



**REPORT**

**SITE ASSESSMENT REPORT**

*Fire Academy of the South - FSCJ  
2700 Fire Fighter Memorial Drive  
Jacksonville, Duval County, Florida  
DEP Facility ID Number: ERIC\_17235*

Submitted to:

**Florida Department of Environmental Protection**

Site Investigation Section  
2600 Blair Stone Road  
Mail Station 4520  
Tallahassee, Florida USA 32399-2400

Submitted by:

**Golder Associates USA Inc.**

9428 Baymeadows Road, Suite 400  
Jacksonville, Florida USA 32256

+1 904 363-3430

GL21470834A

August 2022



# Distribution List

1 Copy - Florida Department of Environmental Protection

# Table of Contents

<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>2.0 BACKGROUND INFORMATION</b>	<b>2</b>
2.1 Site Location and Description	2
2.2 Environmental Setting	2
2.2.1 Physiography and Topography	2
2.2.2 Regional Hydrogeology	2
2.3 Site History	3
2.3.1 Operational History	3
2.3.2 Historical Environmental Assessments	4
2.3.3 Site Reconnaissance Activities	4
<b>3.0 SITE ASSESSMENT ACTIVITIES</b>	<b>7</b>
3.1 Site Access and Utility Clearance	7
3.2 Soil and Sediment Assessment	7
3.3 Surface Water Assessment	9
3.4 Exploratory Lithologic Boring	9
3.5 Groundwater Assessment	10
3.5.1 Shallow Monitoring Well Installation	10
3.5.2 Vertical Groundwater Profiling	10
3.5.3 Deep Monitoring Well Installation	11
3.6 Groundwater Sampling	12
3.7 Well Survey	12
3.8 Investigation Derived Waste	12
<b>4.0 ANALYTICAL RESULTS</b>	<b>14</b>
4.1 Soil and Sediment	14
4.2 Surface Water	15
4.3 Groundwater	15

4.3.1	Groundwater Elevations.....	15
4.3.2	Vertical Profiling.....	15
4.3.3	Monitoring Well and Municipal Supply Well Analytical Results.....	16
4.3.3.1	Shallow Zone of the Surficial Aquifer.....	17
4.3.3.2	Deep Zone of the Surficial Aquifer.....	17
4.3.3.3	JEA Municipal Supply Wells.....	18
4.3.4	AFFF Analytical Results.....	18
4.4	Data Evaluation.....	18
4.4.1	Primary Source Areas.....	18
4.4.2	Secondary Source Areas.....	19
4.4.3	PFAS Radar Plots.....	20
<b>5.0</b>	<b>QUALITY ASSURANCE/QUALITY CONTROL.....</b>	<b>21</b>
<b>6.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>22</b>
<b>7.0</b>	<b>PROFESSIONAL CERTIFICATION.....</b>	<b>25</b>
<b>8.0</b>	<b>REFERENCES.....</b>	<b>26</b>

## TABLES

Table 1	Well Construction Details
Table 2	Summary of Detected PFAS Constituents in Soil
Table 3	Summary of VOC Constituents and TRPH in Soil
Table 4	Summary of SVOC Constituents in Soil
Table 5	Summary of Detected PFAS Constituents in Sediment
Table 6	Summary of Detected PFAS Constituents in Surface Water
Table 7	Groundwater Elevation Summary
Table 8	Summary of Detected PFAS Constituents in Groundwater Vertical Profiling Locations
Table 9	Groundwater Field Parameters
Table 10	Summary of Detected PFAS Constituents in Groundwater
Table 11	Summary of VOCs, SVOCs, and TRPH in Groundwater
Table 12	Summary of Percent Relative Abundance of PFAS Constituents in Surface and Groundwater

**FIGURES**

Figure 1	Site Location Map
Figure 2	Site Vicinity Map
Figure 3	Site Map
Figure 4	Monitoring Well Location Map
Figure 5	Soil, Sediment, Surface Water, and Vertical Profile Locations
Figure 5A	Soil Sample Analytical Results (AOC 1 and Emergency Vehicle Driver Training Area)
Figure 5B	Soil Sample Analytical Results (AOC 2 North)
Figure 5C	Soil Sample Analytical Results (AOC 2 South)
Figure 5D	Soil Sample Analytical Results (AOC 3)
Figure 5E	Soil Sample Analytical Results (AOC 4)
Figure 6	Sediment Sample Analytical Results
Figure 7	Surface Water Analytical Results
Figure 8	Potentiometric Surface Map of the Shallow Surficial Aquifer (April 2022)
Figure 9	Potentiometric Surface Map of the Deep Surficial Aquifer (April 2022)
Figure 10	Vertical Groundwater Profiling Analytical Results
Figure 11	Groundwater Analytical Results for the Shallow Surficial Aquifer
Figure 12	Groundwater Analytical Results for the Deep Surficial Aquifer
Figure 13	Groundwater Analytical Results for JEA Municipal Supply Wells

**APPENDICES****APPENDIX A**

Field Documentation

**APPENDIX B**

Photographic Log

**APPENDIX C**

Well Survey Report

**APPENDIX D**

Waste Manifests

**APPENDIX E**

Laboratory Analytical Reports

**APPENDIX F**

PFAS Signature Radar Charts

## 1.0 INTRODUCTION

Golder Associates USA Inc. (Golder) has prepared this Site Assessment Report for the Florida Department of Environmental Protection (FDEP) Site Investigation Section (SIS) to document the site assessment activities and evaluate potential sources of per- and polyfluoroalkyl substances (PFAS) impacting soil and groundwater at the Fire Academy of the South – Florida State College at Jacksonville (FSCJ) site (FDEP Facility ID: ERIC\_17235). Golder completed the site assessment activities in general accordance with the Site Assessment Work Plan, dated September 2021, and subsequent e-mail and telephone correspondence. This work was conducted under FDEP contract number HW561, task assignment number SA149. Services were performed in accordance with the FDEP-approved task assignment and Chapter 62-780 of the Florida Administrative Code (FAC).

## **2.0 BACKGROUND INFORMATION**

### **2.1 Site Location and Description**

The site is located at 2700 Fire Fighter Memorial Drive in Jacksonville, Duval County, Florida, in Section 29, Township 2 South, and Range 28 East, within the area mapped by the U.S. Geological Survey (USGS) Arlington, Florida, 7.5-minute topographic quadrangle map (Figure 1). The site is located at 30 degrees, 17 minutes, 55 seconds north latitude and 81 degrees, 30 minutes, 36 seconds west longitude.

The site is approximately 136 acres in area and is part of the FSCJ South Campus. The site consists of multiple firefighter training areas, an emergency vehicle driver training area and skid pad, multiple instructional/office buildings, undeveloped wooded areas and wetlands, and a JEA water treatment facility. The firefighter training areas include instructional space, burn pits, burn buildings, gas props, a debris field training area, an aircraft rescue and firefighting simulator, a maritime fire trainer, and storage buildings. Stormwater features include various drainage ditches and three ponds totaling approximately 2.3 acres.

According to the Duval County Property Appraiser website, the site is owned by FSCJ and is identified as “Public College” land use. The site was first developed in 1974 and firefighter training activities have taken place on the site since at least the early 1990s.

The site is accessed via Alden Road to the north. The site is surrounded primarily by residential and commercial properties to the north, residential and municipal park properties to the east, a utility easement followed by public college property to the south, and residential and county schoolboard properties to the west. The site vicinity map is shown on Figure 2. A site map identifying pertinent site features is shown on Figure 3.

### **2.2 Environmental Setting**

#### **2.2.1 Physiography and Topography**

The entire east coast of Florida is located within the Atlantic Coastal Plain regional physiographic province. The Atlantic Coastal Plain in Florida is characterized by five distinct topographic divisions. Duval County, located in northeastern Florida, occurs within two of the five topographic divisions. The western portion of Duval County is located in the Central Highlands topographic division. The eastern portion of the county is located in the Coastal Lowlands topographic division, an area of low relief with a series of coastal terraces and scarps.

The site is located within the Coastal Lowlands topographic division, approximately 7 miles west of the Atlantic Ocean. This area is characterized by ancient marine terraces with a series of coastal beach ridges separated by lower-lying swale features. Both the beach ridges and intervening swale features are oriented roughly parallel to the existing Atlantic shoreline, and represent coastal depositional features associated with higher stands of sea level during the geologic past.

The ground surface elevation in the area of the site is approximately 40 feet above mean sea level. The developed portion of the site is located on roughly north-south oriented ridge that slopes to lower-lying areas to the east and west.

#### **2.2.2 Regional Hydrogeology**

Four distinct hydrogeologic units can be defined within the stratigraphic units underlying the property, including the surficial aquifer, the secondary artesian aquifer, the upper confining unit, and the Floridan aquifer. The surficial aquifer consists of the Holocene and Pleistocene sediments, as well as the more permeable units of the

undifferentiated Pliocene and Upper Miocene deposits. This unit consists predominantly of sand, extending to a depth of approximately 50 to 70 feet below ground surface (bgs).

The secondary artesian aquifer consists of sand and shell beds and thin, fossiliferous limestone units that occur in the lowermost Pliocene and Upper Miocene deposits. This unit is typically encountered at depths of 80 to 100 feet in the general vicinity of the site and is typically separated from the overlying surficial aquifer by a relatively thin, reduced-permeability sandy clay unit.

Low permeability marl, clay, and dolomitic beds in the undifferentiated Upper Miocene deposits and the Miocene Hawthorn Group serve as the upper confining unit, which is approximately 450 feet thick in the vicinity of the property. This confining unit restricts the vertical movement of water between the overlying surficial and secondary artesian aquifers and the underlying Floridan aquifer.

The Floridan Aquifer in the vicinity of the property consists of the Ocala Group, Avon Park Limestone, and Lake City Limestone of Eocene age, as well as permeable beds of the lower Hawthorn Group that are in hydrologic contact with the rest of the aquifer. This hydrogeologic unit is the major source of water for irrigation, public supply, and industry in northeast Florida. The depth to the Floridan aquifer in the vicinity of the property is approximately 550 feet. JEA's Oakridge supply well group is located in the vicinity of the site and consists of multiple municipal supply wells screened in the Floridan aquifer.

Recharge to the surficial aquifer is principally through rainfall. The secondary artesian aquifer is primarily recharged by infiltration from the overlying surficial aquifer. The Floridan aquifer is recharged in areas where the overlying confining unit is either thin or absent, which occurs in several counties west of Duval County.

## **2.3 Site History**

### **2.3.1 Operational History**

This site is currently occupied by FSCJ, which has operated on the property since approximately 1974. The Fire Academy of the South began operations in its current location in the early 1990s. Prior to the current use, the site was undeveloped, vegetated land from at least 1943 until approximately 1970 when development on the site first began in the form of a water treatment plant in the southwest corner of the parcel.

According to documents reviewed, hands-on fire training associated with FSCJ Fire Science program took place at a facility on Stockton Street near downtown Jacksonville prior to the construction of the facility on the FSCJ campus in the early 1990s. The present-day skid pad has existed in the northern portion of the site since at least 1980; however, the historical use of the skid pad is unknown. The driving course in the northwest portion of the site was active by 1983. Building W1, Building W2, the Instructional Tower, burn pits, gas props, and the Debris Rescue Training Area were constructed and active by 1994. The Maritime Fire Trainer and associated pond were constructed in 2010. The Aircraft Rescue & Fire Fighting Simulator and associated ponds were constructed in 2013.

Activities on the site include training and certification of firefighters and emergency medical technicians, coursework for Fire Science degrees, and recertification burns. According to site personnel, the burn pits are regularly used for firefighter training and recertification burns. Aqueous Film Forming Foam (AFFF) has historically been used on the site, specifically in the area of the burn pits. AFFF is stored in bulk in conex shipping containers to the west of the fire pits and in the general fire training area in wheeled fire extinguisher carts for present-day training activities.



### 2.3.2 Historical Environmental Assessments

Ellis & Associates, Inc. (E&A) completed a limited soil, sediment, and groundwater assessment in the vicinity of the burn pit area of the site in 2011 and 2012. E&A completed additional groundwater assessment activities, including shallow and deep monitoring well installation and sampling in 2016, 2017, 2018, and 2019 (as ECS Florida, LLC [ECS]). Firefighter training activities within the burn pit area reportedly consisted of producing controlled fires for trainees to extinguish with AFFF (ECS, 2019). Gasoline is used as fuel for the burn pits and propane is used for fuel at the fire props and South Burn Building. After the fires were extinguished, fire pans were drained into an oil-water separator located west of the training area. Any unburned fuel product or AFFF was then pumped out of the oil-water separator and transported offsite for disposal (ECS, 2019). The purpose of the limited assessment was to screen soil, sediment, and groundwater for the presence of PFAS, based on the site's reported usage of fire-retardant materials, such as AFFF and attempt to delineate the extent of the contamination. The results of the investigation indicated that perfluoro-n-octanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) concentrations in soil located near the burn pit area were above FDEP Provisional Soil Cleanup Target Levels (PSCTLs) for leachability. The concentrations were, however, below the PSCTLs for residential direct exposure. In addition, PFOA and PFOS concentrations in groundwater samples collected from shallow and deep monitoring wells were above Provisional Groundwater Target Cleanup Levels (PGCTLs). Well construction details are provided in Table 1. The monitoring well location map is shown on Figure 4.

According to soil boring data collected by E&A, the surficial soil is underlain by approximately 80 feet of interbedded, gray-green, calcareous, silty clay and clayey sand; fine-to-medium grained, well sorted sand; shell; and cream to brown, soft friable limestone (E&A, 2012).

### 2.3.3 Site Reconnaissance Activities

On June 22 and June 23, 2021, Golder and DEP representatives completed a site reconnaissance with relevant facility personnel from the Fire Academy of the South and FSCJ. During the site reconnaissance, Golder and DEP completed the following site reconnaissance activities:

- Met with the appropriate representatives from the Fire Academy of the South – FSCJ and the FDEP SIS to discuss the proposed scope of work and establish lines of communication for future field activities.
- Discussed operational history, historical PFAS-containing materials storage areas, and the historical use of PFAS-containing materials, including AFFF.
- Walked the site to identify pertinent site features and areas of concern.
- Identified existing monitoring well locations and collected depth-to-groundwater measurements using an electronic water level indicator.
- Located and documented storm water collection features.
- Collected a potable water sample (Potable-1) from a source on the south side of Building 5C to evaluate the potential for use as a PFAS free water source during site assessment activities. Golder shipped the sample to the FDEP Central Laboratory in Tallahassee, Florida for PFAS analysis (DEP SOP: LC001-3).
- Collected two surface water samples: SW-1 (collected from the pond south of the Aircraft Training Area) and SW-2 (collected from the pond northwest of the Debris Field Training Area). Golder shipped the samples to the FDEP Central Laboratory in Tallahassee, Florida for PFAS analysis (DEP SOP: LC001-3).

- Identified an equipment decontamination location and investigation derived waste (IDW) storage area south of the South Burn Building.
- Documented pre-assessment site conditions by taking photographs of relevant site features.
- Documented current storage of AFFF in containers on site.

Based on observations and discussions during site reconnaissance, the following Areas of Concern (AOC) were identified:

- AOC 1: Debris Field Training Area – This area includes the Instructional Tower; a debris rescue training area (concrete, wood, and vehicular debris); and a stormwater collection system (perimeter ditch to the south and west and catch basins within the concrete pad surrounding the Instructional Tower) that discharges into a pond.
- AOC 2: Burn Pit Training Area – This area includes the South Burn Building; a burn pit and fire pan training area; an oil-water separator (OWS); gas props; material storage area; and a stormwater collection system (perimeter ditch to the south and east). The burn pits in the southern portion of AOC 2 are fueled by gasoline supplied by underground pipes coming from an aboveground storage tank (AST) in the fuel storage area located in the southwestern portion of AOC 2. Gas props in the northern portion of AOC 2 and the burn building are fueled by propane from an AST in the fuel storage area via underground pipes. Gasoline can also be pumped into smaller containers from a pump at Building W5 for use in smaller burn pans in the vicinity of the burn pits. Water was observed at the top of the OWS vent pipe and standing above the OWS exposed vault lid, indicating water had overflowed from OWS. Additionally, a sheen was observed in the standing water on top of the OWS vault lid. Several large cracks were observed in the concrete pad surrounding the South Burn Building. This area was also the primary focus area of the E&A and ECS site assessment activities.
- AOC 3: Aircraft Rescue and Training Area – This area includes the aircraft rescue and firefighting simulator; multiple fire pans on the concrete pad surrounding the simulator; a drainage swale around the perimeter of the concrete pad; and multiple stormwater and overflow ponds. Training fires in AOC 3 are fueled by propane via underground pipes from an AST in the northeastern corner of AOC 3. The training area is designed to allow water to drain towards catch basins and a circular trench drain in the center of the training area. A valve allows water used in training to either be directed towards the stormwater pond to the south of the training area or a municipal sanitary sewer line. According to site personnel, the water used during training activities is drained to the stormwater pond and will only be directed to the municipal sanitary sewer line if AFFF is used in training. According to personnel, AFFF has not historically been used for training in AOC 3. However, site personnel reported brief use of AFFF training during liquified natural gas fire training exercises in the grassy area to the southwest of aircraft training area.
- AOC 4: Maritime Fire Training Area – This area includes the maritime fire training simulator and a stormwater collection system (catch basins within the concrete pad surrounding the simulator) that discharges into a pond.

The analytical results from the potable water sample (Potable-1) indicated that PFAS were not detected above laboratory method detection limits. DEP approved the water source for drilling and equipment decontamination water during assessment activities. The PFOS concentrations were above the FDEP Provisional Surface Water Screening Level (PSWSL) of 10 nanograms per liter (ng/L) at surface water sampling locations SW-1 (240 ng/L) and SW-2 (1,200 ng/L). The PFOA concentrations were below the PSWSL of 500 ng/L at location SW-1 and SW-2. Based on the June 2021 groundwater elevation data, the groundwater flow direction in the shallow surficial aquifer appeared to flow in multiple directions towards the existing stormwater collection features (ditches, ponds, etc.).

The groundwater flow direction in the deep surficial aquifer appeared to be towards the southeast. The AOCs are identified on Figure 3.

Golder submitted a Site Assessment Work Plan, dated September 29, 2021, to the FDEP with the purpose of delineating the nature and extent of PFAS in the site soil and groundwater and identifying other potential sources of PFAS based on the historical use and storage of PFAS containing materials including AFFF of the site. The FDEP SIS contracted Golder in November 2021 to implement the Scope of Work with subsequent modifications based on e-mail and telephone correspondence. A summary of the assessment activities is included in the following sections.

## 3.0 SITE ASSESSMENT ACTIVITIES

Groundwater, surface water, sediment, and soil sampling activities were completed in accordance with FDEP Standard Operating Procedures (SOPs) for Field Activities (DEP SOP-001/01), dated January 2017 (effective April 16, 2018) and FDEP SOPs for Sampling and Analysis of PFAS, dated August 2020. Field equipment and drilling equipment were decontaminated with PFAS-free water upon arrival to the site and between uses at each sampling or well location in accordance with the SOPs for Sampling and Analysis of PFAS. Drilling equipment was decontaminated within a temporary containment pad located near the South Burn Building in AOC 2. Golder did not use any known PFAS-containing materials or equipment during site assessment activities. Field documentation of site assessment activities is provided in Appendix A. A photographic log of site assessment activities is provided in Appendix B.

### 3.1 Site Access and Utility Clearance

Prior to mobilization, the FDEP SIS obtained site access from the State of Florida (Fire Academy of the South - FSCJ) to complete the scope of work. Based on existing soil and groundwater analytical data and observations made during the site reconnaissance, Golder and the FDEP SIS identified proposed soil sampling locations, vertical profiling locations, shallow and deep monitoring well locations, surface water sampling locations, and an exploratory boring location. Locations were marked with pin flags and/or paint on the ground surface using a handheld GPS unit. Prior to initiating site assessment activities, Golder contacted Sunshine State One Call to identify underground utilities at these locations. In addition, from November 9-10, 2021, Golder contracted GeoTek Services, LLC (GeoTek) to locate shallow subsurface utilities or other buried hazards and to verify locations marked by Sunshine State One Call. Several anomalies, which were not marked by Sunshine State One Call, were identified by GeoTek using ground penetrating radar. Soil boring and well locations located near areas of potential underground conflicts were discussed with the FDEP SIS and adjusted accordingly. No significant changes to proposed sample locations were made based on the presence of underground utilities.

### 3.2 Soil and Sediment Assessment

Between November 11, 2021, and March 8, 2022, following completion of the utility locations activities, Golder advanced 115 soil borings and collected soil samples at the site. Soil samples were collected from the following locations:

- AOC 1: Debris Field Training Area – 10 locations (DEPSB-1 through DEPSB-10).
- AOC 2: Burn Pit Training Area – 81 locations
  - Gas Props – 27 locations (DEPSB-32 through DEPSB-58) in the gas props training area to the north of the burn building.
  - Burn Pits – 45 locations (DEPSB-66 through DEPSB-110) in the burn pit area to the south of the burn building.
  - Nine locations (DEPSB-59 though DEPSB-65, DEPSB-112, and DEPSB-113) in the paved and grassy areas surrounding the gas props, burn building, and burn pits.
- AOC 3 – Aircraft Training Area: 12 soil borings (DEPSB-20 through DEPSB-31) were advanced in grassy areas around the perimeter of the paved aircraft training area.

- AOC 4 – Maritime Fire Training Area: 10 soil borings (DEPSB-11 through DEPSB-19 and DEPSB-111) were advanced around the perimeter of the Maritime Fire Trainer.
- Emergency Vehicle Driver Training Area: Two soil borings (DEPSB-114 and DEPSB-115) were advanced at shallow monitoring well locations in the driver training area in the northern portion of the site.

In addition, Golder collected 15 sediment samples (SED-1 through SED-15) at the following locations:

- Three sediment samples were collected from the pond (SED-2 and SED-6) and a stormwater drainage ditch (SED-5) located in AOC 1.
- Two sediment samples (SED-9 and SED-10) were collected from drainage ditches in AOC 2.
- Three sediment samples (SED-1, SED-12, and SED-13) were collected from the pond and low-lying drainage areas located in AOC 3.
- Three sediment samples were collected from the pond (SED-7 and SED-8) and a low-lying drainage area (SED-14) located in AOC 4. Sample location SED-8 was sampled twice on separate dates.
- Two sediment samples (SED-3 and SED-4) were collected from the east-west running creek to the south of the powerline easement on the southern boundary of the site.
- One sediment sample (SED-11) was collected in the low-lying, wooded area (wetland) to the east of AOC 2.
- One sediment sample (SED-15) was collected from the pond located in the northwestern corner of the site to the north of the Emergency Vehicle Driver Training Area.

The soil sampling locations are shown on Figure 5, Figure 5A (AOC 1 and Emergency Vehicle Driver Training Area), Figure 5B (AOC 2 North), Figure 5C (AOC 2 South), Figure 5D (AOC 3), and Figure 5E (AOC 4). The sediment sample locations are shown on Figure 6.

At each soil sampling location, Golder used a decontaminated stainless-steel hand auger to collect soil samples from the ground surface to the top of the water table. In general, the water table was encountered between 1 and 4 feet bgs. Golder collected a minimum of two soil samples per location: 0 to 0.5 feet bgs and 0.5 feet bgs to 2 feet bgs (unless the water table was observed less than 2 feet bgs). If the water table was observed at a depth greater than 2 feet bgs, Golder collected a third soil sample between 2 feet bgs and the water table. Golder placed soil from each interval on clear polyethylene sheeting for mixing prior to placement into laboratory-supplied containers. The sediment samples were also collected using a decontaminated stainless-steel hand auger.

Golder prepared the chain-of-custody documentation and placed the soil samples and sediment sample in coolers with ice for transportation to the FDEP Central Laboratory. The FDEP Central Laboratory analyzed the soil and sediment samples for PFAS using DEP SOP: LC-001-3. Due to the presence of a sheen on top of the OWS in AOC 2, samples from soil borings DEPSB-107 through DEPSB-110 were additionally analyzed for semi-volatile organic compounds (SVOCs) using EPA 8270E, volatile organic compounds (VOCs) using EPA 8260D, and total recoverable petroleum hydrocarbons (TRPH) using the FL-PRO method.

In general, the soils and sediment encountered during soil sampling activities were dark brown and gray fine sand and fine sand-organics mixtures extending from the ground surface to approximately 4 feet bgs. A semi-permeable hardpan layer of varying thickness was observed across the site, generally beginning in the top 4 feet bgs and extending intermittently to approximately 20 feet bgs. Groundwater was observed between one and four feet bgs

in boreholes across the site. Groundwater elevation appeared to be dependent on the soil boring proximity to stormwater features and low-lying areas. Soil boring logs and field documentation are provided in Appendix A.

### 3.3 Surface Water Assessment

Between June 23, 2021 and March 8, 2022, Golder collected 12 surface water samples at the following locations:

- Three surface water samples were collected from the pond (SW-2 and SW-6) and a stormwater drainage ditch (SW-5) located in AOC 1.
- Two surface water samples (SW-9 and SW-10) were collected from drainage ditches in AOC 2.
- One surface water sample (SW-1) was collected from the pond located in AOC 3.
- Two surface water samples (SW-7 and SW-8) were collected from the pond in AOC 4.
- Two surface water samples (SW-3 and SW-4) were collected from the east-west running creek to the south of the powerline easement on the southern boundary of the site.
- One surface water sample (SW-11) was collected in the low-lying, wooded area (wetland) to the east of AOC 2.
- One surface water sample (SW-12) was collected from the pond located in the northwestern corner of the site and north of the Emergency Vehicle Driver Training Area.

The surface water sample locations are shown on Figure 7.

Surface water samples were collected using a low-flow peristaltic pump. The intake end of the tubing was affixed to a telescoping pole and placed in an area free of algae and other debris. The approximate sample depths were 6 inches below the top of the water. Three equipment volumes were purged at each sampling location before collecting field parameters, which included temperature, pH, specific conductance, dissolved oxygen, and turbidity. Field parameters were recorded on surface water sampling data sheets, which along with the equipment calibration records are also included in Appendix A.

Golder prepared the chain-of-custody documentation and placed the surface water samples in coolers with ice for transportation to the FDEP Central Laboratory. The FDEP Central Laboratory analyzed the samples for PFAS using DEP SOP: LC-001-3.

### 3.4 Exploratory Lithologic Boring

On March 14, 2022, a mini-sonic drill rig was used to advance an exploratory soil boring (Exploratory Boring) under the direct supervision of a Golder geologist to determine continuous lithologic profiles, which were used to identify potential aquitards, determine the thickness of the any identified low permeability clay zones and any zones of higher permeability. The exploratory boring was advanced in the grassy area in the northern portion of AOC 2, south of Building W2. The target depth of the exploratory boring was 100 feet bgs or the bottom of the first high-permeability zone within the Hawthorn Formation. Based on lithologic observations made during advancement and correspondence with the FDEP, the exploratory boring was terminated at 70 feet bgs. The exploratory boring location is shown on Figure 4.

In general, fine to silty sands and interbedded layers of dark brown silty sand with organics (hardpan) were encountered from the surface to approximately 34 feet bgs. Fine to silty sand containing approximately 35 percent shell hash (up to two inches) was observed from approximately 34 to 48 feet bgs. A low permeability clay

(95 percent) and shell hash (5 percent) unit was observed from approximately 48 to 52.5 feet bgs followed by silty sand with shell hash to approximately 55 feet bgs. Gray limestone was observed from 55 to 55.5 feet bgs. Low permeability clays and clay, silty sand, shell mixtures were observed from 55.5 to 70 feet bgs. The exploratory boring log is provided Appendix A.

## 3.5 Groundwater Assessment

### 3.5.1 Shallow Monitoring Well Installation

Between December 14, 2021, and March 7, 2022, Golder oversaw the use of direct-push technology (DPT) rigs to install 10 shallow zone monitoring wells (DEPMW-1S through DEPMW-10S) in the surficial aquifer at the locations shown on Figure 4.

Once the utilities were marked at ground surface, each well location was cleared for the presence of buried utilities using a hand auger to a minimum depth of 5 feet bgs. The monitoring wells were constructed of 0.75-inch diameter, Schedule 40 PVC casing with pre-packed 0.01-inch diameter slot size screen and 0.75-inch diameter, Schedule 40 PVC riser. Each screen was 10 feet in length and installed to a total depth of approximately 12 feet bgs. The well risers and screens were connected via flush-threaded joints. The annular space between the borehole wall and each well screen was completed with a pre-packed 20/30 grade silica sand filter pack from the bottom of the borehole to the top of the well screen. A 20/30 grade silica sand filter pack was then placed a minimum of 1 foot above the top of the well screen. A 6-inch thick, fine (30/65) grade silica sand seal was placed above the sand filter pack and the remainder of the annular space was completed with a Portland Cement Type II grout seal.

The monitoring wells were finished with flush-mounted surface completion and an 8-inch diameter bolt-down steel cover. The risers were capped with water-tight expandable locking plugs. A 2-foot by 2-foot concrete pad was constructed around the well to secure the flush-mounted vault, which was sloped away from the well to prevent surface water infiltration.

To remove fine grained particles in the filter pack and adhered to the borehole wall, and to establish a good hydraulic connection with the aquifer, each monitoring well was developed until the purged water remains visibly clear and free of suspended particulate matter. Monitoring well construction details are summarized in Table 1. Field documentation, including shallow monitoring well installation logs are provided in Appendix A.

### 3.5.2 Vertical Groundwater Profiling

On December 13, 2021, Golder and FDEP oversaw the use of a DPT rig equipped with GeoProbe K6300 flow control module, GeoProbe FI6000 data acquisition instrument, and hydraulic profiling tool (HPT) to assess hydraulic conductivity (K) at locations in AOC 1 (DEPMW-1S location) and AOC 2 (DEPMW-2S location). The HPT was able to measure K values continuously to approximately 65 feet bgs at each location. After reviewing the K values measured by the HPT with the FDEP site manager, vertical groundwater profiling sample intervals were adjusted from the proposed scope of work to collect groundwater samples from intervals with higher K values to a depth of 52 feet bgs.

On December 14, 2021, and on March 7 and 8, 2022, Golder oversaw the use of a DPT rig to complete vertical groundwater profiling. Vertical profiling points were advanced at the following four locations:

- AOC 1: Vertical profiling location VP-1 was located in the western portion of the debris field training area, adjacent to monitoring wells DEPMW-8S and DEPMW-1D.

- AOC 2: Vertical profiling location VP-2 was located in the northern portion of AOC 2 in a grassy area between the gas props and Building W2, next to monitoring wells DEPMW-2S, DEPMW-2D, and the exploratory soil boring.
- AOC 3: Vertical profiling location VP-3 was located in the grassy area off the southeastern edge of the aircraft rescue and fire training simulator pad, next to monitoring wells DEPMW-3S and DEPMW-3D.
- AOC 4: Vertical profiling location VP-4 was located east of the maritime fire training simulator and next to monitoring wells DEPMW-4S and DEPMW-4D.

The vertical profiling locations are shown on Figure 5.

Once the utilities were marked at ground surface, each profiling location was cleared for the presence of buried utilities using a hand auger to a minimum depth of 5 feet bgs. Golder collected groundwater samples using DPT tooling (4-foot screens) at three depth intervals that were predetermined based on HPT-derived K values and correspondence with the FDEP. The samples were collected from the following depth intervals: 20 to 24 feet bgs, 36 to 40 feet bgs, and 48 to 52 feet bgs. The samples were analyzed by the FDEP Central Laboratory for PFAS using DEP SOP: LC-001-3. The drilling contractor decontaminated the drilling rods, DPT screens, hand augers, and other relevant equipment upon arrival at the site and after each sample was collected. Field documentation, including the vertical profile groundwater sampling logs and HPT logs are provided in Appendix A.

### 3.5.3 Deep Monitoring Well Installation

On March 15 and 16, 2022, Golder oversaw the use of a mini-sonic drill rig to install four deep zone monitoring wells (DEPMW-1D through DEPMW-4D) at the locations shown on Figure 4. Each well location was cleared for the presence of buried utilities using a hand auger to a minimum depth of 5 feet bgs. The monitoring wells were constructed of 2-inch diameter, Schedule 40 PVC casing with a 0.01-inch diameter slot size screen and 2-inch diameter, Schedule 40 PVC riser. Each screen was 10 feet in length and installed to a total depth of approximately 50 feet bgs. The well risers and screens were connected via flush-threaded joints. A 20/30 grade silica sand filter pack was then placed to two feet above the top of the well screen. A 1-foot thick, fine (30/65) grade silica sand seal was placed above the sand filter pack and the remainder of the annular space was completed with a Portland Cement Type II grout seal.

Deep well DEPMW-2D was constructed in the exploratory boring borehole. The borehole collapsed from its total depth of 70 feet bgs to 55 feet bgs. The borehole was backfilled with hydrated bentonite pellets from 55 to 49 feet bgs, followed by 20/30 grade silica sand to 47 feet bgs. Water from the drill rig was used to pressurize the bentonite in the borehole, which compressed and formed a solid surface seal at 49 feet bgs, and the well was constructed as described above.

The monitoring wells were finished with flush-mounted surface completion and an 8-inch diameter bolt-down steel cover. The risers were capped with water-tight expandable locking plugs. A 2-foot by 2-foot concrete pad was constructed around the well to secure the flush-mounted vault, which was sloped away from the well to prevent surface water infiltration.

To remove fine grained particles in the filter pack and adhered to the borehole wall, and to establish a good hydraulic connection with the aquifer, each monitoring well was developed until the purged water remains visibly clear and free of suspended particulate matter. Monitoring well construction details are summarized in Table 1. Field documentation, including deep monitoring well installation logs are provided in Appendix A.



### 3.6 Groundwater Sampling

Golder mobilized to the site during the week of April 4, 2022, and collected groundwater samples from the 14 newly installed FDEP monitoring wells, 21 wells previously installed by E&A/ECS, and 4 JEA municipal supply wells (39 wells total). Golder could not collect a sample from monitoring well FSCJ-TMW-19S due to debris covering the well at the time of the sampling event. The wells sampled in the shallow zone of the surficial aquifer were as follows: DEPMW-1S through DEPMW-10S, FSCJ-TMW-1S, FSCJ-TMW-2SR, FSCJ-TMW-3S, FSCJ-TMW-4SR, FSCJ-TMW-6S, FSCJ-TMW-7SR, FSCJ-TMW-8S through FSCJ-TMW-18S, and FSCJ-TMW-20S (28 wells). The wells sampled in the deep zone of the surficial aquifer were as follows: DEPMW-1D through DEPMW-4D, FSCJ-TMW-2D, FSCJ-TMW-4DR, and FSCJ-TMW-6D (seven wells). The following JEA municipal supply wells (screened in the Floridan Aquifer with total depths from 440 to 1,000 feet, based on information gathered and presented in the September 2021 Site Assessment Work Plan) were sampled: Well 1, Well 5, Well 6, and Well 7 (four wells of seven wells in JEA's Oakridge supply well group).

Prior to groundwater sampling, the water level depth was measured at each well to be sampled to determine groundwater elevations across the site. The water level depth could not be collected at the JEA supply wells. Prior to collecting the groundwater sample, each well was purged and field parameters including temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential were monitored. JEA personnel reportedly pumped the supply wells for at least two hours prior to sampling. Water was allowed to purge through dedicated sample ports for five minutes, a single set of field parameters was recorded, then the laboratory sample was collected. Purge volumes and field parameters were recorded on field data sheets, and the field monitoring equipment was calibrated in accordance with the manufacturer's recommended procedures. Relevant sampling equipment was decontaminated after each sample was collected.

Golder prepared the chain-of-custody documentation and placed the samples in coolers with ice for transportation to the FDEP Central Laboratory. The FDEP Central Laboratory analyzed the samples for PFAS using DEP SOP LC-001-3. Samples from wells DEPMW-2S, DEPMW-8S, FSCJ-TMW-2SR, FSCJ-TMW-3S, FSCJ-TMW-11S, FSCJ-TMW-12S, FSCJ-TMW-17S, FSCJ-TMW-18S, and FSCJ-TMW-2D were additionally analyzed for SVOCs using EPA 8270E, VOCs using EPA 8260D, and TRPH using EPA FL-PRO. Field documentation is included in Appendix A.

### 3.7 Well Survey

The wells listed in the previous section were surveyed by Banks & Banks Consulting, Inc. (Banks), a Florida-licensed professional land surveyor, for top-of-well casing elevations (+/- 0.01 feet accuracy) and well spatial arrangement (+/- 0.1 feet accuracy). The horizontal datum was recorded in the North American Datum (NAD) 1983, Florida East Zone State Plane Coordinate system. The vertical datum was recorded in North American Vertical Datum of 1988 (NAVD 88). The survey results are summarized in Tables 1. The Banks report is included in Appendix C.

### 3.8 Investigation Derived Waste

Soil cuttings, equipment decontamination water, and well development and purge water from site assessment activities were placed in 55-gallon drums, appropriately labeled as IDW, and temporarily staged on the pavement to the south of the South Burn Building in AOC 2. Golder used the soil and groundwater analytical results for waste characterization purposes.

Clark Environmental Inc. (Clark) transported and disposed of four drums containing IDW liquids on February 1, 2022. Clark transported and disposed of four drums containing IDW soil cuttings and 17 drums containing IDW liquids (decontamination, well development, and groundwater sampling purge water) on May 23, 2022. The drum contents were initially transported to Clark's facility at 755 North Prairie Industrial Parkway in Mulberry, Florida for stabilization. The contents were then disposed at the Republic Services Cedar Trails facility in Bartow, Florida. The non-hazardous waste manifests are included in Appendix D.

## 4.0 ANALYTICAL RESULTS

### 4.1 Soil and Sediment

The FDEP has derived leachability-based PSCTLs of 2 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) for PFOA and 7  $\mu\text{g}/\text{kg}$  for PFOS concentrations. At this time, the FDEP has directed Golder to use the PSCTLs for both soil and sediment.

The reported PFOA concentrations in soil were above the leachability-based PSCTL of 2  $\mu\text{g}/\text{kg}$  in 5 of the 115 sample locations (DEPSB-4, DEPSB-48, DEPSB-51, DEPSB-54, and DEPSB-74). The exceedances ranged from 2.8  $\mu\text{g}/\text{kg}$  to 7.1  $\mu\text{g}/\text{kg}$ . One PFOA concentration exceedance was from a sample collected in AOC 1 and four were from samples collected in AOC 2.

The reported PFOS concentrations in soil were above the leachability-based PSCTL of 7  $\mu\text{g}/\text{kg}$  in 72 of the 115 sample locations. A brief summary of the PFOS results is as follows:

- The exceedances in AOC 1 (Debris Field Training Area – seven locations) ranged from 8.5  $\mu\text{g}/\text{kg}$  to 500  $\mu\text{g}/\text{kg}$ .
- The exceedances in the northern portion of AOC 2 (Burn Pit Training Area – 27 locations) ranged from 7.6  $\mu\text{g}/\text{kg}$  to 1,400  $\mu\text{g}/\text{kg}$ . The PFOS concentration of 1,400  $\mu\text{g}/\text{kg}$  in the soil sample collected from the 0.5 to 2.0 feet bgs depth interval at location DEPSB-48, which was located near the gas props, was also above the PSCTL for residential direct exposure. This was the only soil sample collected during site assessment activities with a PFOS concentration above the PSCTL for residential direct exposure.
- The exceedances in the southern portion of AOC 2 (Burn Pit Training Area – 35 locations) ranged from 7.6  $\mu\text{g}/\text{kg}$  to 390  $\mu\text{g}/\text{kg}$ .
- The exceedances in AOC 3 (Aircraft Training Area – three locations) ranged from 9.4  $\mu\text{g}/\text{kg}$  to 11  $\mu\text{g}/\text{kg}$ .
- The PFOS concentrations in AOC 4 (Maritime Fire Training Area) and the Emergency Driver Training Area were below the leachability-based PSCTL.

The SVOC, VOC, and TRPH concentrations in the soil samples collected from borings DEPSB-107 through DEPSB-110, which were located next to the oil-water separator in AOC 2, were below their respective SCTLs and/or laboratory method detection limits.

The reported PFOA concentrations were above the leachability-based PSCTL of 2  $\mu\text{g}/\text{kg}$  at three of the 15 sediment sample locations (SED-5, SED-10, and SED-11) and ranged from 4.1  $\mu\text{g}/\text{kg}$  to 15  $\mu\text{g}/\text{kg}$ . The reported PFOS concentrations were above the leachability-based PSCTL of 7  $\mu\text{g}/\text{kg}$  at eight of the 15 sediment sample locations (SED-2, SED-5, SED-6, SED-9, SED-10, SED-11, SED-14, and SED-15) and ranged from 11  $\mu\text{g}/\text{kg}$  to 870  $\mu\text{g}/\text{kg}$ . The highest PFOS concentrations were observed in the drainage ditch bordering AOC 1 and AOC 2 and the low-lying, wooded area (wetlands) to the east of AOC 2.

