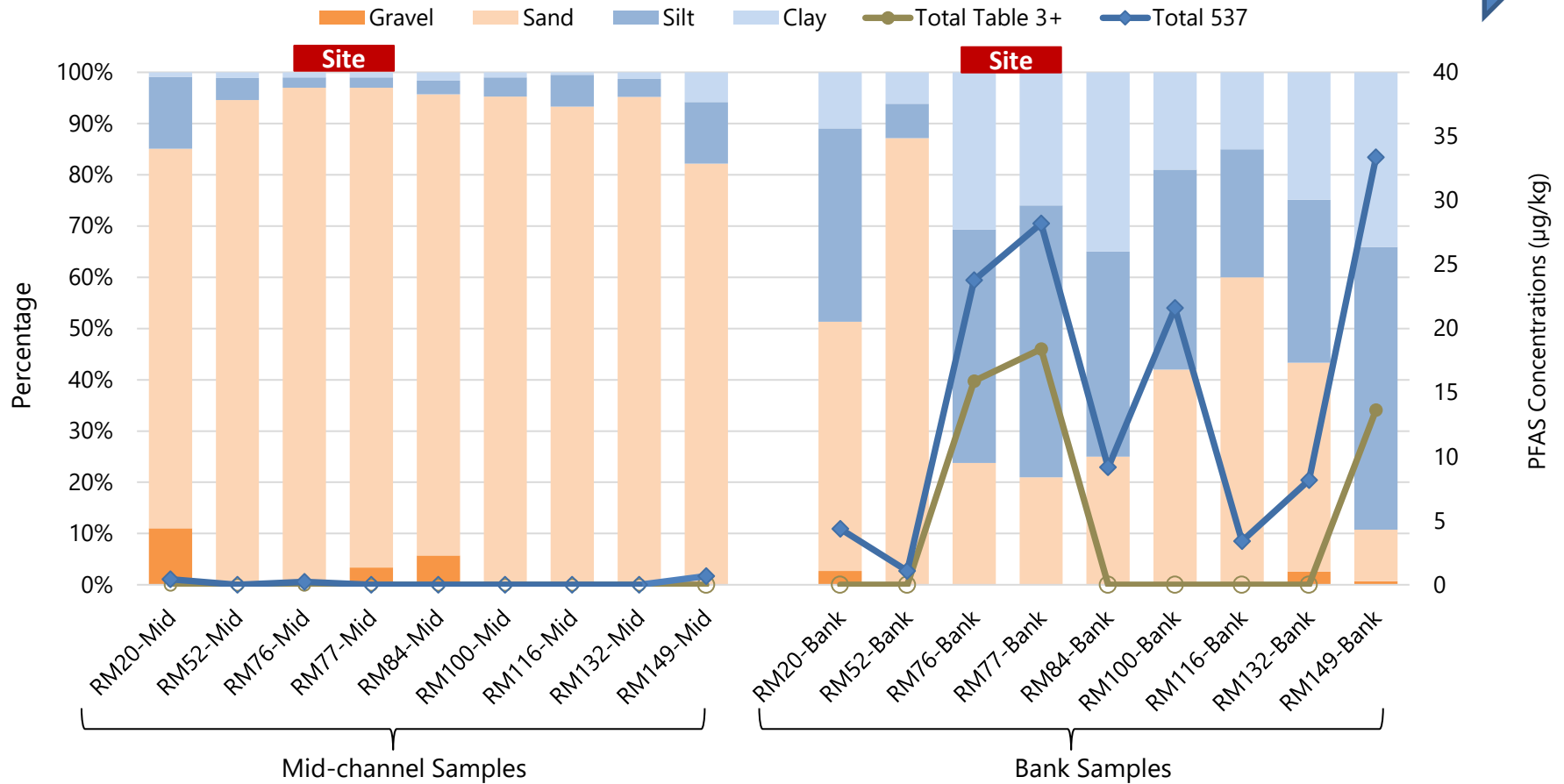
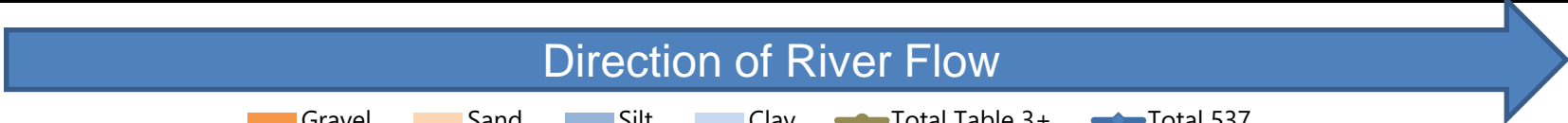
<b>Correlation between TOC, Clay, and Silt in Bank and Mid-channel Samples</b> The Chemours Company, FC, LLC.	
	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295
Raleigh	October 2020
<b>Figure 7b</b>	



**Notes:**

1. g/kg- grams per kilogram
2. TOC - Total Organic Carbon
3. Naming convention follows format River Mile, Sample Location, eg, "RM-20-Mid" notation represents Cape Fear River Mile 20, middle channel sample.
4. Bars are separated by middle channel samples and the maximum TOC and PFAS concentrations between samples collected from the banks of a transect.
5. The Site is located approximately between River Miles 76 and 77.
6. Samples with concentrations not detected above the reporting limit are not shown.

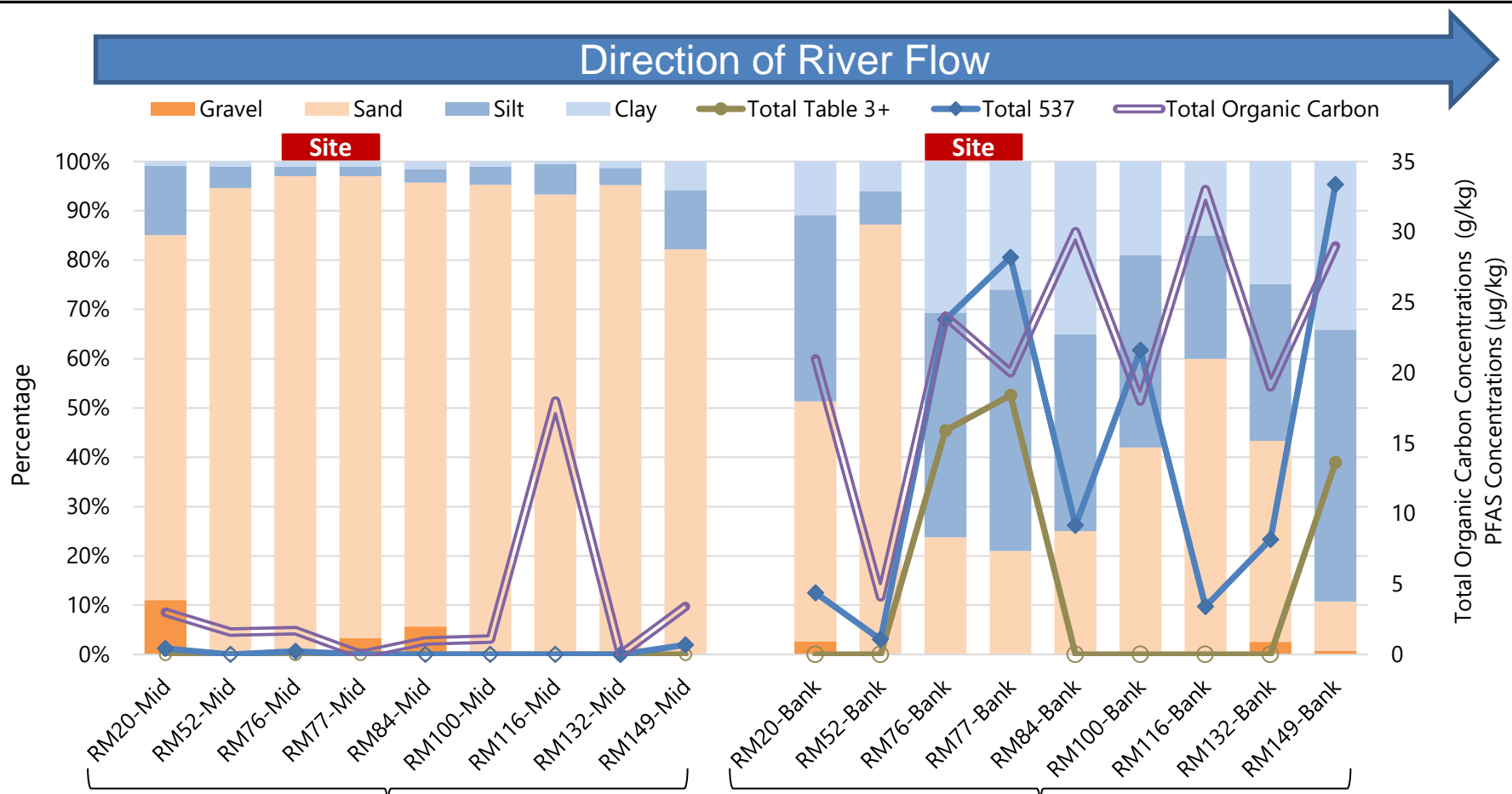
<b>Sediment Grain Size and TOC Data</b> The Chemours Company, FC, LLC.		<b>Figure</b>  7c
<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	
Raleigh	October 2020	



**Notes:**

1. µg/kg- micrograms per kilogram
2. Naming convention follows format River Mile, Sample Location, eg, "RM-20-Mid" notation represents Cape Fear River Mile 20, middle channel sample.
3. Bars are separated by middle channel samples and the maximum PFAS concentrations between samples collected from the banks of a transect.
4. The Site is located approximately between River Miles 76 and 77.
5. Non-detect values are assigned a value of zero for the summation of Table 3+ and 537M data. Where all compounds were not detected above reporting limits in a sample, results are plotted as zero with open symbols. See tables for reporting limits.

<b>Sediment Grain Size and PFAS Data</b> The Chemours Company, FC, LLC.		<b>Figure</b>  <b>7d</b>
Raleigh	October 2020	

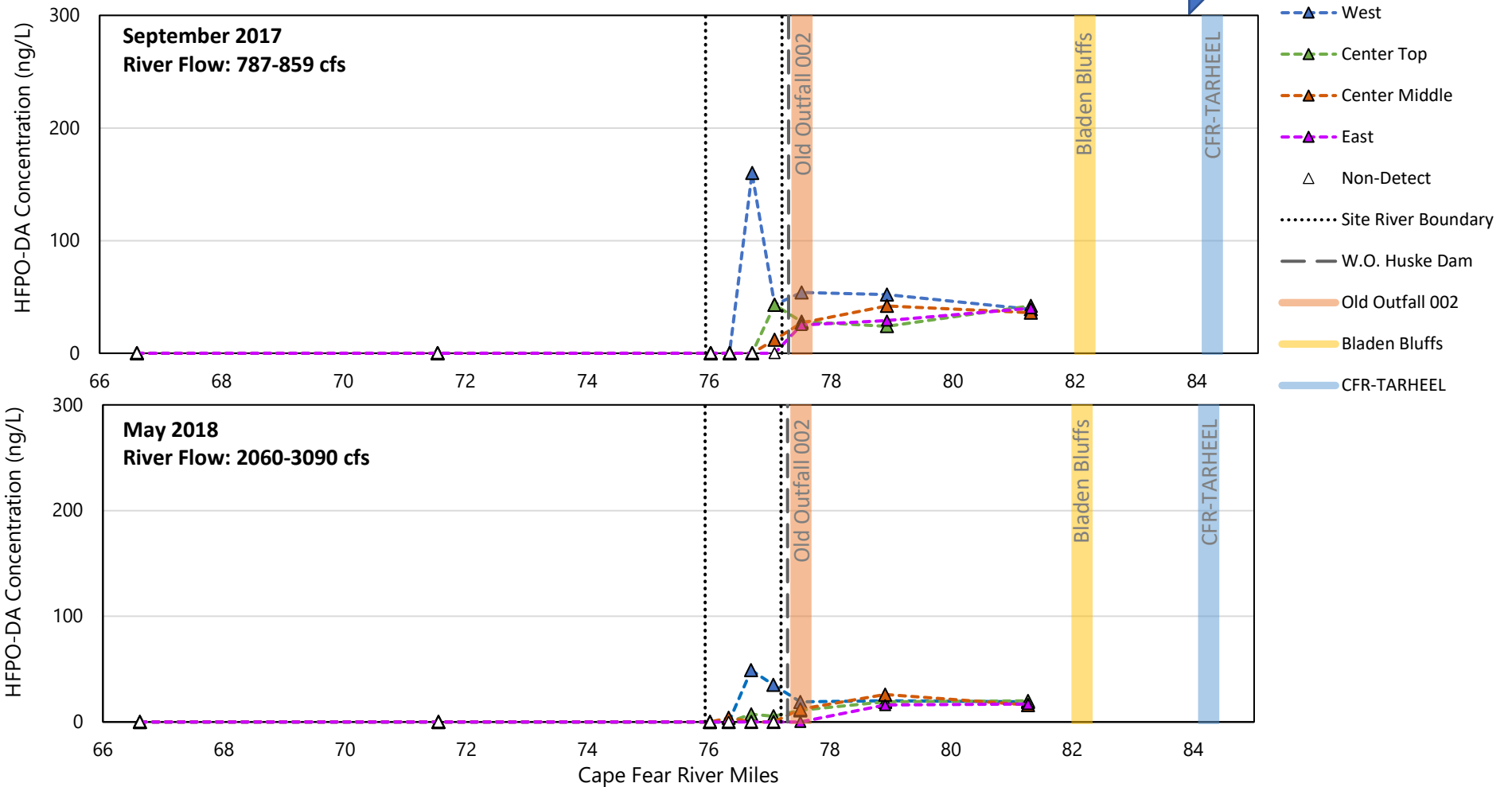


**Notes:**

1. g/kg - grams per kilogram
2. µg/kg - micrograms per kilogram
3. TOC - Total Organic Carbon
4. Naming convention follows format River Mile, Sample Location, eg, "RM-20-Mid" notation represents Cape Fear River Mile 20, middle channel sample.
5. Bars are separated by middle channel samples and the maximum TOC and PFAS concentrations between samples collected from the banks of a transect.
6. The Site is located approximately between River Miles 76 and 77.
7. Non-detect values are assigned a value of zero for the summation of Table 3+ and 537M data. Where all compounds were not detected above reporting limits in a sample, results are plotted as zero with open symbols. See tables for reporting limits.