A summary of the detected PFAS in soil is provided in Table 2. A summary of the VOC constituents and TRPH in soil is provided in Table 3. A summary of SVOC constituents in soil is provided in Table 4. A summary of the detected PFAS in sediment is provided in Table 5. The soil analytical results are shown on Figure 5A (AOC 1 and Emergency Vehicle Driver Training Area), Figure 5B (AOC 2 North), Figure 5C (AOC 2 South), Figure 5D (AOC 3), and Figure 5E (AOC 4). The sediment analytical results are shown on Figure 6. The laboratory analytical reports are included in Appendix E.

## 4.2 Surface Water

The FDEP has derived PSWSLs of 500 ng/L for PFOA and 10 ng/L for PFOS concentrations. These screening levels are protective of human health for both freshwater and estuarine finfish and shellfish species. Golder observed site personnel fishing in the onsite ponds during site assessment activities. It is unknown whether the fish are kept for human consumption.

The reported PFOA concentrations were above the PSWSL of 500 ng/L at SW-9 (530 ng/L) and SW-10 (820 ng/L). The reported PFOS concentrations were above the PSWSL of 10 ng/L at each of the 12 surface water sampling locations and ranged from 12 ng/L to 14,000 ng/L. The highest PFOS concentrations (greater than 1,000 ng/L) were observed in the drainage ditch bordering AOC 1 and AOC 2, the stormwater pond in AOC 1, and the low-lying, wooded area (wetland) to the east of AOC 2.

The FDEP has also derived PSWSLs for PFOA and PFOS that are protective of ecology in both freshwater and marine environments. The reported PFOA and PFOS concentrations associated with this study were below the PSWSLs for freshwater. There are no marine environments at the site.

A summary of the detected PFAS in surface water is provided in Table 6. The PFOA and PFOS results from surface water samples are shown on Figure 7. The laboratory analytical reports are included in Appendix E.

## 4.3 Groundwater

### 4.3.1 Groundwater Elevations

On April 4, 2022, the depth-to-groundwater was measured and recorded at each well location using an electronic water level indicator. The surficial aquifer was subdivided into two zones, the shallow zone of the surficial aquifer and the deep zone surficial aquifer. The shallow zone consists of wells screened to a total depth of 11 to 12 feet bgs. The deep zone consists of wells screened to a total depth of approximately 50 or 60 feet bgs. Monitoring well FSCJ-TMW-19S was covered with debris at the time of the sampling event and could not be used for groundwater elevations. The depth-to-groundwater measurements and calculated groundwater elevations are summarized in Table 7. Due to the construction of the JEA supply wells, their depth-to-groundwater measurements could not be collected. The potentiometric map of the shallow zone of the surficial aquifer is shown on Figure 8. The potentiometric map of the deep zone of the surficial aquifer is shown on Figure 9.

The groundwater gradient in the shallow surficial aquifer generally flows away from developed portions of the site and towards the perimeter ditches, stormwater ponds, and adjacent low-lying swales to the east and west of the site. Multiple stormwater features exist on the site to direct stormwater and water used during training towards stormwater ponds and low-lying areas on site and towards the low-lying swales to the east and west of the site.

Based on the April 2022 groundwater elevation data, the groundwater gradient in the deep surficial aquifer is generally towards the southeast. Variability due to surface conditions observed in the shallow surficial aquifer is not observed the deep surficial aquifer.

### 4.3.2 Vertical Profiling

Golder collected groundwater samples from four vertical profiling locations at the following depth intervals: 20 to 24 feet bgs, 36 to 40 feet bgs, and 48 to 52 feet bgs. A brief summary of the results is presented below:

- AOC 1 (Debris Field Training Area, VP-1): The PFOA concentrations were above the PGCTL of 70 ng/L at the 20 to 24 feet bgs interval (330 ng/L) and the 36 to 40 feet bgs interval (1,400 ng/L). The PFOS

concentrations were above the PGCTL of 70 ng/L at each depth interval, with the highest concentration at the 20 to 24 feet bgs depth interval (12,000 ng/L). The combined PFOA and PFOS concentrations were above the PGCTL of 70 ng/L at each interval. The highest combined concentration was at the 20 to 24 feet bgs interval (12,330 ng/L); the lowest combined concentration was at the 48 to 52 feet bgs interval (344 ng/L).

- AOC 2 (Burn Pit Training Area, VP-2): The PFOA concentration was above the PGCTL at the 20 to 24 feet bgs depth interval (370 ng/L). The PFOS concentration was also above the PGCTL at the 20 to 24 feet bgs depth interval (5,300 ng/L). The combined PFOA and PFOS concentrations were above the PGCTL of 70 ng/L at the 20 to 24 feet bgs interval (5,670 ng/L). The PFOA, PFOS, and combined PFOA and PFOS concentrations were below the PGCTL at the two deeper depth intervals.
- AOC 3 (Aircraft Rescue and Training Area, VP-3): The PFOA, PFOS, and combined PFOA and PFOS concentrations were below their PGCTLs at each depth interval.
- AOC 4 (Maritime Fire Training Area, VP-4): The PFOA concentrations were below the PGCTL at each depth interval. The PFOS and combined PFOA and PFOS concentrations were below their PGCTLs in the 36 to 40 feet bgs interval. The PFOS concentrations were above the PGCTL at the 20 to 24 feet bgs interval (300 ng/L) and the 48 to 52 feet bgs interval (740 ng/L). The combined PFOA and PFOS concentrations were above the PGCTL at the 20 to 24 feet bgs interval (323 ng/L) and the 48 to 52 feet bgs interval (827 ng/L).
- In general, the highest PFAS concentrations were observed in AOC 1 and AOC 2. PFAS concentrations generally decreased with depth; however, at VP-4 in AOC 4, the highest PFOA and PFOS concentrations were observed at the deepest depth interval (48 to 52 feet bgs). High relative concentrations of short-chain (C6 or less) carboxylates, including perfluorohexanoic acid (PFHxA), perfluoropentanoic acid (PFPeA), and perfluorobutanoic acid (PFBA); short to long-chain sulfonates, including perfluorohexanesulfonic acid (PFHxS), perfluoropentanesulfonic acid (PFPeS), and perfluorobutanesulfonic acid (PFBS); and the short-chain fluorotelomer 6:2 fluorotelomer sulfonate (6:2 FTS) were also reported in samples with higher PFOA and PFOS concentrations. These PFAS were also reported in samples where PFOA and PFOS were below the PGCTL, including the VP-3 samples in AOC 3.

A summary of the detected PFAS at each of the vertical profiling locations is provided in Table 8. The PFOA and PFOS results from each vertical profiling location are shown on Figure 10. The laboratory analytical reports are included in Appendix E.

### 4.3.3 Monitoring Well and Municipal Supply Well Analytical Results

A summary of the groundwater field parameters is provided in Table 9. A summary of the detected PFAS in shallow and deep zone groundwater is provided in Table 10. A summary of the VOC, SVOC, and TRPH results are provided in Table 11. The PFOA and PFOS results from the shallow zone of the surficial aquifer are shown on Figure 11. The PFOA and PFOS results from the deep zone of the surficial aquifer are shown on Figure 12. The PFOA and PFOS results from the JEA supply wells are shown on Figure 13. The laboratory analytical reports are included in Appendix E.

#### **4.3.3.1 Shallow Zone of the Surficial Aquifer**

Golder collected groundwater samples from shallow zone monitoring wells DEPMW-1S through DEPMW-10S, FSCJ-TMW-1S, FSCJ-TMW-2SR, FSCJ-TMW-3S, FSCJ-TMW-4SR, FSCJ-TMW-6S, FSCJ-TMW-7SR, FSCJ-TMW-8S through FSCJ-TMW-18S, and FSCJ-TMW-20S (28 wells). The results are summarized as follows:

- The reported PFOA concentrations were above the PGCTL of 70 ng/L at 18 of the 28 well locations. The PFOA concentrations ranged from 82 ng/L (DEPMW-3S) to 2,500 ng/L (DEPMW-6S) in these 18 locations.
- The reported PFOS concentrations were above the PGCTL of 70 ng/L at 21 of the 28 well locations. The PFOS concentrations ranged from 82 ng/L (FSCJ-TMW-10S) to 72,000 ng/L (DEPMW-6S) at these 21 locations.
- The reported combined PFOA/PFOS concentrations were above the PGCTL of 70 ng/L at 25 of the 28 well locations. The combined PFOA/PFOS concentrations ranged from 117 ng/L (FSCJ-TMW-6S) to 74,500 ng/L (DEPMW-6S) at these 25 locations.
- High relative concentrations of short-chain (C6 or less) carboxylates, including PFHxA, PFPeA, and PFBA; short to long-chain sulfonates, including PFHxS, PFPeS, and PFBS; and the short-chain 6:2 FTS were reported in samples with higher PFOA and PFOS concentrations. In addition, perfluoro-1-hexane sulfonamide (FHxSA) was also reported at high relative concentrations, particularly in the vicinity of the burn pits in AOC 2.
- PFOA and PFOS concentrations are present in shallow groundwater at concentrations above the PGCTLs across the site. The horizontal extent has not been well defined in any direction. The combined PFOA/PFOS concentrations were consistently the highest in AOC 1 and AOC 2; however, the highest concentration (74,500 ng/L) was observed in the sample collected from monitoring well DEPMW-6S, which is located in the southern portion of AOC 3. The combined PFOA/PFOS concentrations from wells in this area are generally two orders of magnitude less than the concentration observed at monitoring well DEPMW-6S, indicating a potentially isolated release. The soil analytical results collected in AOC 3, however, do not appear to correlate with the high groundwater concentration observed at monitoring well DEPMW-6S.

#### **4.3.3.2 Deep Zone of the Surficial Aquifer**

Golder collected groundwater samples from deep zone monitoring wells DEPMW-1D through DEPMW-4D, FSCJ-TMW-2D, FSCJ-TMW-4DR, and FSCJ-TMW-6D (seven wells). The results are summarized as follows:

- The reported PFOA concentration was above the PGCTL of 70 ng/L at monitoring well DEPMW-1D (1,300 ng/L). The reported PFOA concentrations at the other locations were below the PGCTL.
- The reported PFOS concentration was above the PGCTL of 70 ng/L at monitoring well DEPMW-1D (5,900 ng/L). The reported PFOS concentrations at the other locations were below the PGCTL.
- The reported combined PFOA/PFOS concentrations were above the PGCTL of 70 ng/L at monitoring wells DEPMW-1D (7,200 ng/L) and FSCJ-TMW-2D (72 ng/L). The reported combined PFO/PFOS concentrations were below the PGCTL at the other locations.
- As discussed in Section 4.3.2, the highest PFOA and PFOS concentrations were observed at the deepest depth interval (48 to 52 feet bgs) at vertical profile location VP-4 in AOC 4; however, the PFOA and PFOS concentrations in deep monitoring well DEPMW-4D (installed at same location) were below PGCTLs.

- With the exception of deep monitoring well DEPMW-1D (AOC 1), the PFAS concentrations in deep zone groundwater were observed to be significantly less than those observed in the shallow zone groundwater. This observation is generally consistent with the results of the groundwater vertical profiling (see Section 4.3.2).
- While the PFOS concentration was slightly lower, the PFOA concentration at deep monitoring well DEPMW-1D was higher than the PFOA concentration at its corresponding shallow monitoring well DEPMW-8S. The PFOA and PFOS concentrations in soil were above the leachability-based PSCTLs in this area.

#### **4.3.3.3 JEA Municipal Supply Wells**

Golder collected groundwater samples from four JEA municipal supply wells associated with the Oakridge wellfield (Well 1, Well 5, Well 6, and Well 7). The wells are screened in the Floridan Aquifer with total depths from ranging from 440 to 1,000 feet bgs. No PFAS were detected at concentrations above laboratory method detection limits in the JEA municipal supply wells.

#### **4.3.4 AFFF Analytical Results**

Golder observed the presence of various AFFF products onsite during the June 2021 site reconnaissance and subsequent field activities. These products included Aer-O-Lite™ 3% AFFF, Chemguard 3% x 6% Alcohol Resistant AFFF, and Ansilite 3% x 3% AFFF (Ansilite). Golder collected a sample of the Ansilite product on December 15, 2021 and submitted the sample to the FDEP Central Laboratory for PFAS analysis. As shown in Table 12, the following PFAS were detected at concentrations above the laboratory method detection limit: PFBA (210 ng/L), PFPeA (250 ng/L), PFHxA (2,800 ng/L), PFOA (25 ng/L), PFOS (240 ng/L), and 6:2 FTS (7,700 ng/L).

### **4.4 Data Evaluation**

#### **4.4.1 Primary Source Areas**

The results of the site assessment activities indicate that there are likely multiple source areas located at the site. The highest PFAS concentrations in soil, sediment, surface water, and groundwater were generally observed in AOC 1 (Debris Field Training Area) and AOC 2 (Burn Pit Training Area), where fire training activities have been conducted since the early 1990s. The high concentrations of PFOS in each media suggest the historical use of Legacy PFOS AFFF in AOC 1 and AOC 2. Legacy PFOS AFFF was manufactured from the late 1960s until 2002 and contained “PFOS and various precursors that could break down in the environment to PFOS and short-chain sulfonate PFAS, such as PFHxS” (ITRC, 2020). In addition, older formulations contained PFOA and fluorinated precursors, which could break down to PFOA and short-chain carboxylate PFAS (ITRC, 2020).

The presence of PFOA, 8:2 fluorotelomer sulfonate (8:2 FTS), 6:2 FTS, and PFHxA also suggests some historical use of Legacy Fluorotelomer AFFF, which was manufactured from the 1970s until 2016 and contains both short chain and replacement long chain fluorotelomers that can degrade to PFOA (ITRC, 2020). High relative concentrations of short-chain (C6 or less) carboxylates in groundwater, including PFHxA, PFPeA, and PFBA; short to long-chain sulfonates, including PFHxS, PFPeS, and PFBS; and the short-chain 6:2 FTS were reported in samples with higher PFOA and PFOS concentrations.

In addition, FHxSA was also reported at high relative concentrations (e.g., FSCJ-TMW-2SR and FSCJ-TMW-3S), particularly in the vicinity of the burn pits in AOC 2. A summary of the percent relative abundance of PFAS constituents in groundwater is shown in Table 12. FHxSA is a PFAS that has also been reported in older formulations of AFFF, alongside with PFOS, PFHxS and longer-chain PFAS compounds (Eurofins, 2021).

The soil analytical results indicate PFOA and PFOS concentrations are above leachability-based PSCTLs in vadose zone soil within AOC 1 and AOC 2. The soil analytical results from samples collected north of AOC 1 and AOC 2 (DEPSB-10, DEPSB-59, DEPSB-114, and DEPSB-115) and from south of AOC 2 (DEPSB-31) were below PSCTLs; however, additional samples will likely need to be collected south, east, and west of AOC 1 and east and west of AOC 2, if feasible, to determine the horizontal extent of the impacts. Golder observed that the areas east and west of AOC 1 and AOC 2 generally consist of low-lying, wooded areas (wetlands).

The groundwater analytical results indicate PFOA and PFOS concentrations are present in shallow groundwater at concentrations above the PGCTLs across the site, with the exception of upgradient well MW-10S. The downgradient horizontal extent of PFOA and PFOS impacts above the PGCTLs has not been delineated in shallow groundwater. The combined PFOA/PFOS concentrations were consistently the highest in AOC 1 (shallow and deep zone) and AOC 2 (shallow zone); however, the highest concentration was observed in the sample collected from monitoring well DEPMW-6S, which is located in the southern portion of AOC 3 (see next section for discussion). Golder recommends installing additional shallow zone monitoring wells in accessible areas along the site boundary.

The sediment and surface water analytical results suggest that PFAS present in the run-off associated with fire training activities in AOC 1 and AOC 2 have entered the stormwater collection system (perimeter ditch to the south, east, and west and various catch basins) that discharges into the pond in AOC 1. The sediment and surface water analytical results east of AOC 2 (SED-11 and SW-11) and south of AOC 1 (SED-14) indicate that the impacts are not limited to the collection system. Golder is unaware if any flow in the perimeter ditch is diverted into the low-lying, wooded areas (wetlands) surrounding AOC 1 and AOC 2. Golder recommends delineating the sediment and surface water impacts at the site.

Given the high concentrations of PFOA and PFOS in groundwater within AOC 1 and AOC 2, Golder recommends that the FDEP consider the effectiveness and feasibility of an Interim Source Removal (ISR) to address soil with concentrations above leachability-based PSCTLs.

#### **4.4.2 Secondary Source Areas**

The Maritime Fire Trainer and associated pond in AOC 4 were constructed in 2010. The Aircraft Rescue & Fire Fighting Simulator and associated ponds in AOC 3 were constructed in 2013. The soil analytical results from samples collected in these two areas were relatively low. PFOA concentrations in soil were below the PSCTL in both areas. PFOS concentrations were slightly above the PSCTL in AOC 3 (maximum concentration of 11 µg/kg) and below the PSCTL in AOC 4. The PFOA and PFOS concentrations in groundwater generally decrease in AOC 3 and AOC 4, when compared to concentrations observed in AOC 1 and AOC 2, with the exception of the results at shallow zone monitoring wells DEPMW-4S, DEPMW-6S, FSCJ-TMW-4SR, and FSCJ-TMW-8S. Monitoring wells DEPMW-6S, FSCJ-TMW-4SR, and FSCJ-TMW-8S are generally downgradient from and likely impacted by source areas located on AOC 1 and AOC 2. The combined PFOA/PFOS concentrations from wells in this area are generally two orders of magnitude less than the concentration observed at monitoring well DEPMW-6S, indicating a potentially isolated release near DEPMW-6S. Notably, the 6:2 FTS concentration at monitoring well DEPMW-6S was the highest reported during assessment activities at 140,000 ng/L. As discussed above, the soil analytical results from AOC 3 and AOC 4 do not appear to correlate with the high groundwater concentrations observed in DEPMW-6S. Golder recommends collecting an additional groundwater sample from DEPMW-6S to confirm the results. If confirmed, Golder recommends additional soil sampling in vicinity of DEPMW-6S.



The PFOS concentration observed at monitoring well DEPMW-9S (3,600 ng/L) suggests an additional source area may be present near the skid pad and north of AOC 1 and AOC 2. Golder recommends additional assessment activities in the vicinity of the skid pad.

#### 4.4.3 PFAS Radar Plots

Golder also prepared radar plots showing short and long-chain PFAS concentrations in each AOC to allow for an effective evaluation of PFAS signatures in samples collected from shallow and deep monitoring wells and surface water across the site. The radar plots are included in Appendix F. Golder also included the radar plot for the Ansulite sample on each chart to evaluate that product as a potential source of the PFAS contamination. Overall, the PFAS signatures in shallow groundwater and surface water are similar across the site. Although the 6:2 FTS and PFHxA concentrations in groundwater and surface water at the site are generally within the signature of the Ansulite sample, the higher concentrations of PFOS, PFHxS, FHxSA, and 8:2 FTS suggest that the primary source of PFAS contamination is from releases of older AFFF formulations.

The PFAS signature in the deep zone groundwater (see DEPMW-1D) appears to be unique. The concentrations of short-chain sulfonates (PFBS and PFPeS), as well as PFHxS and FBSA are much higher than those observed in shallow zone groundwater. Also, as discussed in Section 4.3.3.2, while the PFOS concentration was slightly lower, the PFOA concentration at deep monitoring well DEPMW-1D was higher than the PFOA concentration at its corresponding shallow monitoring well DEPMW-8S. The results suggest the potential for an additional upgradient source that has yet to be identified, or that the results could be indicative of a similar source with more precursors that have degraded into short-chain sulfonates. Therefore, Golder recommends installing additional deep zone monitoring wells in accessible areas north, west, and southwest of monitoring well DEPMW-1D.

## 5.0 QUALITY ASSURANCE/QUALITY CONTROL

Sampling was completed in accordance with applicable FDEP SOPs, project quality assurance goals were met, and the data obtained are reliable for their intended purpose. The laboratory performed method blank analyses, and accuracy and precision values were met. In addition, the following quality assurance/quality control (QA/QC) samples were collected during field activities:

- Soil and sediment sampling: 14 equipment blanks (EQB-HA-1 through EQB-HA-14) and one field reagent blank (FRB-SB-85).
- Surface water sampling: three duplicate samples (DUP-SW-4, DUP-SW-10, and DUP-SW-12), one equipment blank (EQB-PP-1), and one field reagent blank (FRB-SW-8).
- Vertical profiling and shallow monitor well installation: one duplicate sample (DUP-VP-2-20-24), two equipment blanks (EQB-Screenpoint-1 and EQB-Screenpoint-2), and two field reagent blanks (FRB-VP-1 and FRB-DEPMW-10S).
- Groundwater sampling: three duplicate samples (DUP-FSCJ-TMW-4SR, DUP-FSCJ-TMW-13S, and DUP-FSCJ-TMW-18S), two equipment blanks (EB-PP-1 and EB-PP-2), one field reagent blank (FRB-FSCJ-TMW-8S), and one trip blank.

Duplicate samples were collected immediately after collection of the primary field sample. The equipment blanks were collected by pumping (peristaltic pump) laboratory-supplied PFAS-free water through silicon and HDPE tubing into laboratory-supplied sample containers, or by pouring PFAS-free water over the sampling equipment (i.e., bucket augers, DPT drill rods, and DPT screen tooling) and collecting the water into the sample containers. Field reagent blanks consisted of PFAS-free water containerized in HDPE sample containers filled at the laboratory prior to beginning field activities. The field reagent blank sample containers were opened during the collection of a sample, and the laboratory-supplied PFAS-free water was poured directly into the sample containers and resealed. The trip blanks contained PFAS-free water provided by the laboratory and were kept in the coolers during sampling activities.

With the exception of the trip blank, each of the QA/QC samples collected were analyzed by the FDEP Central Laboratory for PFAS using DEP SOP: LC-001-3. The trip blanks were analyzed for VOCs by EPA Method 8260D. Equipment blank sample EQB-HA-13 was additionally analyzed for SVOCs using EPA 8270E, VOCs using EPA Method 8260D, and TRPH using the FL-PRO method. The analytical results for the duplicate samples were similar to the primary field sample results. No target analytes were detected in the QA/QC samples, with the exception of low-level PFAS in sample EQB-HA-8 (no PFOA or PFOS detected).

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

In June 2021, Golder and FDEP representatives completed a site reconnaissance with relevant facility personnel from the Fire Academy of the South and FSCJ. Based on observations and discussions during site reconnaissance, Golder and the FDEP identified four areas of concern: AOC 1 (Debris Field Training Area); AOC 2 (Burn Pit Training Area); AOC 3 (Aircraft Rescue and Training Area); and AOC 4 (Maritime Fire Training Area).

Between June 2021 and March 2022, Golder collected soil samples from 115 soil borings (DEPSB-1 through DEPSB-115); 15 sediment samples (SED-1 through SED-15); 12 surface water samples (SW-1 through SW-12); and groundwater samples from three depth intervals at four vertical profiling locations (VP-1 through VP-4). Between December 2021 and March 2022, Golder oversaw the installation of 10 new shallow monitoring wells (DEPMW-1S through DEPMW-10S) and the advancement of an exploratory soil boring to 70 feet bgs to log lithology and identify zones of low and high permeability. In March 2022, Golder oversaw the installation of four new deep monitoring wells (DEPMW-1D through DEPMW-4D). In April 2022, Golder collected groundwater samples in from the new and existing monitoring wells, as well as four JEA municipal supply wells.

The results of the investigation indicated the following:

- There are likely multiple source areas located at the site. The highest PFAS concentrations in soil, sediment, surface water, and groundwater were generally observed in AOC 1 (Debris Field Training Area) and AOC 2 (Burn Pit Training Area), where fire training activities have been conducted since the early 1990s. The high concentrations of PFOS in each media suggest the historical use of Legacy PFOS AFFF in AOC 1 and AOC 2. The presence of PFOA, 8:2 FTS, 6:2 FTS, and PFHxA also suggests some historical use of Legacy Fluorotelomer AFFF.
- The soil analytical results indicate PFOA and PFOS concentrations above leachability-based PSCTLs in vadose zone soil within AOC 1 and AOC 2. The soil analytical results from samples collected north of AOC 1 and AOC 2 (DEPSB-10, DEPSB-59, DEPSB-114, and DEPSB-115) and from south of AOC 2 (DEPSB-31) were below PSCTLs.
- The soil analytical results from samples collected in AOC 3 and AOC 4 were relatively low. PFOA concentrations in soil were below the PSCTL in both areas. PFOS concentrations were slightly above the PSCTL in AOC 3 (maximum concentration of 11 µg/kg) and below the PSCTL in AOC 4.
- The sediment and surface water analytical results suggest that PFAS present in the run-off associated with fire training activities in AOC 1 and AOC 2 have entered the stormwater collection system (perimeter ditch to the south, east, and west and various catch basins) that discharges into the pond in AOC 1. The sediment and surface water analytical results east of AOC 2 (SED-11 and SW-11) and south of AOC 1 (SED-14) indicate that the impacts are not limited to the collection system. Golder is unaware if any flow in the perimeter ditch is diverted into the low-lying, wooded areas (wetlands) surrounding AOC 1 and AOC 2.
- The groundwater analytical results indicate PFOA and PFOS concentrations are present in shallow groundwater at concentrations above the PGCTLs across the site, with the exception of upgradient well MW-10S. The downgradient horizontal extent of PFOA and PFOS impacts above the PGCTLs has not been delineated in shallow groundwater. The combined PFOA/PFOS concentrations were consistently the highest in AOC 1 (shallow and deep zone) and AOC 2 (shallow zone); however, the highest concentration was observed in the sample collected from monitoring well DEPMW-6S, which is located in the southern portion of AOC 3.

- High relative concentrations of short-chain (C6 or less) carboxylates in groundwater, including PFHxA, PFPeA, and PFBA; short to long-chain sulfonates, including PFHxS, PFPeS, and PFBS; and the short-chain 6:2 FTS were reported in samples with higher PFOA and PFOS concentrations. In addition, FHxSA was also reported at high relative concentrations (e.g., FSCJ-TMW-2SR and FSCJ-TMW-3S), particularly in the vicinity of the burn pits in AOC 2.
- With the exception of deep monitoring well DEPMW-1D (AOC 1), the PFAS concentrations in deep zone groundwater were observed to be significantly less than those observed in the shallow zone groundwater.
- No PFAS were detected at concentrations above laboratory method detection limits in the JEA municipal supply wells.
- Overall, the PFAS signatures in shallow groundwater and surface water are similar across the site. Although the 6:2 FTS and PFHxA concentrations in groundwater and surface water at the site are generally within the signature of the Ansilite sample, the higher concentrations of PFOS, PFHxS, FHxSA, and 8:2 FTS suggest that the primary source of PFAS contamination is from releases of older AFFF formulations.
- The PFAS signature in the deep zone groundwater (see DEPMW-1D) appears to be unique. The concentrations of short-chain sulfonates (PFBS and PFPeS), as well as PFHxS and FBSA are much higher than those observed in shallow zone groundwater. While the PFOS concentration was slightly lower, the PFOA concentration at deep monitoring well DEPMW-1D was higher than the PFOA concentration at its corresponding shallow monitoring well DEPMW-8S. The results suggest the potential for an additional upgradient source that has yet to be identified, or that the results could be indicative of a similar source with more precursors that have degraded into short-chain sulfonates.
- Golder recommends installing additional shallow zone monitoring wells in accessible areas along the site boundary. Golder also recommends installing additional deep zone monitoring wells in accessible areas north, west, and southwest of monitoring well DEPMW-1D.
- Golder recommends collecting additional soil samples east and west of AOC 1 and AOC 2, if feasible, to determine the horizontal extent of the impacts. Golder observed that the areas east and west of AOC 1 and AOC 2 generally consist of low-lying, wooded areas (wetlands).
- Golder recommends delineating the sediment and surface water impacts at the site.
- The soil analytical results from AOC 3 and AOC 4 do not appear to correlate with the high groundwater concentrations observed in the area, particularly monitoring well DEPMW-6S. Golder recommends collecting an additional groundwater sample from DEPMW-6S to confirm the results. If confirmed, Golder recommends additional soil sampling in vicinity of DEPMW-6S.
- The PFOS concentration observed at monitoring well DEPMW-9S (3,600 ng/L) suggests an additional source area may be present near the skid pad and north of AOC 1 and AOC 2. Golder recommends additional assessment activities in the vicinity of the skid pad.
- Given the high concentrations of PFOA and PFOS in groundwater within AOC 1 and AOC 2, Golder recommends that the FDEP consider the effectiveness and feasibility of an ISR to address soil contamination present at concentrations above leachability-based PSCTLs.

## Signature Page

**Golder Associates USA Inc.**



Scott C. Neal  
*Consultant, Geologist*



Matthew C. Crews, PE  
*Senior Lead Consultant, Environmental Engineer*

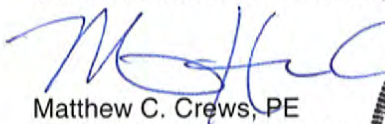
SCN/MCC/as

[https://golderassociates.sharepoint.com/sites/148086/Project Files/6 Deliverables/SA149 - Site Assessment/Site Assessment Report/SA149 - Fire Academy of the South Site Assessment Report.docx](https://golderassociates.sharepoint.com/sites/148086/Project%20Files/6%20Deliverables/SA149%20-%20Site%20Assessment/Site%20Assessment%20Report/SA149%20-%20Fire%20Academy%20of%20the%20South%20Site%20Assessment%20Report.docx)

## 7.0 PROFESSIONAL CERTIFICATION

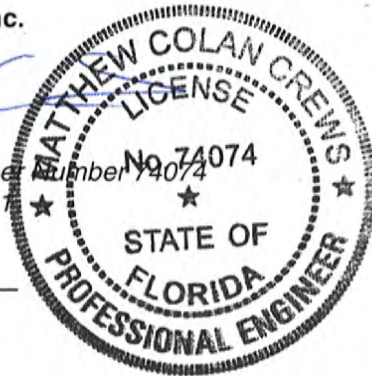
This report has been completed under the responsible charge of a Florida Licensed Professional Engineer employed by Golder Associates USA Inc. in accordance with the requirements of Chapter 62-780 of the Florida Administrative Code. Our professional services have been performed using the degree of care and skill ordinarily exercised under similar circumstances by registered professionals practicing in the field of geology. All drawings, reports, data tables, or other geologic information contained in this report have been prepared or approved by the undersigned professional geologist, or a subordinate employee under their direction, for delivery to the public record within the State of Florida. This certification of geologic work applies only to the original document and does not pertain to copies of this document which can be changed by the entity with whom such document(s) are filed. No other representation, expressed or implied, is made as to the professional advice in this report.

**Golder Associates USA Inc.**



Matthew C. Crews, PE  
Florida Professional Engineer Number 74074  
Authorization Number 35297

8/31/22  
Date



## 8.0 REFERENCES

ECS Florida, LLC, June 2019. *Site Assessment – Monitoring Well Installation and Groundwater Monitoring Report*, Florida State College Jacksonville South Campus Burn Pit, Jacksonville, Florida.

Ellis & Associates, Inc., August 2012. *Site Assessment Report, Florida State College Jacksonville South Campus Burn Pit*, Jacksonville, Florida.

Eurofins, 2021. “Overlooked PFAS Compound in Water” <https://www.eurofins.se/tjaenster/miljoe-och-vatten/nyheter-miljo/overlooked-pfas-compound-in-water/>.

Interstate Technology Regulatory Council. 2020. “Aqueous Film-Forming Foam (AFFF)” <https://pfas-1.itrcweb.org/fact-sheets/>.

## TABLES



**TABLE 1  
WELL CONSTRUCTION DETAILS**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Well ID	Northing <sup>A</sup>	Easting <sup>A</sup>	Total Depth	Screen Interval	Well Diameter	Drilling Method	TOC Elevation <sup>A</sup>	Date Installed
	(NAD 83)	(NAD 83)	(feet)	(feet bgs)	(inches)	--	(feet NAVD)	--
<b>Shallow Zone Wells</b>								
FSCJ-TMW-1S	2168394.650	495663.691	12	7-12	2	NA	38.58	2011
FSCJ-TMW-2S*	NA	NA	12	7-12	2	NA	NA	2011
FSCJ-TMW-2SR	2168398.354	495547.505	11	1-11	1.25	NA	38.75	2017
FSCJ-TMW-3S	2168389.793	495516.031	12	7-12	2	NA	37.93	2011
FSCJ-TMW-4S*	NA	NA	11	1-11	2	NA	NA	2012
FSCJ-TMW-4SR	2168249.702	495672.281	11	1-11	2	NA	39.23	2013
FSCJ-TMW-5S	NA	NA	11	1-11	2	NA	NA	2012
FSCJ-TMW-5SR	2168219.343	495546.497	12	2-12	1.25	NA	38.31	2017
FSCJ-TMW-6S	2168229.572	495434.342	11	1-11	1.25	NA	37.77	2012
FSCJ-TMW-7S*	NA	NA	11	1-11	1.25	NA	NA	2012
FSCJ-TMW-7SR	2168349.899	495636.682	12	2-12	1.25	NA	38.12	2017
FSCJ-TMW-8S	2168342.531	495542.776	11	1-11	1.25	NA	38.57	2012
FSCJ-TMW-9S	2168320.173	495254.570	11	1-11	1.25	NA	38.95	2017
FSCJ-TMW-10S	2168305.167	495776.389	12	2-12	1.25	NA	38.49	2017
FSCJ-TMW-11S	2168472.292	495592.764	12	2-12	1.25	NA	38.36	2017
FSCJ-TMW-12S	2168536.771	495618.656	11	1-11	1.25	NA	37.71	3/28/18
FSCJ-TMW-13S	2168368.776	495188.008	11	1-11	1.25	NA	36.40	3/28/18
FSCJ-TMW-14S	2168194.933	495313.755	11	1-11	1.25	NA	38.00	3/28/18
FSCJ-TMW-15S	2168118.930	495534.780	11	1-11	1.5	NA	39.44	3/28/18
FSCJ-TMW-16S	2168637.330	495626.122	12	2-12	1.5	NA	38.20	5/7/19
FSCJ-TMW-17S	2168622.969	495461.232	11	1-11	1.5	NA	38.63	5/7/19
FSCJ-TMW-18S	2168429.904	495298.501	11	1-11	1.5	NA	37.78	5/7/19
FSCJ-TMW-19S	2168395.930	495092.060	12	2-12	1.5	NA	36.47	5/7/19
FSCJ-TMW-20S	2168225.786	495835.942	12	2-12	1.5	NA	38.41	5/7/19
DEPMW-1S	2168767.502	495042.009	12	2-12	0.75	DPT	38.28	12/15/21
DEPMW-2S	2168798.383	495565.012	12	2-12	0.75	DPT	39.52	12/14/21
DEPMW-3S	2167972.303	495833.488	12	2-12	0.75	DPT	38.86	12/14/21
DEPMW-4S	2168057.443	495274.951	12	2-12	0.75	DPT	38.51	12/15/21
DEPMW-5S	2168795.492	495221.792	12	2-12	0.75	DPT	38.81	12/15/21
DEPMW-6S	2167879.581	495524.912	12	2-12	0.75	DPT	38.13	12/14/21
DEPMW-7S	2167799.062	495848.428	12	2-12	0.75	DPT	38.36	12/14/21
DEPMW-8S	2168610.302	494982.938	12	2-12	0.75	DPT	38.09	12/14/21
DEPMW-9S	2169450.928	495487.603	12	2-12	0.75	DPT	37.14	3/7/22
DEPMW-10S	2169188.497	494985.373	12	2-12	0.75	DPT	42.44	3/7/22

**TABLE 1  
WELL CONSTRUCTION DETAILS**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Well ID	Northing <sup>A</sup>	Easting <sup>A</sup>	Total Depth	Screen Interval	Well Diameter	Drilling Method	TOC Elevation <sup>A</sup>	Date Installed
	(NAD 83)	(NAD 83)	(feet)	(feet bgs)	(inches)	--	(feet NAVD)	--
<b>Deep Zone Wells</b>								
FSCJ-TMW-2D	2168393.005	495532.004	59	49-59	2	NA	38.54	2012
FSCJ-TMW-4D*	NA	NA	60	50-60	2	NA	NA	2012
FSCJ-TMW-4DR	2168244.101	495669.378	60	55-60	2	NA	39.69	2013
FSCJ-TMW-6D	2168224.077	495433.008	60	50-60	2	NA	37.66	2012
DEPMW-1D	2168616.472	494982.815	50	40-50	2	Sonic	38.46	3/15/22
DEPMW-2D	2168793.185	495563.965	49	39-49	2	Sonic	39.36	3/15/22
DEPMW-3D	2167966.875	495829.687	49	39-49	2	Sonic	38.82	3/16/22
DEPMW-4D	2168055.359	495269.807	49.5	39.5-49.5	2	Sonic	38.59	3/16/22

Notes:

<sup>A</sup>Banks & Banks Consulting, Inc. survey dated June, 2022 (NAD 83 State Plane Florida East)