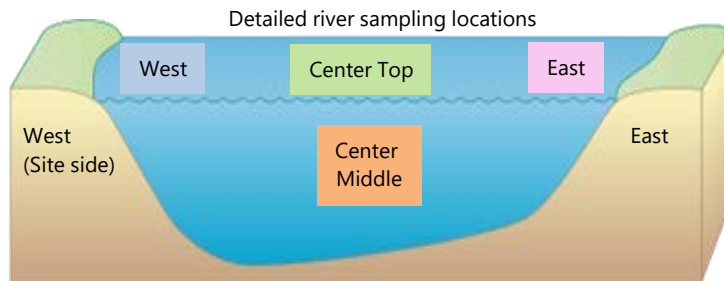
<b>Sediment Grain Size, TOC, and PFAS Data</b> The Chemours Company, FC, LLC.		<b>Figure</b>  7e
<b>Geosyntec</b> consultants	Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295	
Raleigh	October 2020	

Direction of River Flow



**Notes:**

1. cfs - cubic feet per second
2. ng/L - Nanograms per liter
3. HFPO-DA - Hexafluoropropylene Oxide Dimer Acid
4. Non-detects were assigned a value of zero for plotting purposes.



**River Mixing Profiles and HFPO-DA Plots**  
The Chemours Company, FC, LLC.

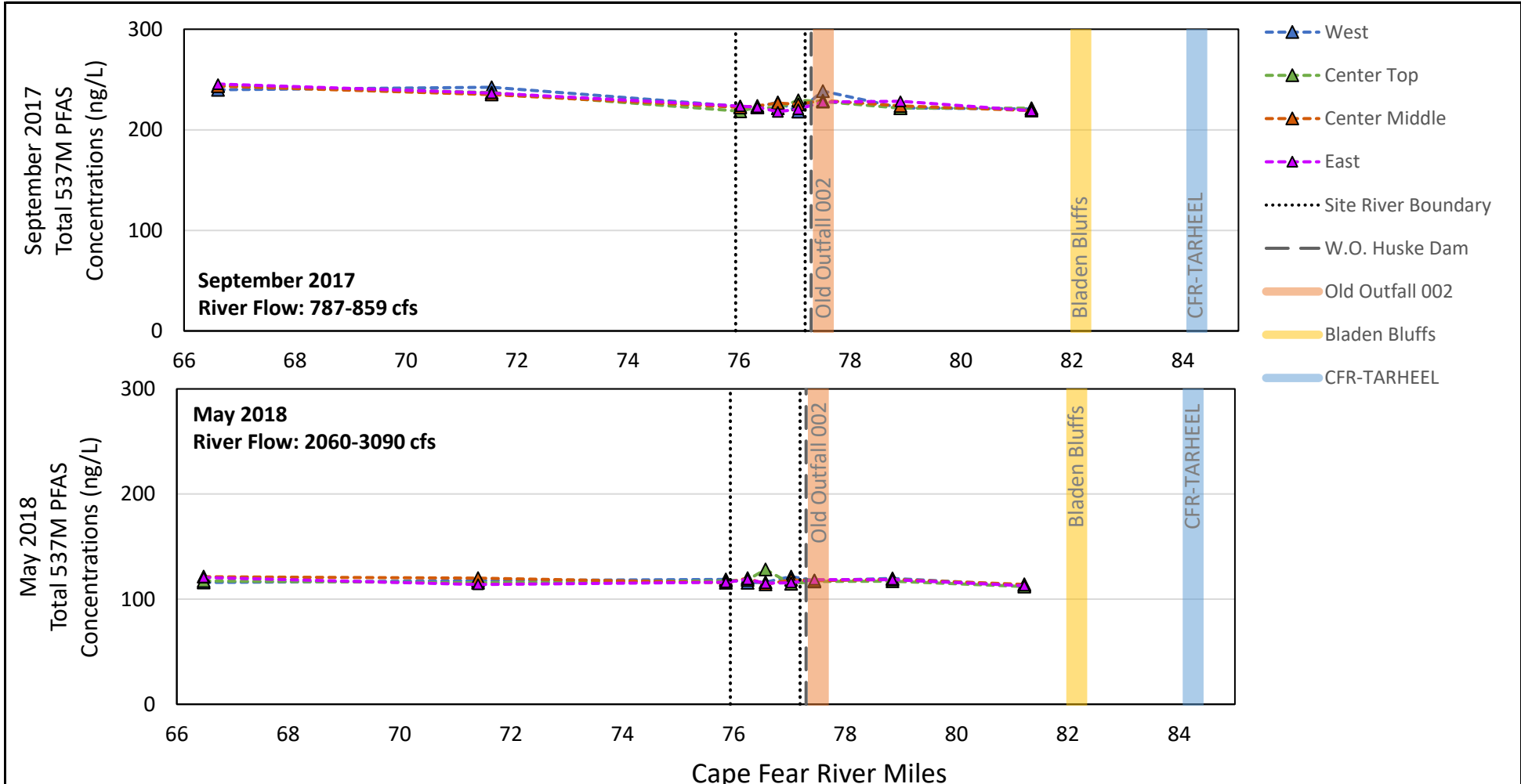
**Geosyntec**  
consultants

Geosyntec Consultants of NC, P.C.  
NC License No.: C 3500 and C 295

**Figure**  
**8**

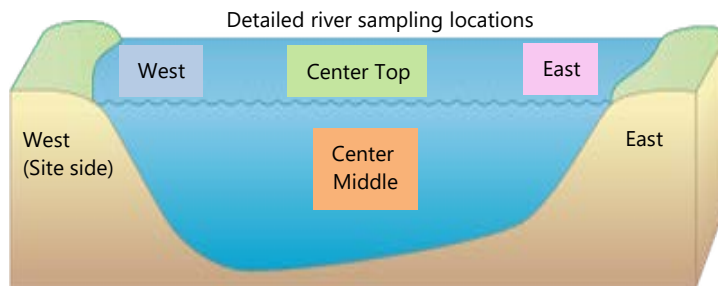
Raleigh

October 2020



**Notes:**

- 1. cfs - cubic feet per second
- 2. ng/L - nanograms per liter



<b>River Mixing Profiles and PFAS Plots</b> The Chemours Company, FC, LLC.		<b>Figure</b>  9
<b>Geosyntec</b> consultants	<small>Geosyntec Consultants of NC, P.C. NC License No.: C 3500 and C 295</small>	
Raleigh	October 2020	

# APPENDIX A

## Field Forms

**Daily Field Report**

Project Name: <u>SEDIMENT CHEMISTRY</u>	Date: <u>5.19.20</u>	Page <u>1</u> of <u>2</u>
Project Number: <u>TR0795</u>	Primary Activities: <u>sediment, surface water sampling</u>	
Field Personnel: <u>L. wellborn, S. Volkoff</u>	Recorded By: <u>S. VOLKOFF</u>	
Weather: <u>overcast, 70°F</u>		

Time	Description of Activities
0845	S VOLKOFF @ 1122 Person St., Fayetteville, NC 70°F, overcast, chance of rain & thunderstorms
0855	L WELBORN arrived on-site
0922	PARSONS TEAM ARRIVED KEN STUART, Charles Palle, Charles (Luke) Tart
0930	Tailgate Safety Mtg
1000	Equipment Blank 051820
1015	NOTE to purchase aluminum foil tonight for decan
1020	ONBOARD BOAT, mob to RM-52.
1110	Attempt to locate transect @ RM52; no fines detected / observed Relocated
1145	Upstream; P bank no fines observed 59.33 oz. sieve 129.4 oz. test sample 70.1 oz. 14 oz. is goal to lose for 20% fines 73.5 oz. is goal weight yes, location is good 113.5 oz.
1138	Begin sediment sampling RM-52A 35° 06.457 078° 57.395 W Sample parent ID: <u>FAY-SED-RM52-A-051820</u> MSD : " " " " " - MSD / REP MS : " " " " " - MS REP : " " " " " - REP SV
1251	Equipment decan and anchor @ RM52-C; eastern shore 35° 06.454 N; 078° 51.364 W Time 1300 on bottleware collect sample
1316	Arrive @ RM52-B SW sample only collected @ midpoint Called Matt Vanderkooij to confirm b/c sample water depth is 3.5 feet see change management SV
1345	Collection of SW-RM52-B-1.6 - 051820 collecting 1 sample of SW at this location



**Daily Field Report**

Project Name: <u>chemours</u>	Date: <u>05.18.20</u>	Page <u>2</u> of <u>2</u>
Project Number: <u>TR 8795</u>	Primary Activities: <u>sediment &amp; surface water collection</u>	
Field Personnel: <u>Lwulburn Volkoff CPace K Stuart</u>		
Recorded By: <u>S Volkoff</u>		
Weather: <u>overcast, 70's</u>		

Time	Description of Activities
	SW-RM52-B-1.6 - 051820 - MS
	" " -MSD/REP
	" " -DUP
1400	Collecting SED-RM52-B-051820 ; middle of river decon equipment coordinates: <u>35° 06.449 N</u> <u>078° 51.384 W</u>
1426	Mob back to 1122 Person St. boat ramp
1509	OFF RIVER Mob to Wilderness Rd. RM20 sampling
1629	ON RIVER @ RM20.
1639	Sieve 59 oz
1645	Begin fines evaluation @ RM20-C (eastern shore location). water depth generally very shallow (3-4 feet). Attempt #1, no sediment <del>was</del> recovered after 6 attempts. Relocate downstream. Very rocky. Very shallow. Found sediment deposit opposite shore of dock.
1730	Mob to location RM-20-B
1745	SW collection <u>FAY-SW-RM20-B-6.7 - 051820</u>
1800	<u>FAY-SW-RM20-B-12 - 051820</u>
1840	<u>FAY-SED-RM20-B-051820</u> collection w/ponar did not fill #2 of 8oz jars b/c low material quantity
1900	mob to RM20-A collect <u>FAY-SED-RM20-A - 051820</u>
1700	Trip blank collected by Charles Pace (Parsons)  OFF RIVER
1055	Field blank collected by Luke Tart (Parsons)

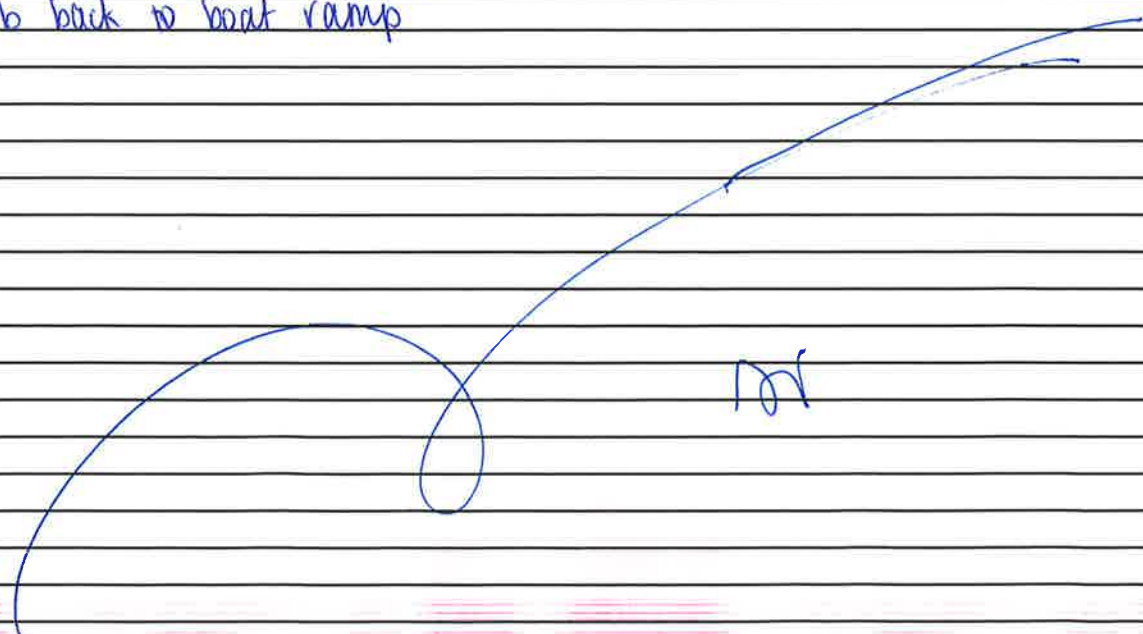
Daily Field Report

Project Name: Sediment Characterization Date: 01-09-20 Page 1 of 2  
 Project Number: TR0795  
 Field Personnel: S. Volkoff, CB, LT Primary Activities: sediment + surface water (SW) sampling  
 Recorded By: SV  
 Weather: wettest to sunny afternoon