\*Monitoring well has been abandoned

bgs - below ground surface

NA - Not available

DPT - direct push technology

NAD 83 - North American Datum 1983, Florida East State Plane Coordinate System

NAVD - North American Vertical Datum 1988

PVC - polyvinyl chloride

TOC - top of casing

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
DEPSB-1	SB-1-0.5	11/15/21	0.27 I	19	0.26 U	2.1 U	0.26 U	0.51 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.51 U	0.13 U	0.51 U	0.26 U	0.36 I	0.27 I	2.9	0.93 I	0.13 U	0.35 I	0.29 I	0.83 I	0.26 U	0.26 U	0.26 U	0.26 U	
	SB-1-2.0	11/15/21	0.54 I	49	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.56	0.15 I	0.48 I	0.52 U	0.39 I	0.52 U	0.26 U	0.52 I	0.30 I	6.6	1.1	0.29 I	0.26 U	0.68	0.39 I	0.26 U	0.26 U	0.77 I	0.26 U	
DEPSB-2	SB-2-0.5	11/15/21	0.49 I	41	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.14 I	0.11 U	0.17 I	0.45 U	0.11 U	0.47 I	0.22 U	0.37 I	0.35 I	5.1	0.61 I	0.27 I	0.71 I	0.28 I	0.33 I	0.22 U	0.22 U	2.6	0.22 U	
	SB-2-2.0	11/15/21	0.57 I	67	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.14 I	0.37 I	0.12 U	0.17 I	0.48 U	0.12 U	0.48 U	0.24 U	0.45 I	0.38 I	4.7	1.0	0.12 U	1.9	0.23 I	0.71 I	0.24 U	0.24 U	0.24 U	0.24 U	
DEPSB-3	SB-3-0.5	11/15/21	0.26 U	34	0.26 U	2.0 U	0.26 U	0.51 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.51 U	0.13 U	0.76 I	0.26 U	0.13 U	0.26 U	1.6	0.26 U	0.24 I	0.36 I	0.13 U	0.26 U	0.26 U	0.26 U	0.46 I	0.26 U	
	SB-3-2.0	11/15/21	0.41 I	61	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.36 I	0.27 I	2.0	0.29 I	0.12 U	0.54 I	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
DEPSB-4	SB-4-0.5	11/15/21	2.8	500	0.27 U	2.1 U	19	0.53 U	0.13 U	0.13 U	5.2	52	1.5	0.46 I	0.53 U	0.75	36	2.9	1.2	1.1	13	1.3	3.5	0.27 U	0.85	1.1	0.49 I	43	730	0.27 U	
	SB-4-1.5	11/15/21	1.0	160	0.24 U	1.9 U	2.7	0.48 U	0.12 U	0.12 U	0.58	27	0.13 I	0.27 I	0.48 U	0.12 U	11	0.24 U	0.57	0.50 I	4.4	0.53 I	1.0	21	0.24 I	0.34 I	0.24 U	1.2	100	0.24 U	
DEPSB-5	SB-5-0.5	11/15/21	0.28 U	9.3	0.28 U	2.2 U	0.28 U	0.56 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.56 U	0.16 I	0.56 U	0.28 U	0.14 U	0.30 I	1.2	0.49 I	0.21 I	0.28 U	0.14 U	0.52 I	0.28 U	0.28 U	1.1 I	0.28 U	
	SB-5-1.0	11/15/21	0.23 U	8.4	0.23 U	1.8 U	0.23 U	0.46 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46 U	0.12 U	0.46 U	0.23 U	0.12 U	0.23 U	0.35 I	0.23 U	0.12 I	0.25 I	0.12 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
DEPSB-6	SB-6-0.5	11/15/21	0.52 I	8.5	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 U	0.15 I	0.75 I	0.50 I	0.12 U	0.38 I	0.41 I	0.34 I	0.12 U	0.47 I	0.12 U	0.53 I	0.25 U	0.25 U	1.4	0.25 U	
	SB-6-1.0	11/15/21	0.22 U	2.0	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.11 U	0.45 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
DEPSB-7	SB-7-0.5	11/15/21	0.23 U	1.4	0.23 U	1.9 U	0.23 U	0.46 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46 U	0.12 U	0.46 U	0.23 U	0.12 U	0.23 U	0.27 I	0.23 U	0.12 U	0.23 U	0.12 U	0.23 U	0.23 U	0.23 U	0.23 U	0.45 I	0.23 U
	SB-7-1.0	11/15/21	0.55 I	2.8	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.45 I	0.64	0.24 U	0.12 U	0.29 I	0.12 U	0.30 I	0.24 U	0.24 U	0.24 U	0.24 U	
DEPSB-8	SB-8-0.5	11/15/21	0.24 U	1.9	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.14 I	0.12 U	0.12 U	0.48 U	0.46 I	0.53 I	0.25 I	0.12 U	0.24 U	0.32 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	1.5	0.42 I	
	SB-8-1.0	11/15/21	0.24 U	0.99	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.86 I	0.24 U	0.12 U	0.24 U	0.28 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.55 I	0.24 U	
DEPSB-9	SB-9-0.5	11/15/21	1.1	4.3	0.24 U	1.9 U	0.44 I	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.27 I	2.3	3.3	0.12 U	1.0	0.71	0.49 I	0.12 U	0.93 I	0.12 U	0.43 I	0.88 I	11	8.8	0.24 U		
	SB-9-1.0	11/15/21	0.92 I	32	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.30 I	0.14 I	0.13 I	0.48 U	0.12 U	2.5	0.24 U	0.41 I	0.56 I	3.0	0.55 I	0.13 I	0.96 I	0.21 I	0.36 I	0.24 U	0.34 I	2.1	0.24 U	
DEPSB-10	SB-10-0.5	11/15/21	0.20 U	1.4	0.20 U	1.6 U	0.20 U	0.40 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.40 U	0.14 I	0.40 U	0.79 I	0.10 U	0.20 U	0.22 I	0.22 I	0.10 U	0.20 U	0.10 U	0.21 I	0.20 U	0.27 U	0.63 I	0.20 U	
	SB-10-1.0	11/15/21	0.25 U	0.51 I	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 U	0.12 U	0.49 U	0.25 U	0.12 U	0.25 U	0.15 I	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.25 U	0.25 U	0.56 I	0.25 U	
DEPSB-11	SB-11-0.5	11/15/21	0.23 U	3.5	0.23 U	1.9 U	0.23 U	0.47 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.47 U	0.12 U	0.47 U	0.23 U	0.12 U	0.23 U	0.12 U	0.32 I	0.12 U	0.23 U	0.12 U	0.48 I	0.23 U	0.23 U	0.24 I	0.23 U	
	SB-11-1.0	11/15/21	0.25 U	1.2	0.25 U	2.0 U	0.25 U	0.51 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.51 U	0.13 U	0.51 U	0.25 U	0.13 U	0.25 U	0.13 U	0.25 U	0.13 U	0.25 U	0.13 U	0.27 I	0.25 U	0.25 U	0.25 U	0.25 U	
DEPSB-12	SB-12-0.5	11/15/21	0.55 I	0.26 U	0.26 U	2.0 U	0.26 U	0.51 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.51 U	0.13 U	0.51 U	0.26 U	0.13 U	0.62 I	0.13 U	0.41 I	0.13 U	0.26 U	0.13 U	0.45 I	0.26 U	0.26 U	0.26 U	0.26 U	
	SB-12-1.0	11/15/21	1.2	0.26 U	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.52 U	0.13 U	0.52 U	0.26 U	0.13 U	0.88 I	0.15 I	0.42 I	0.13 U	0.26 U	0.13 U	0.54 I	0.26 U	0.26 U	0.26 U	0.26 U	
DEPSB-13	SB-13-0.5	11/15/21	0.20 U	1.2	0.20 U	1.6 U	0.20 U	0.41 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.41 U	0.10 U	0.41 U	0.20 U	0.10 U	0.20 U	0.10 I	0.36 I	0.10 U	0.20 U	0.10 U	0.62 I	0.20 U	0.20 U	0.20 U	0.20 U	
	SB-13-1.25	11/15/21	0.22 U	0.22 U	0.22 U	1.8 U	0.22 U	0.44 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.44 U	0.11 U	0.44 U	0.22 U	0.11 U	0.31 I	0.31 I	0.85 I	0.11 U	0.22 U	0.11 U	1.2	0.22 U	0.22 U	0.22 U	0.22 U	
DEPSB-14	SB-14-0.5	11/15/21	0.23 U	0.65 I	0.23 U	1.8 U	0.23 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.11 U	0.45 U	0.23 U	0.11 U	0.23 U	0.11 U	0.23 U	0.11 U	0.23 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
	SB-14-2.0	11/15/21	0.24 U	0.24 U	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
DEPSB-15	SB-15-0.5	11/15/21	0.22 U	0.35 I	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.11 U	0.45 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.26 I	0.22 U	0.22 U	0.22 U	0.22 U	
	SB-15-2.0	11/15/21	0.22 U	0.68 I	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.11 U	0.45 U	0.22 U	0.11 U	0.22 U	0.13 I	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
DEPSB-16	SB-16-0.5	11/15/21	0.22 U	0.44 I	0.22 U	1.7 U	0.22 U	0.43 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.43 U	0.11 U	0.43 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.30 I	0.22 U	0.22 U	0.22 U	0.22 U	
	SB-16-1.0	11/15/21	0.21 U	0.64 I	0.21 U	1.7 U	0.21 U	0.42 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.42 U	0.11 U	0.42 U	0.21 U	0.11 U	0.21 U	0.11 U	0.36 I	0.11 U	0.21 U	0.11 U	0.55 I	0.21 U	0.21 U	0.21 U	0.21 U	
DEPSB-17	SB-17-0.5	11/15/21	0.24 U	1.8	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.2											

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
DEPSB-23	SB-23-0.5	11/16/21	0.24 U	1.4	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.79 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
	SB-23-2.0	11/16/21	0.29 U	4.8	0.29 U	2.3 U	0.29 U	0.58 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.58 U	0.14 U	0.70 I	0.29 U	0.14 U	0.29 I	0.58	1.2	0.14 U	0.32 I	0.14 U	0.31 I	0.29 U	0.79 I	0.90 I	0.29 U	
DEPSB-24	SB-24-0.5	11/16/21	0.49 I	1.2	0.23 U	1.8 U	0.23 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.12 I	0.78 I	0.11 U	0.54 I	0.23 I	0.11 U	0.37 I	0.11 U	0.52 I	0.11 U	0.23 I	0.11 U	1.6	0.23 U	0.23 U	0.43 I	0.23 U	
	SB-24-2.0	11/16/21	0.43 I	0.47 I	0.21 U	1.7 U	0.21 U	0.43 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 I	1.2 I	0.11 U	0.43 U	0.21 U	0.11 U	1.1	0.16 I	1.9	0.11 U	0.21 U	0.11 U	3.3	0.21 U	0.21 U	0.21 U	0.21 U	
DEPSB-25	SB-25-0.5	11/16/21	0.35 I	2.3	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.26 I	0.24 I	0.56 I	0.12 U	0.28 I	0.12 U	0.84 I	0.24 U	0.24 U	0.24 U	0.24 U	
	SB-25-1.5	11/16/21	0.26 U	0.41 I	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.53 U	0.13 U	0.53 U	0.26 U	0.13 U	0.26 U	0.13 U	0.26 U	0.13 U	0.26 U	0.13 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
DEPSB-26	SB-26-0.5	11/16/21	0.48 I	2.5	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.52 U	0.13 U	0.63 I	0.72 I	0.13 U	0.27 I	0.13 U	0.22 I	0.26 U	0.13 U	0.31 I	0.13 U	0.31 I	0.26 U	0.26 U	0.54 I	0.26 U
	SB-26-1.5	11/16/21	0.25 U	0.47 I	0.25 U	2.0 U	0.25 U	0.50 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.50 U	0.13 U	0.50 U	0.25 U	0.13 U	0.25 U	0.13 U	0.25 U	0.13 U	0.25 U	0.13 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
DEPSB-27	SB-27-0.5	11/16/21	0.67 I	11	0.23 U	1.9 U	0.23 U	0.47 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 I	0.12 U	1.9	1.3	0.12 U	0.55 I	0.17 I	0.61 I	0.12 U	0.83 I	0.12 U	0.96	0.36 I	0.23 U	1.2	0.23 U	
	SB-27-1.5	11/16/21	0.32 I	9.4	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 U	0.12 U	0.65 I	0.25 U	0.12 U	0.25 U	0.14 I	0.30 I	0.12 U	0.56 I	0.12 U	0.46 I	0.25 U	0.25 U	0.40 I	0.25 U	
DEPSB-28	SB-28-0.5	11/16/21	0.58 I	4.6	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.11 U	0.77 I	0.22 U	0.11 U	0.22 U	0.60	0.33 I	0.11 U	0.22 I	0.11 U	0.45 I	0.22 U	1.3	1.2	0.22 U	
	SB-28-2.0	11/16/21	0.72 I	10	0.25 U	2.0 U	0.25 U	0.50 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.50 U	0.12 U	0.78 I	0.25 U	0.12 U	0.26 I	0.89	0.25 U	0.12 U	0.49 I	0.12 U	0.29 I	0.25 U	1.1	0.88 I	0.25 U	
DEPSB-29	SB-29-0.5	11/16/21	0.21 I	0.71 I	0.21 U	1.7 U	0.21 U	0.42 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.42 U	0.11 U	0.54 I	0.21 I	0.11 U	0.21 U	0.11 U	0.23 I	0.11 U	0.22 I	0.11 U	0.33 I	0.21 U	0.21 U	0.99	0.21 U	
	SB-29-2.0	11/16/21	0.92	1.9	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.50 I	0.11 U	0.45 U	0.22 U	0.11 U	0.75 I	0.28 I	0.96	0.11 U	0.57 I	0.11 U	1.2	0.22 U	0.22 U	0.39 I	0.22 U	
DEPSB-30	SB-30-0.5	11/16/21	1.1	10	0.27 U	2.1 U	0.27 U	0.54 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.77 I	0.13 U	2.5	1.1	0.13 U	1.3	1.5	0.99 I	0.13 U	1.4	0.13 U	1.5	0.27 U	0.36 I	2.9	0.27 U	
	SB-30-1.0	11/16/21	0.31 I	3.5	0.25 U	2.0 U	0.25 U	0.50 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.50 U	0.13 U	0.66 I	0.25 U	0.13 U	0.25 U	0.36 I	0.25 U	0.13 U	0.47 I	0.13 U	0.33 I	0.25 U	0.25 U	0.53 I	0.25 U	
DEPSB-31	SB-31-0.5	11/16/21	0.37 I	2.5	0.20 U	1.6 U	0.20 U	0.41 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.46 I	0.10 I	0.65 I	0.31 I	0.10 U	0.39 I	0.49	0.38 I	0.10 U	0.23 I	0.10 U	0.72 I	0.20 U	3.4	2.1	0.20 U	
	SB-31-2.0	11/16/21	0.34 I	1.9	0.21 U	1.7 U	0.21 U	0.43 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.43 U	0.11 U	0.93 I	0.28 I	0.11 U	0.21 U	0.21 I	0.21 U	0.11 U	0.29 I	0.11 U	0.34 I	0.21 U	0.21 U	0.79 I	0.21 U	
DEPSB-32	SB-32-0.5	11/22/21	0.26 U	7.6	0.26 U	2.1 U	0.26 U	0.51 U	0.13 U	0.13 U	0.13 U	0.76	0.88	0.13 U	0.51 U	0.55	0.51 U	0.26 U	0.13 U	0.26 U	1.0	0.26 U	0.28 I	0.26 U	0.13 U	0.33 I	0.26 U	0.81 I	0.59 I	0.26 U	
	SB-32-2.0	11/22/21	0.26 U	7.6	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.13 U	2.1	1.2	0.13 U	0.53 U	0.26 I	0.53 U	0.26 U	0.18 I	0.26 U	0.74	0.26 U	0.21 I	0.26 U	0.13 U	0.26 U	0.26 U	0.26 U	0.28 I	0.26 U	
DEPSB-33	SB-33-0.5	11/22/21	0.52 I	19	0.24 U	2.0 U	0.24 U	0.49 U	0.12 U	0.12 U	0.12 U	0.13 I	0.23 I	0.16 I	0.49 U	0.56	0.53 I	0.24 U	0.18 I	0.41 I	1.3	0.40 I	0.34 I	0.50 I	0.13 I	0.54 I	0.24 U	0.24 U	0.86 I	0.24 U	
	SB-33-2.0	11/22/21	0.34 I	17	0.28 U	2.3 U	0.28 U	0.57 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.57 U	0.14 U	0.57 U	0.28 U	0.17 I	0.28 U	1.4	0.28 U	0.14 U	0.28 U	0.19 I	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	
DEPSB-34	SB-34-0.5	11/22/21	0.84 I	39	0.27 U	2.2 U	0.27 U	0.55 U	0.14 U	0.14 U	0.14 I	1.1	2.7	0.14 U	0.55 U	2.3	1.4 I	0.32 I	0.38 I	0.68 I	1.8	0.81 I	1.5	0.53 I	0.14 U	0.80 I	0.27 U	0.27 U	1.9	0.27 U	
	SB-34-2.0	11/22/21	0.52 I	46	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.19 I	7.0	0.83	0.13 U	0.53 U	0.21 I	1.0 I	0.26 U	0.34 I	0.41 I	1.9	0.46 I	0.48 I	0.47 I	0.15 I	0.39 I	0.26 U	0.26 U	0.53 I	0.26 U	
DEPSB-35	SB-35-0.5	11/22/21	0.26 U	21	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.13 U	0.98	2.2	0.13 U	0.53 U	2.6	0.80 I	0.30 I	0.23 I	0.26 U	1.5	0.40 I	0.97	0.26 U	0.16 I	0.26 U	0.26 U	0.31 I	1.7	0.26 U	
	SB-35-2.0	11/22/21	0.26 U	14	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	1.4	1.2	0.13 U	0.52 U	0.13 U	0.52 U	0.26 U	0.13 U	0.26 U	0.32 I	0.26 U	0.28 I	0.26 U	0.13 U	0.26 U	0.26 U	0.26 U	0.36 I	0.26 U	
DEPSB-36	SB-36-0.5	11/22/21	0.25 U	34	0.25 U	2.0 U	0.25 U	0.51 U	0.13 U	0.13 U	0.18 I	2.9	1.3	0.13 U	0.51 U	1.4	0.51 U	0.25 U	0.45 I	0.25 U	3.0	0.55 I	0.94	0.25 U	0.31 I	0.35 I	0.25 U	0.25 U	0.69 I	0.25 U	
	SB-36-2.0	11/22/21	0.26 U	31	0.26 U	2.0 U	0.26 U	0.51 U	0.13 U	0.13 U	0.16 I	11	0.29 I	0.13 U	0.51 U	0.13 U	0.51 U	0.26 U	0.13 U	0.26 U	1.2	0.26 U	0.13 U	0.26 U	0.15 I	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
DEPSB-37	SB-37-0.5	11/22/21	0.48 I	32	0.23 U	1.8 U	0.23 U	0.46 U	0.12 I	0.11 U	0.39 I	8.0	24	0.16 I	0.46 U	8.4	0.46 U	0.33 I	0.69	0.23 U	5.1	0.51 I	1.3	0.23 U	0.33 I	0.33 I	0.23 U	0.67 I	0.91	0.23 U	
	SB-37-2.0	11/22/21	0.40 I	44	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.73	41	26	0.21 I	0.52 U	1.5	0.52 U	0.26 U	0.78	0.26 U	4.9	0.38 I	2.3	0.26 U	0.33 I	0.26 U	0.26 U	0.26 U	0.40 I	0.26 U	
DEPSB-38	SB-38-0.5	11/22/21	0.48 I	29	0.23 U	1.8 U	0.36 I	0.46 U	0.12 U	0.12 U	0.60	8.0	11	0.15 I	0.46 U	3.8	0.62 I	0.23 U	0.63	0.23 U	5.4	0.43 I	1.0	0.23 U	0.36 I	0.28 I	0.23 U	0.49 I	1.1	0.23 U	
	SB-38-2.0	11/22/21	0.25 U	34	0.25 U	2.0 U	0.29 I	0.49 U	0.12 U	0.12 U	0.75	39	2.2	0.38 I	0.49 U	0.18 I	0.62 I	0.25 U	0.32 I	0.25 U	4.0	0.31 I	0.65	0.32 I	0.46 I	0.25 U	0.25 U	0.25 U	0.29 I	0.25 U	
DEPSB-39	SB-39-0.5	11/22/21	0.31 I	2.9	0.22 U	1.8 U	3.6	0.44 U	0.11 U	0.11 U	0.11 U	0.31 I	0.11 U	0.11 U	0.44 U	0.29 I	0.48 I	0.40 I	0.11 U	0.28 I	0.27 I	0.22 U	0.11 U								

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPoS	
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPSB-45	SB-45-0.5	11/22/21	0.24 U	14	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.27 I	0.78	0.12 U	0.48 U	2.2	0.48 U	0.90 I	0.12 U	0.24 U	0.33 I	0.30 I	0.38 I	0.24 U	0.12 U	0.24 U	0.27 I	0.75 I	1.1	0.24 U	
	SB-45-2.0	11/22/21	0.26 U	9.2	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.61	0.43 I	0.13 U	0.52 U	0.13 U	0.52 U	0.26 U	0.13 U	0.26 U	0.25 I	0.26 U	0.59	0.26 U	0.13 U	0.26 U	0.26 U	0.26 U	0.58 I	0.26 U	
DEPSB-46	SB-46-0.5	11/22/21	0.31 I	13	0.25 U	2.0 U	0.48 I	0.49 U	0.12 U	0.12 U	0.12 U	0.93	1.2	0.12 U	0.49 U	1.1	0.89 I	0.25 U	0.12 U	0.27 I	0.82	0.27 I	0.35 I	0.37 I	0.12 U	0.26 I	0.25 U	3.3	0.93 I	0.25 U	
	SB-46-2.0	11/22/21	0.67 I	85	0.27 U	2.2 U	0.31 I	0.54 U	0.14 U	0.14 U	0.74	7.2	0.64	0.21 I	0.54 U	0.15 I	0.64 I	0.27 U	0.73	0.44 I	6.3	0.50 I	0.30 I	0.61 I	0.56	0.30 I	0.27 U	0.27 U	0.39 I	0.27 U	
DEPSB-47	SB-47-0.5	11/22/21	0.74 I	16	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.19 I	0.94	0.76	0.12 U	0.49 I	2.1	1.4 I	0.82 I	0.20 I	0.87 I	2.6	0.86 I	0.82	0.51 I	0.13 I	1.0	0.24 U	0.91 I	3.0	0.24 U	
	SB-47-2.0	11/22/21	0.93 I	120	0.27 U	2.2 U	0.27 U	0.55 U	0.14 U	0.14 U	1.6	20	1.0	0.28 I	0.55 U	0.75	1.3 I	0.31 I	0.57	0.66 I	8.1	0.57 I	0.91	0.72 I	0.57	0.93 I	0.27 U	0.27 U	1.0 I	0.27 U	
DEPSB-48	SB-48-0.5	11/22/21	1.5	140	0.24 U	2.0 U	0.83 I	0.49 U	0.12 U	0.12 U	0.67	9.8	2.5	0.26 I	0.66 I	4.4	2.4	1.5	0.57	1.5	6.4	1.4	2.3	1.6	0.44 I	2.4	0.28 I	0.90 I	5.9	0.24 U	
	SB-48-2.0	11/22/21	7.1	1,400	0.28 U	6.2 I	2.1	0.56 U	0.14 U	0.14 U	18	57	2.6	1.2	0.88 I	0.63	2.2 I	0.28 U	7.4	3.7	50	3.8	3.8	11	2.2	5.5	0.28 U	0.28 U	1.4	0.28 U	
DEPSB-49	SB-49-0.5	11/22/21	0.68 I	14	0.26 U	2.1 U	1.9	0.52 U	0.13 U	0.13 U	0.13 U	4.3	7.1	0.13 U	0.52 U	4.0	3.3	0.95 I	0.15 I	1.3	1.5	0.58 I	0.40 I	0.67 I	0.13 U	0.56 I	0.26 U	0.38 I	3.6	0.26 U	
	SB-49-2.0	11/22/21	0.27 U	5.8	0.27 U	2.2 U	0.92 I	0.54 U	0.14 U	0.14 U	0.14 U	5.0	3.1	0.14 U	0.54 U	0.23 I	1.6 I	0.27 U	0.14 U	0.32 I	0.47 I	0.27 U	0.37 I	0.27 U	0.14 U	0.27 U	0.27 U	0.27 U	0.46 I	0.27 U	
DEPSB-50	SB-50-0.5	11/22/21	0.82 I	7.3	0.26 U	2.1 U	1.5	0.51 U	0.13 U	0.13 U	0.13 U	1.2	1.5	0.13 U	0.51 U	2.0	2.2	1.5	0.13 I	1.4	0.71	0.85 I	0.31 I	0.53 I	0.13 U	0.86 I	0.26 U	0.89 I	4.7	0.26 U	
	SB-50-2.0	11/22/21	0.56 I	16	0.26 U	2.1 U	0.38 I	0.53 U	0.13 U	0.13 U	0.14 I	5.6	0.96	0.13 U	0.53 U	0.33 I	2.2	0.26 U	0.13 U	0.89 I	1.5	0.62 I	0.52 I	0.63 I	0.16 I	0.77 I	0.26 U	0.26 U	1.4	0.26 U	
DEPSB-51	SB-51-0.5	11/22/21	3.2	39	0.27 U	2.1 U	1.5	0.53 U	0.13 U	0.13 U	0.21 I	3.5	1.1	0.17 I	1.7 I	1.9	2.7	1.4	0.27 I	4.5	5.7	2.9	0.72	4.7	0.26 I	4.9	0.28 I	3.0	9.8	0.27 U	
	SB-51-2.0	11/22/21	1.2	28	0.26 U	2.1 U	2.5	0.52 U	0.13 U	0.13 U	0.13 U	12	1.9	0.13 U	0.55 I	0.93	2.3	0.26 U	0.13 U	1.7	2.2	1.0	0.91	1.6	0.13 U	1.4	0.26 U	0.32 I	4.8	0.26 U	
DEPSB-52	SB-52-0.5	11/22/21	0.25 U	4.4	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.17 I	0.27 I	0.12 U	0.49 U	0.60	0.49 U	0.48 I	0.12 U	0.25 U	0.29 I	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.56 I	0.44 I	0.25 U
	SB-52-2.0	11/22/21	0.26 U	3.0	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.40 I	0.68	0.13 U	0.52 U	0.61	0.52 U	0.26 I	0.13 U	0.26 U	0.26 I	0.26 U	0.13 U	0.26 U	0.13 U	0.26 U	0.26 U	0.34 I	0.63 I	0.26 U	
DEPSB-53	SB-53-0.5	11/22/21	0.36 I	11	0.24 U	2.0 U	0.24 U	0.49 U	0.12 U	0.12 U	0.12 U	1.2	0.21 I	0.12 U	0.49 U	0.65	0.63 I	0.58 I	0.15 I	0.36 I	1.7	0.35 I	0.23 I	0.34 I	0.18 I	0.36 I	0.24 U	1.7	1.8	0.24 U	
	SB-53-2.0	11/22/21	0.74 I	50	0.27 U	2.2 U	0.27 U	0.54 U	0.14 U	0.14 U	0.42 I	10	0.27 I	0.25 I	0.54 U	0.15 I	0.78 I	0.27 U	0.34 I	0.60 I	4.7	0.56 I	0.40 I	0.75 I	0.50 I	0.39 I	0.27 U	0.27 U	1.1	0.27 U	
DEPSB-54	SB-54-0.5	11/22/21	2.8	190	0.29 U	2.3 U	0.94 I	0.57 U	0.14 U	0.14 U	1.9	31	5.7	1.0	1.2 I	3.7	4.9	4.5	1.1	3.0	28	2.6	2.1	2.6	1.7	3.4	0.49 I	1.9	11	0.29 U	
	SB-54-2.0	11/22/21	2.3	340	0.27 U	2.2 U	1.3	0.55 U	0.14 U	0.14 U	2.5	31	1.1	0.63	0.90 I	0.66	2.7	0.29 I	1.3	1.8	19	2.0	1.1	3.3	1.2	2.2	0.27 U	0.27 U	2.3	0.27 U	
DEPSB-55	SB-55-0.5	11/23/21	2.4	220	0.28 U	2.4 I	4.4	0.56 U	0.20 I	0.14 U	0.51 I	63	6.6	0.42 I	0.89 I	4.3	7.9	2.5	0.87	4.4	17	2.3	5.3	2.9	0.54 I	3.5	0.29 I	2.6	9.3	0.28 U	
	SB-55-2.0	11/23/21	0.75 I	73	0.26 U	2.1 U	0.87 I	0.52 U	0.13 U	0.13 U	0.17 I	27	0.56	0.13 U	0.52 U	0.27 I	2.4	0.26 U	0.26 I	1.5	3.7	0.77 I	1.2	0.97 I	0.14 I	1.1	0.26 U	0.26 U	0.92 I	0.26 U	
DEPSB-56	SB-56-0.5	11/23/21	2.1	40	0.28 U	2.3 U	0.46 I	0.57 U	0.14 U	0.14 U	0.14 U	2.4	2.2	0.14 I	0.93 I	2.5	3.5	1.3	0.23 I	2.6	5.0	1.6	2.2	1.4	0.14 U	2.1	0.28 U	1.3	4.8	0.28 U	
	SB-56-2.0	11/23/21	0.51 I	9.0	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.13 U	0.99	0.18 I	0.13 U	0.53 U	0.13 U	0.60 I	0.26 U	0.13 U	1.6	0.70	0.82 I	0.16 I	0.47 I	0.13 U	0.26 U	0.26 U	0.45 I	0.26 U		
DEPSB-57	SB-57-0.5	11/23/21	1.2	5.7	0.25 U	2.0 U	0.47 I	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.69 I	0.30 I	2.9	1.4	0.12 U	1.4	0.31 I	0.92 I	0.13 I	1.1	0.12 U	1.1	0.25 I	2.8	9.5	0.25 U	
	SB-57-2.0	11/23/21	0.37 I	13	0.24 U	1.9 U	0.26 I	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	1.9 I	0.24 U	0.12 U	0.44 I	0.25 I	0.37 I	0.12 U	0.98	0.12 U	0.32 I	0.24 U	0.24 U	1.3	0.24 U	
DEPSB-58	SB-58-0.5	11/23/21	0.66 I	11	0.26 U	2.1 U	0.26 U	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 I	0.13 U	0.52 U	0.56	1.1 I	1.9	0.13 U	0.62 I	0.73	0.56 I	0.21 I	0.61 I	0.13 U	0.44 I	0.59 I	17	29	0.26 U	
	SB-58-2.0	11/23/21	0.25 U	4.2	0.25 U	2.0 U	0.25 U	0.51 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.51 U	0.13 U	0.69 I	0.25 U	0.13 U	0.25 U	0.30 I	0.25 U	0.20 I	0.30 I	0.13 U	0.25 U	0.25 U	1.2	21	0.25 U	
DEPSB-59	SB-59-0.5	11/23/21	0.22 U	2.7	0.22 U	1.8 U	0.22 U	0.44 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.44 U	0.11 U	0.44 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.11 U	0.22 U	0.22 U	0.22 U	0.29 I	0.22 U	
	SB-59-2.0	11/23/21	0.24 U	2.3	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.24 U	0.15 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
DEPSB-60	SB-60-0.5	11/23/21	0.24 U	3.2	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.51 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.27 I	0.24 U	0.24 U	0.70 I	0.24 U	
	SB-60-2.0	11/23/21	0.25 U	3.4	0.25 U	2.0 U	0.25 U	0.50 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.50 U	0.12 U	0.50 U	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
DEPSB-61	SB-61-0.5	11/23/21	0.23 U	3.7	0.23 U	1.8 U	0.23 U	0.46 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.46 U	0.47	0.47 I	0.46 I	0.11 U	0.23 U	0.22 I	0.23 U	0.11 U	0.31 I	0.11 U	0.33 I	0.23 U	0.51 I	0.97	0.23 U	
	SB-61-2.0	11/23/21	0.24 U	1.9	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.															

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPSB-67	SB-67-0.5	11/23/21	0.78 I	17	0.22 U	2.8 I	8.7	0.44 U	0.11 U	0.11 U	0.54	23	6.0	0.30 I	0.56 I	7.4	1.2 I	3.7	0.21 I	0.58 I	3.8	1.2	0.71	0.35 I	0.35 I	1.9	1.2	19	3.4	0.22 U
	SB-67-2.0	11/23/21	2.4	50	0.24 U	5.8 I	23	0.49 U	0.12 U	0.12 U	3.7	300	8.9	0.60	0.62 I	1.2	1.9 I	0.70 I	0.64	1.1	11	1.6	4.2	1.0	0.80	2.0	0.24 U	1.8	50	0.24 U
DEPSB-68	SB-68-0.5	11/23/21	2.0	37	0.23 U	19	120	0.46 U	0.12 I	0.12 U	0.51	19	8.8	0.14 I	0.69 I	2.8	7.3	6.9	0.36 I	0.94	3.6	1.4	1.3	0.84 I	0.34 I	1.9	1.4	3.1	5.0	0.23 U
	SB-68-2.0	11/23/21	1.6	47	0.23 U	16	140	0.46 U	0.11 U	0.11 U	0.28 I	25	5.9	0.11 U	0.46 U	0.27 I	3.0	0.69 I	0.20 I	0.85 I	2.4	1.4	1.6	0.33 I	0.13 I	0.92	0.23 U	0.41 I	13	0.23 U
DEPSB-69	SB-69-0.5	11/23/21	1.1	7.2	0.22 U	1.8 U	4.4	0.44 U	0.11 U	0.11 U	0.13 I	2.4	0.62	0.11 U	0.44 U	1.4	1.6 I	2.1	0.11 U	0.60 I	1.0	0.48 I	0.18 I	0.41 I	0.18 I	0.48 I	0.54 I	1.1	1.9	0.22 U
	SB-69-2.0	11/23/21	0.49 I	2.9	0.24 U	1.9 U	3.0	0.49 U	0.12 U	0.12 U	0.12 U	2.3	1.0	0.12 U	0.49 U	0.82	1.3 I	0.24 U	0.12 U	0.51 I	0.42 I	0.32 I	0.12 U	0.24 U	0.12 U	0.52 I	0.24 U	0.24 U	2.5	0.24 U
DEPSB-70	SB-70-0.5	11/23/21	0.22 U	5.6	0.22 U	1.7 U	1.0	0.43 U	0.11 U	0.11 U	0.11 U	0.28 I	0.27 I	0.11 U	0.43 U	1.7	0.84 I	3.1	0.11 U	0.22 U	0.55	0.22 U	0.12 I	0.22 U	0.11 U	0.22 U	0.79 I	2.0	2.2	0.22 U
	SB-70-2.0	11/23/21	0.36 I	2.3	0.25 U	2.0 U	1.7	0.50 U	0.12 U	0.12 U	0.12 U	2.1	0.66	0.12 U	0.50 U	2.2	0.96 I	1.1	0.12 U	0.38 I	0.82	0.40 I	0.26 I	0.25 U	0.12 U	0.36 I	0.25 U	0.63 I	3.3	0.25 U
DEPSB-71	SB-71-0.5	11/23/21	0.56 I	7.1	0.22 U	1.8 U	1.6	0.44 U	0.11 U	0.11 U	0.11 U	0.61	0.27 I	0.11 U	0.44 U	2.7	1.6 I	4.0	0.11 U	0.32 I	0.35 I	0.29 I	0.13 I	0.36 I	0.11 U	0.38 I	1.3	1.8	1.5	0.22 U
	SB-71-2.0	11/23/21	0.25 U	1.6	0.25 U	2.0 U	0.73 I	0.49 U	0.12 U	0.12 U	0.12 U	0.64	0.71	0.12 U	0.49 U	1.0	0.53 I	1.6	0.12 U	0.25 U	0.18 I	0.39 I	0.12 U	0.25 U	0.12 U	0.41 I	0.53 I	1.8	1.4	0.25 U
DEPSB-72	SB-72-0.5	11/23/21	0.64 I	5.5	0.23 U	1.8 U	5.8	0.45 U	0.11 U	0.11 U	0.11 U	1.2	0.40 I	0.11 U	0.51 I	1.4	1.5 I	4.2	0.11 U	0.47 I	0.49	1.1	0.11 U	0.34 I	0.11 U	1.0	0.89 I	2.2	2.0	0.23 U
	SB-72-2.0	11/23/21	1.1	42	0.26 U	2.1 I	13	0.51 U	0.13 U	0.13 U	0.13 U	11	1.7	0.13 U	0.77 I	0.43 I	2.0 I	1.3	0.15 I	1.3	1.4	1.8	0.66	0.42 I	0.13 U	2.2	0.26 U	0.76 I	2.2	0.26 U
DEPSB-73	SB-73-0.5	11/23/21	0.67 I	9.4	0.22 U	1.8 U	0.55 I	0.44 U	0.11 U	0.11 U	0.11 I	0.45	0.19 I	0.11 U	0.94 I	1.5	1.0 I	1.2	0.11 U	0.65 I	1.1	1.5	0.19 I	0.75 I	0.11 U	2.0	0.22 U	0.51 I	1.5	0.22 U
	SB-73-2.0	11/23/21	0.32 I	4.1	0.23 U	1.8 U	0.28 I	0.46 U	0.12 U	0.12 U	0.12 U	0.47	0.25 I	0.12 U	0.55 I	1.5	0.64 I	0.45 I	0.12 U	0.53 I	0.49	0.69 I	0.62	0.35 I	0.12 U	1.1	0.23 U	0.23 U	1.7	0.23 U
DEPSB-74	SB-74-0.5	11/23/21	4.7	3.7	0.23 U	1.8 U	2.2	0.46 U	0.11 U	0.11 U	0.11 U	0.12 I	0.11 U	0.11 U	0.98 I	0.49	1.6 I	0.36 I	0.11 U	3.4	0.62	1.5	0.13 I	5.9	0.11 U	2.1	0.23 U	0.34 I	1.3	0.23 U
	SB-74-2.0	11/23/21	1.0	3.2	0.24 U	1.9 U	1.6	0.49 U	0.12 U	0.12 U	0.12 U	0.30 I	0.12 U	0.12 U	0.52 I	0.12 U	0.76 I	0.24 U	0.12 U	1.3	0.43 I	0.76 I	0.14 I	1.6	0.12 U	0.96 I	0.24 U	0.24 U	0.56 I	0.24 U
DEPSB-75	SB-75-0.5	11/23/21	0.83 I	14	0.24 U	1.9 U	0.35 I	0.48 U	0.12 U	0.12 U	0.12 U	0.13 I	0.12 U	0.25 I	0.49 I	1.2	0.72 I	0.94 I	0.12 U	0.50 I	1.1	0.74 I	0.22 I	0.98	0.26 I	1.2	0.28 I	0.50 I	1.3	0.24 U
	SB-75-2.0	11/23/21	0.45 I	24	0.26 U	11	0.26 U	0.51 U	0.13 U	0.13 U	1.2	4.0	0.13 U	0.49 I	0.62 I	0.13 U	0.51 U	0.26 U	0.19 I	0.53 I	2.4	2.3	0.15 I	0.32 I	0.57	3.2	0.26 U	0.26 U	0.48 I	0.26 U
DEPSB-76	SB-76-0.5	11/23/21	2.2	14	0.22 U	3.1 I	3.3	0.43 U	0.56	0.11 U	5.5	56	13	1.6	1.2 I	4.6	1.1 I	2.0	0.74	1.8	17	3.8	0.20 I	0.96	2.4	3.2	0.66 I	12	1.5	0.49 I
	SB-76-2.0	11/23/21	1.3	34	0.23 U	1.8 U	1.2	0.46 U	0.33 I	0.11 U	9.8	440	6.1	0.58	0.59 I	1.5	1.5 I	0.58 I	0.47	0.95	12	1.6	1.1	1.6	1.1	1.4	0.23 U	0.85 I	7.1	0.23 U
DEPSB-77	SB-77-0.5	11/23/21	0.22 U	8.1	0.22 U	3.1 I	41	0.43 U	0.19 I	0.11 U	0.11 U	1.5	3.0	0.11 U	0.43 U	7.3	1.8	26	0.11 U	0.22 U	0.45	0.22 U	0.55	0.22 U	0.11 U	0.30 I	2.7	4.3	9.7	0.22 U
	SB-77-2.0	11/23/21	0.29 I	42	0.21 U	5.8 I	0.21 U	0.42 U	0.45	0.11 U	0.11 U	2.8	12	0.11 U	0.42 U	6.1	6.0	5.3	0.11 U	0.21 U	0.38 I	0.26 I	1.6	0.21 U	0.11 U	0.21 U	0.91	3.3	5.3	0.21 U
	SB-77-2.5	11/23/21	1.0 I	85	0.27 U	27	0.27 U	0.53 U	0.62	0.13 U	0.54	44	16	0.13 U	1.2 I	1.6	4.1	1.5	0.16 I	1.6	2.0	2.7	0.46 I	0.40 I	0.15 I	4.6	0.35 I	0.66 I	1.7	0.27 U
DEPSB-78	SB-78-0.5	11/23/21	0.78 I	21	0.21 U	10	0.21 U	0.43 U	0.11 U	0.11 U	0.11 U	3.2	2.2	0.11 U	0.43 U	1.4	3.5	5.3	0.11 U	0.21 U	0.47	0.31 I	0.28 I	0.31 I	0.11 U	0.27 I	1.3	1.9	1.5	0.21 U
	SB-78-2.0	11/23/21	0.21 U	7.7	0.21 U	2.5 I	72	0.41 U	0.10 U	0.10 U	0.10 U	0.81	0.83	0.10 U	0.41 U	0.25 I	0.75 I	0.28 I	0.10 U	0.21 U	0.19 I	0.21 U	0.10 U	0.21 U	0.10 U	0.21 U	0.21 U	0.23 I	0.67 I	0.21 U
	SB-78-2.5	11/23/21	0.22 U	6.2	0.22 U	1.8 U	37	0.44 U	0.11 U	0.11 U	0.11 U	1.4	1.8	0.11 U	0.44 U	0.38 I	0.82 I	0.36 I	0.11 U	0.22 U	0.18 I	0.25 I	0.44 I	0.22 U	0.11 U	0.22 U	0.22 U	0.54 I	0.63 I	0.22 U
DEPSB-79	SB-79-0.5	11/23/21	0.55 I	10	0.22 U	1.8 U	6.6	0.44 U	0.29 I	0.11 U	0.11 U	1.5	2.1	0.11 U	0.44 U	2.5	1.5 I	4.3	0.11 U	0.22 U	0.34 I	0.23 I	0.75	0.46 I	0.11 U	0.22 U	0.92	3.2	4.7	0.22 U
	SB-79-2.0	11/23/21	0.76 I	13	0.24 U	1.9 U	12	0.48 U	0.59	0.12 U	0.12 U	6.7	8.3	0.12 U	0.48 U	2.5	1.5 I	1.0	0.12 U	0.51 I	0.80	0.45 I	0.22 I	0.28 I	0.12 U	0.34 I	0.24 U	0.47 I	1.5	0.24 U
	SB-79-2.5	11/23/21	0.34 I	5.0	0.28 U	2.2 U	7.4	0.55 U	0.14 U	0.14 U	0.14 U	11	4.4	0.14 U	0.55 U	0.14 U	0.81 I	0.28 U	0.14 U	0.89 I	1.1	0.61 I	0.54 I	0.40 I	0.14 U	0.42 I	0.28 U	0.28 U	1.3	0.28 U
DEPSB-80	SB-80-0.5	11/23/21	0.33 I	16	0.22 U	3.9 I	12	0.44 U	0.20 I	0.11 U	0.11 U	0.51	0.25 I	0.11 U	0.44 U	6.5	0.68 I	18	0.11 U	0.22 U	0.47	0.54 I	1.3	0.22 U	0.11 U	0.32 I	3.7	3.6	5.0	0.22 U
	SB-80-2.0	11/23/21	0.45 I	270	0.23 U	4.6 I	0.23 U	0.45 U	4.3	1.0	0.11 U	1.6	18	0.11 U	0.45 U	7.6	6.4	19	0.11 U	0.23 U	0.59	0.47 I	8.5	0.24 I	0.11 U	0.70 I	4.9	4.2	26	0.23 U
	SB-80-2.5	11/23/21	0.44 I	140	0.23 U	5.3 I	0.23 U	0.47 U	2.2	0.43 I	0.18 I	9.9	13	0.12 U	0.47 U	5.3	3.4	12	0.12 U	0.33 I	0.60	0.67 I	4.3	0.23 U	0.12 U	0.87 I	3.1	3.2	9.5	0.23 U
DEPSB-81	SB-81-0.5	11/23/21	0.22 U	3.4	0.22 U	1.8 U	4.5	0.44 U	0.22 I	0.11 U	0.11 U	0.40 I	0.32 I	0.11 U	0.44 U	1.9	0.64 I	15	0.11 U	0.32 I	0.37 I	0.53 I	0.11 U	0.22 U	0.11 U	0.64 I	2.9	3.2	1.4	0.22 U
	SB-81-2.0	11/23/21	0.30 I	4.7	0.23 U	2.9 I	8.9	0.45 U	0.88	0.11 U	0.11 U	1.6	4.3	0.11 U	0.45 U	6.1	0.87 I	9.8	0.11 U	0.23 U	0.43 I	0.41 I	0.27 I	0.23 U	0.11 U	0.58 I	1.4	2.9	2.4	0.23 U
	SB-81-2.5	11/23/21	0.31 I	7.6	0.26 U	3.4 I	9																							