Time	Description of Activities
	SV = Savannah Volkoff (Geo) LT = Luke Tart <del>KS = Ken Stuart (Parsons) - SV</del> Curt Burdoff = CB
715	Arrive at 2487 Wilmington St. boat ramp for CFR 76-77
0730	Collect EQBLK-2060920 on ponar
0730	Safety Tailgate Mtg
0730	DI Switched to lab-provided and used for EQBLK-2
0806	Boat in-water
0825	Leaving dock to CFR 76-77
0908	Dock for CFR-76A trial location & looking for fines start 116g sieve sieve + sed = 196g $- 30g \times 0.2 = 6g$ $= 24g$ is goal wt for 20% fines <del>or 172g at scale SV</del> scale = 182g $182 - 116g = 66g$ which is less than goal 24g
0930	Collect FAY-SED-RM76-A-060920 also collected FAY-SED-RM76-A-060920-REP " FAY-SED-RM76-A-060920-MS
1015	collect FAY-SED-RM76-A-060920-PT with push tube: composite of 3 grabs coordinates: 34°N 51'10" 076°W 49'628"
1120	mob to shore crew to drop off samples & get more bottleware
1130	mob to RM-76 again for B/C collections
1138	arrive @ RM76-B for SW & sediment grab w/ ponar DTB river: 24.6' collect <del>FAY-SW-RM76-B-060920</del> SV
1200	FAY-SW-RM76-21-060920 21' down
1230	FAY-SW-RM76-13-060920 13' down MS and Rep collected at FAY-SW-RM76-21-060920 Rep " " " - 21-060920 MS
1345	collect FAY-SED-RM76-B-060920 with ponar coordinates: 34°N 51'09.5" 078°W 49'600"

## Daily Field Report

Project Name: <u>sediment characterization</u>	Date: <u>06-09-20</u>	Page <u>2</u> of <u>2</u>
Project Number: <u>TR0795</u>	Primary Activities: <u>sediment + SW (sw) sampling</u>	
Field Personnel: <u>SV, CB, LT</u>	Recorded By: <u>SV</u>	
Weather: <u>sunny 85° afternoon</u>		

Time	Description of Activities
	SV = Savannah Volkoff (Geo) LT = Luke Tert (Parsons) <del>KS = Ken Strickland (Parsons)</del> SV CB = Curt Burdoff (Parsons)
1430	mob to RM76-C
1445	collect sediment with pmar @ <u>FAY-SED-RM76-C-060920</u> coordinates <u>34°N 51°103"</u> , <u>078°W 49°581"</u>
1500	mob to RM-77 to scout locations for tomorrow
1521	@ potential RM77-A sieve = 166g sieve + sed = 192g = 26g sample • 0.2 = 5.2g = 20.8 goal sample
1545	collect <u>FAY-SW-RM77</u> in middle of river samples 20.5 DTB goal 18' and 10' (middle) <u>FAY-SW-RM77-18-060920</u> <u>FAY-SW-RM77-10-060920</u>
1700	mob back to boat ramp
	

**Daily Field Report**

Project Name: <u>sediment characterization</u>	Date: <u>6/10/20</u>	Page <u>1</u> of <u>2</u>
Project Number: <u>TR0795</u>		
Field Personnel: <u>S Volkoff, CB, LT</u>	Primary Activities: <u>sediment + surface water (SW) sampling</u>	
Recorded By: <u>SV</u>		
Weather: <u>NEWCAST, 80°F</u>		

Time	Description of Activities
	SV = Savannah Volkoff (Geo) LT = Luke Tart (Parsons) <del>KE = Ken Stuck (Parsons) CB = Clint Burdorf (Parsons)</del>
0045	Arrive @ boat launch 2487 Wilmington Rd, Fayetteville, NC
0700	in water, en route to RM 77
0750	Arrive @ RM-77 A
0800	collect <u>FAY-SED-RM77-A-061020</u> w/ ponar coordinates <u>34°N 50'30S" 78°W 49'42E"</u>
0825	charles pad called - changing SW from <u>v-9-20</u> collection to include "B" before sampling depth ie. <u>FAY-SW-RM77-B-10-060920</u>
0830	mob to <u>RM-77 C</u>
0845	collect w/ ponar <u>FAY-SED-RM77-C-061020</u> coordinates <u>34°N 50'30S" 78°W 49'36E"</u>
0900	collect <u>FAY-SED-RM77-B-061020</u> w/ ponar coordinates <u>34°N 50'30S" 78°W 49'39E"</u>
0922	mob to dock/boat launch
1000	Arrive @ boat launch
1021	mob to Tar Heel Boat Ramp
1100	Arrive @ Tar Heel Boat Ramp for RM84 field recon and potential SW/sed sampling, weather dependent.
1215	boat in water @ Tar Heel
1230	Arrive @ <u>RM84-C</u> sieve for 20% fines sieve = 166g sieve + Sed = 201g Sed = 35g * 0.2 = 7g 188g - 116g = 72g      35 - 7 = 28g goal therefore, site has at least 20% fines
1230	collect <u>FAY-SED-RM84-C-061020</u> w/ ponar
1315	collect w/ push tube <u>FAY-SED-RM84-C-061020-PT</u> coordinates = <u>34°N 36'35S" 78°W 47'80E"</u>
1345	mob to <u>RM-84 B</u> coordinates <u>34°N 46'33S" 78°W 47'88E"</u> DTB 20' collect @ 18' and 10' SW samples



**Daily Field Report**

Project Name: <u>Sediment characterization</u>	Date: <u>06/11/20</u>	Page <u>1</u> of <u>2</u>
Project Number: <u>TR0795</u>	Primary Activities: <u>sediment and surface water sampling</u>	
Field Personnel: <u>SV, CB, LT</u>		
Recorded By: <u>SV</u>		
Weather: <u>overcast, 90°F</u>		

Time	Description of Activities
	SV = SAVANNAH VOLKOFF      LT = Luke TART CB = Curt Burdorf
0800	Arrive @ Elwell Ferry for CFR RM-132 sampling
0840	mob to RM132
0900	Arrive @ RM-132 A
	sieve = 166g      SV
	sieve + sed = 180g
	sed = 14g $\times 0.2 = 2.8g$ goal = 11.2g sample
	w/ sieve + sed post =
	NEW: sieve fell over
	sieve = 172g
	sieve + sed = 187g
	sed = 15g $\times 0.2 = 3g$ goal = 12g
	w/ post-sieving = 179g - sieve = 7g therefore <del>20%</del> <sup>SV</sup> fines
	coordinates: $34^{\circ}N 24.373$ $78^{\circ}W 17.705$
0922	mob to RM132-B to collect SW samples at base flow before possible rain
0945	collect FAY-SW-RM132-B-10' - 061120      DTB: 12' FAY-SW-RM132-B-6' - 061120-MS FAY-SW-RM132-B-6' - 061120-Rep FAY-SW-RM132-B-6' - 061120
	coordinates: $34^{\circ}N 24.389$ $78^{\circ}W 17.682$
	NOTE: for parent FAY-SW-RM132-B-6-061120 there was no unpreserved amber bottle; only 2 w/ sulfuric acid for TOC; no DOC bottleware; maybe take from Rep / MS
1115	Collect FAY-SED-RM132-B-061120 w/panax same coord as SW
1130	mob to RM132-A
1145	collect w/panax FAY-SED-RM132-A-061120 " " " A - " - MS " " " A - " - MSD
	coordinates = $34^{\circ}N 24.382$ $78^{\circ}W 17.712$ DTB: 3.9'
1210	mob to RM132-C

**Daily Field Report**

Project Name: Sediment characterization  
 Project Number: TR0795  
 Field Personnel: SV, CB, LT

Date: 08/11/20 Page 2 of 2

Primary Activities: sediment + surface water sampling

Recorded By: SV  
 Weather: overcast, 80°F, breeze

Time	Description of Activities
	SV = SAVANNAH WALKOFF      LT = Luke TART (PARSONS) CB = Curt Burdort (PARSONS)
1230	collect TAN-SED-RM132-C-081120 w/ ponar DTB = 3.1'
1245	coord: 34°N 24.413, 78°W 17.663
1300	mob to boat launch
1600	EQBLK-4-081120 collected

**Daily Field Report**

Project Name: <u>Sediment characterization</u>	Date: <u>06-29-20</u>	Page <u>1</u> of <u>2</u>
Project Number: <u>TR0795</u>	Primary Activities: <u>sediment + surface water sampling</u>	
Field Personnel: <u>SV, LT, CP</u>	Recorded By: <u>SV</u>	
Weather: <u>74°F, overcast</u>		

Time	Description of Activities
	SV = Savannah Volkoff CP = Charles Pace (Parsons) LT = Luke Tart (Parsons)
0730	Arrive @ Lock & Dam #2 for CFR-RM-100 and RM-116
0745	Safety tailgate mtg
0830	Arrive RM-100 @ sieve (dry) = 167.6g wets = 170.9g sample = 183.4g or 12.5g 20% of 12.5g = 2.5g need sample to weigh 10.5 or less after sieving post-sieve wt = 175g or 5g yes 20% fines here DTB = 2.5H Coords = 34°37.690N 78°33.737W collect <u>FAY-SED-RM100-C-062920</u> and 2 jars for DEQ " " " " -MS " " " " -MSD/REP
0915	mob to FAY RM100 B DTB = 19.5' collect SW @ 17' and 9.5' + MS and Rep and DEQ (at both loc) @ 9.5' FAY-SW-RM100-B-17-062920 " " " " -9.5-062920 " " " " -MS " " " " -Rep
1000	<del>attempt</del> FAY-SED-RM100-B-062920 and 2 jars for DEQ coords: 34°37.674N 78°33.727W DTB = 19.5' 2 attempts and no sediment Relocate to collect RM100B sediment coords: 34°37.663N, 78°33.745W DTB: 10.9'
1045	collect FAY-SED-RM100-A-062920 DTB: 3' coords: 34°37.654N, 78°33.710W



**Daily Field Report**

Project Name: <u>Sediment Characterization</u>	Date: <u>06-29-20</u>	Page <u>2</u> of <u>2</u>
Project Number: <u>TR0795</u>		
Field Personnel: <u>SV, CP, LT</u>	Primary Activities: <u>sediment + surface water (sw) sampling</u>	
Recorded By: <u>SV</u>		
Weather: <u>Sunny 80°F+</u>		

Time	Description of Activities
	SV = SAVANNAH VOLKOFF CP = CHARLIE PACE LT = LUKE TAYLOR
1200	Mob to launch for more bottleware
1210	Mob to RM116
1245	Arrive at RM116- <del>A</del> to check for 20% fines wet sieve: 170g sample: 190g ∴ 20g 20% of 20g = 4g sample must be 11g or less post-sieve: 183g = 13g; therefore yes 20% is met coordinates: 34° 32.070' N; 78° 26.346' W DTB = 2.3'
<del>1300</del>	@ 1300 collect FAY-SED-RM116-C-062920
1315	Mob to 116-B middle river DTB = 15' collect SW @ 13' ft and 7.5 ft coordinates: 34° N 32.059, 78° 26.369 W
1400	collect at FAY-SED-RM116-B-062920 DTB = 15' coords: 34° 32.062 N, 78° 26.369 W
1500	collect FAY-SED-RM116-A-062920 DTB = 2' coords: 34° 32.104 N, 78° 26.395 W change management form; used stainless steel scoop instead of plex because impenetrable to plex and not good access for push tube
1600	Mob back to launch off-water
	SV

**Daily Field Report**

Project Name: <u>Sediment Characterization</u>	Date: <u>06-30-20</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>TR0795</u>	Primary Activities: <u>sediment + surface water (sw) sampling</u>	
Field Personnel: <u>SV, CP, LT</u>	Recorded By: <u>SV</u>	
Weather: <u>70°F, overcast</u>		

Time	Description of Activities
	SV = Savannah Volkoff      LT = Luke Tart (Parsons) CP = Charles Pace (Parsons)
0615	Arrive @ Lock & Dam # 1 for RM 149 sampling
0630	Safety Tailgate Mtg
0730	Arrive @ RM-149 and perform field reconn for sampling locations call LW about depth of 2ft and collecting one SW sample
0750	mob to C-side → 149-C Sieve (wet) = 171g Sample = 183g = 12g 20% of 12g = 2.4g; sieved sample must weigh 9.6g or less to be 20% fines post sieve = 172g = 1g therefore, yes, 20% fines
0800	collect w/ panar <u>FAY-SED-RM149-C-063020</u> + 2 DEQ DTB = 1.8' , coords: 34° 21.131 N 78° 05.057 W
	-MS -Rep -DUP
0815	collect w/ push mbe <u>FAY-SED-RM149-C-063020-PT</u> 4 composite grab samples ranging from 3-6" total penetration + 2 DEQ samples
0900	mob to 149-B confirmation from LW that 1 SW collection is okay because of shallow waters
0930	collect <u>FAY-SW-RM149-B-1.5-063020</u> and 2 extra for NEO DTB = 2.5' collect only one height sample collect MS and Rep SW samples
1000	collect w/ panar <u>FAY-SED-RM149-B-063020</u> DTB = 2.5' coords: 34° 21.124 N , 78° 05.046 W
1130	mob to RM149-A
1145	collect w/ panar <u>FAY-SED-RM149-A-063020</u> DTB = 2.9' coords: 34° 21.115 N , 78° 05.033 W
1345	<u>EQBLK-6-063020</u> collected

SV

GPS Location Code: _____	Sampling Personnel: w/sv Ken Stuart Charles Pace
Sampling Time: <u>1900</u>	
Weather Conditions: <u>overcast, 70°</u>	

Sample Depth: 0-6"

Sampling Method: Hand Sample  Ponar Other: \_\_\_\_\_

Total Penetration: 4" Water Depth (ft): 1.5'

Sediment Description: FAY-SED-RMA-0518-20

Color: dark brown

Texture: slaty sand; smaller grain size

Cohesiveness: slight cohesiveness

Biological Structures: none

Debris: leaf litter, some

Sheen/Odor: no sheen, no odor

Other: \_\_\_\_\_

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
			SV

Additional Comments

See COC for analyses

35° 23.866 N  
078° 46.431 W

GPS Location Code: <u>82</u>	Sampling Personnel: <u>w/sv Charles Pace</u>
Sampling Time: <u>1845</u>	<u>Ken Stuart</u>
Weather Conditions: <u>overcast 70c</u>	

Sample Depth: 0-6"

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration: < 1" Water Depth (ft): 15.4'

Sediment Description: FAY-SED-RM20B-051820

Color: sand med brown - light brown

Texture: sand with medium/coarse grain size

Cohesiveness: not cohesive

Biological Structures: clams, beetle

Debris: leaf litter

Sheen/Odor: no sheen, no odor

Other: \_\_\_\_\_

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
[Signature]			<u>SV</u>

Additional Comments

See COC for analyses

35° 23.888 N  
078° 46.401 W

GPS Location Code: _____	Sampling Personnel:
Sampling Time: <u>1650</u>	<u>SV, LW (Geo)</u>
Weather Conditions: <u>cloudy, 80F</u>	<u>Ken Stuart, Charles Pace (Parsons)</u>

Sample Depth: target 2-6"

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration: 4" Water Depth (ft): 2.6 fsw  
~~5.5 ft.~~

**Sediment Description:**

Color: dark brown

Texture: clayey silt, Wet.

Cohesiveness: mild

Biological Structures: leaf litter

Debris: sticks

Sheen/Odor: no sheen, odor

Other: nil

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
<del>_____</del>	<del>_____</del>	<del>_____</del>	<u>fsw</u>
<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>

**Additional Comments**

See COC for analyses

Fines:  
 before sieve = 82 oz.  
 - sieve 59 oz  
23 oz × 20% = 4.6 oz  
 + 59 = 77.4 oz (goal for 20% fines)

1st attempt: 35° 23.906 N  
 078° 46.429 W

2nd attempt: 35° 23.906 N  
 078° 46.394 W

after sieve:  
 sed + sieve = 73.1 ; sed = 14.1 oz (1 -  $\frac{14}{23}$ ) = 39% fines.  
 at least 39% fines.

GPS Location Code: <u>35°06.457N; 078°51.35W</u>	Sampling Personnel: <u>S VOLKOFF</u> <u>K STUART</u>
Sampling Time: <u>1138A</u>	<u>L WELBORN</u> <u>C PACE</u>
Weather Conditions: <u>overcast, 70°</u>	

Sample Depth: SV ~~1138A~~ 4"

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 4" Water Depth (ft) ~ 1 ft

Sediment Description: FAY-SED-~~RMS2-A-051820~~<sup>SV</sup> RMS2-A-051820

Color: light brown

Texture: grainy ; silty sand

Cohesiveness: Not cohesive

Biological Structures: clam

Debris: leaf litter, sticks

Sheen/Odor: no sheen ; no odor

Other: \_\_\_\_\_

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
<u>MSD / REP</u>	<u>FAY-SED-RMS2-A-051820 - MSD</u>	<u>1138A</u>	<u>FAY-SED-RMS2-A-051820</u>
<u>MS - REP SV</u>	<u>" - MC</u>	<u>"</u>	<u>"</u>

SV-REP DUPLICATE      REP-DUP SV

Additional Comments

See COC for analyses

west shore sample ; 23% fines observed

initial wt: see DFR

Final wt:

GPS Location Code: <u>see below</u>	Sampling Personnel: L. wellborn S. Wilkoff	K. Stuaa E. Pace
Sampling Time: <u>1400P</u>		
Weather Conditions: <u>overcast, 70°</u>		

Sample Depth: 5 1/2"

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration: 5 1/2" Water Depth (ft): 3.2 ft

**Sediment Description:** FAY-SED-RM52-B-051820

Color: light brown

Texture: sand

Cohesiveness: not cohesive

Biological Structures: clams

Debris: none

Sheen/Odor: no sheen, no odor

Other: n/a

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>yes</u>

**Additional Comments**

See COC for analyses

middle area (B) of river

35° 06.449 N  
78° 51.384 W

GPS Location Code: <u>35° 06' 45" N ; 78° 05' 1.364" W</u>	Sampling Personnel:
Sampling Time: <u>1251 AM - 1300 P</u>	<u>L wellborn</u> <u>K Stuart</u>
Weather Conditions: <u>overcast, 70°</u>	<u>S Volkoff</u> <u>C Pace</u>

Sample Depth 2-3"

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 2-3" Water Depth (ft) ~ 6"

**Sediment Description:** FAY-SED-RM52-C-0518-20

Color: red streaks ;

Texture: clayey sand with fine gravel

Cohesiveness slight

Biological Structures clam

Debris sticks

Sheen/Odor no sheen, no odor

Other: clumps of clay

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent

SV

**Additional Comments**

See COC for analyses

eastern shore of river (c)

35° 06' 45.4" N  
78° 05' 1.364" W  
ST



GPS Location Code: 24°N 51'10W 076°W 49' 628" Sampling Personnel: SVOIKOFF, LTART, C Burdorf  
 Sampling Time: 0930  
 Weather Conditions: 75°F, overcast

Sample Depth: 0.59m 6"  
 Sampling Method: Hand Sample  Ponar Other: \_\_\_\_\_

Total Penetration: 5.5 - 6" Water Depth (ft): 0.54'

**Sediment Description:**

Color: dark brown

Texture: Sticky, silty clay

Cohesiveness: yes cohesive

Biological Structures: M

Debris: leaf litter, NOM

Sheen/Odor: NA -

Other: NA

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
REP	FAY-SED-RM76-A-060920-REF	0930	FAY-SED-RM76-A-060920
MS	" " " " " -ML	0930	" "

**Additional Comments**

See COC for analyses

~~FAY-SED-CFR-76-A-060920~~ west bank

Svoikoff = Savannah Volkoff      FAY-SED-RM76-A-060920  
 LTart = Luke Tart (Parsons)      " " " " - REP  
 CBurdorf = Curt Burdorf (Parsons)      " " " " - MS

GPS Location Code: <u>31°N 51' 10" 076°W, 49' 628"</u> Sampling Time: <u>1015</u> Weather Conditions: <u>80°F overcast</u>	Sampling Personnel: <u>SV, LT, CB</u>
--	---------------------------------------

Sample Depth: 6"

Sampling Method: Hand Sample    Ponar    Other: push tube

Total Penetration: 5.5 - 6"      Water Depth (ft): 0.54'

<b>Sediment Description:</b>	
Color:	<u>dark brown</u>
Texture:	<u>silty clay</u>
Cohesiveness	<u>yes cohesiveness</u>
Biological Structures	<u>NO</u>
Debris	<u>leaf litter, NOM, but minimal</u>
Sheen/Odor	<u>NA -</u>
Other:	<u>NA -</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent

<b>Additional Comments</b>	
See COC for analyses	
SV: Savannah Volkoff CB: Curt Burdett (Parsons) LT: Luke TAA (Parsons)	composite of 3 grabs; last grab ~ 10" less leaf litter, more clay west bank <u>FAY-SED-RM76-A-060920-PT</u>

GPS Location Code: $34^{\circ}N 51'09.5''$ ; $078^{\circ}W 49'00''$	Sampling Personnel:
Sampling Time: 1345	CV, LT, CB
Weather Conditions: Sunny 85°	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_Total Penetration 4-5" Water Depth (ft) 24'**Sediment Description:**Color: medium brownTexture: sandCohesiveness noneBiological Structures clamsDebris a bit of sticksSheen/Odor noneOther: none**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent

**Additional Comments**

See COC for analyses

See DFR for personnel  
wells

SK

FAY-SED-CFR-76-B-060920

mid

 $34^{\circ}N 51'09.5''$  $078^{\circ}W 49'00''$

GPS Location Code: <u>34°N 51' 103" , 078° W 49' 581"</u> Sampling Time: <u>1445</u> Weather Conditions: <u>SWIRLY 85°F</u>	Sampling Personnel: <u>SV, LT, CB</u>
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Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample  Ponar  Other: \_\_\_\_\_

Total Penetration: 0" Water Depth (ft): 3.53'

<b>Sediment Description:</b>	
Color:	<u>dark brown</u>
Texture:	<u>silt mostly with sand</u>
Cohesiveness	<u>not very cohesive</u>
Biological Structures	<u>a few clams</u>
Debris	<u>NOM, leaf litter</u>
Sheen/Odor	<u>none</u>
Other:	<u>none</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent

<b>Additional Comments</b>		
See COC for analyses see DFR for personnel wells	<u>FAY-SED-CFR-76-C-060920</u>  <u>34°N 51' 103"</u> <u>078° W 49' 581"</u>	east bank

GPS Location Code: <u>see comments</u>	Sampling Personnel: <u>SV, LT, CB</u>
Sampling Time: <u>0800</u>	
Weather Conditions: <u>sunny/overcast 80°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 4-5" Water Depth (ft) 1.73'

**Sediment Description:**

Color: <u>dark brown</u>
Texture: <u>clay</u>
Cohesiveness: <u>yes, cohesive</u>
Biological Structures: <u>none</u>
Debris: <u>leaf litter, none</u>
Sheen/Odor: <u>none</u>
Other: <u>none</u>

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
[Handwritten scribble]			<u>SV</u>

**Additional Comments**

See COC for analyses  
 see DFR for personnel codes  
FAY-SED-CFR-~~RM77~~-A-060920  
34°N 50' 30S"  
078°W 49' 424"

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>SV, LT, CB</u>
Sampling Time: <u>0900</u>	
Weather Conditions: <u>sunny, breeze, 80°F</u>	

Sample Depth: SV

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration: 4-5" Water Depth (ft): 20.8'

**Sediment Description:**

Color: medium brown

Texture: sand

Cohesiveness: slightly cohesive SV none

Biological Structures: SV clams

Debris: ~~leaf litter~~ in sticks

Sheen/Odor: none

Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses

see DFR for personnel codes

FAY-SED-CFR-~~RM~~77-B-060920  
34°N 50'307"  
78°W 49'397"

GPS Location Code: <u>see comments</u>	Sampling Personnel:
Sampling Time: <u>0845</u>	
Weather Conditions: <u>sunny, breeze 80°F</u>	<u>SV, LT, CB</u>

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_Total Penetration 5<sup>h</sup> Water Depth (ft) 4.4<sup>1</sup>**Sediment Description:**

Color: <u>dark brown</u>
Texture: <u>silty clay</u>
Cohesiveness: <u>slightly cohesive</u>
Biological Structures: <u>none</u>
Debris: <u>leaf litter; NOM</u>
Sheen/Odor: <u>none</u>
Other: <u>none</u>

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
<u>MS</u>	<u>FAY-SED-CFR-RM77-C-060920-MS</u>	<u>0845</u>	<u>FAY-SED-CFR-RM77-C-060920</u>

**Additional Comments**

See COC for analyses

see DFR for personnel codes

FAY-SED-CFR-RM77-C-06092034° N 30' 306"78° W 49' 366"

GPS Location Code: <u>see notes / comment</u>	Sampling Personnel: <u>SV, CB, LT</u>
Sampling Time: <u>1400</u>	
Weather Conditions: <u>overcast 90°</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_Total Penetration 4" Water Depth (ft) 0.25'**Sediment Description:**Color: medium brownTexture: silty clayCohesiveness slight cohesivenessBiological Structures noneDebris lots of roots, NDMSheen/Odor noneOther: none**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses

See DFR for personnel codesFAN-SED-RM84-A-06102034°N 46' 346"78°W 47' 912"



GPS Location Code: <u>see "comments"</u>	Sampling Personnel: <u>CV, CB, LT</u>
Sampling Time: <u>1445</u>	
Weather Conditions: <u>sunny 90°F</u>	

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 3-4" Water Depth (ft) 20'

**Sediment Description:**

Color: medium brown

Texture: sand

Cohesiveness: none

Biological Structures: clams

Debris: leaf, sticks

Sheen/Odor: none

Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>CV</u>

**Additional Comments**

See COC for analyses  
see DFR for personnel codes

FAN-SED-RM84-B-061020  
34° N 46' 335"  
78° W 47' 882"

GPS Location Code:	<u>see "comments"</u>	Sampling Personnel: <u>SV, LT, CB</u>
Sampling Time:	<u>12:30</u>	
Weather Conditions:	<u>sunny 90°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_Total Penetration 5" Water Depth (ft) 0.79'**Sediment Description:**

Color:	<u>dark brown</u>
Texture:	<u>silty clay</u>
Cohesiveness:	<u>yes, cohesive slight</u>
Biological Structures:	<u>none</u>
Debris:	<u>leaf litter, sticks</u>
Sheen/Odor:	<u>sheen</u>
Other:	<u>none</u>

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses

see DFR for personnel codes

FAY-SED-RM84-C-061020  
34°N 86' 35"  
78°W 47' 866"

GPS Location Code: <u>See "comments"</u>	Sampling Personnel: <u>CB, SV, LT</u>
Sampling Time: <u>12:13:15</u>	
Weather Conditions: <u>sunny 90°F</u>	

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample    Ponar    Other: Push tube

Total Penetration: 10"    Water Depth (ft): 0.79'