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPoS	
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPSB-85	SB-85-0.5	11/29/21	0.65 I	26	0.22 U	3.2 I	7.4	0.44 U	0.11 U	0.11 U	0.11 U	1.2	0.87	0.11 U	0.44 U	0.74	1.3 I	3.7	0.22 I	0.39 I	0.99	0.64 I	0.18 I	0.22 U	0.11 U	0.86 I	0.88	1.0	1.3	0.22 U	
	SB-85-2.0	11/29/21	0.34 I	13	0.24 U	5.5 I	76	0.47 U	0.12 U	0.12 U	0.12 U	3.5	1.1	0.12 U	0.47 U	0.42 I	2.0	0.24 U	0.12 U	0.29 I	0.48	0.66 I	0.22 I	0.24 U	0.12 U	0.87 I	0.24 U	0.24 U	0.79 I	0.24 U	
	SB-85-2.5	11/29/21	0.27 I	9.4	0.27 U	6.1 I	64	0.54 U	0.13 U	0.13 U	0.13 U	5.3	1.1	0.13 U	0.59 I	0.34 I	2.1 I	0.27 U	0.13 U	0.49 I	0.58	1.6	0.13 U	0.27 U	0.13 U	2.5	0.27 U	0.27 U	0.65 I	0.27 U	
DEPSB-86	SB-86-0.5	11/29/21	0.36 I	5.9	0.21 U	1.7 U	15	0.42 U	0.11 U	0.11 U	0.11 U	1.0	0.50	0.11 U	0.42 U	1.2	0.85 I	0.79 I	0.11 U	0.22 I	0.30 I	0.23 I	0.11 U	0.23 I	0.11 U	0.24 I	0.21 U	0.31 I	0.75 I	0.21 U	
	SB-86-2.0	11/29/21	0.38 I	2.9	0.22 U	2.8 I	24	0.44 U	0.11 U	0.11 U	0.11 U	1.7	0.65	0.11 U	0.44 U	0.55	1.0 I	0.22 U	0.11 U	0.22 U	0.24 I	0.23 I	0.11 U	0.22 U	0.11 U	0.22 U	0.22 U	1.0	0.22 U		
	SB-86-2.5	11/29/21	0.26 U	4.6	0.26 U	2.1 U	47	0.53 U	0.13 U	0.13 U	0.13 U	4.5	3.3	0.13 U	0.53 U	0.18 I	1.4 I	0.26 U	0.13 U	0.26 U	0.29 I	0.55 I	0.13 U	0.26 U	0.13 U	0.75 I	0.26 U	0.26 U	1.1	0.26 U	
DEPSB-87	SB-87-0.5	11/29/21	1.3	13	0.22 U	1.7 U	1.4	0.43 U	0.98	0.11 U	0.11 U	2.3	21	0.11 U	0.43 U	1.1	2.4	1.2	0.11 U	0.49 I	0.95	0.39 I	0.13 I	0.74 I	0.11 U	0.32 I	0.25 I	0.84 I	2.2	0.22 U	
	SB-87-2.0	11/29/21	0.77 I	7.8	0.23 U	1.8 U	1.1	0.45 U	1.9	0.11 U	0.11 U	14	57	0.11 U	0.45 U	2.0	0.85 I	0.32 I	0.11 U	0.44 I	1.1	0.34 I	0.18 I	0.23 U	0.11 U	0.26 I	0.23 U	0.23 U	2.3	0.23 U	
	SB-87-2.5	11/29/21	0.56 I	5.3	0.25 U	2.0 U	5.3	0.51 U	0.22 I	0.13 U	0.24 I	25	13	0.13 U	0.51 U	0.18 I	0.71 I	0.25 U	0.13 U	0.65 I	0.95	0.71 I	0.61	0.25 U	0.13 U	0.65 I	0.25 U	0.25 U	1.8	0.25 U	
DEPSB-88	SB-88-0.5	11/29/21	1.4	390	0.21 U	1.7 U	280	0.42 U	0.10 U	0.10 U	0.11 I	5.9	9.3	0.11 I	0.42 U	2.4	4.0	2.7	0.50	0.21 U	2.6	0.97	0.88	0.99	0.14 I	0.40 I	1.1	1.0	3.0	0.21 U	
	SB-88-2.0	11/29/21	2.0	170	0.23 U	1.8 U	58	0.46 U	0.25 I	0.12 U	0.52	110	6.7	0.12 U	0.46 U	0.91	1.5 I	0.72 I	0.37 I	0.36 I	3.2	1.3	0.79	0.35 I	0.17 I	0.91 I	0.27 I	0.74 I	2.4	0.23 U	
	SB-88-2.5	11/29/21	1.1 I	38	0.30 U	15	19	0.60 U	0.46 I	0.15 U	0.43 I	43	23	0.15 U	0.60 U	0.77	0.92 I	0.94 I	0.15 I	0.36 I	1.2	1.6	0.70	0.30 U	0.15 U	1.5	0.30 U	2.0	3.7	0.30 U	
DEPSB-89	SB-89-0.5	11/29/21	0.21 U	3.1	0.21 U	1.7 U	0.42 I	0.42 U	0.11 U	0.11 U	0.11 U	0.44	0.11 U	0.11 U	0.42 U	0.73	0.70 I	1.9	0.11 U	0.21 U	0.30 I	0.21 U	0.11 U	0.21 U	0.11 U	0.21 U	0.51 I	1.9	0.97	0.21 U	
	SB-89-2.0	11/29/21	0.27 I	4.0	0.22 U	1.8 U	1.8	0.44 U	0.42 I	0.11 U	0.11 U	0.71	1.0	0.11 U	0.44 U	1.9	0.70 I	1.1	0.11 U	0.28 I	0.38 I	0.22 U	0.20 I	0.22 U	0.11 U	0.22 U	0.22 U	0.28 I	2.1	0.22 U	
	SB-89-2.5	11/29/21	0.26 U	10	0.26 U	2.1 U	9.1	0.52 U	2.2	0.13 U	0.13 U	5.9	7.9	0.13 U	0.52 U	1.1	0.61 I	0.32 I	0.13 U	0.26 U	0.61	0.81 I	0.29 I	0.29 I	0.13 U	0.87 I	0.26 U	0.26 U	1.2	0.26 U	
DEPSB-90	SB-90-0.5	11/29/21	0.26 I	3.7	0.22 U	1.8 U	0.22 U	0.44 U	0.11 U	0.11 U	0.11 U	0.12 I	0.11 U	0.11 U	0.45 I	0.44	0.49 I	0.25 I	0.11 U	0.29 I	0.73	0.49 I	0.18 I	0.43 I	0.11 U	0.81 I	0.22 U	0.27 I	1.4	0.22 U	
	SB-90-2.0	11/29/21	0.23 U	3.8	0.23 U	1.9 U	0.23 U	0.46 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46 U	0.12 U	0.50 I	0.23 U	0.12 U	0.31 I	0.34 I	0.32 I	0.12 I	0.37 I	0.12 U	0.62 I	0.23 U	0.23 U	0.26 I	0.23 U	
	SB-90-2.5	11/29/21	0.27 U	5.0	0.27 U	2.2 U	0.27 U	0.55 U	0.14 U	0.14 U	0.14 U	0.29 I	0.14 U	0.14 U	0.55 U	0.14 U	0.55 U	0.27 U	0.14 U	0.27 U	0.37 I	0.27 U	0.14 U	0.27 U	0.14 U	0.36 I	0.27 U	0.27 U	0.27 U	0.27 U	
DEPSB-91	SB-91-0.5	11/29/21	0.22 U	2.3	0.22 U	1.8 U	0.22 U	0.44 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	8.3	0.11 U	0.68 I	0.48 I	0.11 U	0.22 U	0.33 I	0.22 U	0.11 U	0.30 I	0.11 U	0.26 I	0.22 U	0.31 I	1.3	0.22 U	
	SB-91-2.0	11/29/21	0.42 I	15	0.23 U	1.9 U	0.37 I	0.46 U	0.12 U	0.12 U	0.24 I	4.0	0.12 U	0.12 U	0.46 U	0.12 U	0.54 I	0.23 U	0.12 I	0.23 U	0.83	0.23 U	0.12 U	0.49 I	0.12 U	0.36 I	0.23 U	0.23 U	0.30 I	0.23 U	
	SB-91-2.5	11/29/21	1.9	84	0.31 U	2.5 U	0.47 I	0.62 U	0.15 U	0.15 U	3.9	9.5	0.15 U	0.23 I	0.70 I	0.15 U	0.62 U	0.31 U	0.34 I	0.76 I	3.5	1.0 I	0.15 U	2.5	0.42 I	1.5	0.31 U	0.31 U	0.31 U	0.31 U	
DEPSB-92	SB-92-0.5	11/29/21	0.99	6.0	0.22 U	1.8 U	0.64 I	0.44 U	0.11 U	0.11 U	0.11 U	0.35 I	0.11 U	0.11 U	0.44 U	0.18 I	1.2 I	0.82 I	0.11 U	1.0	1.5	0.50 I	0.20 I	0.77 I	0.14 I	0.60 I	0.22 U	0.45 I	2.6	0.22 U	
	SB-92-2.0	11/29/21	1.4	110	0.24 U	2.8 I	7.8	0.48 U	0.12 U	0.12 U	0.35 I	34	0.68	0.12 U	0.48 U	0.12 U	0.94 I	0.24 U	0.28 I	1.0	3.4	0.97	0.98	1.1	0.22 I	1.1	0.24 U	0.24 U	0.62 I	0.24 U	
	SB-92-2.5	11/29/21	0.55 I	2.9	0.22 U	1.8 U	0.25 I	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.52	1.2 I	1.1	0.11 U	0.49 I	0.41 I	0.37 I	0.12 I	0.33 I	0.11 U	0.48 I	0.24 I	0.44 I	2.2	0.22 U	
DEPSB-93	SB-93-2.0	11/29/21	0.34 I	7.7	0.23 U	1.9 U	0.23 U	0.46 U	0.12 U	0.12 U	0.12 U	0.26 I	0.12 U	0.12 U	0.46 U	0.12 U	0.83 I	0.23 U	0.12 U	0.24 I	0.28 I	0.28 I	0.12 U	0.54 I	0.12 U	0.30 I	0.23 U	0.23 U	0.23 U	0.23 U	
	SB-93-2.5	11/29/21	0.28 U	8.8	0.28 U	2.2 U	0.28 U	0.55 U	0.14 U	0.14 U	0.14 U	2.0	0.14 U	0.14 U	0.55 U	0.14 U	0.55 U	0.28 U	0.14 U	0.28 U	0.32 I	0.28 U	0.14 U	0.35 I	0.14 U	0.32 I	0.28 U	0.28 U	0.30 I	0.28 U	
	SB-93-0.5	11/29/21	0.80 I	61	0.26 U	4.5 I	14	0.52 U	0.13 U	0.13 U	0.43 I	38	0.82	0.13 U	0.52 U	0.20 I	0.88 I	0.26 U	0.16 I	0.52 I	1.1	0.91 I	0.35 I	0.45 I	0.13 U	1.4	0.26 U	5.0	2.1	0.26 U	
DEPSB-94	SB-94-1.0	11/29/21	1.5	57	0.28 U	17	39	0.56 U	0.14 U	0.14 U	0.90	35	2.3	0.14 U	0.85 I	0.17 I	1.1 I	0.28 U	0.19 I	1.0 I	1.8	1.9	0.34 I	0.61 I	0.14 I	3.3	0.28 U	1.3	1.2	0.28 U	
	SB-94-0.5	11/29/21	0.23 U	2.7	0.23 U	1.8 U	0.23 U	0.46 U	0.11 U	0.11 U	0.11 U	0.21 I	0.19 I	0.11 U	0.46 U	0.29 I	0.51 I	0.57 I	0.11 U	0.23 U	0.35 I	0.28 I	0.11 U	0.23 U	0.11 U	0.42 I	0.25 I	7.8	1.5	0.23 U	
	SB-94-2.0	11/29/21	1.0 I	39	0.27 U	33	56	0.53 U	0.13 U	0.13 U	0.51 I	32	0.93	0.13 U	1.4 I	0.18 I	1.1 I	0.27 U	0.13 U	1.2	1.4	3.3	0.13 U	0.43 I	0.14 I	4.3	0.27 U	1.1	0.78 I	0.27 U	
DEPSB-96	SB-96-0.5	11/29/21	0.77 I	11	0.23 U	1.8 U	1.8	0.46 U	0.11 U	0.11 U	0.11 U	0.82	0.16 I	0.11 U	0.60 I	0.47	2.7	1.5	0.11 U	0.65 I	0.70	0.81 I	0.13 I	0.42 I	0.11 U	0.99	0.49 I	3.9	1.7	0.23 U	
	SB-96-2.0	11/29/21	0.27 U	11	0.27 U	2.1 U	38	0.53 U	0.13 U	0.13 U	0.13 U	2.5	0.48 I	0.13 U	0.53 U	0.41 I	0.91 I	0.27 U	0.13 U	0.38 I	0.26 I	0.70 I	0.13 U	0.27 U	0.13 U	1.2	0.38 I	13	0.74 I	0.27 U	
	SB-96-0.5	12/1/21	0.28 I	1.7	0.22 U	1.8 U	2.1 I	0.44 U	0.11 U	0.11 U	0.11 U	0.49	0.46	0.11 U	0.44 U	0.76	0.60 I	0.85 I	0.11 U	0.22 U	0.25 I	0.22 U	0.11 U	0.22 U	0.11 U	0.25 I	0.22 U	5.4	1.1	0.22 U	
DEPSB-97	SB-97-2.0	12/1/21	0.44 I	5.2	0.26 U	2.1 U	13	0.52 U	0.13 U	0.13 U	0.13 U	9.2	1.2	0.13 U	0.52 U	0.22 I	1.1 I	0.26 U	0.13 U												

**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	
Provisional SCTL - Leachability (µg/kg)			2	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Residential (µg/kg)			1,300	1,300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Provisional SCTL - Industrial (µg/kg)			25,000	25,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPSB-103	SB-103-0.5	12/1/21	0.48 I	1.5	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.70 I	0.20 I	0.95 I	1.4	0.12 U	0.86 I	0.36 I	0.62 I	0.12 U	0.54 I	0.12 U	1.0	0.25 U	1.8	2.8	0.25 U	
	SB-103-1.0	12/1/21	0.30 U	3.1	0.30 U	2.4 U	0.30 U	0.59 U	0.15 U	0.15 U	0.26 I	0.36 I	0.15 U	0.15 U	0.59 U	0.15 U	0.59 U	0.30 U	0.15 U	0.30 U	0.47 I	0.41 I	0.15 U	0.30 U	0.15 U	0.47 I	0.30 U	0.30 U	0.81 I	0.30 U	
DEPSB-104	SB-104-0.5	12/1/21	0.27 I	0.83 I	0.24 U	1.9 U	0.30 I	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.22 I	0.12 U	0.48 U	0.23 I	0.69 I	0.84 I	0.12 U	0.39 I	0.13 I	0.32 I	0.12 U	0.24 U	0.12 U	0.38 I	0.24 U	1.6	1.6	0.24 U	
	SB-104-1.5	12/1/21	0.29 U	6.4	0.29 U	2.3 U	0.29 U	0.58 U	0.14 U	0.14 U	0.29 I	4.6	0.81	0.14 U	0.58 U	0.14 U	0.63 I	0.29 U	0.14 U	0.29 U	0.92	0.29 U	0.14 U	0.32 I	0.14 U	0.37 I	0.29 U	0.29 U	0.98 I	0.29 U	
DEPSB-105	SB-105-0.5	12/1/21	0.23 U	0.97	0.23 U	1.9 U	0.31 I	0.46 U	0.12 U	0.12 U	0.12 U	0.12 U	0.18 I	0.12 U	0.46 U	0.12 I	0.70 I	0.88 I	0.12 U	0.23 U	0.16 I	0.23 U	0.12 U	0.23 U	0.12 U	0.27 I	0.23 U	2.1	1.7	0.23 U	
	SB-105-2.0	12/1/21	0.62 I	31	0.23 U	1.9 U	3.6	0.47 U	0.12 U	0.12 U	0.29 I	70	0.38 I	0.12 U	0.47 U	0.12 U	0.75 I	0.23 U	0.12 U	0.66 I	1.4	0.57 I	0.60	0.46 I	0.12 U	0.46 I	0.23 U	0.23 U	0.61 I	0.23 U	
DEPSB-106	SB-106-0.5	12/1/21	0.36 I	3.3	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.53 I	0.82 I	0.33 I	0.12 U	0.35 I	0.22 I	0.33 I	0.12 U	0.30 I	0.12 U	0.54 I	0.24 U	1.5	1.2	0.24 U		
	SB-106-1.5	12/1/21	0.37 I	18	0.28 U	2.2 U	0.77 I	0.55 U	0.14 U	0.14 U	0.28 I	1.3	0.14 U	0.14 U	0.55 U	0.14 U	0.63 I	0.28 U	0.14 U	0.42 I	0.66	0.41 I	0.14 U	0.38 I	0.14 U	0.42 I	0.28 U	0.31 I	0.61 I	0.28 U	
DEPSB-107	SB-107-0.5	12/1/21	0.83 I	16	0.26 U	2.1 U	0.39 I	0.52 U	0.13 U	0.13 U	0.14 I	2.2	1.8	0.13 U	1.2 I	5.3	1.1 I	1.8	0.28 I	1.3	3.0	1.6	0.93	0.53 I	0.13 U	2.2	0.26 U	0.53 I	2.1	0.26 U	
	SB-107-2.0	12/1/21	0.34 I	4.9	0.27 U	2.1 U	1.0 I	0.53 U	0.13 U	0.13 U	0.13 U	3.4	1.7	0.13 U	0.53 U	1.8	0.77 I	0.27 U	0.13 U	0.41 I	0.86	0.80 I	1.2	0.39 I	0.13 U	0.84 I	0.27 U	0.27 U	0.73 I	0.27 U	
	SB-107-2.5	12/1/21	0.39 I	7.2	0.27 U	2.7 I	1.2	0.54 U	0.13 U	0.13 U	0.13 U	36	0.45 I	0.13 U	0.54 U	0.23 I	0.81 I	0.27 U	0.13 U	0.45 I	0.63	0.84 I	0.36 I	0.36 I	0.13 U	1.3	0.27 U	0.27 U	0.65 I	0.27 U	
DEPSB-108	SB-108-0.5	12/1/21	0.35 I	3.6	0.23 U	1.9 U	0.23 U	0.47 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 I	0.37 I	0.47 I	0.38 I	0.12 U	0.33 I	0.52	0.47 I	0.13 I	0.33 I	0.12 U	0.96	0.23 U	0.36 I	1.2	0.23 U	
	SB-108-2.0	12/1/21	0.26 U	2.0	0.26 U	2.1 U	0.26 U	0.51 U	0.13 U	0.13 U	0.13 U	0.30 I	0.13 U	0.13 U	0.55 I	0.13 U	0.51 U	0.26 U	0.13 U	0.26 U	0.25 I	0.26 U	0.17 I	0.44 I	0.13 U	0.29 I	0.26 U	0.26 U	0.26 U	0.26 U	
	SB-108-2.5	12/1/21	0.27 U	1.4	0.27 U	2.2 U	0.27 U	0.54 U	0.14 U	0.14 U	0.14 U	1.3	0.14 U	0.14 U	0.54 U	0.14 U	0.54 U	0.27 U	0.14 U	0.27 U	0.42 I	0.27 U	0.14 U	0.61 I	0.14 U	0.39 I	0.27 U	0.27 U	0.27 U	0.27 U	
DEPSB-109	SB-109-0.5	12/1/21	0.22 U	2.0	0.22 U	1.8 U	0.22 U	0.45 U	0.11 U	0.11 U	0.11 U	0.13 I	0.11 U	0.11 U	0.45 U	0.94	0.55 I	0.90	0.11 U	0.22 U	0.48	0.33 I	0.11 U	0.22 U	0.11 U	0.41 I	0.22 U	0.33 I	1.8	0.22 U	
	SB-109-2.0	12/1/21	0.55 I	3.1	0.26 U	2.1 U	1.1	0.52 U	0.13 U	0.13 U	0.13 U	1.1	0.23 I	0.13 U	0.52 U	0.85	1.2 I	0.26 U	0.13 U	0.63 I	0.54	0.73 I	0.19 I	0.38 I	0.13 U	1.2	0.26 U	0.26 U	1.5	0.26 U	
DEPSB-110	SB-110-0.5	12/1/21	0.93 I	30	0.29 U	2.3 U	0.29 U	0.58 U	0.14 U	0.14 U	0.14 U	0.62	0.19 I	0.17 I	1.2 I	1.6	1.3 I	0.92 I	0.21 I	1.2	3.3	1.4	0.40 I	1.3	0.19 I	2.7	0.29 U	0.84 I	3.9	0.29 U	
	SB-110-2.0	12/1/21	0.52 I	16	0.27 U	11	0.40 I	0.54 U	0.14 U	0.14 U	0.52 I	17	0.14 U	0.19 I	0.55 I	0.14 U	0.54 U	0.27 U	0.26 I	0.44 I	1.7	1.1	0.14 U	0.27 U	0.14 U	1.6	0.27 U	0.27 U	0.27 U	0.27 U	
DEPSB-111	SB-111-0.5	12/15/21	0.24 U	5.1	0.24 U	1.9 U	0.24 U	0.47 U	0.12 U	0.12 U	0.12 U	0.22 I	0.12 U	0.12 U	0.47 U	0.12 U	0.47 U	0.24 U	0.12 U	0.24 U	0.15 I	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
	SB-111-2.0	12/15/21	0.24 U	1.3	0.24 U	1.9 U	0.24 U	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.48 U	0.12 U	0.48 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
	SB-111-3.5	12/15/21	0.25 U	0.61 I	0.25 U	2.0 U	0.25 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 U	0.12 U	0.49 U	0.25 U	0.12 U	0.25 U	0.19 I	0.25 U	0.12 U	0.25 U	0.12 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
DEPSB-112	SB-112-0.5	12/15/21	0.36 I	14	0.27 U	2.2 U	0.98 I	0.55 U	0.14 U	0.14 U	0.21 I	2.2	4.8	0.21 I	0.55 U	0.31 I	0.55 U	0.38 I	0.14 U	0.30 I	0.91	0.69 I	0.14 U	0.27 U	0.16 I	0.44 I	0.28 I	0.30 I	0.27 U	0.27 U	
	SB-112-2.0	12/15/21	0.44 I	13	0.28 U	2.3 U	0.28 U	0.57 U	0.14 U	0.14 U	0.31 I	2.0	2.9	0.14 U	0.57 U	0.14 U	0.57 U	0.28 U	0.14 U	0.45 I	1.1	0.70 I	0.14 U	0.45 I	0.14 U	0.56 I	0.28 U	0.28 U	0.28 U	0.28 U	
DEPSB-113	SB-113-0.5	12/15/21	1.8	2.5	1.0	130	7.8	0.50 U	0.13 U	0.13 U	0.88	9.3	23	1.9	0.92 I	2.2	0.50 U	4.0	0.28 I	1.4	13	8.3	0.13 U	0.25 U	2.3	1.5	1.0	21	0.25 U	0.98 I	
	SB-113-2.0	12/15/21	0.50 I	1.9	0.28 U	4.8 I	2.1	0.55 U	0.14 U	0.14 U	0.22 I	6.5	11	0.46 I	0.55 U	0.31 I	0.55 U	0.98 I	0.14 U	0.28 U	0.81	1.4	0.14 U	0.28 U	0.29 I	0.71 I	0.34 I	3.4	0.28 U	0.28 U	



**TABLE 2  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS
<b>Provisional SCTL - Leachability (µg/kg)</b>			<b>2</b>	<b>7</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Provisional SCTL - Residential (µg/kg)</b>			<b>1,300</b>	<b>1,300</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Provisional SCTL - Industrial (µg/kg)</b>			<b>25,000</b>	<b>25,000</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPSB-114	SB-114-0.5	3/7/22	<b>0.44 I</b>	<b>5.9</b>	0.34 U	2.7 U	0.34 U	0.67 U	0.17 U	0.17 U	<b>0.52 I</b>	<b>4.0</b>	<b>2.2</b>	<b>0.54 I</b>	0.67 U	<b>3.5</b>	0.67 U	<b>0.48 I</b>	<b>0.54 I</b>	0.34 U	<b>12</b>	<b>1.4</b>	<b>2.2</b>	0.34 U	<b>0.92</b>	<b>1.5</b>	0.34 U	<b>0.76 I</b>	<b>2.5</b>	0.34 U
	SB-114-2.0	3/7/22	0.26 U	<b>6.4</b>	0.26 U	2.1 U	0.26 U	0.53 U	0.13 U	0.13 U	0.13 U	<b>0.54</b>	<b>0.37 I</b>	0.13 U	0.53 U	0.13 U	0.53 U	0.26 U	0.13 U	0.26 U	<b>0.83</b>	0.26 U	<b>0.31 I</b>	0.26 U	0.13 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
	SB-114-2.5	3/7/22	0.29 U	<b>4.1</b>	0.29 U	2.3 U	0.29 U	0.58 U	0.14 U	0.14 U	0.14 U	<b>0.59</b>	0.14 U	0.14 U	0.58 U	0.14 U	0.58 U	0.29 U	0.14 U	0.29 U	<b>0.46 I</b>	0.29 U	0.14 U	0.29 U	0.14 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
DEPSB-115	SB-115-0.5	3/7/22	0.24 U	<b>0.92 I</b>	0.24 U	1.9 U	0.24 U	0.47 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.47 U	0.12 U	0.47 U	0.24 U	0.12 U	0.24 U	<b>0.12 U</b>	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
	SB-115-2.0	3/7/22	0.27 U	<b>0.30 I</b>	0.27 U	2.1 U	0.27 U	0.54 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.54 U	0.13 U	0.54 U	0.27 U	0.13 U	0.27 U	<b>0.27 I</b>	0.27 U	0.13 U	0.27 U	0.13 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
	SB-115-4.0	3/7/22	0.24 U	0.24 U	0.24 U	2.0 U	0.24 U	0.49 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49 U	0.12 U	0.49 U	0.24 U	0.12 U	0.24 U	<b>0.20 I</b>	0.24 U	0.12 U	0.24 U	0.12 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U

Notes:  
 Provisional SCTL - FDEP Provisional Soil Cleanup Target Level  
 All results are reported in micrograms per kilogram (µg/kg)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the FDEP Provisional Soil Cleanup Target Level.  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 J - Estimated value and/or the analysis did not meet established quality control criteria.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

PFOA	Perfluorooctanoic acid	PFDA	Perfluorodecanoic acid
PFOS	Perfluorooctanesulfonic acid	PFDoA	Perfluorododecanoic acid
4:2 FTS	4:2 Fluorotelomer sulfonate	PFHpS	Perfluoroheptanesulfonic acid
6:2 FTS	6:2 Fluorotelomer sulfonate	PFHpA	Perfluoroheptanoic acid
8:2 FTS	8:2 Fluorotelomer sulfonate	PFHxS	Perfluorohexanesulfonic acid
HODA	Hexafluoropropylene oxide dimer acid	PFHxA	Perfluorohexanoic acid
N-Et	N-Et perfluorooctanesulfonamidoAc acid	PFNS	Perfluorononanesulfonic acid
N-Me	N-Me perfluorooctanesulfonamidoAc acid	PFNA	Perfluorononanoic acid
FBSA	Perfluoro-1-butane sulfonamide	PFPeS	Perfluoropentanesulfonic acid
FHxSA	Perfluoro-1-hexane sulfonamide	PFPeA	Perfluoropentanoic acid
FOSA	Perfluoro-1-octane sulfonamide	PFTeA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid	PFTriA	Perfluorotridecanoic acid
PFBA	Perfluorobutanoic acid	PFUnA	Perfluoroundecanoic acid
PFDS	Perfluorodecanesulfonic acid	PFPrS	Perfluoropropanesulfonic acid

**TABLE 3  
SUMMARY OF VOC CONSTITUENTS AND TRPH IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-butyl ether	TRPH
<b>Leachability Based on Groundwater Criteria (mg/kg)</b>			<b>0.007</b>	<b>0.6</b>	<b>0.5</b>	<b>0.2</b>	<b>0.09</b>	<b>340</b>
<b>Direct Exposure Residential (mg/kg)</b>			<b>1.2</b>	<b>1,500</b>	<b>7,500</b>	<b>130</b>	<b>4,400</b>	<b>460</b>
<b>Direct Exposure Commercial/Industrial (mg/kg)</b>			<b>1.7</b>	<b>9,200</b>	<b>60,000</b>	<b>700</b>	<b>24,000</b>	<b>2,700</b>
DEPSB-107	SB-107-0.5	12/1/21	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	43 U
	SB-107-2.0	12/1/21	0.0023 U	0.0023 U	0.0023 U	0.0023 U	0.0023 U	42 U
	SB-107-2.5	12/1/21	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	43 U
DEPSB-108	SB-108-0.5	12/1/21	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	40 U
	SB-108-2.0	12/1/21	0.0023 U	0.0023 U	0.0023 U	0.0023 U	0.0023 U	41 U
	SB-108-2.5	12/1/21	0.0023 U	0.0023 U	0.0023 U	0.0023 U	0.0023 U	43 U
DEPSB-109	SB-109-0.5	12/1/21	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.0021 U	38 U
	SB-109-2.0	12/1/21	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	41 U
DEPSB-110	SB-110-0.5	12/1/21	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	45 U
	SB-110-2.0	12/1/21	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	43 U

Notes:

Provisional SCTL - FDEP Provisional Soil Cleanup Target Level

All results are reported in milligrams per kilogram (mg/kg)

Bold font indicates constituent concentration was reported above the laboratory method detection limit.

Highlighted font indicates constituent concentration was reported above the Provisional FDEP Soil Cleanup Target Level.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

**TABLE 4  
SUMMARY OF SVOC CONSTITUENTS IN SOIL**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (g,h,i) perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo (a) pyrene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (b) fluoranthene (ma/ka)	Benzo (k) fluoranthene (ma/ka)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Indeno (1,2,3-cd) pyrene (ma/ka)	Benzo (a) pyrene equivalent	
<b>Leachability Based on Groundwater Criteria (mg/kg)</b>			<b>1.2</b>	<b>3.1</b>	<b>8.5</b>	<b>2.1</b>	<b>27</b>	<b>2,500</b>	<b>32,000</b>	<b>1,200</b>	<b>160</b>	<b>250</b>	<b>880</b>	<b>8</b>	<b>0.8</b>	<b>2.4</b>	<b>24</b>	<b>77</b>	<b>0.7</b>	<b>6.6</b>	<b>**</b>	
<b>Direct Exposure Residential (mg/kg)</b>			<b>55</b>	<b>200</b>	<b>210</b>	<b>2,400</b>	<b>1,800</b>	<b>21,000</b>	<b>2,500</b>	<b>3,200</b>	<b>2,600</b>	<b>2,200</b>	<b>2,400</b>	<b>0.1</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>0.1</b>	
<b>Direct Exposure Commercial/Industrial (mg/kg)</b>			<b>300</b>	<b>1,800</b>	<b>2,100</b>	<b>20,000</b>	<b>20,000</b>	<b>300,000</b>	<b>52,000</b>	<b>59,000</b>	<b>33,000</b>	<b>36,000</b>	<b>45,000</b>	<b>0.7</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>#</b>	<b>0.7</b>	
DEPSB-107	SB-107-0.5	12/1/21	0.0081 U	NM	NM	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	<b>0.022 I</b>	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0
	SB-107-2.0	12/1/21	0.0080 U	NM	NM	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	<b>0.016 I</b>	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0
	SB-107-2.5	12/1/21	0.0080 U	NM	NM	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0
DEPSB-108	SB-108-0.5	12/1/21	0.0075 U	NM	NM	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	<b>0.017 I</b>	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0
	SB-108-2.0	12/1/21	0.0077 U	NM	NM	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0
	SB-108-2.5	12/1/21	0.0080 U	NM	NM	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0
DEPSB-109	SB-109-0.5	12/1/21	0.0070 U	NM	NM	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	<b>0.017 I</b>	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0
	SB-109-2.0	12/1/21	0.0076 U	NM	NM	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0
DEPSB-110	SB-110-0.5	12/1/21	0.0085 U	NM	NM	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0
	SB-110-2.0	12/1/21	0.0082 U	NM	NM	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0

Notes:  
 Provisional SCTL - FDEP Provisional Soil Cleanup Target Level  
 All results are reported in milligrams per kilogram (mg/kg)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the Provisional FDEP Soil Cleanup Target Level.  
 NM - not measured  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

**TABLE 5  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SEDIMENT**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	
<b>Provisional SCTL - Leachability (µg/kg)</b>			<b>2</b>	<b>7</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<b>Provisional SCTL - Residential (µg/kg)</b>			<b>1,300</b>	<b>1,300</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
<b>Provisional SCTL - Industrial (µg/kg)</b>			<b>25,000</b>	<b>25,000</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
SED-1	SED-1	11/30/21	0.30 U	<b>3.9</b>	0.30 U	<b>2.9 I</b>	<b>3.4</b>	0.61 U	0.15 U	0.15 U	0.19 U	<b>0.69 I</b>	<b>0.40 I</b>	0.15 U	0.61 U	0.15 U	<b>1.5 I</b>	<b>2.5</b>	0.15 U	0.30 U	0.15 U	0.30 U	0.15 U	0.30 U	0.15 U	<b>0.47 I</b>	<b>3.0</b>	<b>1.8</b>	<b>1.1 I</b>	0.30 U	
SED-2	SED-2	11/30/21	0.36 U	<b>11</b>	0.36 U	2.8 U	0.36 U	0.71 U	0.18 U	0.18 U	0.18 U	<b>0.28 I</b>	0.18 U	0.18 U	0.71 U	0.18 U	0.71 U	<b>0.73 I</b>	0.18 U	0.36 U	<b>1.7</b>	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.36 U	0.36 U	0.36 U
SED-3	SED-3	11/30/21	0.28 U	0.28 U	0.28 U	2.3 U	0.28 U	0.56 U	0.14 U	0.14 U	0.16 U	0.16 U	0.14 U	0.14 U	0.56 U	0.14 U	0.28 U	0.14 U	0.28 U	<b>0.29 I</b>	<b>0.67 I</b>	0.14 U	0.28 U	0.14 U	<b>0.93 I</b>	0.28 U	0.28 U	0.28 U	<b>0.33 I</b>	0.28 U	
SED-4	SED-4	11/30/21	0.32 U	<b>3.2</b>	0.32 U	2.6 U	0.32 U	0.65 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	<b>0.33 I</b>	0.65 U	0.16 U	0.65 U	0.32 U	0.16 U	0.32 U	<b>2.0</b>	0.32 U	0.16 U	0.32 U	<b>0.35 I</b>	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	
SED-5	SED-5	11/30/21	<b>6.1</b>	<b>870</b>	0.66 U	<b>43</b>	<b>41</b>	1.3 U	<b>0.49 I</b>	0.33 U	<b>3.6</b>	<b>130</b>	<b>31</b>	<b>1.2 I</b>	<b>1.5 I</b>	<b>7.6</b>	<b>6.3</b>	<b>6.8</b>	<b>3.2</b>	<b>3.5</b>	<b>19</b>	<b>7.5</b>	<b>3.2</b>	<b>3.4</b>	<b>1.8</b>	<b>6.4</b>	<b>4.9</b>	0.66 U	<b>14</b>	0.66 U	
SED-6	SED-6	11/30/21	0.47 U	<b>42</b>	0.47 U	3.7 U	<b>1.1 I</b>	0.93 U	0.23 U	0.23 U	0.23 U	<b>4.8</b>	<b>1.1</b>	0.23 U	0.93 U	<b>0.79 I</b>	0.93 U	<b>2.2</b>	0.23 U	0.47 U	<b>1.6</b>	<b>0.53 I</b>	0.23 U	0.47 U	0.23 U	<b>0.59 I</b>	<b>0.60 I</b>	<b>2.4</b>	<b>1.9</b>	0.47 U	
SED-7	SED-7	11/30/21	0.35 U	<b>0.41 I</b>	0.35 U	2.8 U	0.35 U	0.70 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.70 U	0.17 U	0.70 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
SED-8	SED-8	11/30/21	0.36 U	<b>1.0 I</b>	0.36 U	2.9 U	0.36 U	0.72 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.72 U	0.18 U	0.72 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
SED-8	SED-8	12/15/21	0.35 U	0.35 U	0.35 U	2.8 U	0.35 U	0.70 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.70 U	0.17 U	0.70 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.17 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
SED-9	SED-9	11/30/21	<b>1.7 I</b>	<b>280</b>	0.45 U	<b>9.7 I</b>	<b>22</b>	0.90 U	<b>0.80 I</b>	0.23 U	<b>1.3</b>	<b>89</b>	<b>14</b>	<b>0.31 I</b>	<b>0.90 U</b>	<b>4.0</b>	<b>2.6 I</b>	<b>6.7</b>	<b>1.3</b>	<b>1.1 I</b>	<b>7.9</b>	<b>2.2</b>	<b>1.7</b>	<b>1.9</b>	<b>0.54 I</b>	<b>1.8</b>	<b>3.4</b>	<b>6.6</b>	<b>9.6</b>	0.45 U	
SED-10	SED-10	11/30/21	<b>4.1</b>	<b>630</b>	0.41 U	<b>54 I</b>	<b>180</b>	0.81 U	<b>1.1</b>	0.20 U	<b>0.82</b>	<b>60</b>	<b>54</b>	<b>1.1</b>	<b>1.6 I</b>	<b>8.0</b>	<b>3.4</b>	<b>2.0</b>	<b>3.0</b>	<b>1.4 I</b>	<b>15</b>	<b>5.7</b>	<b>5.5</b>	<b>1.0 I</b>	<b>1.5</b>	<b>4.6</b>	<b>1.4 I</b>	<b>2.7</b>	<b>22</b>	<b>0.96 I</b>	
SED-11	SED-11	11/30/21	<b>15</b>	<b>570</b>	1.6 U	13 U	1.6 U	3.2 U	0.79 U	0.79 U	<b>7.2</b>	<b>7.2</b>	0.79 U	<b>26</b>	<b>6.1 I</b>	0.79 U	3.2 U	1.6 U	<b>12</b>	<b>19</b>	<b>220</b>	<b>46</b>	0.79 U	<b>4.6 I</b>	<b>39</b>	<b>26</b>	1.6 U	1.6 U	<b>2.4 I</b>	<b>8.1</b>	
SED-12	SED-12	11/30/21	0.30 U	<b>0.39 I</b>	0.30 U	2.4 U	0.30 U	0.59 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.59 U	0.15 U	0.59 U	0.30 U	0.15 U	0.30 U	<b>0.21 I</b>	0.30 U	0.15 U	0.30 U	0.15 U	<b>0.72 I</b>	0.30 U	0.30 U	0.30 U	0.30 U	
SED-13	SED-13	11/30/21	<b>0.35 I</b>	<b>3.1</b>	0.27 U	2.2 U	<b>1.4</b>	0.55 U	0.14 U	0.14 U	0.14 U	<b>2.3</b>	<b>0.82</b>	0.14 U	0.55 U	<b>0.17 I</b>	<b>1.7 I</b>	<b>0.48 I</b>	0.14 U	<b>0.48 I</b>	<b>0.35 I</b>	<b>0.54 I</b>	<b>0.14 I</b>	0.27 U	0.14 U	<b>0.84 I</b>	0.27 U	0.27 U	<b>1.1 I</b>	0.27 U	
SED-14	SED-14	11/30/21	<b>1.6 I</b>	<b>16</b>	0.42 U	3.4 U	0.42 U	0.84 U	0.21 U	0.21 U	<b>0.22 I</b>	0.21 U	0.21 U	<b>4.6</b>	<b>2.3 I</b>	0.21 U	0.84 U	0.42 U	<b>0.23 I</b>	<b>1.1 I</b>	<b>7.1</b>	<b>2.4</b>	0.21 U	<b>0.46 I</b>	<b>3.3</b>	<b>4.2</b>	0.42 U	0.42 U	0.42 U	<b>1.2 I</b>	
SED-15	SED-15	3/8/22	<b>2.4 U</b>	<b>12</b>	2.4 U	19 U	2.4 U	4.8 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	4.8 U	1.2 U	4.8 U	2.4 U	1.2 U	2.4 U	1.2 U	2.4 U	1.2 U	2.4 U	1.2 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	

Notes:  
 Provisional SCTL - FDEP Provisional Soil Cleanup Target Level  
 All results are reported in micrograms per kilogram (µg/kg)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the Provisional FDEP Soil Cleanup Target Level.  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