**Sediment Description:**

Color: dark brown

Texture: silty clay

Cohesiveness: yes, cohesive slight

Biological Structures: none

Debris: leaf litter, sticks

Sheen/Odor: sheen

Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses

see DFR for Personnel codes

FAY-SED-RM84-C-061020-PT

34°N 36' 355"

78°W 47' 866"

10" grab    4" grab

6" grab    2" grab

} 4 grab composite

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>SV</u>
Sampling Time: <u>1115</u>	
Weather Conditions: <u>overcast 80°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_Total Penetration 2-3' Water Depth (ft) 2'**Sediment Description:**Color: medium brownTexture: silty sandCohesiveness slight cohesivenessBiological Structures a few invertebratesDebris leaf litterSheen/Odor noneOther: none**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses

see DFR for personnel codesFAY-SED-RM100-A-062920beach shore

coords:

34° 37.654 N78° 33.740 W

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>SV</u>
Sampling Time: <u>1000</u>	
Weather Conditions: <u>Sunny 80°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 3-4" Water Depth (ft) 10.9'

**Sediment Description:**

Color: light brown

Texture: sand

Cohesiveness: not cohesive

Biological Structures: clams / mussels

Debris: some sticks / leaves

Sheen/Odor: none

Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses  
 See DFR for personnel codes

FAY-SED-RM100-B-062920

middle coords:  
34° 37.663 N  
78° 33.745 W

Photograph ID: \_\_\_\_\_

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>SV</u>
Sampling Time: <u>0830</u>	
Weather Conditions: <u>overcast 80°F</u>	

Sample Depth: 2.5'Sampling Method: Hand Sample  Ponar  Other: \_\_\_\_\_Total Penetration: 3-4" Water Depth (ft): 2.5'

## Sediment Description:

Color: dark brownTexture: silty clayCohesiveness: yes, some cohesivenessBiological Structures: wormsDebris: sticks, some leaf litter (not much debris)Sheen/Odor: sheen, no odorOther: clumps of clay; difficult to homogenize

## QA/QC Report

QA/QC Type	QA/QC Sample ID	Time	Parent
<u>MS</u>	<u>FAY-SED-RM100-C-062920-MS</u>		<u>FAY-SED-RM100-C-062920</u>
<u>MSD/REP</u>	<u>" " " -Rep</u>		<u>"</u>

## Additional Comments

See COC for analyses

see DFR for personnel codes

FAY-SED-RM100-C-062920

east <sup>SV</sup> ~~west~~ shore

coordinates

34° 37.690 N

78° 33.737 W

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>SV, CP, LT</u>
Sampling Time: <u>1500</u>	
Weather Conditions: <u>90°F sunny</u>	

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample ~~Ponar~~ SV Other: stainless steel shovel

Total Penetration 3" Water Depth (ft) 2"

Sediment Description:	
Color:	<u>med. brown</u>
Texture:	<u>clay</u>
Cohesiveness	<u>very cohesive</u>
Biological Structures	<u>none</u>
Debris	<u>none</u>
Sheen/Odor	<u>sheen</u>
Other:	<u>none</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

Additional Comments
<p>See COC for analyses  <u>see DFR for personnel codes</u></p> <p style="text-align: right;"><u>west bank</u></p> <p style="text-align: right;"><u>coords:</u>  <u>34°32.640N</u>  <u>78°26.395W</u></p> <p><u>solid clay; see change management</u></p>

Photograph ID: \_\_\_\_\_

GPS Location Code: see below  
 Sampling Time: 1400  
 Weather Conditions: 90°F sunny

Sampling Personnel:  
SV, CP, LT

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 3-4" Water Depth (ft) 15'

**Sediment Description:**

Color: medium brown  
 Texture: sand  
 Cohesiveness: no cohesiveness  
 Biological Structures: none  
 Debris: a few leaves  
 Sheen/Odor: none  
 Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
<u>[scribble]</u>			<u>SV</u>

**Additional Comments**

See COC for analyses  
see DFR for personnel codes  
 middle  
 coords:  
FAY-SED-RM 116-B-062920  
34° 32.062 N  
78° 26.369 W

Photograph ID: \_\_\_\_\_



GPS Location Code: see below  
 Sampling Time: 1300  
 Weather Conditions: Sunny 90°F

Sampling Personnel:  
 SV, CP, LT

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar

Other: \_\_\_\_\_

Total Penetration 4-5"

Water Depth (ft) 2.3'

**Sediment Description:**

Color: dark brown  
 Texture: silty sand  
 Cohesiveness: not very cohesive  
 Biological Structures: none  
 Debris: a few sticks  
 Sheen/Odor: sheen  
 Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			St

**Additional Comments**

See COC for analyses  
 see DFR for personnel codes  
 east side words:  
 32° 070 N  
 78° 26.346 W  
 very silty  
 FAX-SED-RM116-C-062920

Photograph ID: \_\_\_\_\_

GPS Location Code: <u>see "comments"</u>	Sampling Personnel:
Sampling Time: <u>1145</u>	<u>CB, SV, LT</u>
Weather Conditions: <u>overcast 80°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample  Ponar Other: \_\_\_\_\_Total Penetration 5-6" Water Depth (ft) 3.9'**Sediment Description:**

Color: <u>dark brown</u>
Texture: <u>silty clay</u>
Cohesiveness: <u>yes, cohesive</u>
Biological Structures: <u>none</u>
Debris: <u>a few sticks, leaves</u>
Sheen/Odor: <u>sheen</u>
Other: <u>none</u>

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
<u>MS</u>	<u>FAY-SED-RM132-A-061120-MS</u>	<u>1145</u>	<u>FAY-SED-RM132-A-061120</u>
<u>MSD</u>	<u>FAY-SED-RM132-A-061120-MSD</u>	<u>1145</u>	<u>↑</u>

**Additional Comments**

See COC for analyses

see DPR for personnel codesFAY-SED-RM132-A-06112034°W 24.38278°W 17.712

GPS Location Code: <u>see "comments"</u>	Sampling Personnel: <u>SV, CB, LT</u>
Sampling Time: <u>1115</u>	
Weather Conditions: <u>overcast, 80°F</u>	

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 4-5" Water Depth (ft) 12'

<b>Sediment Description:</b>	
Color:	<u>medium brown</u>
Texture:	<u>sand</u>
Cohesiveness:	<u>none</u>
Biological Structures:	<u>a few clams/mussels</u>
Debris:	<u>none</u>
Sheen/Odor:	<u>none</u>
Other:	<u>none</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
_____			<u>SV</u>

<b>Additional Comments</b>	
See COC for analyses <u>see PFR for personnel codes</u>	<u>FAY-SED-RM132-B-06/11/20</u> <u>34°N 24.389</u> <u>78°W 17.682</u>

GPS Location Code: <u>see below</u>	Sampling Personnel: <u>ST, CB, LT</u>
Sampling Time: <u>1230</u>	
Weather Conditions: <u>overcast 80°F</u>	

Sample Depth \_\_\_\_\_

Sampling Method: Hand Sample Ponar Other: \_\_\_\_\_

Total Penetration 6" Water Depth (ft) 3.1'

<b>Sediment Description:</b>	
Color:	<u>dark brown</u>
Texture:	<u>silty clay</u>
Cohesiveness:	<u>very cohesive</u>
Biological Structures:	<u>none</u>
Debris:	<u>sticks</u>
Sheen/Odor:	<u>none</u>
Other:	<u>none</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SU</u>

<b>Additional Comments</b>	
See COC for analyses <u>see DFR</u>	<u>FAY-SED-RM132-C-001120</u> <u>34° N 24.413</u> <u>78° W 17.663</u>

GPS Location Code: see below  
 Sampling Time: 1145 SV 1045  
 Weather Conditions: 90° F sunny

Sampling Personnel:  
SV, CP, LT

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar

Other: \_\_\_\_\_

Total Penetration 5-6"

Water Depth (ft) 3.9'

**Sediment Description:**

Color: dark brown  
 Texture: silty sand  
 Cohesiveness: not cohesive  
 Biological Structures: none  
 Debris: sticks  
 Sheen/Odor: none  
 Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
[Handwritten scribble]			<u>SV</u>

**Additional Comments**

See COC for analyses  
see DFR for personnel codes  
FAY-SED-RM149-A-063020  
right bank  
coords:  
34° 21.115 N  
78° 05.033 W

Photograph ID: \_\_\_\_\_

GPS Location Code: see below  
 Sampling Time: 1000  
 Weather Conditions: 90°F sunny

Sampling Personnel:  
SV, CP, LT

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar

Other: \_\_\_\_\_

Total Penetration 3"

Water Depth (ft) 2.5'

**Sediment Description:**

Color: dark brown  
 Texture: silty, clayey, sand  
 Cohesiveness: slight cohesiveness  
 Biological Structures: clams/mussels  
 Debris: none  
 Sheen/Odor: none  
 Other: none

**QA/QC Report**

QA/QC Type	QA/QC Sample ID	Time	Parent
			<u>SV</u>

**Additional Comments**

See COC for analyses  
see DFR for personnel codes  
FAY-SED-RM149-B-063020  
 middle  
 coords:  
34° 21.124 N  
78° 05.046 W

Photograph ID: \_\_\_\_\_

GPS Location Code: see below  
 Sampling Time: 0800  
 Weather Conditions: 80°F, sunny

Sampling Personnel: SV, CP, LT

Sample Depth: \_\_\_\_\_

Sampling Method: Hand Sample Ponar

Other: and push tube

Total Penetration ponar: 4"  
push tube: 3" - 6"

Water Depth (ft) 1.8'

Sediment Description:	<u>Ponar</u>	<u>Push tube</u>
Color:	<u>dark brown</u>	<u>dark brown</u>
Texture:	<u>silty clay</u>	<u>silty clay</u>
Cohesiveness	<u>no cohesiveness</u>	<u>slightly cohesive</u>
Biological Structures	<u>none</u>	<u>none</u>
Debris	<u>leaf, sticks</u>	<u>leaf, sticks</u>
Sheen/Odor	<u>none</u>	<u>none</u>
Other:	<u>very silty</u>	<u>very <del>light</del> silty</u>

QA/QC Report			
QA/QC Type	QA/QC Sample ID	Time	Parent
<u>MS / ANAL</u>		<u>0800</u>	<u>FAY-SED-RM149-C-063020</u>
<u>MSD/REP</u>		<u>0800</u>	<u>" " "</u>
<u>DVP</u>		<u>0800</u>	<u>" " "</u>

**Additional Comments**  
 See COC for analyses  
see DFR for personnel codes  
FAY-SED-RM149-C-063020  
FAY-SED-RM149-C-063020-PT  
~~push~~ push tube = 4 grab composite  
left river bank  
coordinates:  
34° 21.131 N  
78° 05.057 W

Photograph ID: \_\_\_\_\_

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name:  Location ID:   
 Samplers:  Event:  Project Manager:   
 Date:

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
6.70	FAY-SW-RM20-B-6.7-051820	05-18-2020	17:45	7.61	8.86	83.40	3.14	0.00	25.74	Clear	No		
12.00	FAY-SW-RM20-B-12-051820	05-18-2020	18:00	8.05	9.23	74.60	3.22	0.110	24.35	Clear	No		

**Sampling Data**

Method:  Latitude:   
 Longitude:   
 Samples taken from:

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3 (Special); Table 3+(20)

WEATHER CONDITIONS	
Temperature (F):	73.00
Sky:	Cloudy
Precipitation:	None
Wind (mph)	5

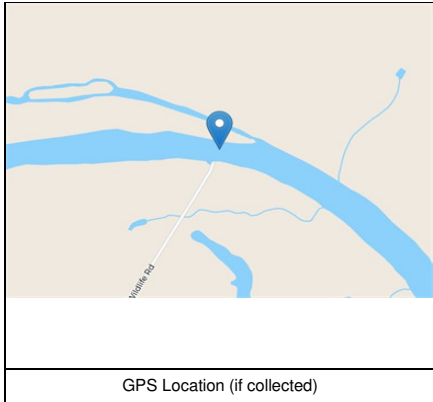
Flow Rate:

Multi Meter Used:	Insitu AquaTroll	Multi Meter ID:	<input type="text"/>
Velocity Meter Used:	Marsh McBirney	Velocity Meter ID:	<input type="text"/>

Total Water Depth (ft):	13
-------------------------	----

Stream Velocity TOP half of water column (ft/sec):	0.06
Stream Velocity BOTTOM half of water column (ft/sec):	0.22

Stream Depth TOP half of water column (ft):	3
Stream Depth BOTTOM half of water column (ft):	9





## SURFACE WATER/SEEP SAMPLING RECORD

Site Name:  Location ID:   
 Samplers:  Event:  Project Manager:   
 Date:

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
1.60	FAY-SW-RM52-B-1.6-051820	05-18-2020	13:45	7.33	7.39	29.50	5.10	0.11	24.14	Clear	No	DUP;MS;REP	To shallow for bottom sample just took mid. Call Matt V to confirm.
0.00	FAY-SW-RM52-B-0-051820	05-18-2020	13:28										

**Sampling Data**

Method:  Latitude:   
 Longitude:   
 Samples taken from:

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3 (Special); Table 3+(20)

WEATHER CONDITIONS	
Temperature (F):	75.00
Sky:	Cloudy
Precipitation:	None
Wind (mph)	8

Flow Rate:

Multi Meter Used:  Multi Meter ID:   
 Velocity Meter Used:  Velocity Meter ID:

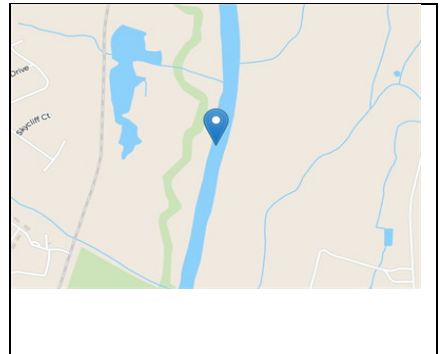
Total Water Depth (ft):

Stream Velocity TOP half of water column (ft/sec):	0.74
Stream Velocity BOTTOM half of water column (ft/sec):	0.71

Stream Depth TOP half of water column (ft):	1.6
Stream Depth BOTTOM half of water column (ft):	2.2



RM52 sample location, please note for reference the power lines



GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name: Chemours Fayetteville      Location ID: CFR-RM-76  
 Samplers: LUKE TART, Curt Burdorf      Event: Sediment Characterization      Project Manager: Tracy Ovbey  
 Date: 06-09-2020

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
13.00	FAY-SW-RM76-B-13-060920	06-09-2020	12:30	7.10	6.75	32.20	33.29	0.10	26.66	Light brown	None		
21.00	FAY-SW-RM76-B-21-060920	06-09-2020	12:00	6.90	6.65	50.00	48.80	0.160	27.05	Light brown	No	MS; Rep	

**Sampling Data**

Method: Peri Pump Grab      Latitude: 34.85167  
 Longitude: 078.82667  
 Samples taken from: Boat

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	86.00
Sky:	Sunny
Precipitation:	None
Wind (mph)	2

Flow Rate: 0.25 liters per minute

Multi Meter Used: Insitu AquaTroll      Multi Meter ID: 706720  
 Velocity Meter Used: Marsh McBirney      Velocity Meter ID: FH950.1

Total Water Depth (ft): 24

Stream Velocity TOP half of water column (ft/sec): 1.62  
 Stream Velocity BOTTOM half of water column (ft/sec): 1.42

Stream Depth TOP half of water column (ft): 5  
 Stream Depth BOTTOM half of water column (ft): 19

GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name: Chemours Fayetteville      Location ID: CFR-RM-77  
 Samplers: LUKE TART, Curt Burdorf      Event: Sediment Characterization      Project Manager: Tracy Ovbey  
 Date: 06-09-2020

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
10.00	FAY-SW-RM77-B-10-060920	06-09-2020	15:45	6.55	6.90	69.70	31.31	0.10	26.31	Light brown	No		
18.00	FAY-SW-RM77-B-18-060920	06-09-2020	15:45	6.36	6.92	78.50	58.34	0.100	25.74	Light Brown	No		

**Sampling Data**

Method: Peri Pump Grab      Latitude: 34.91861  
 Longitude: 78.92694  
 Samples taken from: Boat

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	80.00
Sky:	Sunny
Precipitation:	None
Wind (mph)	3

Flow Rate: 0.25 liters per minute

Multi Meter Used: Insitu AquaTroll      Multi Meter ID: 706720  
 Velocity Meter Used: Marsh McBirney      Velocity Meter ID: FH950.1

Total Water Depth (ft): 20

Stream Velocity TOP half of water column (ft/sec): 1.77  
 Stream Velocity BOTTOM half of water column (ft/sec): 1.53

Stream Depth TOP half of water column (ft): 4  
 Stream Depth BOTTOM half of water column (ft): 16

GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name: Chemours Fayetteville      Location ID: CFR-RM-84  
 Samplers: LUKE TART, Curt Burdorf      Event: Sediment Characterization      Project Manager: Tracy Ovbey  
 Date: 06-10-2020

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
10.00	FAY-SW-RM84-B-10-061020	06-10-2020	14:00	7.03	6.85	30.70	18.55	0.09	27.62	Light Brown	No	MS; REP	
18.00	FAY-SW-RM84-B-18-061020	06-10-2020	14:00	7.04	6.86	22.70	18.37	0.090	26.68	Light Brown	No		

**Sampling Data**

Method: Peri Pump Grab      Latitude: 034.85972  
 Longitude: 079.02833  
 Samples taken from: Boat

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	90.00
Sky:	Sunny
Precipitation:	None
Wind (mph)	3

Flow Rate: 0.25 liters per minute

Multi Meter Used: Insitu AquaTroll      Multi Meter ID: 706720  
 Velocity Meter Used: Marsh McBirney      Velocity Meter ID: FH950.1

Total Water Depth (ft): 20

Stream Velocity TOP half of water column (ft/sec): 1.75  
 Stream Velocity BOTTOM half of water column (ft/sec): 1.55

Stream Depth TOP half of water column (ft): 4  
 Stream Depth BOTTOM half of water column (ft): 16

GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name:  Location ID:   
 Samplers:  Event:  Project Manager:   
 Date:

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
9.50	FAY-SW-RM100-B-9.5-062920	06-29-2020	09:15	6.23	6.27	132.80	16.24	0.09	26.28	Murky	No	MS; Rep	
17.00	FAY-SW-RM100-B-17-062920	06-29-2020	09:15	7.12	7.66	38.40	18.77	0.090	26.64	Murky	No		

**Sampling Data**

Method:  Latitude:   
 Longitude:   
 Samples taken from:

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3 (Special); Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	89.00
Sky:	Sunny
Precipitation:	None
Wind (mph)	

Flow Rate:

Multi Meter Used:	Insitu AquaTroll	Multi Meter ID:	706720
Velocity Meter Used:	Marsh McBirney	Velocity Meter ID:	045626

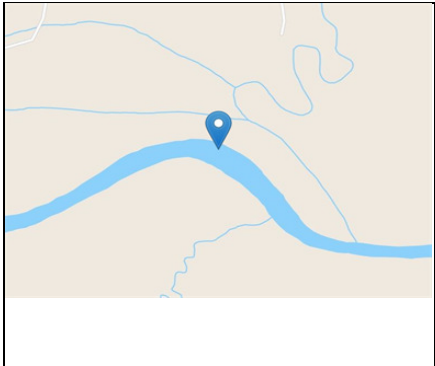
Total Water Depth (ft):	19
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Stream Velocity TOP half of water column (ft/sec):	1.2
Stream Velocity BOTTOM half of water column (ft/sec):	0.84

Stream Depth TOP half of water column (ft):	4
Stream Depth BOTTOM half of water column (ft):	15



River Left



GPS Location (if collected)

## SURFACE WATER/SEEP SAMPLING RECORD

Site Name:  Location ID:   
 Samplers:  Event:  Project Manager:   
 Date:

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
7.50	FAY-SW-RM116-B-7.5-062920	06-29-2020	13:30	6.48	5.63	116.30	16.30	0.08	29.38	Murky	No		
13.00	FAY-SW-RM116-B-13-062920	06-29-2020	13:30	6.44	5.70	125.10	16.35	0.080	27.58	Murky	No		

**Sampling Data**

Method:  Latitude:   
 Longitude:   
 Samples taken from:

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3 (Special); Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	89.00
Sky:	Sunny
Precipitation:	Rain
Wind (mph)	

Flow Rate:

Multi Meter Used:	Insitu AquaTroll	Multi Meter ID:	706720
Velocity Meter Used:	Marsh McBirney	Velocity Meter ID:	045626

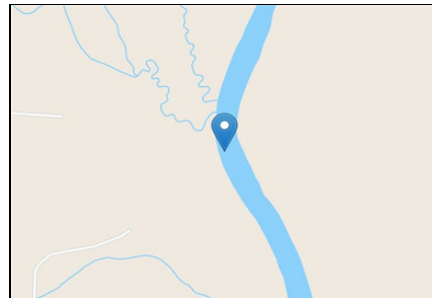
Total Water Depth (ft):	15
-------------------------	----

Stream Velocity TOP half of water column (ft/sec):	1.24
Stream Velocity BOTTOM half of water column (ft/sec):	0.94

Stream Depth TOP half of water column (ft):	3
Stream Depth BOTTOM half of water column (ft):	12



River Right



GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name: Chemours Fayetteville      Location ID: CFR-RM-132  
 Samplers: LUKE TART, Curt Burdorf      Event: Sediment Characterization      Project Manager: Tracy Ovbey  
 Date: 06-11-2020

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
6.00	FAY-SW-RM132-B-6-061120	06-11-2020	09:45	6.42	5.25	100.10	21.19	0.10	26.44	Light brown	No	MS; Rep	
10.00	FAY-SW-RM132-B-10-061120	06-11-2020	09:45	6.52	5.30	122.60	20.60	0.100	26.02	Light brown	No		

**Sampling Data**

Method: Peri Pump Grab      Latitude: 034.50778  
 Longitude: 078.47278  
 Samples taken from: Boat

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	75.00
Sky:	Cloudy
Precipitation:	None
Wind (mph)	8

Flow Rate: 0.25 liters per minute

Multi Meter Used:	Insitu AquaTroll	Multi Meter ID:	706720
Velocity Meter Used:	Marsh McBirney	Velocity Meter ID:	FH950.1

Total Water Depth (ft): 12

Stream Velocity TOP half of water column (ft/sec):	1.43
Stream Velocity BOTTOM half of water column (ft/sec):	1.32

Stream Depth TOP half of water column (ft):	2.5
Stream Depth BOTTOM half of water column (ft):	9.5

GPS Location (if collected)

### SURFACE WATER/SEEP SAMPLING RECORD

Site Name:  Location ID:   
 Samplers:  Event:  Project Manager:   
 Date:

Spl Depth	Spl ID	Spl Date	Time	pH	DO	Redox	Turbidity	Spec. Cond.	Temp.	Color	Odor	Dup	Comments
					mg/L	mV	NTU	mS/cm	°C				
1.50	FAY-SW-RM149-B-1.5-063020	06-30-2020	09:30	6.47	5.05	24.00	8.89	0.07	27.43	Murky	No	MS; Rep	No bottom sample, too shallow

**Sampling Data**

Method:  Latitude:   
 Longitude:   
 Samples taken from:

SAMPLE SET			
Parameter	Bottle	Pres.	Method
PFAS	2-250 mL poly	NP	EPA 537 Modified
PFAS	250 mL poly	NP	Table 3
PFAS	250 mL poly	NP	Table 3+

ALL PARAMETERS ANALYZED
EPA 537 Modified; Table 3 (Special); Table 3+(20); TSS; TOC; DOC

WEATHER CONDITIONS	
Temperature (F):	80.00
Sky:	Sunny
Precipitation:	None
Wind (mph)	

Flow Rate:

Multi Meter Used:	Insitu AquaTroll	Multi Meter ID:	706682
Velocity Meter Used:	Marsh McBirney	Velocity Meter ID:	045626

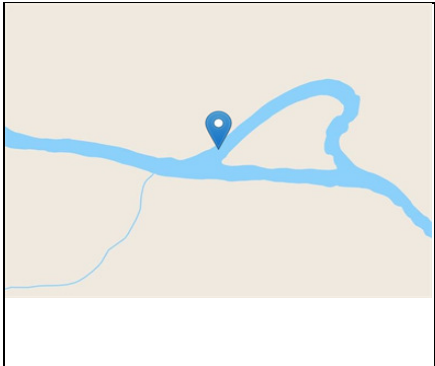
Total Water Depth (ft):	2
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Stream Velocity TOP half of water column (ft/sec):	0.45
Stream Velocity BOTTOM half of water column (ft/sec):	0.34

Stream Depth TOP half of water column (ft):	1
Stream Depth BOTTOM half of water column (ft):	2.45



River Right



GPS Location (if collected)



## APPENDIX B

### Laboratory White Books and Reports

## **APPENDIX B: DATA REVIEW NARRATIVES AND LABORATORY REPORTS**

Data review narratives are included in this appendix. Due to file size limits, analytical laboratory reports could be provided separately upon request.

**ADQM DATA REVIEW  
NARRATIVE**

**Site** Chemours FAY – Fayetteville

**Project** Sediment Characterization Sampling (update 2)

**Project Reviewer** Michael Aucoin, AECOM as a Chemours contractor

**Sampling Dates** May 18, 2020  
June 9 - 11, 2020  
June 29 – 30, 2020

**Analytical Protocol**

<b><u>Laboratory</u></b>	<b><u>Analytical Method</u></b>	<b><u>Parameter(s)</u></b>
TestAmerica - Sacramento	537 Modified	PFAS <sup>1</sup>
TestAmerica - Sacramento	Cl. Spec. Table 3 Compound SOP	Table 3+ compounds
TestAmerica - Burlington	ASTM D422-63	Grain Size
TestAmerica - Burlington	LLOYD KAHN	Total Organic Carbon
TestAmerica - Denver	9060A	Total Organic Carbon
TestAmerica - Denver	9060A	Dissolved Organic Carbon
TestAmerica - Denver	2540 D-1997	Total Suspended Solids
TestAmerica - Sacramento	ASTM D2216-90	Percent Moisture
TestAmerica - Sacramento	ASTM D2216-90	Percent Solids

<sup>1</sup> Perfluoroalkylsubstances, a list of 36 compounds including HFPO-DA.

**Sample Receipt**

The following items are noted for this data set:

- All samples were received in satisfactory condition and within EPA temperature guidelines on:  
May 21 - 22, 2020  
June 11 - 13, 2020  
July 2, 2020

**Data Review**

The electronic data submitted for this project was reviewed via the Data Verification Module (DVM) process.