PFOA Perfluorooctanoic acid  
 PFOS Perfluorooctanesulfonic acid  
 4:2 FTS 4:2 Fluorotelomer sulfonate  
 6:2 FTS 6:2 Fluorotelomer sulfonate  
 8:2 FTS 8:2 Fluorotelomer sulfonate  
 HODA Hexafluoropropylene oxide dimer acid  
 N-Et N-Et perfluorooctanesulfonamidoAc acid  
 N-Me N-Me perfluorooctanesulfonamidoAc acid  
 FBSA Perfluoro-1-butane sulfonamide  
 FHxSA Perfluoro-1-hexane sulfonamide  
 FOSA Perfluoro-1-octane sulfonamide  
 PFBS Perfluorobutanesulfonic acid  
 PFBA Perfluorobutanoic acid  
 PFDS Perfluorodecanesulfonic acid  
 PFDA Perfluorodecanoic acid  
 PFDoA Perfluorododecanoic acid  
 PFHpS Perfluoroheptanesulfonic acid  
 PFHpA Perfluoroheptanoic acid  
 PFHxS Perfluorohexanesulfonic acid  
 PFHxA Perfluorohexanoic acid  
 PFNS Perfluorononanesulfonic acid  
 PFNA Perfluorononanoic acid  
 PFPeS Perfluoropentanesulfonic acid  
 PFPeA Perfluoropentanoic acid  
 PFTeA Perfluorotetradecanoic acid  
 PFTriA Perfluorotridecanoic acid  
 PFUnA Perfluoroundecanoic acid  
 PFPrS Perfluoropropanesulfonic acid

**TABLE 6  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN SURFACE WATER**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPoS
<b>Provisional SWSL (Human Health)</b>			<b>500</b>	<b>10</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Ecological (Freshwater)</b>			<b>1,300,000</b>	<b>37,000</b>																										
<b>Ecological (Marine)</b>			<b>NOT DETERMINED</b>	<b>13,000</b>																										
SW-1	SW-1	6/23/21	100	240	2.0 U	270	33	4.0 U	0.80 U	0.80 U	15	32	1.3 I	27	180	0.40 U	18	2.0 U	7.8	180	150	320	0.40 U	25	31	720	2.0 U	2.0 U	3.9 I	NM
SW-2	SW-2	6/23/21	77	1,200	2.0 U	280	29	4.0 U	0.80 U	0.80 U	69	260	3.3	47	100	0.40 U	8.3 I	2.0 U	18	110	420	290	0.40 U	27	53	300	2.0 U	2.0 U	7.5 I	NM
SW-3	SW-3	11/30/21	33	340	2.0 U	55 I	2.0 U	4.0 U	0.80 U	0.80 U	18	7.6	0.40 U	48	35	0.40 U	4.0 U	2.0 U	6.9	45	210	100	0.40 U	12	41	140	2.0 U	2.0 U	2.0 U	14 I
SW-4	SW-4	11/30/21	35	330	2.0 U	61 I	2.0 U	4.0 U	0.80 U	0.80 U	14 I	6.2 I	0.40 U	85	48	0.40 U	4.0 U	2.0 U	6.1	51	270	150	0.40 U	10	69	200	2.0 U	2.0 U	2.0 U	39
	DUP-SW-4	11/30/21	35	380	2.0 U	57 I	2.0 U	4.0 U	0.80 U	0.80 U	12 I	6.1 I	0.40 U	91	49	0.40 U	4.0 U	2.0 U	7.2	61	300	150	0.40 U	12	75	200	2.0 U	2.0 U	2.0 U	36
SW-5	SW-5	11/30/21	310	7,200	4.6 I	3,000 I	670	4.0 U	0.80 U	0.80 U	270	2,100	17	250	310	0.40 U	40	2.0 U	97	500	1,800	980	6.1	150	160	1,400	2.0 U	2.0 U	16	110
SW-6	SW-6	11/30/21	96	1,200	2.0 U	230 I	23	4.0 U	0.80 U	0.80 U	86	350	1.9	48	89	0.40 U	9.0 I	2.0 U	16	100	410	280	1.0 I	25	56	260	2.0 U	2.0 U	5.2 I	15 I
SW-7	SW-7	11/30/21	12	42	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	1.5 I	2.5	0.40 U	3.2	18	0.40 U	4.0 U	2.0 U	0.80 U	22	18	30	0.40 U	4.4 I	3.0	48	2.0 U	2.0 U	2.0 U	4.0 U
SW-8	SW-8	11/30/21	11	42	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	1.4 I	2.5	0.40 U	3	17	0.40 U	4.0 U	2.0 U	0.80 U	22	18	31	0.40 U	3.7 I	2.9	48	2.0 U	2.0 U	2.0 U	4.0 U
SW-9	SW-9	11/30/21	530	6,700	5.4 I	3,400	400	4.0 U	0.80 U	0.80 U	820	4,300	43	170	450	0.66 I	39	2.4 I	150	690	2,000	1,400	5.1	140	210	1,900	2.0 U	2.0 U	17	52
SW-10	SW-10	11/30/21	820	14,000	17	15,000	3,500	4.0 U	3.3	0.80 U	580	6,000	120	320	870	3.7	120	2.0 U	320 I	980	3,000	2,200	27	240	280	3,700	2.0 U	2.0 U	92	140
	DUP-SW-10	11/30/21	840	13,000	18	13,000	3,400	4.0 U	3.7	0.80 U	570	6,200	120	310	850	3.6	130	2.0 U	300 I	990	2,800	2,000	28	210	300	4,000	2.0 U	2.0 U	91	170
SW-11	SW-11	11/30/21	130	1,600	11	110	2.0 U	4.0 U	0.80 U	0.80 U	130	12	0.40 U	2,200	550	0.40 U	4.0 U	2.0 U	180	420	6,400	2,000	0.40 U	17	1,200	1,500	2.0 U	2.0 U	2.0 U	1,000
SW-12	SW-12	3/8/22	2.0 I	12	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	1.7	6.4 I	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	6.7	3.5 I	0.40 U	2.0 U	1.1 I	4.5 I	2.0 U	2.0 U	2.0 U	4.0 U
	DUP-SW-12	3/8/22	2.0 I	12	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	1.7	6.3 I	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	5.8	3.9 I	0.40 U	2.0 U	1.1 I	4.8 I	2.0 U	2.0 U	2.0 U	4.0 U

Notes:  
 Provisional SWSL - FDEP Provisional Surface Water Screening Level  
 All results are reported in nanograms per liter (ng/L)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the Provisional FDEP Surface Water Screening Level for human health.  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.  
 NM - Not Measured

PFOA	Perfluorooctanoic acid	PFDA	Perfluorodecanoic acid
PFOS	Perfluorooctanesulfonic acid	PFDoA	Perfluorododecanoic acid
4:2 FTS	4:2 Fluorotelomer sulfonate	PFHpS	Perfluoroheptanesulfonic acid
6:2 FTS	6:2 Fluorotelomer sulfonate	PFHpA	Perfluoroheptanoic acid
8:2 FTS	8:2 Fluorotelomer sulfonate	PFHxS	Perfluorohexanesulfonic acid
HODA	Hexafluoropropylene oxide dimer acid	PFHxA	Perfluorohexanoic acid
N-Et	N-Et perfluorooctanesulfonamidoAc acid	PFNS	Perfluorononanesulfonic acid
N-Me	N-Me perfluorooctanesulfonamidoAc acid	PFNA	Perfluorononanoic acid
FBSA	Perfluoro-1-butane sulfonamide	PFPeS	Perfluoropentanesulfonic acid
FHxSA	Perfluoro-1-hexane sulfonamide	PFPeA	Perfluoropentanoic acid
FOSA	Perfluoro-1-octane sulfonamide	PFTeA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid	PFTriA	Perfluorotridecanoic acid
PFBA	Perfluorobutanoic acid	PFUnA	Perfluoroundecanoic acid
PFDS	Perfluorodecanesulfonic acid	PFPoS	Perfluoropropanesulfonic acid

**TABLE 7  
GROUNDWATER ELEVATION SUMMARY**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

WELL DESIGNATION	FSCJ-TMW-1S			FSCJ-TMW-2S			FSCJ-TMW-2SR			FSCJ-TMW-2D			FSCJ-TMW-3S			FSCJ-TMW-4S			FSCJ-TMW-4SR		
DIAMETER	2 in			2 in			1.25 in			2 in			2 in			2 in			2 in		
WELL DEPTH	12 ft			12 ft			11 ft			59 ft			12 ft			11 ft			11 ft		
SCREEN INTERVAL	7 - 12 ft			7 - 12 ft			1 - 11 ft			49 - 59 ft			7 - 12 ft			1 - 11 ft			1 - 11 ft		
TOC ELEVATION <sup>1</sup>	38.58 ft			38.79 ft			38.75 ft			38.54 ft			37.93 ft			54.74 ft			39.23 ft		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
6/23/2021	35.82	2.76		Abandoned			35.85	2.90		31.88	6.66		35.59	2.34		Abandoned			36.51	2.72	
4/4/2022	35.74	2.84					35.70	3.05		33.35	5.19		35.83	2.10					36.57	2.66	
WELL DESIGNATION	FSCJ-TMW-4D			FSCJ-TMW-4DR			FSCJ-TMW-5S			FSCJ-TMW-5SR			FSCJ-TMW-6S			FSCJ-TMW-6D			FSCJ-TMW-7S		
DIAMETER	2 in			2 in			2 in			1.25 in			1.25 in			2 in			1.25 in		
WELL DEPTH	60 ft			60 ft			11 ft			12 ft			11 ft			60 ft			11 ft		
SCREEN INTERVAL	50 - 60 ft			55 - 60 ft			1 - 11 ft			2 - 12 ft			1 - 11 ft			50 - 60 ft			1 - 11 ft		
TOC ELEVATION <sup>1</sup>	54.74 ft			39.69 ft			51.63 ft			38.31 ft			37.77 ft			37.66 ft			51.63 ft		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
6/23/2021	Abandoned			31.68	8.01		Well Damaged			36.73	1.58		36.20	1.57		31.63	6.03		Abandoned		
4/4/2022				32.80	6.89					NM	NM		36.05	1.72		32.87	4.79				
WELL DESIGNATION	FSCJ-TMW-7SR			FSCJ-TMW-8S			FSCJ-TMW-9S			FSCJ-TMW-10S			FSCJ-TMW-11S			FSCJ-TMW-12S			FSCJ-TMW-13S		
DIAMETER	1.25 in			1.25 in			1.25 in			1.25 in			1.25 in			1.25 in			1.25 in		
WELL DEPTH	12 ft			11 ft			11 ft			12 ft			12 ft			11 ft			11 ft		
SCREEN INTERVAL	2 - 12 ft			1 - 11 ft			1 - 11 ft			2 - 12 ft			2 - 12 ft			1 - 11 ft			1 - 11 ft		
TOC ELEVATION <sup>1</sup>	38.12 ft			38.57 ft			38.95 ft			38.49 ft			38.36 ft			37.71 ft			36.40 ft		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
6/23/2021	Well Not Found			35.36	3.21		33.06	5.89		35.69	2.80		36.35	2.01		36.31	1.40		34.82	1.58	
4/4/2022	35.50	2.62		35.26	3.31		34.23	4.72		35.81	2.68		37.14	1.22		37.08	0.63		34.87	1.53	
WELL DESIGNATION	FSCJ-TMW-14S			FSCJ-TMW-15S			FSCJ-TMW-16S			FSCJ-TMW-17S			FSCJ-TMW-18S			FSCJ-TMW-19S			FSCJ-TMW-20S		
DIAMETER	1.25 in			1.25 in			1.5 in			1.5 in			1.5 in			1.5 in			1.5 in		
WELL DEPTH	11 ft			11 ft			12 ft			11 ft			11 ft			12 ft			12 ft		
SCREEN INTERVAL	1 - 11 ft			1 - 11 ft			2 - 12 ft			1 - 11 ft			1 - 11 ft			2 - 12 ft			2 - 12 ft		
TOC ELEVATION <sup>1</sup>	38.00 ft			39.44 ft			38.20 ft			38.63 ft			37.78 ft			36.47 ft			38.41 ft		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
6/23/2021	34.26	3.74		37.23	2.21		36.68	1.52		36.55	2.08		35.83	1.95		NM	< 0.5		34.93	3.48	
4/4/2022	35.09	2.91		36.82	2.62		37.30	0.90		37.82	0.81		36.88	0.90		NM	NM		35.35	3.06	

**TABLE 7  
GROUNDWATER ELEVATION SUMMARY**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

WELL DESIGNATION	DEPMW-1S			DEPMW-2S			DEPMW-3S			DEPMW-4S			DEPMW-5S			DEPMW-6S			DEPMW-7S		
DIAMETER	0.75	in		0.75	in		0.75	in		0.75	in		0.75	in		0.75	in		0.75	in	
WELL DEPTH	12	ft		12	ft		12	ft		12	ft		12	ft		12	ft		12	ft	
SCREEN INTERVAL	2 - 12	ft		2 - 12	ft		2 - 12	ft		2 - 12	ft		2 - 12	ft		2 - 12	ft		2 - 12	ft	
TOC ELEVATION <sup>1</sup>	38.28	ft		39.52	ft		38.86	ft		38.51	ft		38.81	ft		38.13	ft		38.36	ft	
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
4/4/2022	36.38	1.90		37.93	1.59		36.61	2.25		36.83	1.68		36.89	1.92		36.45	1.68		36.01	2.35	
WELL DESIGNATION	DEPMW-8S			DEPMW-9S			DEPMW-10S			DEPMW-1D			DEPMW-2D			DEPMW-3D			DEPMW-4D		
DIAMETER	0.75	in		0.75	in		0.75	in		2	in		2	in		2	in		2	in	
WELL DEPTH	12	ft		12	ft		12	ft		50	ft		49	ft		49	ft		49.5	ft	
SCREEN INTERVAL	2 - 12	ft		2 - 12	ft		2 - 12	ft		40 - 50	ft		39 - 49	ft		39 - 49	ft		39.5 - 49.5	ft	
TOC ELEVATION <sup>1</sup>	38.09	ft		37.14	ft		42.44	ft		38.46	ft		39.36	ft		38.82	ft		38.59	ft	
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
4/4/2022	36.76	1.33		36.38	0.76		37.70	4.74		33.84	4.62		33.42	5.94		32.67	6.15		33.29	5.30	

Notes:  
<sup>1</sup>Survey data provided by Banks & Banks Consulting, Inc. (June 2022)  
 in - inch  
 ft - feet  
 UNK - Unknown  
 NI - not installed  
 ELEV - elevation (feet)  
 DTW - depth to water (feet)  
 FP - free product (feet)  
 NM - not measured

**TABLE 8  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN GROUNDWATER  
VERTICAL PROFILING LOCATIONS**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	PFOA + PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS
<b>Provisional GCTL (ng/L)</b>			<b>70</b>	<b>70</b>	<b>70</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
VP-1	VP-1-20-24	3/8/22	<b>330</b>	<b>12,000</b>	<b>12,330</b>	2.0 U	<b>82</b>	<b>8.9</b>	4.0 U	0.80 U	0.80 U	<b>270</b>	<b>360</b>	0.40 U	<b>180</b>	<b>270</b>	0.40 U	4.0 U	2.0 U	<b>120</b>	<b>360</b>	<b>2,400</b>	<b>420</b>	0.40 U	<b>230</b>	<b>320</b>	<b>610</b>	2.0 U	2.0 U	2.0 U	<b>38</b>
	VP-1-36-40	3/8/22	<b>1,400</b>	<b>8,900</b>	<b>10,300</b>	7.1 I	<b>950</b>	2.0 U	4.0 U	0.80 U	0.80 U	<b>2,200</b>	<b>130</b>	0.40 U	<b>3,600</b>	<b>590</b>	0.40 U	4.0 U	2.0 U	<b>760</b>	<b>770</b>	<b>20,000</b>	<b>3,000</b>	0.40 U	<b>210</b>	<b>4,100</b>	<b>1,400</b>	2.0 U	2.0 U	2.0 U	<b>1,700</b>
	VP-1-48-52	3/8/22	<b>34</b>	<b>310</b>	<b>344</b>	3.3 I	<b>130</b>	2.1 U	4.1 U	0.83 U	0.83 U	<b>47</b>	<b>6.9</b>	0.41 U	<b>170</b>	<b>48</b>	0.41 U	4.1 U	2.1 U	<b>8.3</b>	<b>45</b>	<b>380</b>	<b>170</b>	0.41 U	<b>5.2 I</b>	<b>160</b>	<b>140</b>	2.1 U	2.1 U	2.1 U	<b>76</b>
VP-2	VP-2-20-24	3/8/22	<b>370</b>	<b>5,300</b>	<b>5,670</b>	2.1 U	<b>810</b>	2.1 U	4.1 U	0.83 U	0.83 U	<b>690</b>	<b>88</b>	0.41 U	<b>330</b>	<b>300</b>	0.41 U	4.1 U	2.1 U	<b>200</b>	<b>390</b>	<b>3,200</b>	<b>470</b>	0.41 U	<b>3.4 I</b>	<b>330</b>	<b>700</b>	2.1 U	2.1 U	2.1 U	<b>130</b>
	DUP-VP-2-20-24	3/8/22	<b>340</b>	<b>4,900</b>	<b>5,240</b>	2.1 U	<b>740</b>	2.1 U	4.1 U	0.83 U	0.83 U	<b>630</b>	<b>87</b>	0.41 U	<b>350</b>	<b>290</b>	0.41 U	4.1 U	2.1 U	<b>200</b>	<b>430</b>	<b>3,000</b>	<b>570</b>	0.41 U	<b>2.5 I</b>	<b>360</b>	<b>730</b>	2.1 U	2.1 U	2.1 U	<b>130</b>
	VP-2-36-40	3/8/22	<b>18</b>	<b>39</b>	<b>57</b>	4.9 I	<b>17 I</b>	2.1 U	4.1 U	0.83 U	0.83 U	<b>210</b>	<b>0.94 I</b>	0.41 U	<b>460</b>	<b>190</b>	0.41 U	4.1 U	2.1 U	<b>2.0 I</b>	<b>270</b>	<b>4,000</b>	<b>740</b>	0.41 U	2.1 U	0.41 U	<b>380</b>	2.1 U	2.1 U	2.1 U	<b>250</b>
VP-2-48-52	3/8/22	<b>3.1 I</b>	<b>55</b>	<b>58.1</b>	2.0 U	16 U	2.0 U	4.1 U	0.81 U	0.81 U	<b>4.3</b>	<b>1.2 I</b>	0.41 U	<b>3.3</b>	4.1 U	0.41 U	4.1 U	2.0 U	0.81 U	<b>2.1 I</b>	<b>39</b>	<b>3.8 I</b>	0.41 U	2.0 U	<b>5.9</b>	<b>4.0 I</b>	2.0 U	2.0 U	2.0 U	4.1 U	
VP-3	VP-3-20-24	12/14/21	2.0 U	2.0 U	2.0 U	2.0 U	<b>24 I</b>	2.0 U	4.0 U	0.80 U	0.80 U	<b>1.3 I</b>	0.80 U	0.40 U	<b>9.0</b>	<b>98</b>	0.40 U	4.0 U	2.0 U	0.80 U	<b>18</b>	<b>12</b>	<b>140</b>	0.40 U	2.0 U	<b>4.0</b>	<b>410</b>	2.0 U	2.0 U	2.0 U	4.0 U
	VP-3-20-24	3/7/22	2.0 U	2.0 U	2.0 U	2.0 U	<b>37 I</b>	2.0 U	4.0 U	0.80 U	0.80 U	<b>2.0 I</b>	0.80 U	0.40 U	<b>14</b>	<b>110</b>	0.40 U	4.0 U	2.0 U	0.80 U	<b>20</b>	<b>10</b>	<b>170</b>	0.40 U	2.0 U	<b>5.0</b>	<b>290</b>	2.0 U	2.0 U	2.0 U	<b>10 I</b>
	VP-3-36-40	3/7/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	<b>6.3</b>	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	<b>1.1 I</b>	<b>7.4 I</b>	0.40 U	2.0 U	<b>2.2</b>	<b>4.0 I</b>	2.0 U	2.0 U	2.0 U	4.0 U
VP-3-48-52	3/7/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	<b>0.77 I</b>	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	<b>1.2 I</b>	2.0 U	0.40 U	2.0 U	<b>0.85 I</b>	2 U	2.0 U	2.0 U	<b>2.3 I</b>	4.0 U	
VP-4	VP-4-20-24	3/8/22	<b>23</b>	<b>300</b>	<b>323</b>	2.0 U	<b>99</b>	2.0 U	4.0 U	0.80 U	0.80 U	<b>36</b>	<b>10</b>	0.4 U	<b>35</b>	<b>37</b>	0.40 U	4.0 U	2.0 U	<b>15</b>	<b>32</b>	<b>160</b>	<b>83</b>	0.40 U	<b>16</b>	<b>35</b>	<b>120</b>	2.0 U	2.0 U	2.0 U	<b>8.2 I</b>
	VP-4-36-40	3/8/22	<b>6.3 I</b>	<b>15</b>	<b>21.3</b>	2.0 U	16 U	2.0 U	4.1 U	0.81 U	0.81 U	<b>1.9 I</b>	0.81 U	0.41 U	<b>57</b>	<b>15 I</b>	0.41 U	4.1 U	2.0 U	<b>0.93 I</b>	<b>10</b>	<b>150</b>	<b>61</b>	0.41 U	2.0 U	<b>42</b>	<b>34</b>	2.0 U	2.0 U	2.0 U	<b>34</b>
	VP-4-48-52	3/8/22	<b>67</b>	<b>740</b>	<b>807</b>	4.3 I	<b>410</b>	2.0 U	4.0 U	0.80 U	0.80 U	<b>120</b>	<b>5.1</b>	0.40 U	<b>180</b>	<b>84</b>	0.40 U	4.0 U	2.0 U	<b>30</b>	<b>57</b>	<b>570</b>	<b>250</b>	0.40 U	<b>52</b>	<b>170</b>	<b>310</b>	2.0 U	2.0 U	2.0 U	<b>74</b>

Notes:  
 Provisional GCTL - FDEP Provisional Groundwater Cleanup Target Level  
 All results are reported in nanograms per liter (ng/L)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the Provisional FDEP Groundwater Cleanup Target Level.  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.  
 J - Estimated value and/or the analysis did not meet established quality control criteria.

PFOA	Perfluorooctanoic acid	PFDA	Perfluorodecanoic acid
PFOS	Perfluorooctanesulfonic acid	PFDoA	Perfluorododecanoic acid
4:2 FTS	4:2 Fluorotelomer sulfonate	PFHpS	Perfluoroheptanesulfonic acid
6:2 FTS	6:2 Fluorotelomer sulfonate	PFHpA	Perfluoroheptanoic acid
8:2 FTS	8:2 Fluorotelomer sulfonate	PFHxS	Perfluorohexanesulfonic acid
HODA	Hexafluoropropylene oxide dimer acid	PFHxA	Perfluorohexanoic acid
N-Et	N-Et perfluorooctanesulfonamidoAc acid	PFNS	Perfluorononanesulfonic acid
N-Me	N-Me perfluorooctanesulfonamidoAc acid	PFNA	Perfluorononanoic acid
FBSA	Perfluoro-1-butane sulfonamide	PFPeS	Perfluoropentanesulfonic acid
FHxSA	Perfluoro-1-hexane sulfonamide	PFPeA	Perfluoropentanoic acid
FOSA	Perfluoro-1-octane sulfonamide	PFTeA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid	PFTriA	Perfluorotridecanoic acid
PFBA	Perfluorobutanoic acid	PFUnA	Perfluoroundecanoic acid
PFDS	Perfluorodecanesulfonic acid	PFPrS	Perfluoropropanesulfonic acid



**TABLE 9  
GROUNDWATER FIELD PARAMETERS**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample Date	pH (SU)	Temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)
DEPMW-1S	4/4/22	6.24	22.0	292.0	0.34	12.6	-192.1
DEPMW-1D	4/7/22	7.15	23.7	753	0.17	1.77	-131.8
DEPMW-2S	4/7/22	5.48	26.6	108.4	0.45	25.2	44.8
DEPMW-2D	4/7/22	7.04	24.3	793	0.19	5.20	-96.3
DEPMW-3S	4/5/22	5.77	21.7	344.9	0.31	125	-142.2
DEPMW-3D	4/5/22	7.62	23.4	701	0.17	7.21	-348.7
DEPMW-4S	4/5/22	6.57	24.2	352.1	0.22	16.4	-213.7
DEPMW-4D	4/5/22	7.41	24.3	669	0.20	7.54	-205.0
DEPMW-5S	4/6/22	6.22	22.9	371.3	0.36	11.4	-9.4
DEPMW-6S	4/4/22	5.94	21.5	365.8	0.18	53.8	-240.2
DEPMW-7S	4/4/22	5.52	22.1	416.2	0.34	20.1	-199.2
DEPMW-8S	4/7/22	6.33	24.9	362.3	0.36	13.3	-133.9
DEPMW-9S	4/4/22	6.30	24.0	331.3	0.38	15.1	-84.5
DEPMW-10S	4/4/22	5.54	25.1	179.4	0.61	101.3	20.8
FSCJ-TMW-1S	4/7/22	7.30	22.3	493.1	1.71	6.20	-26.2
FSCJ-TMW-2SR	4/7/22	7.12	22.3	854	0.37	15.8	-61.9
FSCJ-TMW-2D	4/5/22	8.65	23.3	442.1	0.29	1.01	-117.4
FSCJ-TMW-3S	4/7/22	6.73	22.7	500.0	0.25	1.60	-218.1

**TABLE 9**  
**GROUNDWATER FIELD PARAMETERS**

**Fire Academy of the South - FSCJ**  
**Jacksonville, Duval County, Florida**  
**Facility ID No. ERIC\_17235**

Sample Location	Sample Date	pH (SU)	Temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)
FSCJ-TMW-4SR	4/6/22	5.66	22.4	267.7	0.28	7.40	-206.7
FSCJ-TMW-4DR	4/6/22	7.49	24.1	621	0.27	16.5	-87.2
FSCJ-TMW-6S	4/5/22	4.64	22.8	300.6	0.28	9.88	-99.4
FSCJ-TMW-6D	4/5/22	7.30	23.5	567	0.69	89.4	-111.3
FSCJ-TMW-7SR	4/6/22	3.84	21.4	736	0.66	4.69	39.2
FSCJ-TMW-8S	4/6/22	5.64	22.9	134.3	0.38	3.06	-117.9
FSCJ-TMW-9S	4/6/22	3.95	21.3	288.0	0.42	1.91	138.9
FSCJ-TMW-10S	4/6/22	4.34	24.2	97.9	0.25	25.7	52.1
FSCJ-TMW-11S	4/8/22	6.83	21.1	601	2.17	3.87	-119.2
FSCJ-TMW-12S	4/8/22	5.97	22.9	233.9	0.97	4.88	-165.0
FSCJ-TMW-13S	4/6/22	6.06	19.7	348.6	0.65	3.04	-52.0
FSCJ-TMW-14S	4/5/22	5.52	23.9	435.1	0.46	9.61	-64.9
FSCJ-TMW-15S	4/6/22	6.92	22.3	329.5	0.74	2.25	-98.7
FSCJ-TMW-16S	4/8/22	6.41	22.3	442.6	0.47	1.37	-137.7
FSCJ-TMW-17S	4/8/22	6.57	21.1	313.0	1.95	1.29	13.2
FSCJ-TMW-18S	4/8/22	6.23	22.4	255.4	0.69	2.07	20.2
FSCJ-TMW-20S	4/6/22	4.12	23.2	195.8	0.32	36.2	56.8
Well 1	4/5/22	7.56	24.6	149.3	0.73	0.68	-185.8

**TABLE 9  
GROUNDWATER FIELD PARAMETERS**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample Date	pH (SU)	Temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)
Well 5	4/5/22	7.69	25.1	1,273	2.16	4.40	-162.7
Well 6	4/5/22	7.87	24.9	705	4.05	1.38	-153.6
Well 7	4/5/22	7.62	23.8	1,679	2.58	0.86	-157.6

Notes:

mg/L - milligrams per liter

SU - standard units

µS/cm - microsiemens per centimeter

°C - degrees Celsius

mV - millivolts

NTU - Nephelometric Turbidity Units

DO - dissolved oxygen

ORP - oxidation-reduction potential

**TABLE 10  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN GROUNDWATER**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	PFOA + PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	ADONA
<b>Provisional GCTL (ng/L)</b>			<b>70</b>	<b>70</b>	<b>70</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DEPMW-1S	DEPMW-1S	4/4/22	55	490	545	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	2.8 I	1.2 I	0.40 U	20	53	0.40 U	4.0 U	2.0 U	9.0	35	180	70	3.1	17	18	74	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
DEPMW-1D	DEPMW-1D	4/7/22	1,300	5,900	7,200	11	950	2.0 U	4.0 U	0.80 U	0.80 U	1,400	51	0.40 U	3,200	450	0.40 U	4.0 U	2.0 U	810.0	570 J	17,000	2,200	0.40 U	180	3,100	1,100	2.0 U	2.0 U	2.0 U	930	0.40 U
DEPMW-2S	DEPMW-2S	4/7/22	14	130	144	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	5.4	14 I	0.40 U	4.0 U	2.0 U	2.7 I	23	39	19	0.40 U	2.0 U	3.8	21	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
DEPMW-2D	DEPMW-2D	4/7/22	2.1 U	2.1 U	2.1 U	2.1 U	17 U	2.1 U	4.2 U	0.83 U	0.83 U	0.83 U	0.83 U	0.42 U	2.1	4.2 U	0.42 U	4.2 U	2.1 U	0.83 U	2.1 U	3.6	2.1 U	0.42 U	2.1 U	1.5 I	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	0.42 U
DEPMW-3S	DEPMW-3S	4/5/22	82	60	142	2.0 U	220	2.0 U	4.0 U	0.80 U	0.80 U	14	0.80 U	0.40 U	22	140	0.40 U	4.0 U	2.0 U	0.80 U	220	130	210	0.40 U	14	20	430	2.0 U	2.0 U	2.0 U	9.6 I	0.40 U
DEPMW-3D	DEPMW-3D	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.96 I	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
	DUP-DEPMW-3D	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	1.4 I	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
DEPMW-4S	DEPMW-4S	4/5/22	24	1,400	1,424	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	27	55	0.40 U	9.5	15 I	0.40 U	8.1 I	2.0 U	13	23	290	47	9.8	8.1	21	35	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
DEPMW-4D	DEPMW-4D	4/5/22	11	11	22	2.0 U	31 I	2.0 U	4.0 U	0.80 U	0.80 U	4.7	0.80 U	0.40 U	42	15 I	0.40 U	4.0 U	2.0 U	2.1 I	13	150	52	0.40 U	2.0 U	32	32	2.0 U	2.0 U	2.0 U	18	0.40 U
DEPMW-5S	DEPMW-5S	4/6/22	330	5,800	6,130	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	50	58	0.40 U	140	58	0.40 U	31	2.0 U	62	200	2,800	340	0.40 U	380	120	180	2.0 U	2.0 U	9.5	16	0.43 I
DEPMW-6S	DEPMW-6S	4/4/22	2,500	72,000	74,500	32	140,000	5,900	4.0 U	0.80 U	0.80 U	240	230	0.48 I	410	1,500	0.40 U	20	2.0 U	230	1,500	3,900	6,100	120	290	320	5,200	2.0 U	2.0 U	2.0 U	250	0.40 U
DEPMW-7S	DEPMW-7S	4/4/22	220	420	640	2.0 U	290	140	4.0 U	0.80 U	0.80 U	57	64	0.89 I	54	230	0.40 U	16	2.0 U	12	320	220	440	1.8	30	44	920	2.0 U	2.0 U	4.9 I	13 I	0.40 U
DEPMW-8S	DEPMW-8S	4/7/22	330	9,300	9,630	2.0 U	87	2.6 I	4.0 U	0.80 U	0.80 U	130	820	0.40 U	110	150	0.40 U	21	2.0 U	72	290	2,300	370	0.40 U	140	170	520	2.0 U	2.0 U	2.0 U	18	0.40 U
	DUP-DEPMW-8S	4/7/22	360	7,800	8,160	2.0 U	75	3.5 I	4.0 U	0.80 U	0.80 U	130	780	0.40 U	110	140	0.40 U	18	2.0 U	70	280	2,500	400	140	120	180	530	2.0 U	2.0 U	2.0 U	20	0.40 U
DEPMW-9S	DEPMW-9S	4/4/22	30	3,600	3,630	2.0 U	29 I	2.0 U	4.0 U	0.80 U	0.80 U	62	400	3.6	67	34	0.40 U	4.0 U	2.0 U	43	12	1,000	78	22	3.5 I	92	71	2.0 U	2.0 U	2.0 U	13 I	0.40 U
DEPMW-10S	DEPMW-10S	4/4/22	2.0 U	5.3 I	5.3 I	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.41 I	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	5.2	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-1S	FSCJ-TMW-1S	4/7/22	1,400	5,900	7,300	32	29,000	17,000	4.0 U	4.1	1.3 I	750	6,300	230	150	1,100	8.2	4.0 U	12	57	2,300	1,900	2,800	15	170	170	4,000	2.0 U	2.0 U	79	69	0.40 U
FSCJ-TMW-2SR	FSCJ-TMW-2SR	4/7/22	2,200	24,000	26,200	71	61,000	4,600	4.0 U	41	1.7 I	2200	16,000	530	410	1,500	24	320	23	170	2,200	4,800	5,500	22	180	420	7,900	2.0 U	2.6 I	160	220	0.40 U
FSCJ-TMW-2D	FSCJ-TMW-2D	4/7/22	26	46	72	2.0 U	96	2.0 U	4.0 U	0.80 U	0.80 U	34	290	0.40 U	55	34	0.40 U	4.0 U	2.0 U	1.7 I	40	180	97	0.40 U	2.0 U	35	100	2.0 U	2.0 U	2.0 U	29	0.40 U
FSCJ-TMW-3S	FSCJ-TMW-3S	4/7/22	1,200	9,200	10,400	10	4,600 I	3,100	4.0 U	0.80 U	0.80 U	350	15,000	36	73	690	0.40 U	290	2.0 U	90	1,800	2,000	1,600	32	440	120	3,000	2.0 U	2.0 U	300	21	0.40 U
FSCJ-TMW-4SR	FSCJ-TMW-4SR	4/6/22	300	1,600	1,900	2.0 U	1,300	3.9 I	4.0 U	0.80 U	0.80 U	33	6.9	0.40 U	12	350	0.40 U	4.0 U	2.0 U	13	430	190	600	0.40 U	100	16	1,500	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
	DUP-FSCJ-TMW-4SR	4/6/22	290	1,500	1,790	2.0 U	1,200	3.6 I	4.0 U	0.80 U	0.80 U	29	6.0	0.40 U	13	370	0.40 U	4.0 U	2.0 U	13	410	180	570	0.40 U	120	15	1,400	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U

**TABLE 10  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN GROUNDWATER**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	PFOA + PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPrS	ADONA
FSCJ-TMW-4DR	FSCJ-TMW-4DR	4/6/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.40 U	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.7 I	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-6S	FSCJ-TMW-6S	4/5/22	70	47	117	2.0 U	31 I	2.0 U	4.0 U	0.80 U	0.80 U	1.9 I	0.80 U	0.40 U	33	200	0.40 U	4.0 U	2.0 U	2.9 I	310	160	260	0.40 U	2.0 U	36	630	2.0 U	2.0 U	2.0 U	7.1 I	0.40 U
FSCJ-TMW-6D	FSCJ-TMW-6D	4/5/22	2.3 I	2.0 U	2.3 I	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.49 I	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	2.2 I	2.0 U	0.40 U	2.0 U	0.40 U	2.2 I	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-7SR	FSCJ-TMW-7SR	4/6/22	140	1,300	1,440	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	5.9	1.7 I	0.40 U	2.5	99	0.40 U	4.0 U	2.0 U	5.1	120	66	150	0.40 U	140	3.2	280	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-8S	FSCJ-TMW-8S	4/6/22	490	1,400	1,890	4.7 I	3,000	98	4.0 U	0.80 U	0.80 U	140	200	1.4 I	77	780	0.40 U	13 I	2.0 U	19	1,100	530	1300	0.61 I	170	78	3,000	2.0 U	2.0 U	3.5 I	33	0.40 U
FSCJ-TMW-9S	FSCJ-TMW-9S	4/6/22	2.9 I	23	25.9	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	7.8	0.80 U	0.40 U	130	24	0.40 U	4.0 U	2.0 U	0.91 I	4.9 I	150	13	0.40 U	2.0 U	57	38	2.0 U	2.0 U	2.0 U	94	0.40 U
FSCJ-TMW-10S	FSCJ-TMW-10S	4/6/22	90	82	172	2.0 U	87	2.0 U	4.0 U	0.80 U	0.80 U	7.9	0.80 U	0.40 U	24	120	0.40 U	4.0 U	2.0 U	3.1 I	120	300	190	0.40 U	18	20	380	2.0 U	2.0 U	2.0 U	9.4 I	0.40 U
FSCJ-TMW-11S	FSCJ-TMW-11S	4/8/22	1,100	12,000	13,100	20	13,000	2,500	4.0 U	10	0.80 U	480	15,000	420	120	780	18	230	5.4 I	120	1,400	3,300	1,800	36	310	210	3,400	2.0 U	2.7 I	340	49	0.69 I
FSCJ-TMW-12S	FSCJ-TMW-12S	4/8/22	350	3,500	3,850	6.0 I	3200	820	4.0 U	2.2 I	0.80 U	280	3,800	110	95	230	7.9	71	29	55	580	2,100	630	17	180	180	1,200	2.0 U	2.0 U	110	39	0.40 U
FSCJ-TMW-13S	FSCJ-TMW-13S	4/6/22	270	2.0 U	270	2.0 U	84	8.6	4.0 U	0.80 U	0.80 U	140	250	1.7	710	240	0.40 U	29	2.0 U	93	530	4,200	630 I	0.40 U	150	800	610	2.0 U	2.0 U	4.1 I	280	0.40 U
	Dup_FSCJ-TMW-13S	4/6/22	230	2.0 U	230	2.0 U	78	9.4	4.0 U	0.80 U	0.80 U	120	260	1.5 I	700	250	0.40 U	29	2.0 U	90	460	4,000	630 I	0.40 U	130	730	560	2.0 U	2.0 U	2.9 I	290	0.40 U
FSCJ-TMW-14S	FSCJ-TMW-14S	4/5/22	26	34	60	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	8.2	38	0.40 U	4.0 U	2.0 U	0.80 U	64	42	58	0.40 U	5.4 I	4.9	96	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-15S	FSCJ-TMW-15S	4/6/22	57	70	127	2.0 U	16 U	2.1 I	4.0 U	0.80 U	0.80 U	2.1 I	6.5	0.40 U	1.1 I	51	0.40 U	4.6 I	2.0 U	0.80 U	88	14	57	0.40 U	6.5 I	0.96 I	130	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
FSCJ-TMW-16S	FSCJ-TMW-16S	4/8/22	1,500	10,000	11,500	2.0 U	1,100	45	4.0 U	0.80 U	0.80 U	160	800	0.91 I	99	560	1.0 I	230	2.0 U	110	2,700	2,100	1,600	14	1,100	130	1,800	2.0 U	2.0 U	20	29	0.80 U
FSCJ-TMW-17S	FSCJ-TMW-17S	4/8/22	720	6,900	7,620	2.0 U	180	34	4.0 U	0.80 U	0.80 U	100	480	2.8	99	420	0.40 U	340	2.0 U	59	1,600	2,200	950	20	370	130	1,200	2.0 U	2.0 U	240	27	0.53 I
FSCJ-TMW-18S	FSCJ-TMW-18S	4/8/22	130	2,400	2,530	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	96	240	9.6	200	55	2.8	49	2.0 U	70	100	3,600	210	27	430	290	140	2.0 U	2.9 I	1,800	63 I	0.40 U
	Dup_FSCJ-TMW-18S	4/8/22	150	2,200	2,350	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	91	220	8.5	190	51	3.0	48	2.0 U	67	93	3,100	230	31	400	280	150	2.0 U	5.7 I	1,500	60 I	0.40 U
FSCJ-TMW-20S	FSCJ-TMW-20S	4/6/22	25	110	135	2.0 U	28 I	2.0 U	4.0 U	0.80 U	0.80 U	1.4 I	0.80 U	0.40 U	50	150	0.40 U	4.0 U	2.0 U	0.80 U	66	210	200	0.40 U	7.9 I	40	370	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U

**TABLE 10  
SUMMARY OF DETECTED PFAS CONSTITUENTS IN GROUNDWATER**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample ID	Sample Date	PFOA	PFOS	PFOA + PFOS	4:2 FTS	6:2 FTS	8:2 FTS	HODA	N-Et	N-Me	FBSA	FHxSA	FOSA	PFBS	PFBA	PFDS	PFDA	PFDoA	PFHpS	PFHpA	PFHxS	PFHxA	PFNS	PFNA	PFPeS	PFPeA	PFTeA	PFTriA	PFUnA	PFPPrS	ADONA
Well 1	Well 1	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.40 U	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
Well 5	Well 5	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.40 U	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
Well 6	Well 6	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.40 U	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U
Well 7	Well 7	4/5/22	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	0.40 U	4.0 U	0.40 U	4.0 U	2.0 U	0.80 U	2.0 U	0.80 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.40 U

Notes:  
 Provisional GCTL - FDEP Provisional Groundwater Cleanup Target Level  
 All results are reported in nanograms per liter (ng/L)  
 Bold font indicates constituent concentration was reported above the laboratory method detection limit.  
 Highlighted font indicates constituent concentration was reported above the Provisional FDEP Groundwater Cleanup Target Level.  
 I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.  
 U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.  
 J - Estimated value and/or the analysis did not meet established quality control criteria.