Overall the data is acceptable for use without qualification, except as noted below:

- The laboratory reported HFPO-DA from both the 537 Modified and Table 3+ analysis for each sample. The best value field was populated to report the “better” result for each sample according to the following criteria:
  - The higher concentration of two detects was reported.
  - The detected value was reported when a detect and a non-detect result were evaluated.
  - The lower reporting limit was reported when two non-detect results were evaluated.
- The R-EVE result for sample FAY-SED-RM149-C-063020-D (320-62363-8) was revised by the laboratory to show a non-detect result as the original result was a false positive. A revised lab report was received from the laboratory.
- Professional judgement was used to overwrite R qualifiers, indicating an unusable result, that were assigned by the DVM due to a very poor surrogate (isotope dilution analyte or IDA) recovery, and preparation or analysis hold time that was exceeded by more than two times. The qualifier was updated to UJ, indicating an estimated reporting limit, because the target compounds are generally recognized to be stable for an extended time period. In the case of the IDA recovery, data quality is not considered affected by the laboratory if the IDA signal-to-noise ratio is greater than 10:1, which was achieved for all IDA in the samples.
- Results for HFPO-DA in one water sample and TSS in three water samples were qualified B and the reported results may be biased high, or false positives, due to comparable concentrations found in associated equipment rinsate or laboratory method blanks.
- The laboratory applied an I qualifier to indicate where the transition mass ratio for the indicated analyte was outside of the established ratio limit. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgement was used to positively identify the analyte and the reviewer applied a J validation qualifier, indicating that the associated result should be considered to be an EMPC (estimated maximum possible concentration).
- Due to uncertainty from observed matrix effects during the analysis of R-PSDA, Hydrolyzed PSDA and R-EVE, a J-qualifier has been added to all positive results in the data set, if not already qualified by the DVM and even if there was no matrix spike analyzed for that particular sample, and the results should be considered to be estimated values.
- Analytical results have been qualified J as estimated, and non-detect results qualified UJ indicating an estimated reporting limit, due to a poor surrogate or matrix spike recovery; sample preparation or analysis which exceeded the laboratory established hold time; and poor field duplicate or lab replicate precision. See the Data Verification Module (DVM) Narrative Report for which samples were qualified, the specific reasons for qualification, and potential bias in reported results.
- The non-PFAS results for samples were reported by the laboratory to the method detection limit (MDL); results reported between the MDL and the practical quantitation limit (PQL) are qualified J and are considered to be estimated values.

### **Attachments**

The DVM Narrative report is attached. The lab reports due to a large page count are stored on an AECOM network shared drive and are available to be posted on external shared drives, or on a flash drive.

## Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Verification Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike(MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample(LCS)/control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference / percent difference between total and dissolved sample pairs.

There are two qualifier fields in EIM:

**Lab Qualifier** is the qualifier assigned by the lab and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the lab qualifiers. As they are lab descriptors they are not to be used when evaluating the data.

**Validation Qualifier** is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the lab qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier**.

## DVM Narrative Report

**Site:** Fayetteville

**Sampling Program:** Sediment Characterization Sampling

**Validation Options:** LABSTATS

**Validation Reason**

Contamination detected in equipment blank(s). Sample result does not differ significantly from the analyte concentration detected in the associated equipment blank(s).

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM100-B-17-062920	06/29/2020	280-138238-2	Total Suspended Solids	13	MG/L	MDL	1.1	4.0	B	2540 D-1997		
FAY-SW-RM116-B-7.5-062920	06/29/2020	280-138238-4	Total Suspended Solids	9.2	MG/L	MDL	1.1	4.0	B	2540 D-1997		
FAY-SW-RM84-B-18-061020	06/09/2020	320-61742-5	Hfpo Dimer Acid	0.0097	UG/L	PQL		0.0020	B	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep

Site: Fayetteville

Sampling Program: Sediment Characterization Sampling

Validation Options: LABSTATS

Validation Reason Contamination detected in Method Blank(s). Sample result does not differ significantly from the analyte concentration detected in the associated method blank(s).

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM149-B-1.5-063020	06/30/2020	280-138238-5	Total Suspended Solids	3.6	MG/L	MDL	1.1	4.0	B	2540 D-1997		

## Validation Reason

Only one surrogate has relative percent recovery (RPR) values outside control limits and the parameter is a PFC (Nondetects).

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM116-B-13-062920	06/29/2020	320-62360-3	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM116-B-13-062920	06/29/2020	320-62360-3	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM100-B-17-062920	06/29/2020	320-62360-2	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM100-B-17-062920	06/29/2020	320-62360-2	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM116-B-7.5-062920	06/29/2020	320-62360-4	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM116-B-7.5-062920	06/29/2020	320-62360-4	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM84-B-18-061020	06/09/2020	320-61742-5	N-methyl perfluoro-1-octanesulfonamide	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SED-RM149-A-063020	06/30/2020	320-62363-11	N-methyl perfluoro-1-octanesulfonamide	0.54	UG/KG	PQL		0.54	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM149-A-063020	06/30/2020	320-62363-11	N-ethylperfluoro-1-octanesulfonamide	0.32	UG/KG	PQL		0.32	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	N-methyl perfluoro-1-octanesulfonamide	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	N-ethylperfluoro-1-octanesulfonamide	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D



Site: Fayetteville

Sampling Program: Sediment Characterization Sampling

Validation Options: LABSTATS

**Validation Reason**

The analysis hold time for this sample was exceeded. The reporting limit may be biased low.

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-FBLK-6-063020	06/30/2020	280-138238-7	Total Suspended Solids	1.1	MG/L	MDL	1.1	4.0	UJ	2540 D-1997		

**Validation Reason**

Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the lower control limit. The actual detection limits may be higher than reported.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM76-B-21-060920	06/09/2020	320-61697-4	PFMOAA	0.0020	ug/L	PQL		0.0020	UJ	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM76-B-21-060920	06/09/2020	320-61697-4	PFMOAA	0.0020	ug/L	PQL		0.0020	UJ	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	Perfluorododecane sulfonic acid (PFDoS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorododecane sulfonic acid (PFDoS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Perfluoropentane sulfonic acid (PFPeS)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	10:2 Fluorotelomer sulfonate	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Hfpo Dimer Acid	0.0040	UG/L	PQL		0.0040	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluoroundecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	N-methyl perfluorooctane sulfonamidoacetic acid	0.020	UG/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.0040	ug/L	PQL		0.0040	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluoropentane sulfonic acid (PFPeS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	6:2 Fluorotelomer sulfonate	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	N-ethyl perfluorooctane sulfonamidoacetic acid	0.020	UG/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorododecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	N-methyl perfluoro-1-octanesulfonamide	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorodecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorodecane Sulfonic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluoroheptane sulfonic acid (PFHpS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorononanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorotetradecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorononanesulfonic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorotridecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorooctane Sulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	9Cl-PF3ONS	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	11Cl-PF3OUdS	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorododecane sulfonic acid (PFDoS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	DONA	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	10:2 Fluorotelomer sulfonate	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Hfpo Dimer Acid	0.0040	UG/L	PQL		0.0040	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorooctadecanoic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM84-B-18-061020	06/09/2020	320-61742-5	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FBLK-2-060920	06/09/2020	320-61742-7	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
TBLK-2-060920	06/09/2020	320-61742-9	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	NEtPFOSA (trial)	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluoroheptane sulfonic acid (PFHpS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorononanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorotetradecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorohexadecanoic acid (PFHxDA)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorononanesulfonic acid	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorotridecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorooctane Sulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	9CI-PF3ONS	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	11CI-PF3OUdS	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorododecane sulfonic acid (PFDoS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	DONA	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluoroundecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	N-methyl perfluorooctane sulfonamidoacetic acid	0.020	UG/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.0040	ug/L	PQL		0.0040	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluoropentane sulfonic acid (PFPeS)	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	6:2 Fluorotelomer sulfonate	0.020	ug/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	N-ethyl perfluorooctane sulfonamidoacetic acid	0.020	UG/L	PQL		0.020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorodecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorodecane Sulfonic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorododecanoic Acid	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	N-methyl perfluoro-1-octanesulfonamide	0.0020	ug/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
EQBLK-2-060920	06/09/2020	320-61742-8	N-ethylperfluoro-1-octanesulfonamide	0.0020	UG/L	PQL		0.0020	UJ	537 Modified		3535_PFC
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	10:2 Fluorotelomer sulfonate	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Hfpo Dimer Acid	0.25	UG/KG	PQL		0.25	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorooctadecanoic acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoropentanoic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoropentane sulfonic acid (PFPeS)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	6:2 Fluorotelomer sulfonate	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-ethyl perfluorooctane sulfonamidoacetic acid	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorohexanoic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorobutane Sulfonic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoroheptanoic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoroheptane sulfonic acid (PFHpS)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorononanoic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorotetradecanoic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	1H,1H,2H,2H-perfluorodecanesulfonate (8:2 FTS)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-ethylperfluoro-1-octanesulfonamide	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorohexadecanoic acid (PFHxDA)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorononanesulfonic acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorooctane Sulfonamide	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	9CI-PF3ONS	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	1H,1H,2H,2H-perfluorohexanesulfonate (4:2 FTS)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	11CI-PF3OUdS	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorododecane sulfonic acid (PFDoS)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	DONA	0.2	ng/g	PQL		0.2	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-methyl perfluorooctane sulfonamidoacetic acid	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-methyl perfluoro-1-octanesulfonamide	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFOA	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorodecane Sulfonic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorohexane Sulfonic Acid	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFOA(trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorobutane Sulfonic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorohexane Sulfonic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorooctane Sulfonamide (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Hfpo Dimer Acid (trial)	0.25	UG/KG	PQL		0.25	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-ethyl perfluorooctane sulfonamidoacetic acid (TRIAL)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	N-methyl perfluorooctane sulfonamidoacetic acid (TRIAL)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorotetradecanoic acid (TRIAL)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	NMePFOSAE (trial)	1.3	UG/KG	PQL		1.3	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	6:2 FTS (trial)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	DONA (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	F-53B Major (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	F-53B Minor (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	NEtPFOSA (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	NMePFOSA (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFDS (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFDoS (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFHpS (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFHxDA (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorononanesulfonic acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorooctadecanoic acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFPeS (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoropentanoic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorohexanoic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoroheptanoic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorononanoic Acid (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	10:2 FTS (trial)	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	8:2 FTS (trial)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	4:2 FTS (trial)	2.0	UG/KG	PQL		2.0	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D



**Validation Reason**

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-B-061120	06/11/2020	320-61777-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-C-061120	06/11/2020	320-61777-4	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFOS	0.50	UG/KG	PQL		0.50	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFOS (trial)	0.50	UG/KG	PQL		0.50	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.20	UG/KG	PQL		0.20	UJ	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D



Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-B-060920	06/09/2020	320-61697-2	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D



Validation Reason The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason**

The preparation hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Site: Fayetteville

Sampling Program: Sediment Characterization Sampling

Validation Options: LABSTATS

**Validation Reason**

One or more surrogates had relative percent recovery (RPR) values less than the data rejection level. The reported result is considered to be an estimated value.

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM149-C- 063020-D	06/30/2020	320-62363-8	2-(N-methyl perfluoro- 1-octanesulfonamido)- ethanol	0.27	UG/KG	PQL		0.27	UJ	537 Modified		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded by a factor of 2. The reported non-detect result is considered to be an estimated value.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason**

The preparation hold time for this sample was exceeded by a factor of 2. The reported non-detect result is considered to be an estimated value.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason**

The preparation hold time for this sample was exceeded by a factor of 2. The reported non-detect result is considered to be an estimated value.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason**

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D



**Validation Reason**

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820- D	05/18/2020	320-61072-4	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason**

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	NVHOS	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PES	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PMPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFECA B	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PEPA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFO2HxA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFO3OA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFO4DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFO5DA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFMOAA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	Hydro-PS Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	Hydro-EVE Acid	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	PFECA-G	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	R-PSDA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	Hydrolyzed PSDA	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	R-PSDCA	1.0	UG/KG	PQL		1.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	R-EVE	2.0	UG/KG	PQL		2.0	UJ	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

**Validation Reason** Associated MS and/or MSD analysis had relative percent recovery (RPR) values higher than the upper control limit. The reported result may be biased high.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluoroundecanoic Acid	0.58	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorononanoic Acid	0.22	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM149-C-063020	06/30/2020	320-62363-7	Perfluoroundecanoic Acid	0.31	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Hydrolyzed PSDA	0.0080	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Hydrolyzed PSDA	0.0075	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	Hydrolyzed PSDA	0.0027	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	Hydrolyzed PSDA	0.0027	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	R-PSDA	0.0037	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	R-PSDA	0.0033	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	Hydrolyzed PSDA	0.0096	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	Hydrolyzed PSDA	0.0092	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	R-PSDA	0.0048	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	R-PSDA	0.0040	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	Hydrolyzed PSDA	0.0045	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	Hydrolyzed PSDA	0.0043	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM52-B-1.6-051820	05/18/2020	320-61072-2	R-PSDA	0.019	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM52-B-1.6-051820	05/18/2020	320-61072-2	R-PSDA	0.017	UG/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep

Site: Fayetteville

Sampling Program: Sediment Characterization Sampling

Validation Options: LABSTATS

**Validation Reason**

High relative percent difference (RPD) observed between field duplicate and parent sample. The reported result may be imprecise.

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-A-051820- D	05/18/2020	200-53737-2	Silt	6.7	%	MDL		0	J	ASTM D422-63		
FAY-SED-RM52-A-051820- D	05/18/2020	200-53737-2	Coarse Sand	0.3	%	MDL		0	J	ASTM D422-63		
FAY-SED-RM52-A-051820	05/18/2020	200-53737-1	Silt	12.3	%	MDL		0	J	ASTM D422-63		
FAY-SED-RM52-A-051820	05/18/2020	200-53737-1	Coarse Sand	0.7	%	MDL		0	J	ASTM D422-63		

Validation Reason Only one surrogate has relative percent recovery (RPR) values outside control limits and the parameter is a PFC (Detects).

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorooctane Sulfonamide	0.52	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorotridecanoic Acid	0.21	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFOS (trial)	1.6	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorobutanoic Acid (trial)	0.54	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorodecanoic Acid (trial)	0.23	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluoroundecanoic Acid (trial)	0.90	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorododecanoic Acid (trial)	0.69	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorooctane Sulfonamide (trial)	0.52	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	N-methyl perfluorooctane sulfonamidoacetic acid (TRIAL)	5.6	UG/KG	PQL		2.0	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorotridecanoic Acid (TRIAL)	0.20	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	NEtPFOSAE (trial)	2.2	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	NMePFOSAE (trial)	1.6	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFDS (trial)	0.28	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorododecanoic Acid	0.62	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorodecanoic Acid	0.23	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorodecane Sulfonic Acid	0.28	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluorobutanoic Acid	0.47	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	1.5	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	2.3	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	PFOS	1.4	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D



Validation Reason Only one surrogate has relative percent recovery (RPR) values outside control limits and the parameter is a PFC (Detects).

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Perfluoroundecanoic Acid	0.90	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	N-methyl perfluorooctane sulfonamidoacetic acid	4.6	UG/KG	PQL		2.0	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	2.8	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFOS	2.7	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFOS (trial)	2.8	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFOA(trial)	0.33	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorobutanoic Acid (trial)	0.64	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorononanoic Acid (trial)	0.21	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorodecanoic Acid (trial)	0.44	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluoroundecanoic Acid (trial)	0.60	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorododecanoic Acid (trial)	0.62	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorohexane Sulfonic Acid (trial)	0.27	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hfpo Dimer Acid (trial)	2.0	UG/KG	PQL		0.25	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorotridecanoic Acid (TRIAL)	0.22	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	NEtPFOSAE (trial)	2.9	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	NMePFOSAE (trial)	0.77	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorotridecanoic Acid	0.21	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorododecanoic Acid	0.61	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFOA	0.33	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorodecanoic Acid	0.44	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorohexane Sulfonic Acid	0.27	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D

Validation Reason Only one surrogate has relative percent recovery (RPR) values outside control limits and the parameter is a PFC (Detects).

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Perfluorobutanoic Acid	0.64	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.77	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	Hfpo Dimer Acid	2.0	UG/KG	PQL		0.25	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Perfluorododecanoic Acid	0.23	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Perfluorobutanoic Acid	0.38	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.56	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFOS (trial)	0.58	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Perfluorobutanoic Acid (trial)	0.39	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	Perfluorododecanoic Acid (trial)	0.23	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	NMePFOSAE (trial)	0.56	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	PFOS	0.59	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Hfpo Dimer Acid	0.011	UG/L	PQL		0.0040	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFOS	0.014	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluoropentanoic Acid	0.0095	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorohexanoic Acid	0.011	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFOA	0.0072	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorohexane Sulfonic Acid	0.0040	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorobutanoic Acid	0.0064	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorobutane Sulfonic Acid	0.0043	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluoroheptanoic Acid	0.0061	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFOS (trial)	0.014	UG/L	PQL		0.0020	J	537 Modified		3535_PFC

**Validation Reason**

Only one surrogate has relative percent recovery (RPR) values outside control limits and the parameter is a PFC (Detects).

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFOA(trial)	0.0070	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorobutanoic Acid (trial)	0.0064	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluoropentanoic Acid (trial)	0.0096	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorohexanoic Acid (trial)	0.011	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluoroheptanoic Acid (trial)	0.0060	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorobutane Sulfonic Acid (trial)	0.0042	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Perfluorohexane Sulfonic Acid (trial)	0.0041	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	Hfpo Dimer Acid (trial)	0.011	UG/L	PQL		0.0040	J	537 Modified		3535_PFC
FAY-SW-RM84-B-18-061020	06/09/2020	320-61742-5	Perfluorobutanoic Acid	0.0063	UG/L	PQL		0.0020	J	537 Modified		3535_PFC

Validation Reason

Quality review criteria exceeded between the REP (laboratory replicate) and parent sample. The reported result may be imprecise.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM149-C-063020	06/30/2020	320-62363-7	NEtPFOSAE (trial)	3.2	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	NEtPFOSAE (trial)	1.4	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM132-A-061120	06/11/2020	320-61777-1	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	1.4	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	NEtPFOSAE (trial)	15	UG/KG	PQL		0.66	J	537 Modified		Shake_Bath_14D
FAY-SW-RM100-B-9.5-062920	06/29/2020	280-138238-1	Total Suspended Solids	17	MG/L	MDL	1.1	4.0	J	2540 D-1997		
FAY-FBLK-5-062920	06/29/2020	280-138238-6	Total Suspended Solids	1.2	MG/L	MDL	1.1	4.0	J	2540 D-1997		

Validation Reason The analysis hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	Percent Moisture	52.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-C-061020-PT	06/10/2020	320-61742-6	Percent Solids	47.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	Percent Moisture	53.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-C-061020	06/10/2020	320-61742-3	Percent Solids	46.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	Percent Moisture	20.7	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-B-061020	06/10/2020	320-61742-2	Percent Solids	79.3	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	Percent Moisture	44.4	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	Percent Solids	55.6	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	Percent Moisture	55.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM84-A-061020	06/10/2020	320-61742-1	Percent Solids	44.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Percent Moisture	50.9	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-C-061020	06/10/2020	320-61745-3	Percent Solids	49.1	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	Percent Moisture	22.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM77-B-061020	06/10/2020	320-61745-2	Percent Solids	77.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	Percent Moisture	23.1	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-C-051820	05/18/2020	320-61072-6	Percent Solids	76.9	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	Percent Moisture	22.0	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-B-051820	05/18/2020	320-61072-5	Percent Solids	78.0	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	Percent Moisture	32.7	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	Percent Solids	67.3	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Percent Solids	77.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	Percent Moisture	22.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	Percent Moisture	56.1	%	PQL		0.1	J	D2216-90		

Validation Reason The analysis hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM20-C-051820	05/18/2020	320-61076-1	Percent Solids	43.9	%	PQL		0.1	J	D2216-90		
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	Percent Moisture	21.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM20-B-051820	05/18/2020	320-61076-2	Percent Solids	78.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	Percent Moisture	33.1	%	PQL		0.1	J	D2216-90		
FAY-SED-RM20-A-051820	05/18/2020	320-61076-3	Percent Solids	66.9	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020-D	06/30/2020	320-62363-8	Percent Moisture	75.4	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020-D	06/30/2020	320-62363-8	Percent Solids	24.6	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020-PT	06/30/2020	320-62363-9	Percent Moisture	63.4	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020-PT	06/30/2020	320-62363-9	Percent Solids	36.6	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-A-063020	06/30/2020	320-62363-11	Percent Moisture	62.3	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-A-063020	06/30/2020	320-62363-11	Percent Solids	37.7	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-B-063020	06/30/2020	320-62363-10	Percent Moisture	30.6	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-B-063020	06/30/2020	320-62363-10	Percent Solids	69.4	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020	06/30/2020	320-62363-7	Percent Moisture	62.0	%	PQL		0.1	J	D2216-90		
FAY-SED-RM149-C-063020	06/30/2020	320-62363-7	Percent Solids	38.0	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-A-062920	06/29/2020	320-62363-6	Percent Moisture	32.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-A-062920	06/29/2020	320-62363-6	Percent Solids	67.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-B-062920	06/29/2020	320-62363-5	Percent Moisture	22.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-B-062920	06/29/2020	320-62363-5	Percent Solids	77.5	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-C-062920	06/29/2020	320-62363-4	Percent Moisture	43.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM116-C-062920	06/29/2020	320-62363-4	Percent Solids	56.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Percent Solids	53.0	%	PQL		0.1	J	D2216-90		
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Percent Moisture	47.0	%	PQL		0.1	J	D2216-90		

**Validation Reason**

The analysis hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM100-A-062020	06/29/2020	320-62363-3	Percent Moisture	29.8	%	PQL		0.1	J	D2216-90		
FAY-SED-RM100-A-062020	06/29/2020	320-62363-3	Percent Solids	70.2	%	PQL		0.1	J	D2216-90		
FAY-SED-RM100-B-062920	06/29/2020	320-62363-2	Percent Moisture	22.1	%	PQL		0.1	J	D2216-90		
FAY-SED-RM100-B-062920	06/29/2020	320-62363-2	Percent Solids	77.9	%	PQL		0.1	J	D2216-90		
FAY-SW-RM116-B-13-062920	06/29/2020	280-138238-3	Total Suspended Solids	18	MG/L	MDL	1.1	4.0	J	2540 D-1997		
FAY-EQBLK-5-062920	06/29/2020	280-138238-8	Total Suspended Solids	2.8	MG/L	MDL	1.1	4.0	J	2540 D-1997		
FAY-EQBLK-6-063020	06/30/2020	280-138238-9	Total Suspended Solids	2.4	MG/L	MDL	1.1	4.0	J	2540 D-1997		

**Validation Reason**

Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the lower control limit but above the rejection limit. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFMOAA	0.018	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM84-B-10-061020	06/09/2020	320-61742-4	PFMOAA	0.019	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	PFMOAA	0.027	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM-149-B-1.5-063020	06/30/2020	320-62360-5	PFMOAA	0.029	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	PFMOAA	0.024	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM100-B-9.5-062920	06/29/2020	320-62360-1	PFMOAA	0.024	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	PFMOAA	0.017	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep
FAY-SW-RM132-B-6-061120	06/11/2020	320-61777-5	PFMOAA	0.017	ug/L	PQL		0.0020	J	Cl. Spec. Table 3 Compound SOP		PFAS_DI_Prep



Validation Reason The preparation hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFO2HxA	7.3	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PMPA	1.1	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PS Acid	1.8	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFO2HxA	3.9	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PFO3OA	1.6	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM77-A-061020	06/10/2020	320-61745-1	PMPA	1.3	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PFO2HxA	1.8	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFO2HxA	7.6	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFO3OA	2.2	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFO4DA	1.4	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920-PT	06/09/2020	320-61697-6	PFO5DA	1.4	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-C-060920	06/09/2020	320-61697-3	PMPA	1.9	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO2HxA	3.3	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PFO2HxA	3.1	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PMPA	1.5	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D
FAY-SED-RM76-A-060920	06/09/2020	320-61697-1	PMPA	1.5	UG/KG	PQL		1.0	J	Cl. Spec. Table 3 Compound SOP		Shake_Bath_14D

Validation Reason The preparation hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.26	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.24	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820-D	05/18/2020	320-61072-4	PFOS	0.57	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	NEtPFOSAE (trial)	0.25	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	NMePFOSAE (trial)	0.25	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	0.24	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM52-A-051820	05/18/2020	320-61072-1	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	0.23	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorodecanoic Acid (trial)	0.27	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoroundecanoic Acid (trial)	0.54	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorododecanoic Acid (trial)	0.49	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorotridecanoic Acid (TRIAL)	0.21	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorobutanoic Acid (trial)	0.51	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorobutanoic Acid	0.52	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorodecanoic Acid	0.26	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	2.3	UG/KG	PQL		1.2	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFOS (trial)	2.3	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorotridecanoic Acid	0.21	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluorododecanoic Acid	0.50	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D

Validation Reason

The preparation hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	15	UG/KG	PQL		0.63	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	PFOS	2.3	UG/KG	PQL		0.50	J	537 Modified		Shake_Bath_14D
FAY-SED-RM100-C-062920	06/29/2020	320-62363-1	Perfluoroundecanoic Acid	0.52	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	PFOA	0.0081	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorohexane Sulfonic Acid	0.0034	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorobutanoic Acid	0.0053	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorobutane Sulfonic Acid	0.0043	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluoroheptanoic Acid	0.0060	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluorohexanoic Acid	0.011	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	Perfluoropentanoic Acid	0.0096	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-18-060920	06/09/2020	320-61745-4	PFOS	0.014	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorohexane Sulfonic Acid	0.0044	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorobutanoic Acid	0.0053	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorobutane Sulfonic Acid	0.0041	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluoroheptanoic Acid	0.0067	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	PFOA	0.0078	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluorohexanoic Acid	0.013	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	Perfluoropentanoic Acid	0.010	UG/L	PQL		0.0020	J	537 Modified		3535_PFC
FAY-SW-RM77-B-10-060920	06/09/2020	320-61745-5	PFOS	0.014	UG/L	PQL		0.0020	J	537 Modified		3535_PFC

Site: Fayetteville

Sampling Program: Sediment Characterization Sampling

Validation Options: LABSTATS

**Validation Reason**

One or more surrogates had relative percent recovery (RPR) values less than the data rejection level. The reported result may be biased low.

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Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SED-RM149-C-063020-D	06/30/2020	320-62363-8	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	7.0	UG/KG	PQL		0.20	J	537 Modified		Shake_Bath_14D

**Validation Reason**

The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
FAY-SW-RM52-B-1.6-051820	05/18/2020	280-136897-1	Total Suspended Solids	2.8	MG/L	MDL	1.1	4.0	J	2540 D-1997		
FAY-SW-RM52-B-1.6-051820-D	05/18/2020	280-136897-2	Total Suspended Solids	2.8	MG/L	MDL	1.1	4.0	J	2540 D-1997		
EQBLK-3-061020-Z	06/10/2020	200-53950-19Z	Dissolved Organic Carbon	500	UG/L	MDL	350	1000	J	9060A		
FAY-EQBLK-6-063020	06/30/2020	280-138238-9	Carbon	0.39	MG/L	MDL	0.35	1.0	J	9060A		
FAY-SED-RM84-B-061020	06/10/2020	200-53950-8	Total Organic Carbon	960	MG/KG	MDL	684	1000	J	LLOYD KAHN		