PFOA	Perfluorooctanoic acid	PFDA	Perfluorodecanoic acid
PFOS	Perfluorooctanesulfonic acid	PFDoA	Perfluorododecanoic acid
4:2 FTS	4:2 Fluorotelomer sulfonate	PFHpS	Perfluoroheptanesulfonic acid
6:2 FTS	6:2 Fluorotelomer sulfonate	PFHpA	Perfluoroheptanoic acid
8:2 FTS	8:2 Fluorotelomer sulfonate	PFHxS	Perfluorohexanesulfonic acid
HODA	Hexafluoropropylene oxide dimer acid	PFHxA	Perfluorohexanoic acid
N-Et	N-Et perfluorooctanesulfonamidoAc acid	PFNS	Perfluorononanesulfonic acid
N-Me	N-Me perfluorooctanesulfonamidoAc acid	PFNA	Perfluorononanoic acid
FBSA	Perfluoro-1-butane sulfonamide	PFPeS	Perfluoropentanesulfonic acid
FHxSA	Perfluoro-1-hexane sulfonamide	PFPeA	Perfluoropentanoic acid
FOSA	Perfluoro-1-octane sulfonamide	PFTeA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid	PFTriA	Perfluorotridecanoic acid
PFBA	Perfluorobutanoic acid	PFUnA	Perfluoroundecanoic acid
PFDS	Perfluorodecanesulfonic acid	PFPPrS	Perfluoropropanesulfonic acid
		ADONA	4,8-Dioxa-3H-perfluorononanoic acid

**TABLE 11  
SUMMARY OF VOCs, SVOCs, AND TRPH IN GROUNDWATER**

**Fire Academy of the South - FSCJ  
Jacksonville, Duval County, Florida  
Facility ID No. ERIC\_17235**

Sample Location	Sample Date	VOCs (µg/L)	SVOCs (µg/L)	TRPH (mg/L)
<b>Groundwater Cleanup Target Level (GCTL)</b>		<b>various</b>	<b>various</b>	<b>5</b>
<b>Natural Attenuation Default Concentration (NADC)</b>		<b>various</b>	<b>various</b>	<b>500</b>
DEPMW-2S	4/7/22	Below MDLs	Below MDLs	Below MDLs
DEPMW-8S	4/7/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-2SR	4/7/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-2D	4/7/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-3S	4/7/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-11S	4/8/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-12S	4/8/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-17S	4/8/22	Below MDLs	Below MDLs	Below MDLs
FSCJ-TMW-18S	4/8/22	Below MDLs	Below MDLs	Below MDLs
Notes: MDL - Laboratory Method Detection Limit VOC - Volatile Organic Compound SVOC - Semi-volatile Organic Compound TRPH - Total Recoverable Petroleum Hydrocarbons µg/L - Micrograms per Liter mg/L - Milligrams per Liter				

TABLE 12 SUMMARY OF PERCENT RELATIVE ABUNDANCE OF PFAS CONSTITUENTS IN SURFACE AND GROUND WATER

Fire Academy of the South - FSCJ Jacksonville, Duval County, Florida Facility ID No. ERIC\_17235

Table with columns: Sample Location, Sample ID, Sample Date, Concentration (ng/L) for various PFAS, and Percent Relative Abundance for various PFAS. Includes data for Provisionsal GCTL, VP-1, VP-2, VP-3, VP-4, and various DEPMMW and FSCJ-TMW sites.

Notes: Provisional GCTL - FDEP Provisional Groundwater Cleanup Target Level. Provisionsal SWCTL - FDEP Provisional Surface Water Cleanup Target Level. All results are reported in nanograms per liter (ng/L).

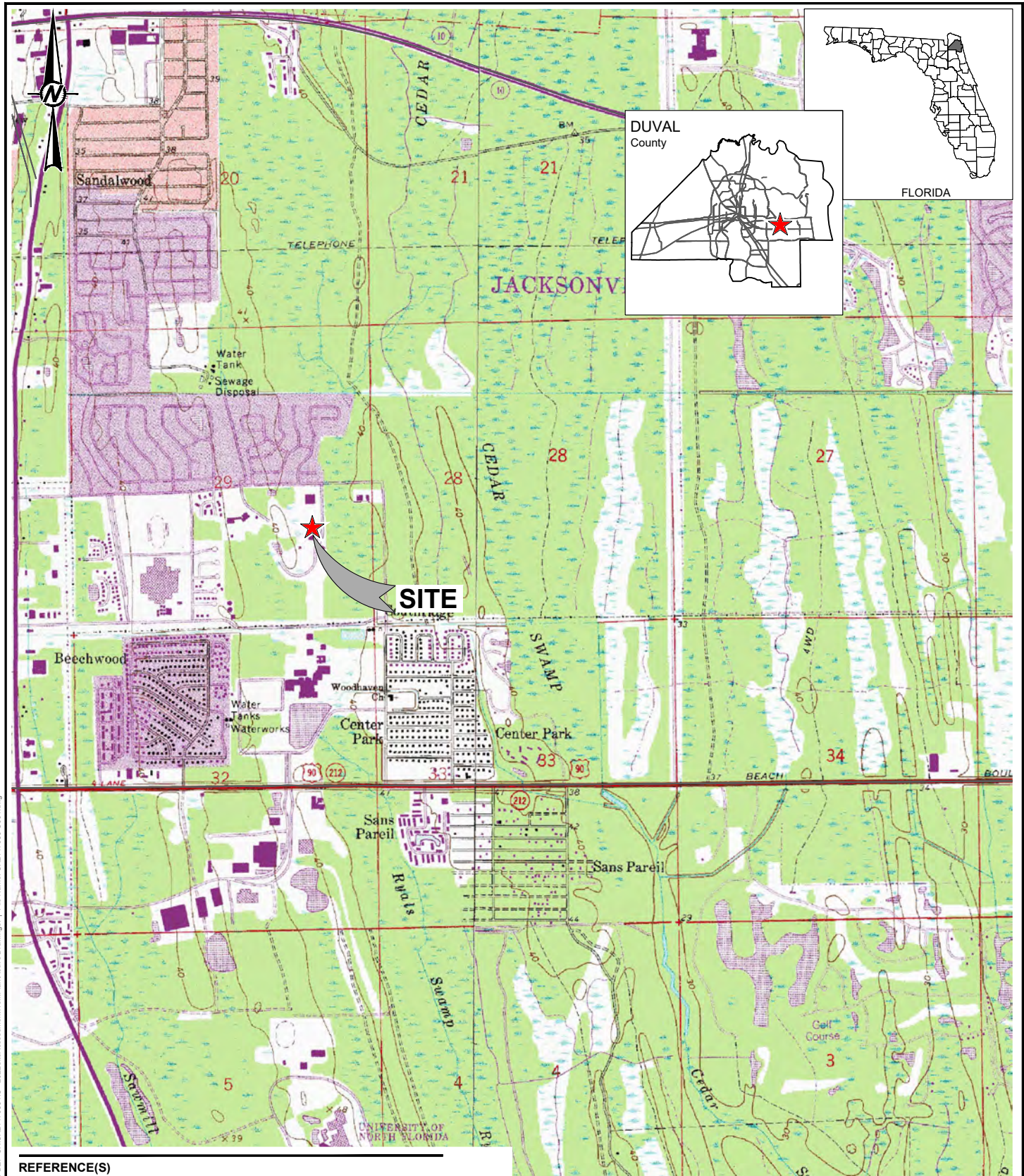
Concentrations of carbonylates and sulfonates reported from shortest to longest carbon chain compounds. Percent relative abundance (PR) calculated by dividing compound concentration by the PFOS concentration. Cells highlighted in blue indicate consistent concentration was reported above the Provisional FDEP Groundwater Cleanup Target Level.

Cells highlighted in orange indicate percent relative abundance greater than 100%. Bold font indicates constituent concentration was reported above the laboratory method detection limit. J - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. J - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed. J - Estimated value and/or the analysis did not meet established quality control criteria.

Legend table mapping PFAS abbreviations to full names: PFOA (Perfluorooctanoic acid), PFOS (Perfluorooctanesulfonic acid), F2 FTS (4,2 Fluorotelomer sulfonate), etc.

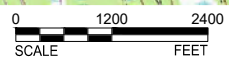


## FIGURES



**REFERENCE(S)**

1. USGS TOPOGRAPHIC MAP, 7.5 MIN. QUADRANGLE MAP SERIES: ARLINGTON QUADRANGLE, DUVAL COUNTY, FLORIDA.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

CONSULTANT	WSP GOLDER	YYYY-MM-DD	2022-02-10
		DESIGNED	SCN
		PREPARED	BCL
		REVIEWED	SCN
		APPROVED	MCC

TITLE	<b>SITE LOCATION MAP</b>		
PROJECT NO.	Control No.	REV.	FIGURE
CX21470834A	CX2147083-C001		<b>1</b>



Path: \\golder-gis\completest\Office\Jacksonville\Drawings\Final\FDEP\CX2147083-C002A.dwg | File Name: CX2147083-C002A.dwg

**LEGEND**

--- APPROXIMATE SUBJECT PROPERTY

--- PARCEL BOUNDARY

- REFERENCE(S)**
1. AERIAL IMAGERY COURTESY OF USGS, MICROSOFT CORPORATION, AND bing®
  2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
<b>WSP GOLDER</b>	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**SITE VICINITY MAP**

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



Path: \\golder-gis-complex\data\Office\Users\jason@duvalfl.gov\Folder\Folder\CX2147083-C002 - 20220210\Assessment\MapPlan\Active Drawings\ | File Name: CX2147083-C002.dwg

**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- PARCEL BOUNDARY
- AREAS OF CONCERN

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**SITE MAP**

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

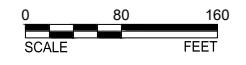


**LEGEND**

- - - APPROXIMATE SUBJECT PROPERTY
- < — APPROXIMATE DITCH LAYOUT
- ⊕ SHALLOW MONITORING WELL LOCATION
- ⊕ DEEP MONITORING WELL LOCATION
- SOIL SAMPLE LOCATIONS
- ⊗ SEDIMENT SAMPLE LOCATIONS
- ▲ VERTICAL GROUNDWATER PROFILING LOCATIONS
- ⊕ SEDIMENT SURFACE WATER SAMPLE LOCATIONS
- ⊗ EXPLORATORY SOIL BORING

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

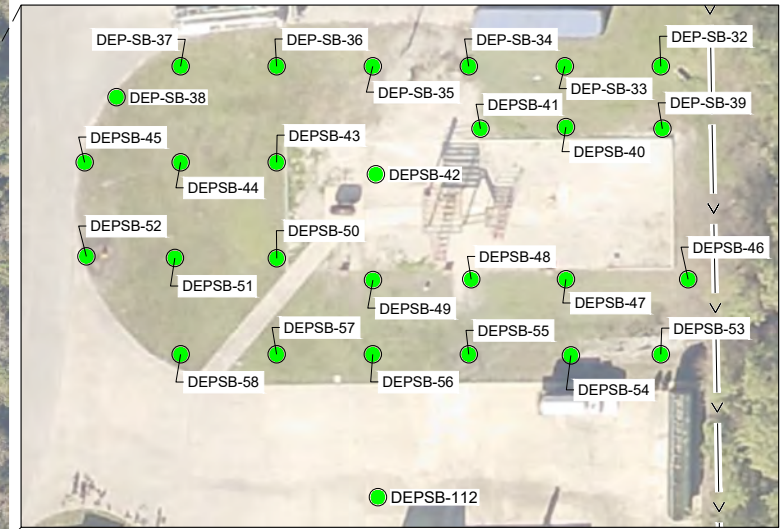
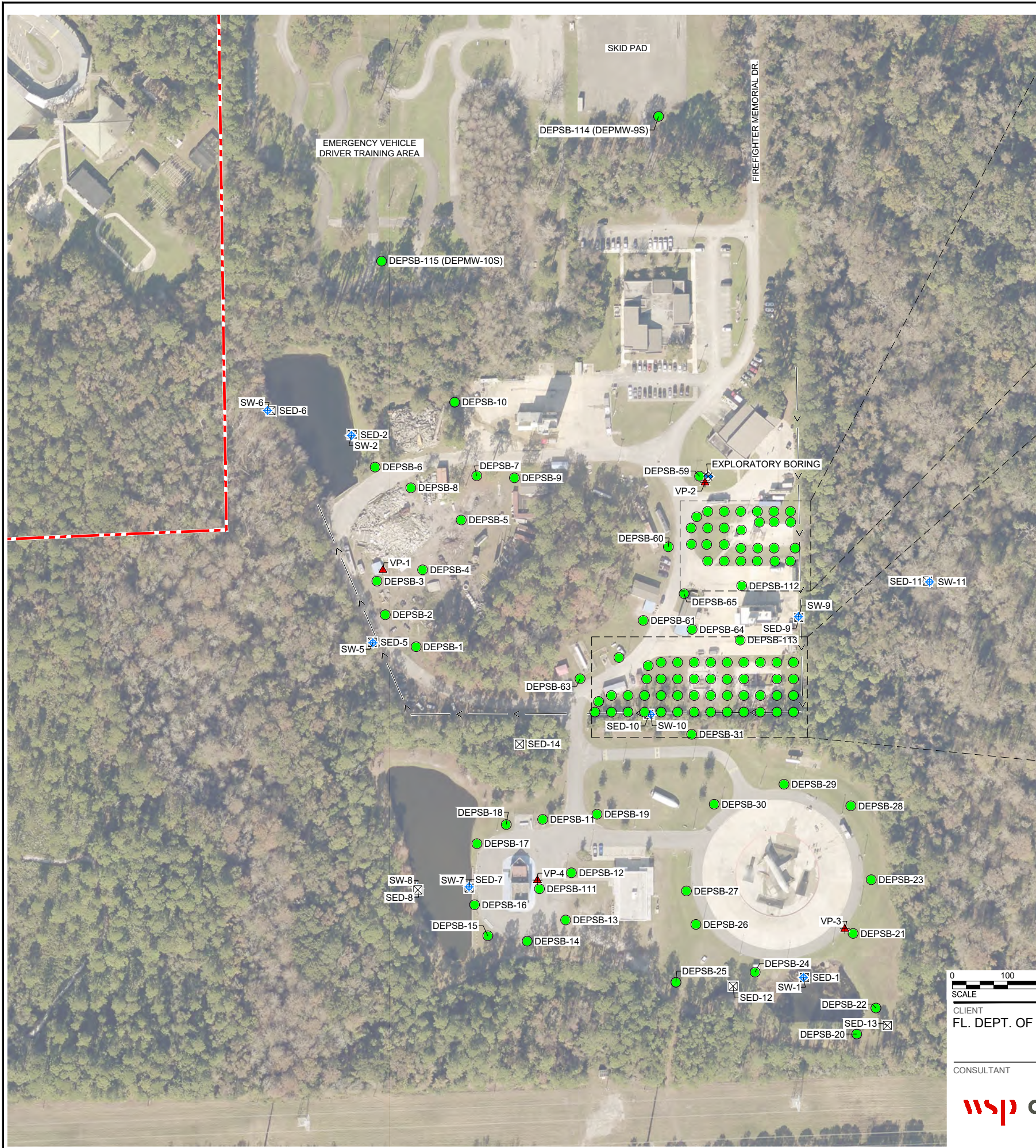
CONSULTANT	YYYY-MM-DD	2022-02-10
<b>wsp GOLDER</b>	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

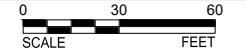
TITLE  
**MONITORING WELL LOCATION MAP**

Path: \\golder-gis\complexe\data\Office\Jacksonville\Golder\FDEP\CX21470834\CX21470834-C003-20220210\assessments\MapPlan\Active Drawings\1 - File Name: CX2147083-C003.dwg

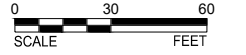
1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



**AOC 2: BURN PIT TRAINING AREA (NORTH)**

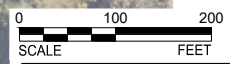


**AOC 2: BURN PIT TRAINING AREA (SOUTH)**



- LEGEND**
- APPROXIMATE SUBJECT PROPERTY
  - APPROXIMATE DITCH LAYOUT
  - SOIL SAMPLE LOCATIONS
  - ⊠ SEDIMENT SAMPLE LOCATIONS
  - ▲ VERTICAL GROUNDWATER PROFILING LOCATIONS
  - ⊕ SEDIMENT SURFACE WATER SAMPLE LOCATIONS
  - ◆ EXPLORATORY SOIL BORING

- REFERENCE(S)**
1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
  2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

CONSULTANT	YYYY-MM-DD	2022-02-10
<b>wsp GOLDER</b>	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

TITLE  
**SOIL, SEDIMENT, SURFACE WATER, & VERTICAL GROUNDWATER PROFILE LOCATIONS**

PROJECT NO. CX21470834A	Control No. CX2147083-C004	REV.	FIGURE 5
----------------------------	-------------------------------	------	-------------

Path: \\golder-gis\completest\data\Office\Jacksonville\start\fig\AOC2\FDEP\CX21470834\C - 20220210\Measurements\MapPlan\AOC2.dwg | File Name: CX2147083-C004.dwg

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN ADJUSTED FROM ANSII



SB-115	PFOA	PFOS
DATE	03-07-22	
0-0.5 ft bgs	0.24 U	<b>0.92 I</b>
0.5-2 ft bgs	0.27 U	<b>0.30 I</b>
2-4 ft bgs	0.24 U	0.24 U

SB-114	PFOA	PFOS
DATE	03-07-22	
0-0.5 ft bgs	<b>0.44 I</b>	<b>5.9</b>
0.5-2 ft bgs	0.26 U	<b>6.4</b>
2-4 ft bgs	0.29 U	<b>4.1</b>

SB-8	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.24 U	<b>1.9</b>
0.5-1 ft bgs	0.24 U	<b>0.99</b>

SB-10	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.20 U	<b>1.4</b>
0.5-1 ft bgs	0.25 U	<b>0.51 I</b>

SB-7	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.23 U	<b>1.4</b>
0.5-1 ft bgs	<b>0.55 I</b>	<b>2.8</b>

SB-9	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>1.1</b>	<b>4.3</b>
0.5-1 ft bgs	<b>0.92 I</b>	<b>32</b>

SB-6	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>0.52 I</b>	<b>8.5</b>
0.5-1 ft bgs	0.22 U	<b>2.0</b>

SB-5	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.28 U	<b>9.3</b>
0.5-1 ft bgs	0.23 U	<b>8.4</b>

SB-4	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>2.8</b>	<b>500</b>
0.5-1.5 ft bgs	<b>1.0</b>	<b>160</b>

SB-3	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.26 U	<b>34</b>
0.5-2 ft bgs	<b>0.41 I</b>	<b>61</b>

SB-2	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>0.49 I</b>	<b>41</b>
0.5-2 ft bgs	<b>0.57 I</b>	<b>67</b>

SB-1	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>0.27 I</b>	<b>19</b>
0.5-2 ft bgs	<b>0.54 I</b>	<b>49</b>

**LEGEND**

- - - APPROXIMATE SUBJECT PROPERTY
- - - APPROXIMATE DITCH LAYOUT
- SOIL SAMPLE LOCATIONS

PROVISIONAL SOIL CLEANUP TARGET LEVELS (SCTL)	PFOA IN µg/Kg	PFOS IN µg/Kg
SCTL-LEACHABILITY	2	7
SCTL-RESIDENTIAL	1,300	1,300
SCTL-INDUSTRIAL	25,000	25,000

**NOTE(S)**

1. PROVISIONAL SCTL - FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
2. ALL RESULTS ARE REPORTED IN MICROGRAMS PER KILOGRAM (µg/kg).
3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
5. I- REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
7. FEET-BGS - FEET BELOW GROUND SURFACE.
8. PFOA - PERFLUORO-N-OCTANOIC ACID.
9. PFOS - PERFLUOROCTANESULFONIC ACID.

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.

**CLIENT**

FL. DEPT. OF ENVIRONMENTAL PROTECTION

**CONSULTANT**



YYYY-MM-DD	2022-02-10
DESIGNED	SCN
PREPARED	BCL
REVIEWED	SCN
APPROVED	MCC

**PROJECT**

FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

**TITLE**

SOIL SAMPLE ANALYTICAL RESULTS (AOC 1 AND EMERGENCY VEHICLE DRIVER TRAINING AREA)

PROJECT NO.  
CX21470834A

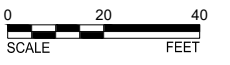
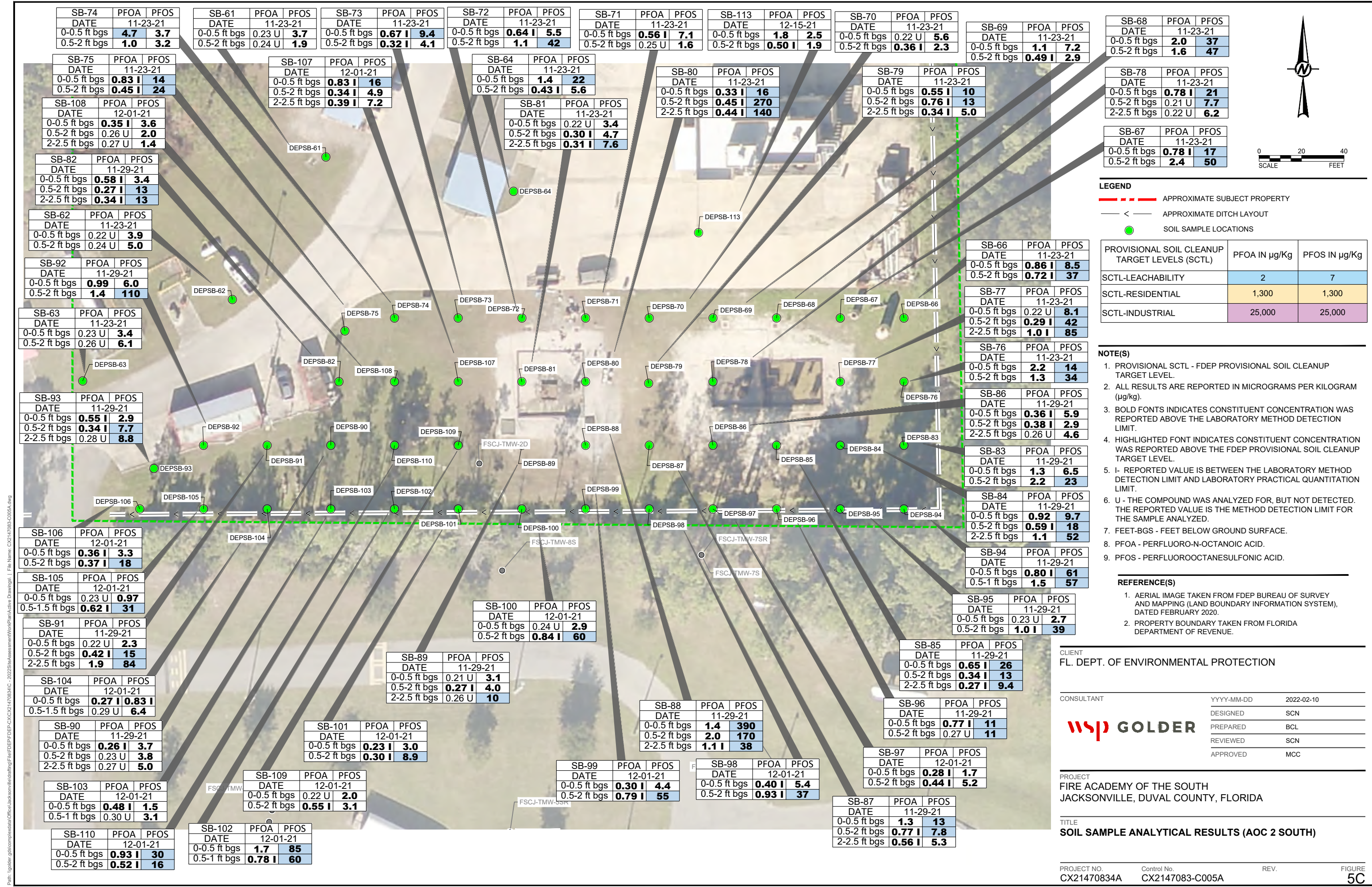
Control No.  
CX2147083-C005A

REV.

FIGURE  
5A







**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- - - APPROXIMATE DITCH LAYOUT
- SOIL SAMPLE LOCATIONS

PROVISIONAL SOIL CLEANUP TARGET LEVELS (SCTL)	PFOA IN µg/Kg	PFOS IN µg/Kg
SCTL-LEACHABILITY	2	7
SCTL-RESIDENTIAL	1,300	1,300
SCTL-INDUSTRIAL	25,000	25,000

- NOTE(S)**
- PROVISIONAL SCTL - FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
  - ALL RESULTS ARE REPORTED IN MICROGRAMS PER KILOGRAM (µg/kg).
  - BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
  - HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
  - I- REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
  - U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
  - FEET-BGS - FEET BELOW GROUND SURFACE.
  - PFOA - PERFLUORO-N-OCTANOIC ACID.
  - PFOS - PERFLUOROOCTANESULFONIC ACID.

- REFERENCE(S)**
- AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
  - PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.

CLIENT	FL. DEPT. OF ENVIRONMENTAL PROTECTION	
CONSULTANT	YYYY-MM-DD	2022-02-10
	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC
PROJECT	FIRE ACADEMY OF THE SOUTH JACKSONVILLE, DUVAL COUNTY, FLORIDA	
TITLE	SOIL SAMPLE ANALYTICAL RESULTS (AOC 2 SOUTH)	

Path: \\golder-gfiscorp\projects\Office\Jacksonville\AOC2\20220210\Drawings\Final\FDEP-CX21470834C - 20220210\Drawings\Final\FDEP-CX21470834C.dwg File Name: CX2147083-C005A.dwg

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



SB-31	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.37 I</b>	<b>2.5</b>
0.5-2 ft bgs	<b>0.34 I</b>	<b>1.9</b>

SB-29	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.21 I</b>	<b>0.71 I</b>
0.5-2 ft bgs	<b>0.92</b>	<b>1.9</b>

SB-30	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>1.1</b>	<b>10</b>
0.5-1 ft bgs	<b>0.31 I</b>	<b>3.5</b>

SB-28	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.58 I</b>	<b>4.6</b>
0.5-2 ft bgs	<b>0.72 I</b>	<b>10</b>

SB-27	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.67 I</b>	<b>11</b>
0.5-1.5 ft bgs	<b>0.32 I</b>	<b>9.4</b>

SB-23	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	0.24 U	<b>1.4</b>
0.5-2 ft bgs	0.29 U	<b>4.8</b>

SB-26	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.48 I</b>	<b>2.5</b>
0.5-1.5 ft bgs	0.25 U	<b>0.47 I</b>

SB-21	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>1.0</b>	<b>2.0</b>
0.5-2 ft bgs	<b>0.54 I</b>	<b>1.1</b>

SB-25	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.35 I</b>	<b>2.3</b>
0.5-1.5 ft bgs	0.26 U	<b>0.41 I</b>

SB-22	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.28 I</b>	<b>0.91 I</b>
0.5-2 ft bgs	0.25 U	<b>0.76 I</b>

SB-24	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.49 I</b>	<b>1.2</b>
0.5-2 ft bgs	<b>0.43 I</b>	<b>0.47 I</b>

SB-20	PFOA	PFOS
DATE	11-16-21	
0-0.5 ft bgs	<b>0.33 I</b>	<b>0.78 I</b>
0.5-1.5 ft bgs	<b>0.30 I</b>	<b>5.1</b>

LEGEND

- APPROXIMATE SUBJECT PROPERTY
- - - APPROXIMATE DITCH LAYOUT
- SOIL SAMPLE LOCATIONS

PROVISIONAL SOIL CLEANUP TARGET LEVELS (SCTL)	PFOA IN µg/Kg	PFOS IN µg/Kg
SCTL-LEACHABILITY	2	7
SCTL-RESIDENTIAL	1,300	1,300
SCTL-INDUSTRIAL	25,000	25,000

NOTE(S)

1. PROVISIONAL SCTL - FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
2. ALL RESULTS ARE REPORTED IN MICROGRAMS PER KILOGRAM (µg/kg).
3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
5. I- REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTIFICATION LIMIT.
6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
7. FEET-BGS - FEET BELOW GROUND SURFACE.
8. PFOA - PERFLUORO-N-OCTANOIC ACID.
9. PFOS - PERFLUOROCTANESULFONIC ACID.

REFERENCE(S)

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.

CLIENT

FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT



YYYY-MM-DD	2022-02-10
DESIGNED	SCN
PREPARED	BCL
REVIEWED	SCN
APPROVED	MCC

PROJECT

FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE

SOIL SAMPLE ANALYTICAL RESULTS (AOC 3)

PROJECT NO.  
CX21470834A

Control No.  
CX2147083-C005A

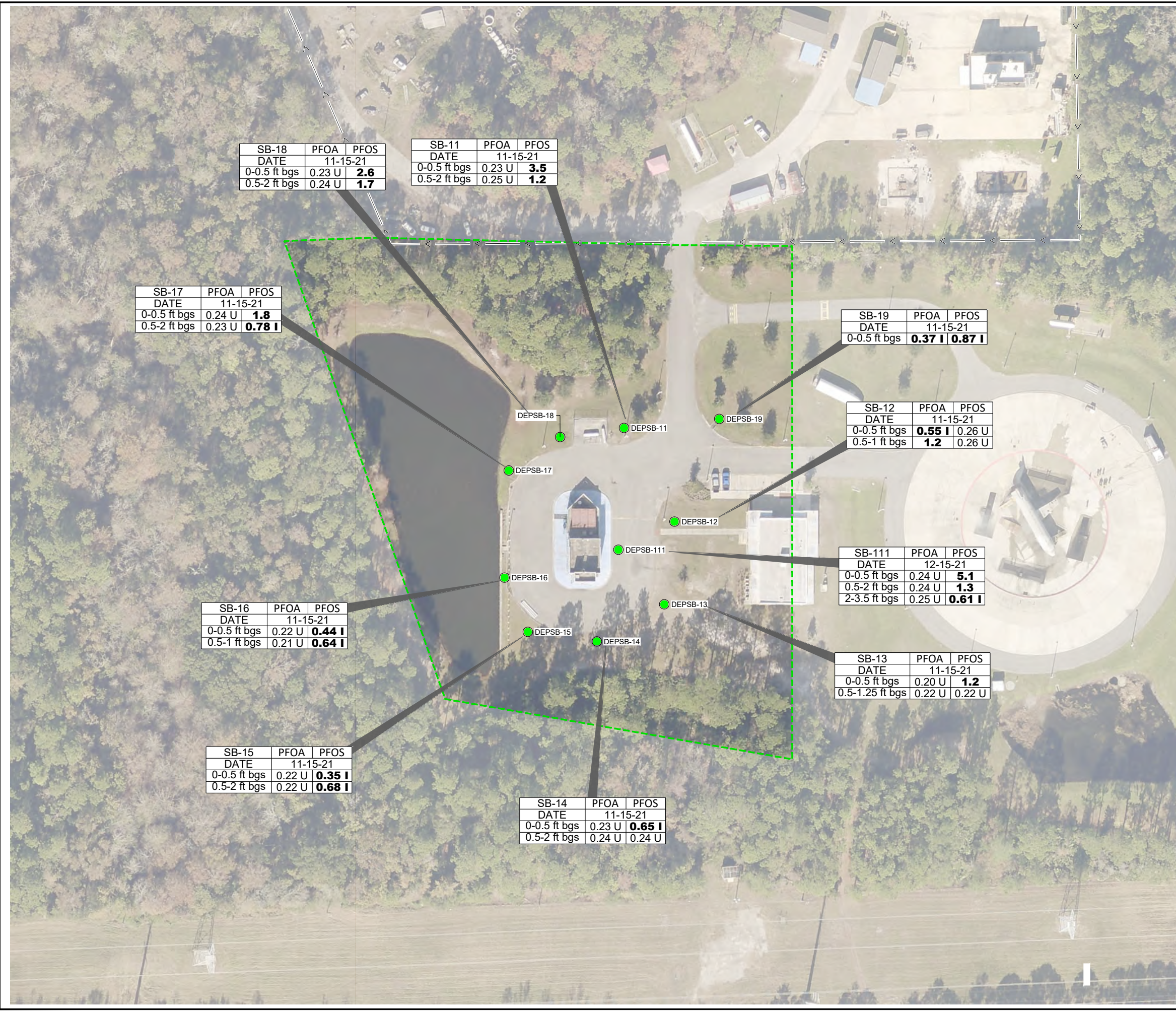
REV.

FIGURE  
5D

Path: \\golder-gfisc\projects\data\Office\Jacksonville\fireacademy\FireAcademy\Drawings\2022\2022\SoilAssessment\WorkPlan\Active Drawings\1. File Name: CX2147083-C005A.dwg

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

Path: \\golder-gf\complevdata\Office\Jacksonville\Drawings\Fire Academy of the South\Drawings\Drawings\Drawings\Drawings\CX2147083-C005A.dwg



SB-18	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.23 U	<b>2.6</b>
0.5-2 ft bgs	0.24 U	<b>1.7</b>

SB-11	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.23 U	<b>3.5</b>
0.5-2 ft bgs	0.25 U	<b>1.2</b>

SB-17	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.24 U	<b>1.8</b>
0.5-2 ft bgs	0.23 U	<b>0.78 I</b>

SB-19	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>0.37 I</b>	<b>0.87 I</b>

SB-12	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	<b>0.55 I</b>	0.26 U
0.5-1 ft bgs	<b>1.2</b>	0.26 U

SB-11	PFOA	PFOS
DATE	12-15-21	
0-0.5 ft bgs	0.24 U	<b>5.1</b>
0.5-2 ft bgs	0.24 U	<b>1.3</b>
2-3.5 ft bgs	0.25 U	<b>0.61 I</b>

SB-16	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.22 U	<b>0.44 I</b>
0.5-1 ft bgs	0.21 U	<b>0.64 I</b>

SB-13	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.20 U	<b>1.2</b>
0.5-1.25 ft bgs	0.22 U	0.22 U

SB-15	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.22 U	<b>0.35 I</b>
0.5-2 ft bgs	0.22 U	<b>0.68 I</b>

SB-14	PFOA	PFOS
DATE	11-15-21	
0-0.5 ft bgs	0.23 U	<b>0.65 I</b>
0.5-2 ft bgs	0.24 U	0.24 U



**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- APPROXIMATE DITCH LAYOUT
- SOIL SAMPLE LOCATIONS

PROVISIONAL SOIL CLEANUP TARGET LEVELS (SCTL)	PFOA IN µg/Kg	PFOS IN µg/Kg
SCTL-LEACHABILITY	2	7
SCTL-RESIDENTIAL	1,300	1,300
SCTL-INDUSTRIAL	25,000	25,000

**NOTE(S)**

1. PROVISIONAL SCTL - FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
2. ALL RESULTS ARE REPORTED IN MICROGRAMS PER KILOGRAM (µg/kg).
3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
5. I- REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
7. FEET-BGS - FEET BELOW GROUND SURFACE.
8. PFOA - PERFLUORO-N-OCTANOIC ACID.
9. PFOS - PERFLUOROCTANESULFONIC ACID.

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.

CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**SOIL SAMPLE ANALYTICAL RESULTS (AOC 4)**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

Path: \\golder-gis.com\placadata\Office\Users\jason@huffman.com\Drawings\2022\2516\assessment\MapPlan\Active Drawings\1 File Name: CX2147083-C006.dwg



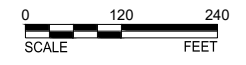
**LEGEND**

- - - APPROXIMATE SUBJECT PROPERTY
- < - - - APPROXIMATE DITCH LAYOUT
- X SEDIMENT SAMPLE LOCATIONS

PROVISIONAL SOIL CLEANUP TARGET LEVELS (SCTL)	PFOA IN µg/Kg	PFOS IN µg/Kg
SCTL-LEACHABILITY	2	7
SCTL-RESIDENTIAL	1,300	1,300
SCTL-INDUSTRIAL	25,000	25,000

- NOTE(S)**
1. PROVISIONAL SCTL - FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
  2. ALL RESULTS ARE REPORTED IN MICROGRAMS PER KILOGRAM (µg/kg).
  3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
  4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE FDEP PROVISIONAL SOIL CLEANUP TARGET LEVEL.
  5. I - REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
  6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
  7. FEET-BGS - FEET BELOW GROUND SURFACE.
  8. PFOA - PERFLUORO-N-OCTANOIC ACID.
  9. PFOS - PERFLUOROOCTANESULFONIC ACID.

- REFERENCE(S)**
1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
  2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
<b>wsp</b> <b>GOLDER</b>	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**SEDIMENT SAMPLE ANALYTICAL RESULTS**

1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB







Path: \\golder-gis.com\projects\Office\Jacksonville\Golder\FDEP\CX21470834A - 2022\SiteAssessment\MapPlan\Active Drawings\ - File Name: CX2147083-C006.dwg



VP-2	PFOA	PFOS	PFOA + PFOS
DATE		03-08-22	
20-24 ft bgs	<b>370</b>	<b>5,300</b>	<b>5,670</b>
36-40 ft bgs	<b>18</b>	<b>39</b>	<b>57</b>
48-52 ft bgs	<b>3.1 I</b>	<b>55</b>	<b>58</b>

VP-1	PFOA	PFOS	PFOA + PFOS
DATE		03-08-22	
20-24 ft bgs	<b>330</b>	<b>12,000</b>	<b>12,330</b>
36-40 ft bgs	<b>1,400</b>	<b>8,900</b>	<b>10,300</b>
48-52 ft bgs	<b>34</b>	<b>310</b>	<b>344</b>

VP-4	PFOA	PFOS	PFOA + PFOS
DATE		03-08-22	
20-24 ft bgs	<b>23</b>	<b>300</b>	<b>323</b>
36-40 ft bgs	<b>6.3 I</b>	<b>15</b>	<b>21</b>
48-52 ft bgs	<b>67</b>	<b>740</b>	<b>807</b>

VP-3	PFOA	PFOS	PFOA + PFOS
DATE		12-14-21	
20-24 ft bgs	2.0 U	2.0 U	2.0 U
DATE		03-07-22	
20-24 ft bgs	2.0 U	2.0 U	2.0 U
36-40 ft bgs	2.0 U	2.0 U	2.0 U
48-52 ft bgs	2.0 U	2.0 U	2.0 U



**LEGEND**

- - - APPROXIMATE SUBJECT PROPERTY
- < — APPROXIMATE DITCH LAYOUT
- ▲ VERTICAL GROUNDWATER PROFILING LOCATIONS

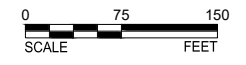
PROVISIONAL GROUND WATER CLEANUP TARGET LEVEL (GCTL)	PFOA IN ng/L	PFOS IN ng/L	SUM OF PFOA + PFOS IN ng/L
GCTL	70	70	70

**REFERENCE(S)**

1. PROVISIONAL GCTL - FDEP PROVISIONAL GROUNDWATER CLEANUP TARGET LEVEL.
2. ALL RESULTS ARE REPORTED IN NANOGRAMS PER LITER (ng/L).
3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE PROVISIONAL GROUNDWATER CLEANUP LEVEL.
5. I - REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
7. PFOA - PERFLUORO-N-OCTANOIC ACID.
8. PFOS - PERFLUOROOCTANESULFONIC ACID.

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

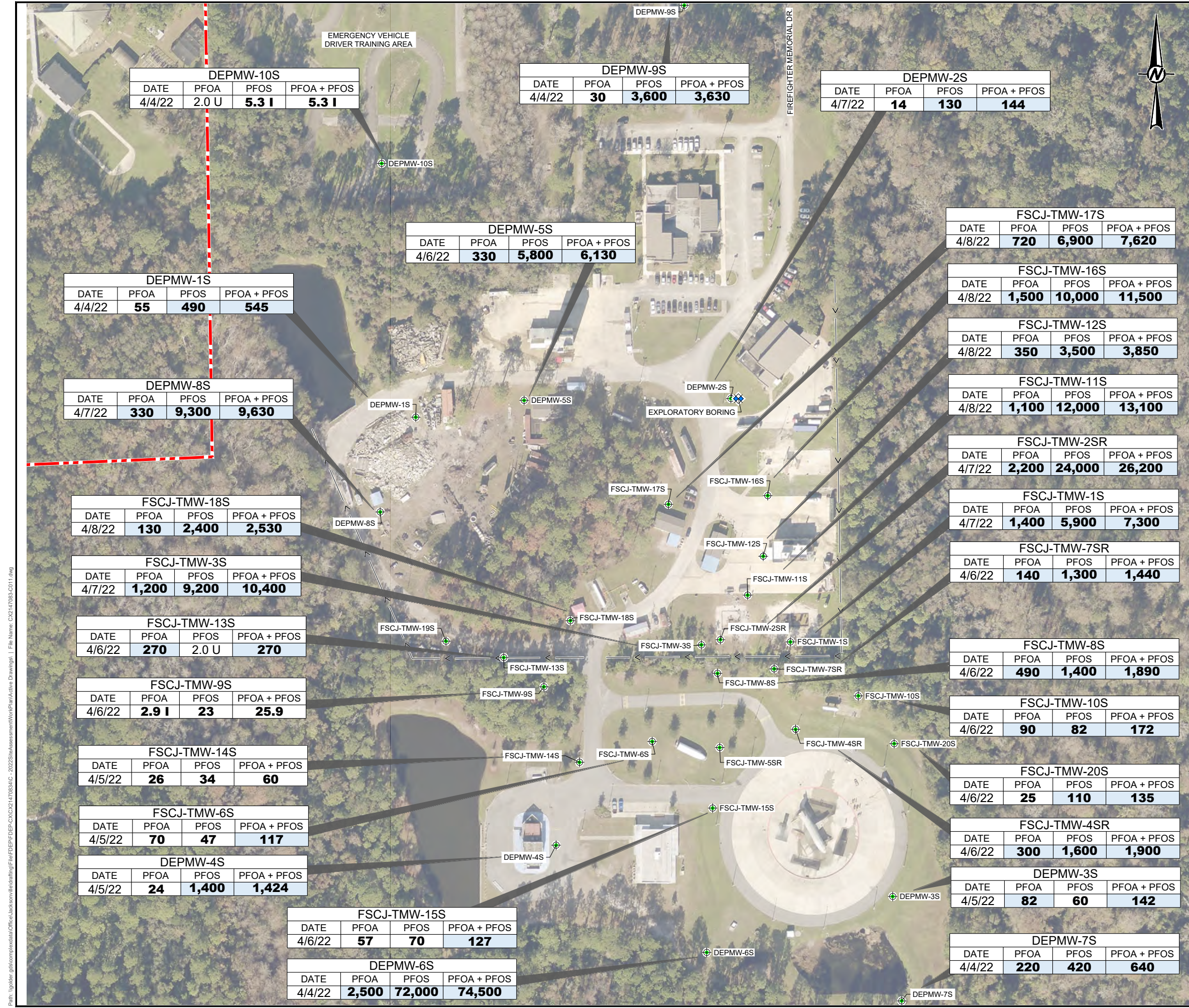
CONSULTANT	YYYY-MM-DD	2022-05-27
<b>wsp GOLDER</b>	DESIGNED	SCN/JWS
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**VERTICAL GROUNDWATER PROFILING ANALYTICAL RESULTS**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB





DEPMW-10S			
DATE	PFOA	PFOS	PFOA + PFOS
4/4/22	2.0 U	<b>5.3 I</b>	<b>5.3 I</b>

DEPMW-9S			
DATE	PFOA	PFOS	PFOA + PFOS
4/4/22	<b>30</b>	<b>3,600</b>	<b>3,630</b>

DEPMW-2S			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>14</b>	<b>130</b>	<b>144</b>

DEPMW-5S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>330</b>	<b>5,800</b>	<b>6,130</b>

FSCJ-TMW-17S			
DATE	PFOA	PFOS	PFOA + PFOS
4/8/22	<b>720</b>	<b>6,900</b>	<b>7,620</b>

DEPMW-1S			
DATE	PFOA	PFOS	PFOA + PFOS
4/4/22	<b>55</b>	<b>490</b>	<b>545</b>

FSCJ-TMW-16S			
DATE	PFOA	PFOS	PFOA + PFOS
4/8/22	<b>1,500</b>	<b>10,000</b>	<b>11,500</b>

DEPMW-8S			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>330</b>	<b>9,300</b>	<b>9,630</b>

FSCJ-TMW-12S			
DATE	PFOA	PFOS	PFOA + PFOS
4/8/22	<b>350</b>	<b>3,500</b>	<b>3,850</b>

FSCJ-TMW-11S			
DATE	PFOA	PFOS	PFOA + PFOS
4/8/22	<b>1,100</b>	<b>12,000</b>	<b>13,100</b>

FSCJ-TMW-18S			
DATE	PFOA	PFOS	PFOA + PFOS
4/8/22	<b>130</b>	<b>2,400</b>	<b>2,530</b>

FSCJ-TMW-2SR			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>2,200</b>	<b>24,000</b>	<b>26,200</b>

FSCJ-TMW-3S			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>1,200</b>	<b>9,200</b>	<b>10,400</b>

FSCJ-TMW-1S			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>1,400</b>	<b>5,900</b>	<b>7,300</b>

FSCJ-TMW-13S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>270</b>	2.0 U	<b>270</b>

FSCJ-TMW-7SR			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>140</b>	<b>1,300</b>	<b>1,440</b>

FSCJ-TMW-9S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>2.9 I</b>	<b>23</b>	<b>25.9</b>

FSCJ-TMW-8S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>490</b>	<b>1,400</b>	<b>1,890</b>

FSCJ-TMW-14S			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>26</b>	<b>34</b>	<b>60</b>

FSCJ-TMW-10S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>90</b>	<b>82</b>	<b>172</b>

FSCJ-TMW-6S			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>70</b>	<b>47</b>	<b>117</b>

FSCJ-TMW-20S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>25</b>	<b>110</b>	<b>135</b>

DEPMW-4S			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>24</b>	<b>1,400</b>	<b>1,424</b>

FSCJ-TMW-4SR			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>300</b>	<b>1,600</b>	<b>1,900</b>

FSCJ-TMW-15S			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	<b>57</b>	<b>70</b>	<b>127</b>

DEPMW-3S			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>82</b>	<b>60</b>	<b>142</b>

DEPMW-6S			
DATE	PFOA	PFOS	PFOA + PFOS
4/4/22	<b>2,500</b>	<b>72,000</b>	<b>74,500</b>

DEPMW-7S			
DATE	PFOA	PFOS	PFOA + PFOS
4/4/22	<b>220</b>	<b>420</b>	<b>640</b>

**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- - - APPROXIMATE DITCH LAYOUT
- SHALLOW MONITORING WELL LOCATION
- ◇ EXPLORATORY SOIL BORING

PROVISIONAL GROUND WATER CLEANUP TARGET LEVEL (GCTL)	PFOA IN ng/L	PFOS IN ng/L	SUM OF PFOA + PFOS IN ng/L
PGCTL	70	70	70

- NOTE(S)**
1. PROVISIONAL GCTL - FDEP PROVISIONAL GROUNDWATER CLEANUP TARGET LEVEL.
  2. ALL RESULTS ARE REPORTED IN NANOGRAMS PER LITER (ng/L).
  3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
  4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE PROVISIONAL GROUNDWATER CLEANUP LEVEL.
  5. I - REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
  6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
  7. ft bgs - FEET BELOW GROUND SURFACE.
  8. PFOA - PERFLUORO-N-OCTANOIC ACID.
  9. PFOS - PERFLUOROOCTANESULFONIC ACID.

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.

0 80 160  
SCALE FEET

CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT  
**WSP GOLDER**

YYYY-MM-DD	2022-02-10
DESIGNED	SCN
PREPARED	BCL
REVIEWED	SCN
APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**GROUNDWATER ANALYTICAL RESULTS FOR THE SHALLOW SURFICIAL AQUIFER**

PROJECT NO.	Control No.	REV.	FIGURE
CX21470834A	CX2147083-C011		11

Path: \\golder-gfisc\compledata\Office\jason@wspgolder.com\Drawings\FireAcademy\2022\20220210\Groundwater\Map\Drawings\G011.dwg | File Name: CX2147083-C011.dwg

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



EMERGENCY VEHICLE DRIVER TRAINING AREA

FIREFIGHTER MEMORIAL DR.



DEPMW-1D			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>1,300</b>	<b>5,900</b>	<b>7,200</b>

FSCJ-TMW-6D			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>2.3 I</b>	2.0 U	<b>2.3 I</b>

DEPMW-4D			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	<b>11</b>	<b>11</b>	<b>22</b>

DEPMW-2D			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	2.1 U	2.1 U	2.1 U

FSCJ-TMW-2D			
DATE	PFOA	PFOS	PFOA + PFOS
4/7/22	<b>26</b>	<b>46</b>	<b>72</b>

FSCJ-TMW-4DR			
DATE	PFOA	PFOS	PFOA + PFOS
4/6/22	2.0 U	2.0 U	2.0 U

DEPMW-3D			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	2.0 U	2.0 U	2.0 U

**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- APPROXIMATE DITCH LAYOUT
- DEEP MONITORING WELL LOCATION
- EXPLORATORY SOIL BORING

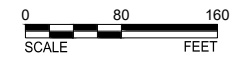
PROVISIONAL GROUND WATER CLEANUP TARGET LEVEL (GCTL)	PFOA IN ng/L	PFOS IN ng/L	SUM OF PFOA + PFOS IN ng/L
PGCTL	70	70	70

**NOTE(S)**

1. PROVISIONAL GCTL - FDEP PROVISIONAL GROUNDWATER CLEANUP TARGET LEVEL.
2. ALL RESULTS ARE REPORTED IN NANOGRAMS PER LITER (ng/L).
3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE PROVISIONAL GROUNDWATER CLEANUP LEVEL.
5. I - REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
7. ft bgs - FEET BELOW GROUND SURFACE.
8. PFOA - PERFLUORO-N-OCTANOIC ACID.
9. PFOS - PERFLUOROOCTANESULFONIC ACID.

**REFERENCE(S)**

1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE  
**GROUNDWATER ANALYTICAL RESULTS FOR THE DEEP SURFICIAL AQUIFER**

Path: \\golder-gfiscamp\data\Office\Jacksonville\Drawings\FireAcademy\Drawings\20220210\Assessment\Map\Drawings\1 - File Name: CX2147083-C012.dwg

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



Well 1			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	2.0 U	2.0 U	2.0 U

Well 5			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	2.0 U	2.0 U	2.0 U

Well 7			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	2.0 U	2.0 U	2.0 U

Well 6			
DATE	PFOA	PFOS	PFOA + PFOS
4/5/22	2.0 U	2.0 U	2.0 U

**LEGEND**

- APPROXIMATE SUBJECT PROPERTY
- - - APPROXIMATE DITCH LAYOUT
- ⊕ MUNICIPAL SUPPLY WELL LOCATION

PROVISIONAL GROUND WATER CLEANUP TARGET LEVEL (GCTL)	PFOA IN ng/L	PFOS IN ng/L	SUM OF PFOA + PFOS IN ng/L
PGCTL	70	70	70

- NOTE(S)**
1. PROVISIONAL GCTL - FDEP PROVISIONAL GROUNDWATER CLEANUP TARGET LEVEL.
  2. ALL RESULTS ARE REPORTED IN NANOGRAMS PER LITER (ng/L).
  3. BOLD FONTS INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE LABORATORY METHOD DETECTION LIMIT.
  4. HIGHLIGHTED FONT INDICATES CONSTITUENT CONCENTRATION WAS REPORTED ABOVE THE PROVISIONAL GROUNDWATER CLEANUP LEVEL.
  5. I- REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND LABORATORY PRACTICAL QUANTITATION LIMIT.
  6. U - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTED VALUE IS THE METHOD DETECTION LIMIT FOR THE SAMPLE ANALYZED.
  7. ft bgs - FEET BELOW GROUND SURFACE.
  8. PFOA - PERFLUORO-N-OCTANOIC ACID.
  9. PFOS - PERFLUOROOCTANESULFONIC ACID.

- REFERENCE(S)**
1. AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), DATED FEBRUARY 2020.
  2. PROPERTY BOUNDARY TAKEN FROM FLORIDA DEPARTMENT OF REVENUE.



CLIENT  
FL. DEPT. OF ENVIRONMENTAL PROTECTION

CONSULTANT	YYYY-MM-DD	2022-02-10
<b>WSP GOLDER</b>	DESIGNED	SCN
	PREPARED	BCL
	REVIEWED	SCN
	APPROVED	MCC

PROJECT  
FIRE ACADEMY OF THE SOUTH  
JACKSONVILLE, DUVAL COUNTY, FLORIDA

**TITLE**  
**GROUNDWATER ANALYTICAL RESULTS FOR JEA MUNICIPAL SUPPLY WELLS**

Path: \\golder-gis-computers\data\Office\Users\scn\Drawings\FireAcademy\FireAcademyMunicipalSupplyWellsPlanActive Drawings | File Name: CX2147083-C013.dwg

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

**APPENDIX A**

## Field Documentation





# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: Scott Neal & Kirk Fraley  
 Sampling Location: AOC-3

Sample ID: DEPSB-20 → DEPSB-29  
 Date: 11/16/2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Sampling Method: Hand Auger  
Grab

### SAMPLE COLLECTION LOCATION SKETCH:

All soils have slight organic component

All samples collected for Analysis of PFAS

Depth to Groundwater: ≈ 2' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-20-0.5	0920	0'-0.5'	Dark Brown Fine Sand, M, No Odor
DEPSB-20-1.5	0925	0.5'-2.0'	Dark Brown + gray FS, M, No odor
		2.0'-4.0'	wet at 1.5' bgs
DEPSB-21-0.5	0930	0'-0.5'	Dark Brn FS, M, No odor
DEPSB-21-2.0	0935	0.5'-2.0'	Dark Brown + Gray FS, M, No odor
		2.0'-4.0'	water at ~26" bgs
DEPSB-22-0.5	0955	0'-0.5'	Brown + gray FS, M, N.O.
DEPSB-22-2.0	1000	0.5'-2.0'	DK Brn + gray FS, M, N.O.
		2.0'-4.0'	water @ ~28"
DEPSB-23-0.5	1005	0'-0.5'	Brown + Gray FS, M, N.O.
DEPSB-23-2.0	1010	0.5'-2.0'	" " " "
		2.0'-4.0'	water @ ~24"
DEPSB-24-0.5	1025	0'-0.5'	gray + Brn FS, M, N.O.
DEPSB-24-2.0	1030	0.5'-2.0'	gray FS, M, No odor
		2.0'-4.0'	Wet at ~27"
DEPSB-25-0.5	1035	0'-0.5'	gray + Brn FS, M, No odor
DEPSB-25-1.5	1040	0.5'-2.0'	gray FS, M, N.O.
		2.0'-4.0'	Wet @ ~17"
DEPSB-26-0.5	1055	0'-0.5'	gray + Brn FS, M, N.O.
DEPSB-26-1.5	1100	0.5'-2.0'	" " " "
		2.0'-4.0'	wet at 2.0' bgs
DEPSB-27-0.5	1105	0'-0.5'	gray FS, M, N.O.
DEPSB-27-1.5	1110	0.5'-2.0'	gray + light gray FS, M, N.O.
		2.0'-4.0'	Wet at 2.0' bgs
DEPSB-28-0.5	1140	0'-0.5'	Brown + Dark gray FS, M, N.O.
DEPSB-28-2.0	1145	0.5'-2.0'	" " " " " "
		2.0'-4.0'	wet @ ~23" bgs
DEPSB-29-0.5	1150	0'-0.5'	Dark Gray + Brn FS, M, N.O.
DEPSB-29-2.0	1155	0.5'-2.0'	Dark gray FS, M, N.O.
		2.0'-4.0'	wet @ ~2' bgs

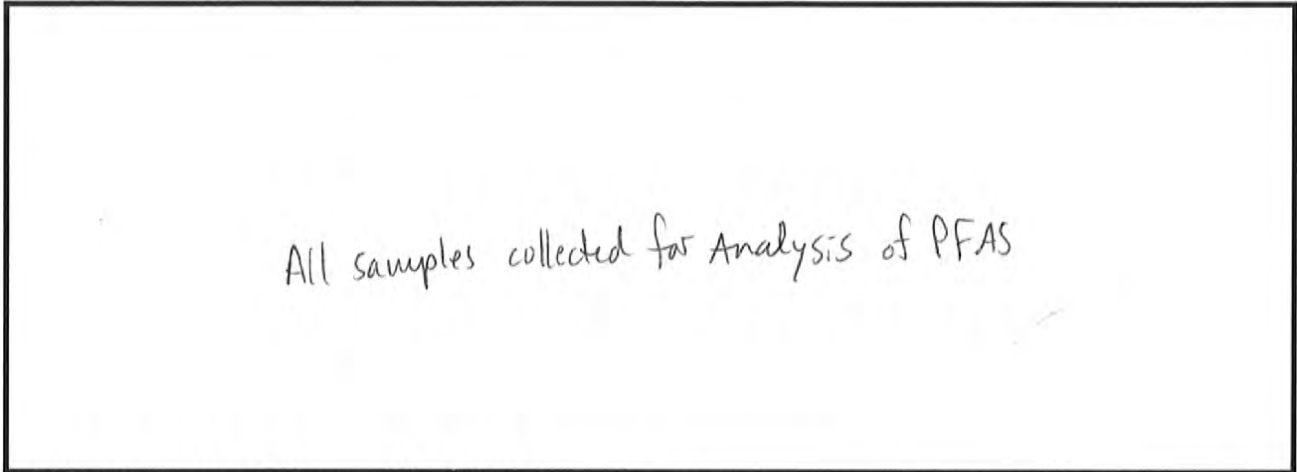
\* EQB-HA-1 collected at ~~0945~~ 0915 from hand Auger  
 EQB-HA-2 collected at 1045

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: Scott Neal + Kirk Fraley  
 Sampling Location: \_\_\_\_\_

Sample ID: DEPSB-30 + DEPSB-31  
 Date: 11 / 16 / 2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Sampling Method: Hand Auger  
Grab

SAMPLE COLLECTION LOCATION SKETCH:



Depth to Groundwater: ≥ 2' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-30-0.5	1220	0' - 0.5'	Gray + Brn FS, M, W-O
DEPSB-30-1.0	1225	0.5' - 2.0'	" " " " " "
-	-	2.0' - 4.0'	wet @ ~12" bgs
DEPSB-31-0.5	1230	0' - 0.5'	Brown + Gray FS, M, N.O.
DEPSB-31-2.0	1235	0.5' - 2.0'	Gray + Brown FS, M, N.O.
-	-	2.0' - 4.0'	wet at ~2' bgs
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	

EQB-HA-3 collected at 1245



## SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ

Sample ID: DEPSB-32 → DEPSB-41

Project Number: 214570834

Date: 11/22/2021

Sampled by: Justin Spangler & Scott Neal

Type of Sampling Equipment: \_\_\_\_\_

Sampling Location: AOC-2, Jacksonville, FL  
Fire Academy - FSCJ

Hand Auger

Sampling Method: \_\_\_\_\_

Grab

SAMPLE COLLECTION LOCATION SKETCH:

Northern Portion of AOC-2, See MAP & GPS

**Depth to Groundwater:**

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-32-0.5	1005	0' - 0.5'	Dark Brn, M, No odor
DEPSB-32-2.0	1010	0.5' - 2.0'	Dark Brn & Gray, M, N.O.
<del>DEPSB-32-2.0</del> (S)	—	2.0' - 4.0'	Wet at 2.0' bgs
DEPSB-33-0.5	1015	0' - 0.5'	Dark Brown, M, N.O.
DEPSB-33-2.0	1020	0.5' - 2.0'	Dark Brn & Gray, M, N.O.
<del>DEPSB-33-2.0</del> (S)	—	2.0' - 4.0'	Wet @ 2.0' bgs
DEPSB-34-0.5	1025	0' - 0.5'	Dark Brn, M, N.O.
DEPSB-34-2.0	1030	0.5' - 2.0'	Dark Brn & Gray, M, N.O.
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-35-0.5	1035	0' - 0.5'	Dark Brown, moist, No odor
DEPSB-35-2.0	1040	0.5' - 2.0'	Dark Brn & Gray, M, N.O.
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-36-0.5	1050	0' - 0.5'	gray FS, M, N.O.
DEPSB-36-2.0	1055	0.5' - 2.0'	Light gray FS, M, N.O.
—	—	2.0' - 4.0'	Wet at 2.0' ft bgs
DEPSB-37-0.5	1100	0' - 0.5'	gray FS, M, N.O.
DEPSB-37-2.0	1105	0.5' - 2.0'	Light gray FS, M, N.O.
—	—	2.0' - 4.0'	wet at 2.0' bgs
DEPSB-38-0.5	1110	0' - 0.5'	gray FS, M, No odor
DEPSB-38-2.0	1115	0.5' - 2.0'	Light gray FS, M, N.O.
—	—	2.0' - 4.0'	wet at 2.0' bgs
DEPSB-39-0.5	1120	0' - 0.5'	Dark Brn: FS & gravel, M, N.O.
DEPSB-39-2.0	1125	0.5' - 2.0'	Brown & gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-40-0.5	1140	0' - 0.5'	gray FS, M, N.O.
DEPSB-40-2.0	1145	0.5' - 2.0'	light gray FS, M, N.O.
—	—	2.0' - 4.0'	Wet @ 2.0' bgs
DEPSB-41-0.5	1150	0' - 0.5'	gray FS, M, N.O.
DEPSB-41-2.0	1155	0.5' - 2.0'	Light gray FS, M, N.O.
—	—	2.0' - 4.0'	Wet @ 2.0' bgs

EQB-HA-4 collected at 1200

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: Scott Neal + Justin Spengler  
 Sampling Location: Fire Academy - FSCJ  
AOC-2, Jacksonville, FL

Sample ID: DEPSB-42 → DEPSB-51  
 Date: 11/22/2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Hand Auger \_\_\_\_\_  
 Sampling Method: \_\_\_\_\_  
 Grab \_\_\_\_\_

SAMPLE COLLECTION LOCATION SKETCH:

Northern portion of AOC-2  
 See Map + GPS

Depth to Groundwater: ~2' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-42-0.5	1325	0' - 0.5'	LS Gravel + dark brown FS, M, N.O.
DEPSB-42-2.0	1330	0.5' - 2.0'	Gray + light Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2.0' bgs
DEPSB-43-0.5	1335	0' - 0.5'	Dark Brown FS, Moist, N.O.
DEPSB-43-2.0	1340	0.5' - 2.0'	Dark Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-44-0.5	1345	0' - 0.5'	dark Brown FS, M, N.O.
DEPSB-44-2.0	1350	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-45-0.5	1355	0' - 0.5'	Dark Brown FS, M, N.O.
DEPSB-45-2.0	1355 + 1400	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-46-0.5	1405	0' - 0.5'	Brown + dark Brown FS, M, N.O.
DEPSB-46-2.0	1410	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2.0' bgs
DEPSB-47-0.5	1415	0' - 0.5'	dark Brown FS, M, N.O.
DEPSB-47-2.0	1420	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2.0' bgs
DEPSB-48-0.5	1425	0' - 0.5'	Dark Brown FS
DEPSB-48-2.0	1430	0.5' - 2.0'	dark Brn + Gray FS, M, N.O.
—	—	2.0' - 4.0'	Wet @ 2.0' bgs
DEPSB-49-0.5	1435	0' - 0.5'	dark brn FS, M, No odor
DEPSB-49-2.0	1440	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-50-0.5	1445	0' - 0.5'	Dark Brn FS, M, N.O.
DEPSB-50-2.0	1450	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	— wet @ 2' bgs
DEPSB-51-0.5	1500	0' - 0.5'	Dark Brown FS, M, N.O.
DEPSB-51-2.0	1505	0.5' - 2.0'	Dark Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	— wet @ 2' bgs

★

★ EQBHA-5 collected at 1455



# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: Scott Neal + Justin Spender  
 Sampling Location: \_\_\_\_\_

Sample ID: DEPSB-55 → DEPSB-64  
 Date: 11/23/2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Sampling Method: Hand Auger  
Grab

### SAMPLE COLLECTION LOCATION SKETCH:

AOC-1, See Maps

Sunny, 50°

Depth to Groundwater: ~2.0' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-55-0.5	0840	0' - 0.5'	Dark Brown Fine Sand, M, No odor
DEPSB-55-2.0	0845	0.5' - 2.0'	Dark Brown + gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2.0' bgs
DEPSB-56-0.5	0850	0' - 0.5'	Dark Brn FS, M, N.O.
DEPSB-56-2.0	0855	0.5' - 2.0'	Brown + gray FS, M, N.O.
—	—	2.0' - 4.0'	Water @ 2.0' bgs
DEPSB-57-0.5	0900	0' - 0.5'	Dark Brown FS, M, N.O.
DEPSB-57-2.0	0905	0.5' - 2.0'	gray FS, M, N.O.
—	—	2.0' - 4.0'	Water @ 2.0' bgs
DEPSB-58-0.5	0910	0' - 0.5'	Dark Brown FS, J
DEPSB-58-2.0	0915	0.5' - 2.0'	gray FS, M, N.O.
—	—	2.0' - 4.0'	Water @ 2.0' bgs
DEPSB-59-0.5	0920	0' - 0.5'	Brown FS, M, N.O.
DEPSB-59-2.0	0925	0.5' - 2.0'	gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-60-0.5	0930	0' - 0.5'	gray FS, <del>M</del> No odor
DEPSB-60-2.0	0935	0.5' - 2.0'	gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-61-0.5	0950	0' - 0.5'	gray FS, M, N.O.
DEPSB-61-2.0	0955	0.5' - 2.0'	" " " "
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-62-0.5	1000	0' - 0.5'	gray FS, M, N.O.
DEPSB-62-2.0	1005	0.5' - 2.0'	" " " "
NO Sample	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-63-0.5	1010	0' - 0.5'	Brown Fine Sand, Moist, No odor
DEPSB-63-2.0	1015	0.5' - 2.0'	gray FS, " "
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-64-0.5	1020	0' - 0.5'	Brown FS, M, No odor
DEPSB-64-2.0	1025	0.5' - 2.0'	gray FS, M, No odor
—	—	2.0' - 4.0'	wet at 2.0' bgs

#EQB-HA-6 collected at 0940

## SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ

Sample ID: DEPSB-65 → DEPSB-74

Project Number: 214570834

Date: 11/23/2021

Sampled by: Scott Neal & Justin Spengler

Type of Sampling Equipment: \_\_\_\_\_

Sampling Location: AOC-2, Fire Academy of  
The South, Jacksonville, FL

Hand Auger

Sampling Method: \_\_\_\_\_

Grab

### SAMPLE COLLECTION LOCATION SKETCH:

AOC-2, see Map

Southern Portion

52°, sunny

Depth to Groundwater: ~2.0' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-65-0.5	1035	0' - 0.5'	Dark Gray FS, M, No odor
DEPSB-65-2.0	1040	0.5' - 2.0'	Gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-66-0.5	1210	0' - 0.5'	Dark Brown FS, M, No odor
DEPSB-66-2.0	1215	0.5' - 2.0'	Brown + Gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-67-0.5	1220	0' - 0.5'	Dark Brn FS, M, N.odor
DEPSB-67-2.0	1225	0.5' - 2.0'	Brown + Gray FS, M, No odor
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-68-0.5	1235	0' - 0.5'	Dark Gray FS, M, N.O.
DEPSB-68-2.0	1240	0.5' - 2.0'	Gray FS, M, No odor
<del>DEPSB-69</del>	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-69-0.5	1245	0' - 0.5'	Dark Gray FS, M, N.O.
DEPSB-69-2.0	1250	0.5' - 2.0'	Gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2' bgs
DEPSB-70-0.5	1305	0' - 0.5'	gray FS + some gravel, M, No odor
DEPSB-70-2.0	1310	0.5' - 2.0'	light gray FS, M, No odor
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-71-0.5	1315	0' - 0.5'	gray FS, M, N.odor
DEPSB-71-2.0	1320	0.5' - 2.0'	light gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-72-0.5	1325	0' - 0.5'	gray FS, M, N.O.
DEPSB-72-2.0	1330	0.5' - 2.0'	light gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-73-0.5	1345	0' - 0.5'	gray FS, M, N.O.
DEPSB-73-2.0	1350	0.5' - 2.0'	light gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs
DEPSB-74-0.5	1355	0' - 0.5'	gray + Brn FS, M, N.O.
DEPSB-74-2.0	1400	0.5' - 2.0'	light gray FS, M, N.O.
—	—	2.0' - 4.0'	water @ 2' bgs

1335 - collect EQB-HA-7 for PFAS

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ Sample ID: DEPSB-75 → DEPSB-81  
 Project Number: 214570834 Date: 11/23/2021  
 Sampled by: Scott Neal + Justin Spengler Type of Sampling Equipment: \_\_\_\_\_  
 Sampling Location: Fire Academy - FSCJ, Jacksonville, FL Hand Auger \_\_\_\_\_  
ADL-2 Sampling Method: Grab

### SAMPLE COLLECTION LOCATION SKETCH:

ADL-2, Southern Portion  
 See GPS + Map 56°, Sunny

Depth to Groundwater: ~ 2.0' BGS to ~ 2.5' bgs

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-75-0.5	1410	0' - 0.5'	gray FS, M, N.O.
DEPSB-75-2.0	1415	0.5' - 2.0'	gray FS, M, N.O.
		2.0' - 4.0'	wet @ 2' bgs
DEPSB-76-0.5	1420	0' - 0.5'	light gray FS, M, N.O.
DEPSB-76-2.0	1425	0.5' - 2.0'	gray + dark gray FS, M, N.O.
		2.0' - 4.0'	wet @ 2' bgs
DEPSB-77-0.5	1430	0' - 0.5'	gray FS + gravel, M, No odor
DEPSB-77-2.0	1435	0.5' - 2.0'	dark gray FS, M, N.O.
DEPSB-77-2.5	1440	2.0' - 4.0' 2.5'	" " " " " " , wet @ 2.5' bgs
DEPSB-78-0.5	1445	0' - 0.5'	gravel w/ some gray fine sand, M, N.O.
DEPSB-78-2.0	1450	0.5' - 2.0'	gray FS + light brn FS, M, N.O.
DEPSB-78-2.5	1455	2.0' - 4.0' 2.5'	light brn. fine to coarse sand, M, N.O. wet @ 2.5'
DEPSB-79-0.5	1500	0' - 0.5'	gray fine sand, M, N.O.
DEPSB-79-2.0	1505	0.5' - 2.0'	brown + gray FS, M, N.O.
★ DEPSB-79-2.5	1510	2.0' - 4.0' 2.5'	" " " " " " wet @ 2.5'
★ DEPSB-80-0.5	1525	0' - 0.5'	gravel w/ some brown FS, M, chem odor, salts on surface
DEPSB-80-2.0	1530	0.5' - 2.0'	gray + brn FS, M, slight chem. odor.
DEPSB-80-2.5	1535	2.0' - 4.0' 2.5'	light gray FS, M, slight chem odor wet @ 2.5'
DEPSB-81-0.5	1540	0' - 0.5'	gravel w/ some brown fine sand, M, N.O.
DEPSB-81-2.0	1545	0.5' - 2.0'	gray + brown FS, M, No odor
DEPSB-81-2.5	1550	2.0' - 4.0' 2.5'	gray FS, M, No odor. wet @ 2.5' bgs
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	

1515 ★ EQB-HA-8 collected for PFAS

★ - white salts on surface possibly from fire extinguisher powder/residual. Chemical odor in soil + in area

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: Scott Neal & Justin Spengler  
 Sampling Location: Southern Portion of AOC-2

Sample ID: DEPSB-82 → DEPSB-91  
 Date: 11/29/2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Hand Auger  
 Sampling Method: Grab

SAMPLE COLLECTION LOCATION SKETCH:

Southern Portion of AOC-2

See Map

Depth to Groundwater: ~2.5 (2-2.75' bgs)

Sample ID	Time Collected	Depth Interval	Soil Description
<del>SB</del> DEPSB-82-0.5	1055	0'-0.5'	light gray FS, Dry, No odor
DEPSB-82-2.0	1100	0.5'-2.0'	gray + dark Brn FS, Moist, N.O.
DEPSB-82-2.5	1105	2.0'- <del>4.0'</del> 2.5'	Brown FS, M, N.O., wet @ 2.5' bgs
DEPSB-83-0.5	1110	0'-0.5'	light Brn FS, M, N.O.
DEPSB-83-2.0	1115	0.5'-2.0'	light Brn + gray FS, M, N.O.
—	—	2.0'-4.0'	water @ ~2' bgs
DEPSB-84-0.5	1130	0'-0.5'	light Gray FS, M, N.O.
DEPSB-84-2.0	1135	0.5'-2.0'	Gray FS, M, N.O.
DEPSB-84-2.5	1140	2.0'- <del>4.0'</del> 2.5'	" " " " water @ ~2.5'
DEPSB-85-0.5	1150	0'-0.5'	light gray FS, M, No odor
DEPSB-85-2.0	1155	0.5'-2.0'	gray FS, M, N.O.
DEPSB-85-2.5	1200	2.0'- <del>4.0'</del> 2.5'	" " " " water @ ~2.5'
DEPSB-86-0.5	1205	0'-0.5'	Dark Gray FS, M, No odor
DEPSB-86-2.0	1210	0.5'-2.0'	gray, FS, M, N.O.
DEPSB-86-2.5	1215	2.0'- <del>4.0'</del> 2.5'	" " " " water @ ~2.5'
DEPSB-87-0.5	1225	0'-0.5'	Dark gray FS, M, No odor
DEPSB-87-2.0	1230	0.5'-2.0'	gray FS, M, N.O.
DEPSB-87-2.5	1235	2.0'- <del>4.0'</del> 2.5'	gray FS, M, N.O. water @ ~2.5'
DEPSB-88-0.5	1240	0'-0.5'	white + gray FS, M, No odor
DEPSB-88-2.0	1245	0.5'-2.0'	gray FS, M, N.O.
DEPSB-88-2.5	1250	2.0'-4.0'	Brown + gray FS, M, N.O. water @ ~2.5'
DEPSB-89-0.5	1350	0'-0.5'	Dark gray FS, Moist, No odor
DEPSB-89-2.0	1355	0.5'-2.0'	gray FS, M, N.O.
DEPSB-89-2.5	1400	2.0'- <del>4.0'</del> 2.5'	" " " " water @ ~2.5'
DEPSB-90-0.5	1405	0'-0.5'	Gray Fine Snd, Moist, No odor
DEPSB-90-2.0	1410	0.5'-2.0'	" " " " "
DEPSB-90-2.5	1415	2.0'- <del>4.0'</del> 2.5'	" " " " " water @ ~2.5'
DEPSB-91-0.5	1420	0'-0.5'	Light Gray FS, M, N.O.
DEPSB-91-2.0	1425	0.5'-2.0'	" " " " "
DEPSB-91-2.5	1430	2.0'- <del>4.0'</del> 2.5'	Dark Brown organic silty Snd, M, N.O.

1145 - Collect Field Reagent blank FRB-SB-85

EQB-HA-9 equip blank sampled off hand auger - 1220

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: \_\_\_\_\_  
 Sampling Location: Southern Portion of  
AOC-2

Sample ID: DEPSB-92 → DEPSB-96  
 Date: 11/29/2021  
 Type of Sampling Equipment: \_\_\_\_\_  
 Sampling Method: Hand Auger  
Grab

SAMPLE COLLECTION LOCATION SKETCH:

AOC-2, Southern Portion.  
 See Map

Depth to Groundwater: ~2.5'

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-92-0.5	1435	0' - 0.5'	gray FS, M, No odor
DEPSB-92-2.0	1440	0.5' - 2.0'	" " " "
<del>DEPSB-92-2.5</del> No sample	<del>1445</del> (S)	2.0' - 4.0'	Wet @ ~2.0' bgs
DEPSB-93-0.5	1445	0' - 0.5'	gray FS, Moist, No odor
DEPSB-93-2.0	1450	0.5' - 2.0'	" " " "
DEPSB-93-2.5	1455	2.0' - 4.0'	" " " " wet @ ~2.5'
DEPSB-94-0.5	1510	0' - 0.5'	Gray FS, M, No odor
DEPSB-94-1.0	1515	0.5' - 2.0'	Brown FS, M, No odor
No sample	—	2.0' - 4.0'	No sample, Wet @ ~1.0' bgs
DEPSB-95-0.5	1520	0' - 0.5'	gray FS, Moist, N.O.
DEPSB-95-2.0	1525	0.5' - 2.0'	gray & dark gray FS, M, N.O.
—	—	2.0' - 4.0'	wet @ 2.0' bgs
DEPSB-96-0.5	1530	0' - 0.5'	gray FS w/ limestone gravel, M, N.O.
DEPSB-96-2.0	1535	0.5' - 2.0'	gray & dark gray FS, M, N.O.
—	—	2.0' - 4.0'	Wet @ ~2.0' bgs
—	—	0' - 0.5'	
—	—	0.5' - 2.0'	
—	—	2.0' - 4.0'	
—	—	0' - 0.5'	
—	—	0.5' - 2.0'	
—	—	2.0' - 4.0'	
—	—	0' - 0.5'	
—	—	0.5' - 2.0'	
—	—	2.0' - 4.0'	
—	—	0' - 0.5'	
—	—	0.5' - 2.0'	
—	—	2.0' - 4.0'	
—	—	0' - 0.5'	
—	—	0.5' - 2.0'	
—	—	2.0' - 4.0'	

(S) 11/29

★ 1500 - EQB-HA-10 collected off Hand Auger. Equip Blank

1545-45.H



# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ

Sample ID: DEPSB-97 → DEPSB-106

Project Number: 214570834

Date: 12/11/2021

Sampled by: Scott Neal & Justin Spengler

Type of Sampling Equipment: \_\_\_\_\_

Sampling Location: Southern portion of AOC-2

Hand Auger

Sampling Method: \_\_\_\_\_

Grab

### SAMPLE COLLECTION LOCATION SKETCH:

Southern Portion of AOC-2. See Map.

Depth to Groundwater: 1.0 - 2.0 ft bgs

Sample ID	Time Collected	Depth Interval	Soil Description
★ DEPSB-97-0.5	0920	0'-0.5'	Light gray Fine Sand, M, No odor
DEPSB-97-2.0	0925	0.5'-2.0'	" " " "
		2.0'-4.0'	water @ ~2' bgs
DEPSB-98-0.5	0930	0'-0.5'	light gray Fine Sand, M, No odor
DEPSB-98-2.0	0935	0.5'-2.0'	light gray + dark brown FS, M, U.O.
		2.0'-4.0'	water @ ~2' bgs
DEPSB-99-0.5	0940	0'-0.5'	Light gray fine Sand, M, No odor
DEPSB-99-2.0	0945	0.5'-2.0'	gray + dark gray FS w/organics, M, U.U.
		2.0'-4.0'	water @ ~2.0' bgs
DEPSB-100-0.5	0950	0'-0.5'	Light gray FS, M, No odor
DEPSB-100-2.0	0955	0.5'-2.0'	gray + dark brown FS w/organics, M, U.U.
		2.0'-4.0'	water @ ~2' bgs
DEPSB-101-0.5	1000	0'-0.5'	gray FS, M, No odor
DEPSB-101-2.0	1005	0.5'-2.0'	Dark gray + Brn FS, M, U.U.
		2.0'-4.0'	water at ~2' bgs
DEPSB-102-0.5	1010	0'-0.5'	gray FS, M, organic
DEPSB-102- <del>2.0</del> 1.0	1015	0.5'- <del>2.0</del> 1.0	gray + Brown FS, M, organic
		2.0'-4.0'	water @ ~1.0' bgs
DEPSB-103-0.5	1020	0'-0.5'	gray FS, M, No odor
DEPSB-103-1.0	1025	0.5'-2.0' 1.0	Brown Sandy Silt, M, No odor
		2.0'-4.0'	water @ 1.0' bgs
DEPSB-104-0.5	1030	0'-0.5'	gray Fine Sand, M, No odor
DEPSB-104-1.5	1035	0.5'- <del>2.0</del> 1.5	dark gray FS, M, No odor
		2.0'-4.0'	water @ 1.5' bgs
DEPSB-105-0.5	1040	0'-0.5'	Light gray FS, M, No odor
DEPSB-105-2.0	1045	0.5'-2.0'	Dark gray + gray FS, M, No odor
		2.0'-4.0'	water at 2.0' bgs
DEPSB-106-0.5	1050	0'-0.5'	Light gray FS, M, U.U.
★ DEP-SB-106-1.5	1055	0.5'-2.0'	Dark gray silty Sand, M, No odor
		2.0'-4.0'	water @ ~1.5' bgs

0905 - Collect Equipment blank EQB-HA-11 off hand auger for PFAS

1110 - Collect Equipment blank EQB-HA-12 off hand Auger " "

# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ

Sample ID: DEPSB-107 → DEPSB-110

Project Number: 214570834

Date: 12/1 /2021

Sampled by: Scott Neal + Justin Spangler

Type of Sampling Equipment: \_\_\_\_\_

Sampling Location: AOC-2

Hand Auger

Sampling Method: \_\_\_\_\_

Grab

### SAMPLE COLLECTION LOCATION SKETCH:

Southern portion of AOC-2 near oil-water separator

All samples also sampled for hydrocarbons (FL-Pro/TRPH, PAHs, BTEX/Mtbe) + PFAS

### Depth to Groundwater:

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-107-0.5	1250	0'-0.5'	Brown + dark gray fine sand, M, No odor
DEPSB-107-2.0	1300	0.5'-2.0'	Gray fine sand, M, No odor
DEPSB-107-2.5	1310	2.0'-4.0'	Gray + Brown fine sand, M, No odor
DEPSB-108-0.5	1325	0'-0.5'	Gray + Brn FS, M, No odor
DEPSB-108-2.0	1335	0.5'-2.0'	light gray FS, M, No odor
DEPSB-108-2.5	② 1345	2.0'-4.0'	" " " " " " wet @ ~2.5' bgs
DEPSB-109-0.5	1355	0'-0.5'	Brown + Gray FS, M, No odor
DEPSB-109-2.0	1405	0.5'-2.0'	Dark Brown + Gray FS, M, No odor
DEPSB-109-2.5 (SW)	—	2.0'-4.0'	Wet at ~2' bgs
DEPSB-110-0.5	1415	0'-0.5'	
DEPSB-110-2.0	1430	0.5'-2.0'	
DEPSB-110-2.5 (SW)	—	2.0'-4.0'	wet/water @ ~2' bgs
		0'-0.5'	
		0.5'-2.0'	
		2.0'-4.0'	
		0'-0.5'	
		0.5'-2.0'	
		2.0'-4.0'	
		0'-0.5'	
		0.5'-2.0'	
		2.0'-4.0'	
		0'-0.5'	
		0.5'-2.0'	
		2.0'-4.0'	
		0'-0.5'	
		0.5'-2.0'	
		2.0'-4.0'	

1500 - Collect EQB-HA-13 for PFAS, TRPH, PAHs, + VOCs

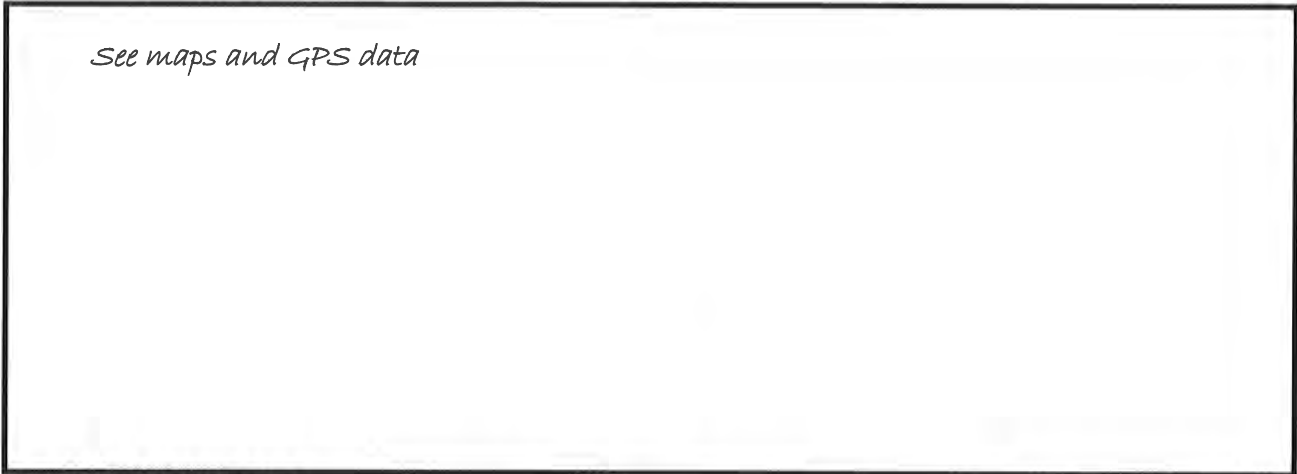
# SOIL SAMPLE COLLECTION FORM

Project Name: Fire Academy of the South - FSCJ  
 Project Number: 214570834  
 Sampled by: DEPSB-111 to DEPSB-113  
 Sampling Location: AOC-4, AOC-2

Sample ID: DEPSB-111 to DEPSB-113  
 Date: 12/15/2021

Type of Sampling Equipment: \_\_\_\_\_  
 Hand Auger  
 Sampling Method: Grab

SAMPLE COLLECTION LOCATION SKETCH:



Depth to Groundwater: 2' - 3.5'

Sample ID	Time Collected	Depth Interval	Soil Description
DEPSB-111-0.5	0950	0' - 0.5'	Dark Brown FS, M, No odor
DEPSB-111-2.0	0955	0.5' - 2.0'	" " " " slight sulfur odor
DEPSB-111-3.5	1000	2.0'-4.0' 3.5	Brown + Tan FS, M → W, slight sulfur. wet @ ~3.5'
		0' - 0.5'	
SED-8	1020	0.5' - 2.0'	Brown + Tan silty sand (sediment sample)
		2.0' - 4.0'	
DEPSB-112-0.5	1055	0' - 0.5'	gray FS, M, No odor
DEPSB-112-2.0	1100	0.5' - 2.0'	gray FS, M → W, No odor
	1105	2.0' - 4.0'	Water @ 2.0' logs
DEPSB-113-0.5	1110	0' - 0.5'	gray FS, M, N.O.
DEPSB-113-2.0	1115	0.5' - 2.0'	gray FS, M, N.O. wet @ 2.0'
		2.0' - 4.0'	Water @ 2.0' logs
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	
		0' - 0.5'	
		0.5' - 2.0'	
		2.0' - 4.0'	

"Ansolite 3X3" product sampled @ 1300

EQB-HA-14 @ 1315

























SUBJECT Fire Academy of the South - FSCJ; ERIC-17235		
Job No. 21470834A	Made by Scott Neal	Date 11/15/21
Ref. Jacksonville, FL	Checked 60°, clear	Sheet 1 of 1

Scott Neal, Kirk Fraley

- 0700 - Meet at office + pack truck with coolers + sampling equipment
- 0800 - Leave Golder office
- 0815 - Buy 55-gal drum at Atlantic Drilling Supply
- 0855 - On site. Check in with Jason Carpenter.
- 0905 - Review HASP, SOW, + PFAS SOPs
- 0920 - Set up sampling equipment and begin sampling in AOC-1. Hand Augers decontaminated between borings/samples per FOEP PFAS SOPs. See Soil Sample collection form for sample times + lithologies. + times
- 1230 - 1325 - lunch
- 1330 - Set up for soil sampling in AOC-4. Will wait to sample at Proposed well cluster/vertical profile location until drill rig is on site. See Soil Sample Collection Forms for sample times + lithologies. Samples SB-11 through SB-19 in AOC-4
- 1550 - End Sampling
- 1605 - Drum decon water. Stage equipment
- 1630 - off site
- 1700 - office. off job

(62)



Scott Neal, Kirk Fraley

SUBJECT Fire Academy of the South; ERIC-17235

Job No. 214570834 A

Made by Scott Neal - Golder

Date 11/16/2021

Ref. Jacksonville, FL

Checked Reviewed 60°, clear

Sheet 1 of 1

0800 - Meet at Golder, Jacksonville office  
 0810 - MOB to site in Rental Truck  
 0840 - On site. Check in with Fire Academy  
 0850 - Review SW, Safety, & PFAS SOPs  
 0900 - Set up Sampling equipment & decon Angers.  
 0920 - Begin soil sampling in AOC-3. See Soil Sample Collection Forms for sample times & lithologies. Samples collected off of disposable LDPE sheeting & Angers decontaminated according to FDEP PFAS SOPs.  
 (SN) \* 0915 - Equip. Blank EQB-HA-1 collected at 0915 from hand Anger bucket  
 1045 - EQB-HA-2 collected for PFAS analysis from Hand Anger  
 1240 - End Soil Sampling  
 1245 - EQB-HA-3 collected  
 1300 - drum decon water & pack truck  
 1320 - off site, lunch  
~~1345 - Got 11/16~~  
 1440 - Golder office. Unpack. off job

★ 11/17/21 - 2 coolers shipped to FDEP Tallahassee Lab via FedEx Express  
 11/17



Scott Neal, Justin Spengler

SUBJECT Fire Academy of the South; ERIC-17235		
Job No. 21470B34A	Made by Scott Neal	Date 11/22/2021
Ref. Jacksonville, FL	Checked Reviewed 65°, cloudy	Sheet 1 of 1

0745 - Meet at Golder, Jacksonville office. Park vehicle.				
0845 - Leave office				
0815 - On site. Check in with site personnel.				
0930 - Review HASP, SOW, + PFAS SOPs.				
0945 - Decon + set up sampling equipment in the northern portion of AOC-2				
1000 - Begin soil sampling for analysis of PFAS. Sampling to top of water table/ vadose zone. See Soil sample Collection forms for sample times and lithologies				
1200 - Equipment Blank sample EQB-HA-4 collected at 1200' from hand auger bucket				
1220 - 1310 - Lunch				
1310 - Resume sampling				
1455 - EQB-HA-5 collected				
1600 - End Sampling. Drum decon water. Secure staging area.				
1645 - Golder office, off job				





SUBJECT Fire Academy of the South; ERIC-17235

Job No. 21470834A

Made by Scott Neal

Date 11/23/21

Ref: 50° clear  
10-15 mph

Checked  
Reviewed Jacksonville, FL

Sheet 1 of 1

Justin Spengler, Scott Neal

- 0730 - Meet at Golder Jacksonville office
- 0805 - On site. Check in with site personnel.
- 0815 - Review HASP, SOW, + PFAS SOPs
- 0825 - Setup/Decon. Move to AOC-2
- 0835 - Begin Soil Sampling vadose zone for analysis of PFAS. See Soil Sample Collection Forms for lithologies + sample times.
- 0940 - Collect Equipment Blank sample EQB-HA-6 from hand auger bucket
- 1050 - Complete sampling in northern portion + outside areas of AOC-2. Set up equipment near southern Burn Pit in AOC-2
- 1110-1200 - lunch
- 1200 - Continue soil sampling
- 1335 - Collect EQB-HA-7 from hand auger bucket for PFAS
- 1515 - EQB-HA-8 collected from hand auger bucket for PFAS
- 1600 - End Sampling. Drum decon water. Clean/secure staging area.
- 1645 - Golder office, off job

(SR)



SUBJECT <b>Fire Academy of the South</b>		
Job No. 21470834A	Made by <b>Scott Neal</b>	Date <b>11/29/2021</b>
Ref: Clear, 540, S-10mph	Checked Reviewed <b>Jacksonville, FL</b>	Sheet <b>1</b> of <b>1</b>

Scott Neal, Justin Spengler

- 0800 - Meet at Golder office Park truck
- 0825 - Leave office
- 0850 - Buy drum at Atlantic Drilling Supply
- 0910 - Ice
- 0935 - On site. Meet/check-in with ~~HA~~ site personnel. Check work area availability.
- 0950 - Review JOW, HASP, & PFAS SOPs
- 1010 - Decon equip
- 1030 - Begin soil sampling activities. See Soil Sample Collection form for lithologies and sample times.
- 1145 - Collect Field Reagent Blank sample FRB-SB-85 at soil sample SB-85 location while collecting soil sample
- 1220 - Collect EQB-HA-9 equipment blank sample off of cleaned hand auger
- 1500 - Collect EQB-HA-10 equipment blank sample " " " " "
- 1535 - End soil sampling. Drum decon water
- 1548 - off site
- 1600-1625 - lunch
- 1700 - Golder office, off job

②  
11/29



SUBJECT Fire Academy of the South - FSCJ; ERIC-742117235

Job No. ⑤ Jacksonville, FL	Made by Scott Neal Checked Reviewed	Date 11/30/2021 Sheet 1 of 1
-------------------------------	-------------------------------------------	---------------------------------

S Neal, J Spengler

0740- Golder office. Justin Spengler & Scott Neal Pack Truck		
0800- Calibrate YSI Multimeter and Hach Turbidimeter. See calibration log		
0830- Mob to site		
0900- On site. Meet with Jason (FSCJ). Set up decon area. Review HASP + PFAS solo.		
0915- Go to creek south of JEA Easment south of AOCs 3 + 4 + begin sediment + surface water sampling. See Water Sampling forms for surface water parameters. SW samples collected using peristaltic pump + disposable tubing. Sediment samples collected after using decontaminated stainless steel hand auger.		
0935- collect SW-3 for PFAS		
0945- collect SED-3 for PFAS. Gray sandy with silt.		
1005- collect SW-4 + duplicate sample DUP-SW-4		
1025- collect SED-4. Dark Brown silty gravel with organics moved SED-4/SW-4 location east near outfall of wetland drainage coming south from wetland east of Fire Academy		
1045- collect SED-13. No surface water at location to sample. Dark Brown + Gray Silty Sand		
1055- collect SED-1 at SW-1 location. Gray silty sand + Dark Brown silty organics		
1110- collect SED-12. NO SW at location. Light gray + brown fine sand		
1125- collect SED-14. No SW at location. Dark Brown organic silt/muck		
1140- collect SW-5 for PFAS		
1145- collect SED-5 for PFAS. Black organic silt with gravel		
1155- collect SED-2 at SW-2 location. Dark Brown coarse sand and silt.		
1205 collect SW-6 for PFAS. See Collection sheet		
1210- collect SED-6 for PFAS. Brown silty sand with organics		
1220- Decon equip. Staging area.		
1230-1325- lunch		
1335- AOC-4 + continue SED + SW sampling		
1350- collect SW-7 for PFAS. See Collection sheet		
1400- collect <del>SW-8</del> SED-8 for PFAS. SED-7 for PFAS - Dark Brown + gray silty sand		
1402 (SW) 11/30		
1410- collect equipment blank EQB-PP-1 through peristaltic pump, hdpe tubing, + silicon tubing		
1430- collect FRB-SW-8 field reagent blank		
1435- collect SW-8 for PFAS. See Collection form		
1440- collect SED-8. Brown sandy silt with organics		
1500- SW-9 for PFAS + MS/MSD		
1505- SED-9 collected for PFAS. Dark brown organic silt and gravel		
1525- collect SW-10 + duplicate sample DUP-SW-10		
1530- collect SED-10. Brown organic silt + sand. Slight petroleum odor		
1605- collect SW-11 for PFAS. Could not access with YSI due to location beyond fence		
1608- collect SED-11 for PFAS. Organics with some brown silt		
1620- Unpack equip. at staging area. dump decon water into drums		
1635- off site		
1710- office. Unpack equip		
1730- off job (SW)		



Scott Neal, Justin Spangler

SUBJECT Fire Academy of The South; ERIC-17235		
Job No. 21470834 A	Made by Scott Neal-Golder	Date 12/1/2021
Ref: Jacksonville, FL	Checked 60°-70°, ~5 MPH	Reviewed
		Sheet 1 of 1

0745- Meet at Golder Jacksonville office  
 0800- MOB to site  
 0830- Check in with Fire Academy Personnel  
 0840- Review HASP, PFAS SOPs, + SOW  
 0900- Set up sampling equipment, Decon, + begin soil sampling. See Soil Sampling Collection Forms for sample times + lithology. Working near burn pits in southern portion of AOC-2  
 0905- Collect EQB-HA-11 from decontaminated hand Auger bucket.  
 1110- Collect equipment blank sample EQB-HA-12 from decontaminated HA bucket  
 1250- Soil samples from DEPSB-107, DEPSB-108, DEPSB-109, + DEPSB-110 also sampled for analysis of TRPH, PAHs, + BTEX in addition to PFAS  
 \* (SN) 12/1 1130-1230- Lunch  
 1500- Collect equipment blank EQB-HA-13 from hand Auger bucket. Includes TRPH, PAHs, BTEX  
~~(SN) 0905 Collect EQB-HA-11~~  
 (SN) (SN)  
 1445- Drum decon water. Two 55-gal drums of decon water staged + labeled  
 1500- Pack equipment  
 1610- Off site  
 1645- Golder office, off job

(SN)

(SN)  
12/2

5 sample coolers shipped to FDEP Tallahassee Lab via FedEx for samples collected 11/29 - 12/1

## Daily PFAS Sampling Checklist

Date: 11/15/2021

Site Name: Fire Academy of the South - FSCJ

Weather (temperature/precipitation): 65°, Sunny

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

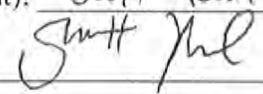
Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Soil Sampling w/ SS Hand Augers

Field Team Leader Name (Print): Scott Neal

Field Team Leader Signature: 

Date/Time: 11/15/21 0730

## Daily PFAS Sampling Checklist

Date: 11/16/21

Site Name: Fire Academy of the South - FSCJ

Weather (temperature/precipitation): 60°, clear

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

QA/QC Equip blanks collected

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal

Field Team Leader Signature: Scott Neal

Date/Time: 11/16/21 0900



## Daily PFAS Sampling Checklist

Date: 11/22/2021

Site Name: Fire Academy of the South

Weather (temperature/precipitation): 65°, cloudy, no rain

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Equip Blanks collected. Sampling on disposable hdpe sheeting

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: Scott Neal

Date/Time: 11/22/21 0930

## Daily PFAS Sampling Checklist

Date: 11/23/2021

Site Name: Fire Academy of the South, ERIC-17235

Weather (temperature/precipitation): 50°, clear, 10-15 mph

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Equip blanks collected

Samples collected from disposable poly sheeting

---

---

---

---

Field Team Leader Name (Print): Scott Neal-Golder

Field Team Leader Signature: Scott NE

Date/Time: 11/23/21/0820

---

---

---

---

---

---

---

---

---

---

### Daily PFAS Sampling Checklist

Date: 11/29/2021

Site Name: Fire Academy of the South - FSCJ; EPC-7421 17235

Weather (temperature/precipitation): Sunny, 60°

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

#### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX<sup>®</sup>)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek<sup>®</sup> suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

#### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon<sup>™</sup>
- No materials containing Teflon<sup>™</sup>, Viton<sup>™</sup>, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc<sup>®</sup> bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie<sup>®</sup> products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It<sup>®</sup> products)

#### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox<sup>®</sup> or Liquinox<sup>®</sup> used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal

Field Team Leader Signature: Scott Neal

Date/Time: 11/29/21 1030

## Daily PFAS Sampling Checklist

Date: 11/30/2021

Site Name: Fire Academy of the South; ERIC-17235

Weather (temperature/precipitation): 65°, some clouds, ~5 mph

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: Scott Neal

Date/Time: 11/30/2021 / 0900



### Daily PFAS Sampling Checklist

Date: 12/1/2021

Site Name: Fire Academy of the South; ERIC-17235

Weather (temperature/precipitation): 60°, ~Sunsh

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

#### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

#### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

#### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: Scott Neal

Date/Time: 12/1/2021/0845

**Field Instrument Dissolved Oxygen & Oxidation-Reduction Potential Calibration Records**

 INSTRUMENT (MAKE/MODEL NO.) YSI Pro Plus INSTRUMENT NO. 6
**STANDARD INFORMATION**

 Project Number: 21470831A Project Name: Fire Academy of the South; ERIC-17235

 Standard Vendor: GEOTECH

 Prepared Date: NA Where Prepared: NA

 Grade: N/A DO Units: mg/L OR Units: mV

 ORP Standard: 220@25 °C Lot # 1GE739 Exp: Date Feb 2022 Pur. Date: May 2021

 DO Standard Air Calibration Chamber in Air (Table FS 2200-2)

Standard \_\_\_\_\_

Standard \_\_\_\_\_

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	CHART 100% VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/30/21	0752	18.1	9.448	9.38	< 0.3	P	No	Init Cont Final	JS
11/30/21	1625	19.0	9.276	9.07	< 0.3	P	No	Init Cont Final	JS
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
<b>ORP</b>									
11/30/21	0806	19.8	228	230.0	<10 mV	P	No	Init Cont Final	JS
11/30/21	1639	20.0	228	223.7	<10 mV	P	No	Init Cont Final	JS
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 0.3 mg/L of the value of appropriate calibration standard. Need to record DO readings in mg/L and use Table FS 2200-2 "Dissolved Oxygen Saturation". ORP calibration reading must be within +/- 10 mV from the theoretical redox standard value at that temperature.

**Field Instrument pH Calibration Records**
**INSTRUMENT (MAKE/MODEL NO.)** YSI Pro Plus **INSTRUMENT NO.** 6
**STANDARD INFORMATION**
**Project Number:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Standard Vendor:** GEOTECH
**Prepared Date:** NOV 2020 **Where Prepared:** NA
**Purchase Date:** SEE BELOW **Expiration Date:** Varies **Grade:** N/A **Units:** Standard Units

 Standard 4.00 @25 °C Lot # 0GH202 Exp Date AUG 2022 Purch Date JUL 2020

 Standard 7.00 @25 °C Lot # 0GH349 Exp Date AUG 2022 Purch Date JUL 2020

 Standard 10.0 @25 °C Lot # 0GG709 Exp Date JUL 2022 Purch Date JUL 2020

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/30/21	0800	19.9	7.02	7.03	< 0.2	P	No	Init Cont Final	JS
11/30/21	0802	19.9	10.05	9.95	< 0.2	P	No	Init Cont Final	JS
11/30/21	0804	19.6	4.00	4.12	< 0.2	P	No	Init Cont Final	JS
11/30/21	1633	20.0	7.02	7.06	< 0.2	P	No	Init Cont Final	JS
11/30/21	1635	20.0	10.05	10.06	< 0.2	P	No	Init Cont Final	JS
11/30/21	1637	20.1	4.00	4.17	< 0.2	P	No	Init Cont Final	JS
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 0.2 pH units of the value of appropriate calibration standard.

**Field Instrument Conductivity Calibration Records**
**INSTRUMENT (MAKE/MODEL NO.)** YSI Pro Plus **INSTRUMENT NO.** 6
**STANDARD INFORMATION**
**Project Number:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Standard Vendor:** Geotech
**Prepared Date:** NA **Where Prepared:** NA
**Grade:** N/A **Units:** umhos/uS-cm

 Standard 200 @25 °C Lot # 1GE217 Exp Date May 2022 Pur Date Apr 2021

 Standard 1000@25 °C Lot # 1GF443 Exp Date Jun 2022 Pur Date Apr 2021

 Standard 2000@25 °C Lot # 1GE871 Exp Date Feb 2022 Pur Date Jun 2021

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C°	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/30/21	0754	19.9	200	202	5%		No	Init Cont Final	JS
11/30/21	0756	19.9	1,000	986	< 5%	P	No	Init Cont Final	JS
11/30/21	0758	19.9	2,000	1970	< 5%	P	No	Init Cont Final	JS
11/30/21	1627	19.9	200	202	5%		No	Init Cont Final	JS
11/30/21	1629	20.0	1,000	964	< 5%	P	No	Init Cont Final	JS
11/30/21	1631	20.1	2,000	1933	< 5%	P	No	Init Cont Final	JS
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 5% of the appropriate calibration standard.

Note: Standards and instrument response readings are corrected to 25°C.

**Field Instrument Turbidity Calibration Records**

 INSTRUMENT (MAKE/MODEL NO.) HACH INSTRUMENT NO. 2

Project Number: \_\_\_\_\_ Project Name: \_\_\_\_\_

 Standard Vendor: HACH

 Prepared Date: NA Where Prepared: NA

 Purchase Date: April 2021 Expiration Date: May 2022 Lot Number: SEE BELOW
**Units: Nephelometric Turbidity Unit**

 Standard 10 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

 Standard 20 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1042

 Standard 100 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1049

 Standard 800 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/30/21	0807	-	5.51	5.37	<10%	P	No	Init Cont Final	JS
11/30/21	0808	-	57.6	57.8	<6.5%	P	No	Init Cont Final	JS
11/30/21	0809	-	551	552	<5%	P	No	Init Cont Final	JS
11/30/21	1640	-	5.51	5.41	<10%	P	No	Init Cont Final	JS
11/30/21	1641	-	57.6	57.5	<6.5%	P	No	Init Cont Final	JS
11/30/21	1642	-	551	546	<5%	P	No	Init Cont Final	JS
		-			10%			Init Cont Final	
		-			6.5%			Init Cont Final	
		-			5%			Init Cont Final	
		-			10%			Init Cont Final	
		-			6.5%			Init Cont Final	
		-			5%			Init Cont Final	
		-			10%			Init Cont Final	
		-			6.5%			Init Cont Final	
		-			5%			Init Cont Final	
		-			10%			Init Cont Final	
		-			6.5%			Init Cont Final	
		-			5%			Init Cont Final	

Calibration values for turbidity needs to be within 10% of the standard for values between 0.1-10 NTU; 8% for values between 11-40 NTU; 6.5% for values between 41-100 NTU and 5% for values &gt;100 NTU.

**Calibration Standards Data**
**Used during:  
10/04/2021**

Parameter	Temperature	pH			Conductivity			ORP	Turbidity			
Value	ERTCO Thermometer	4.01	7	10	200	1000	2000	220	<0.1/10	20	100	800
Measurement	Celcius	pH	pH	pH	uS/cm	uS/cm	uS/cm	mV	NTU	NTU	NTU	NTU
Volume	Liters	20	20	20	20	20	20	1 of 2	N/A	N/A	N/A	N/A
Unit of Measure	Degrees C	m/L	m/L	m/L	m/L	m/L	m/L	m/V	m/L	m/L	m/L	m/L
Lot #	2401	1GF009	1GF003	1GF458	1GE217	1GF443	1GE871	1GH946	A1050	A1042	A1049	A1050
Purchase Date	May '04	Sep-21	Sep-21	Sep-21	Apr-21	Apr-21	Jun-21	Sep-21	Apr-21	Apr-21	Apr-21	Apr-21
Preparation Date	Oct-11	Oct-21	Oct-21	Oct-21	May-21	Jun-21	Jun-21	Oct-21	Apr-21	Apr-21	Apr-21	Apr-21
Expiration Date	Oct-12	Jun-23	Jun-23	Jun-23	May-22	Jun-22	May-22	Jun-22	May-22	May-22	May-22	May-22
Vendor Name	hf scientific	Geotech	Geotech	Geotech	Geotech	Geotech	Geotech	Geotech	HACH	HACH	HACH	HACH
Loc. of Preparation	hf scientific	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER
Acceptance Criteria	+/- 0.2°C	+/- 0.2 pH units			+/- 5%			+/- 10mV	+/- 10%	+/- 8.0%	+/- 6.5%	+/- 5%

"Loc. of Preparation" indicates the transfer of solutions from manufacturers' containers to GAI containers for field use, except where otherwise noted.

No solutions are mixed or created at Golder.

"Preparation Date" is typically 1 - 3 days prior to scheduled activity, except in the case of thermometer calibration check.

ORP solution will yield more calibrations if kept clean and it requires less than 50 mL to perform a calibration check.

NIST Thermometer: Serial # 2401, Product # 1005, Inscription: ERTCO, Scale range: -1 to 101 C, Total Immersion, Scale division: 0.1

with Temperature Variations and TDEP Acceptance Criteria *(see table 3.11.1.1.1.1)*

Acceptance Criteria: +/- 5%			
T °C	µS	µS	
0	311.57	1246.26	
1	317.52	1270.07	
2	323.58	1294.33	
3	329.76	1319.05	
4	336.06	1344.24	
5	342.48	1369.92	
6	349.02	1396.08	
7	355.69	1422.75	
8	362.48	1449.92	
9	369.40	1477.61	
10	376.46	1505.84	
11	383.65	1534.60	
12	390.98	1563.91	
13	398.45	1593.78	
14	406.06	1624.22	
15	413.81	1655.24	
16	421.71	1686.86	
17	429.77	1719.08	
18	437.98	1751.91	
19	446.34	1785.37	
20	454.87	1819.47	
21	463.56	1854.23	
22	472.41	1889.64	
23	481.43	1925.73	
24	490.63	1962.52	
25	500.00	2000.00	
26	509.55	2038.20	
27	519.28	2077.13	
28	529.20	2116.80	
29	539.31	2157.23	
30	549.61	2198.44	
31	560.11	2240.43	
32	570.80	2283.22	
33	581.71	2326.83	
34	592.82	2371.27	
35	604.14	2416.56	
36	615.68	2462.72	
37	627.44	2509.76	
38	639.42	2557.69	
39	651.64	2606.54	
40	664.08	2656.33	
41	676.77	2707.07	
42	689.69	2758.77	
43	702.87	2811.46	
44	716.29	2865.16	
45	729.97	2919.89	

Acceptance Criteria: +/- 0.2 pH units			
°C	pH 4	pH 7	pH 10
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10	4.00	7.06	10.15
11			
12			
13			
14			
15	4.00	7.04	10.10
16			
17			
18			
19			
20	4.00	7.02	10.05
21			
22			
23			
24			
25	4.01	7.00	10.00
26			
27			
28			
29			
30	4.01	6.99	9.96
31			
32			
33			
34			
35	4.02	6.98	9.92
36			
37			
38			
39			
40	4.03	6.97	9.87
41			
42			
43			
44			
45			

No Acceptance Criteria	
°C	mV
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	245
11	
12	12.5 = 240.5
13	
14	
15	236
16	
17	17.5 = 232
18	
19	
20	228
21	
22	22.5 = 224
23	
24	
25	220
26	
27	27.2 = 216
28	
29	
30	212
31	
32	32.5 = 208
33	
34	
35	204
36	
37	37.5 = 199.5
38	
39	
40	195
41	
42	42.5 = 191
43	
44	
45	187



With Temperature Variations and D.O.P. Acceptance Criteria

Acceptance Criteria  $\pm 0.3$  mg/L

°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%
15	10.084	2.017	19	9.276	1.859	23	8.578	1.716	27	7.988	1.584
15.1	10.062	2.012	19.1	9.258	1.852	23.1	8.562	1.712	27.1	7.964	1.581
15.2	10.04	2.008	19.2	9.239	1.848	23.2	8.548	1.709	27.2	7.94	1.588
15.3	10.018	2.004	19.3	9.22	1.844	23.3	8.53	1.706	27.3	7.928	1.585
15.4	9.997	1.999	19.4	9.202	1.84	23.4	8.514	1.703	27.4	7.912	1.582
15.5	9.976	1.995	19.5	9.184	1.837	23.5	8.498	1.7	27.5	7.896	1.58
15.6	9.955	1.991	19.6	9.165	1.833	23.6	8.482	1.696	27.6	7.884	1.577
15.7	9.934	1.987	19.7	9.147	1.829	23.7	8.466	1.693	27.7	7.87	1.574
15.8	9.912	1.982	19.8	9.129	1.825	23.8	8.45	1.69	27.8	7.856	1.571
15.9	9.891	1.978	19.9	9.111	1.822	23.9	8.434	1.687	27.9	7.842	1.568
16	9.87	1.974	20	9.092	1.818	24	8.418	1.684	28	7.828	1.566
16.1	9.849	1.97	20.1	9.074	1.815	24.1	8.403	1.681	28.1	7.814	1.563
16.2	9.829	1.966	20.2	9.058	1.811	24.2	8.387	1.677	28.2	7.8	1.56
16.3	9.808	1.962	20.3	9.039	1.808	24.3	8.371	1.674	28.3	7.786	1.557
16.4	9.787	1.957	20.4	9.021	1.804	24.4	8.355	1.671	28.4	7.773	1.555
16.5	9.767	1.953	20.5	9.003	1.801	24.5	8.339	1.668	28.5	7.759	1.552
16.6	9.746	1.949	20.6	8.985	1.797	24.6	8.323	1.665	28.6	7.745	1.548
16.7	9.726	1.945	20.7	8.968	1.794	24.7	8.307	1.662	28.7	7.732	1.546
16.8	9.705	1.941	20.8	8.95	1.79	24.8	8.291	1.659	28.8	7.718	1.544
16.9	9.685	1.937	20.9	8.932	1.786	24.9	8.275	1.656	28.9	7.705	1.541
17	9.665	1.933	21	8.915	1.783	25	8.259	1.653	29	7.691	1.538
17.1	9.645	1.929	21.1	8.898	1.779	25.1	8.243	1.65	29.1	7.678	1.536
17.2	9.625	1.925	21.2	8.88	1.776	25.2	8.227	1.647	29.2	7.664	1.533
17.3	9.605	1.921	21.3	8.863	1.773	25.3	8.211	1.644	29.3	7.651	1.53
17.4	9.585	1.917	21.4	8.846	1.769	25.4	8.195	1.641	29.4	7.638	1.528
17.5	9.565	1.913	21.5	8.829	1.766	25.5	8.179	1.638	29.5	7.625	1.525
17.6	9.545	1.909	21.6	8.812	1.762	25.6	8.163	1.635	29.6	7.611	1.522
17.7	9.526	1.905	21.7	8.794	1.758	25.7	8.147	1.632	29.7	7.598	1.52
17.8	9.508	1.901	21.8	8.777	1.755	25.8	8.131	1.629	29.8	7.585	1.517
17.9	9.489	1.897	21.9	8.761	1.752	25.9	8.115	1.626	29.9	7.572	1.514
18	9.467	1.893	22	8.744	1.749	26	8.099	1.623	30	7.559	1.512
18.1	9.448	1.89	22.1	8.727	1.745	26.1	8.083	1.62	30.1	7.546	1.509
18.2	9.428	1.886	22.2	8.71	1.742	26.2	8.067	1.617	30.2	7.533	1.507
18.3	9.409	1.882	22.3	8.693	1.739	26.3	8.051	1.614	30.3	7.52	1.504
18.4	9.39	1.878	22.4	8.677	1.735	26.4	8.035	1.611	30.4	7.507	1.501
18.5	9.371	1.874	22.5	8.66	1.732	26.5	8.019	1.608	30.5	7.494	1.499
18.6	9.352	1.87	22.6	8.644	1.729	26.6	8.003	1.605	30.6	7.481	1.496
18.7	9.333	1.867	22.7	8.627	1.725	26.7	7.987	1.602	30.7	7.468	1.494
18.8	9.314	1.863	22.8	8.611	1.722	26.8	7.971	1.599	30.8	7.455	1.491
18.9	9.295	1.859	22.9	8.595	1.718	26.9	7.955	1.597	30.9	7.443	1.489

Adapted using the formula in Standard Methods for the Examination of Water and Wastewater, Page 4-101, 16th Edition, 1983

**Parameter Calibration Values**

**Dissolved Oxygen Saturation Values with Temperature Variations**

Supplemental Values from 0°C to 15°C

°C	D.O. SAT.	mg/L	°C	D.O. SAT.	mg/L	°C	D.O. SAT.	mg/L
0.1	13.3171	2.663	5.1	12.2321	2.446	10.1	11.1471	2.329
0.2	13.2954	2.659	5.2	12.2104	2.442	10.2	11.1254	2.325
0.3	13.2737	2.655	5.3	12.1887	2.438	10.3	11.1037	2.321
0.4	13.2520	2.650	5.4	12.1670	2.433	10.4	11.0820	2.316
0.5	13.2303	2.646	5.5	12.1453	2.429	10.5	11.0603	2.312
0.6	13.2086	2.642	5.6	12.1236	2.425	10.6	11.0386	2.308
0.7	13.1869	2.637	5.7	12.1019	2.420	10.7	11.0169	2.303
0.8	13.1652	2.633	5.8	12.0802	2.416	10.8	10.9952	2.299
0.9	13.1435	2.629	5.9	12.0585	2.412	10.9	10.9735	2.295
1	13.1218	2.624	6	12.0368	2.407	11	10.9518	2.290
1.1	13.1001	2.620	6.1	12.0151	2.403	11.1	10.9301	2.286
1.2	13.0784	2.616	6.2	11.9934	2.399	11.2	10.9084	2.282
1.3	13.0567	2.611	6.3	11.9717	2.394	11.3	10.8867	2.277
1.4	13.0350	2.607	6.4	11.9500	2.390	11.4	10.8650	2.273
1.5	13.0133	2.603	6.5	11.9283	2.386	11.5	10.8433	2.269
1.6	12.9916	2.598	6.6	11.9066	2.381	11.6	10.8216	2.264
1.7	12.9699	2.594	6.7	11.8849	2.377	11.7	10.7999	2.260
1.8	12.9482	2.590	6.8	11.8632	2.373	11.8	10.7782	2.256
1.9	12.9265	2.585	6.9	11.8415	2.368	11.9	10.7565	2.251
2	12.9048	2.581	7	11.8198	2.364	12	10.7348	2.247
2.1	12.8831	2.577	7.1	11.7981	2.360	12.1	10.7131	2.243
2.2	12.8614	2.572	7.2	11.7764	2.355	12.2	10.6914	2.238
2.3	12.8397	2.568	7.3	11.7547	2.351	12.3	10.6697	2.234
2.4	12.8180	2.564	7.4	11.7330	2.347	12.4	10.6480	2.230
2.5	12.7963	2.559	7.5	11.7113	2.342	12.5	10.6263	2.225
2.6	12.7746	2.555	7.6	11.6896	2.338	12.6	10.6046	2.221
2.7	12.7529	2.551	7.7	11.6679	2.334	12.7	10.5829	2.217
2.8	12.7312	2.546	7.8	11.6462	2.329	12.8	10.5612	2.212
2.9	12.7095	2.542	7.9	11.6245	2.325	12.9	10.5395	2.208
3	12.6878	2.538	8	11.6028	2.321	13	10.5178	2.204
3.1	12.6661	2.533	8.1	11.5811	2.316	13.1	10.4961	2.200
3.2	12.6444	2.529	8.2	11.5594	2.312	13.2	10.4744	2.195
3.3	12.6227	2.525	8.3	11.5377	2.308	13.3	10.4527	2.191
3.4	12.6010	2.520	8.4	11.5160	2.303	13.4	10.4310	2.186
3.5	12.5793	2.516	8.5	11.4943	2.299	13.5	10.4093	2.182
3.6	12.5576	2.512	8.6	11.4726	2.295	13.6	10.3876	2.178
3.7	12.5359	2.507	8.7	11.4509	2.290	13.7	10.3659	2.173
3.8	12.5142	2.503	8.8	11.4292	2.286	13.8	10.3442	2.169
3.9	12.4925	2.499	8.9	11.4075	2.282	13.9	10.3225	2.165
4	12.4708	2.494	9	11.3858	2.277	14	10.3008	2.160
4.1	12.4491	2.490	9.1	11.3641	2.273	14.1	10.2791	2.156
4.2	12.4274	2.485	9.2	11.3424	2.268	14.2	10.2574	2.151
4.3	12.4057	2.481	9.3	11.3207	2.264	14.3	10.2357	2.147
4.4	12.3840	2.477	9.4	11.2990	2.260	14.4	10.2140	2.142
4.5	12.3623	2.473	9.5	11.2773	2.255	14.5	10.1923	2.138
4.6	12.3406	2.468	9.6	11.2556	2.251	14.6	10.1706	2.134
4.7	12.3189	2.464	9.7	11.2339	2.247	14.7	10.1489	2.130
4.8	12.2972	2.459	9.8	11.2122	2.242	14.8	10.1272	2.125
4.9	12.2755	2.455	9.9	11.1905	2.238	14.9	10.1055	2.121
5	12.2538	2.451	10	11.1688	2.234	15	10.0838	2.117

## ORP MEASUREMENTS

### REFERENCE TABLE

Temperature °F	Temperature °C	Potential in mV
32	0	237
41	5	232
50	10	230
59	15	227
68	20	223
77	25	220
86	30	216
95	35	213
104	40	209
113	45	205
122	50	201
131	55	197
140	60	193
149	65	189
158	70	185

Created: 10/19/2007(jaf)

Conductivity Temperature Chart  
Solution 1000 $\mu$ s/cm @ 25C

Temp C	Temp F	$\mu$ S
5	41.5	682
10	50.0	751
15	59.0	826
16	60.8	842
17	62.6	858
18	64.4	875
19	66.2	892
20	68.0	909
21	69.8	926
22	71.6	944
23	73.4	962
24	75.2	981
25	77.0	1000
26	78.8	1019
27	80.6	1039
28	82.4	1059
29	84.2	1079
30	86.0	1100

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-1S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>8:40 AM / 12/15/2021</u>	COMPLETED <u>9:00 AM / 12/15/2021</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<p><b>WELL DEVELOPMENT NOTES</b></p> <p>Developed 1/20/22 1551 to 1615. 2.44' Static DTW. ~0.7 gpm Drawdown to 4.55'. Initially &gt;1000 NTUs. 8 Gallons total developed - slight gray tint, no odor, 19.8 NTUs All Development water was drummed.</p>
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-2S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>3:35 PM / 12/14/2021</u>	COMPLETED <u>3:50 PM / 12/14/2021</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<p style="text-align: center;"><b>WELL DEVELOPMENT NOTES</b></p> <p>Developed 1/20/22 1105 to 1145. 2.98' Static DTW. ~1.1 gpm Drawdown to 4.21'. 0.1 gal- &gt;1000 NTUs. 5gal -341 NTUs, 10gal - 159 NTUs 20 Gallons total developed - slight gray tint, slight organic odor, 82.0 NTUs All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-3S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>12/14/2021 13:55:00</u>	COMPLETED <u>12/14/2021 14:40:00</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<p><b>WELL DEVELOPMENT NOTES</b></p> <p>Developed 1/20/22 1334 to 1410. 2.83' Static DTW. ~1.1 gpm Drawdown to 8.99'. 0.1 gal- &gt;1000 NTUs. Silty. Organic Odor 4 gal &gt;1000 NTUs. Slowed to 0.5 gpm. 20 gal total. ~4000 NTUs after dilution. Dark brown. Organic odor. All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-4S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>9:30 AM / 12/15/2021</u>	COMPLETED <u>9:45 AM / 12/15/2021</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<b>WELL DEVELOPMENT NOTES</b>
13.0		<p>Developed 1/20/22 1424 to 1455. 3.05' Static DTW. ~1 gpm 0.1 gal- &gt;1000 NTUs. Silty. Organic Odor 5 gal - pumped dry. Slowed to 0.6 gmp. 624 NTUs. 12 gal total. Brown tint. Organic odor. 70 ntus. All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
14.0		



### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-5S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>8:10 AM / 12/15/2021</u>	COMPLETED <u>8:30 AM / 12/15/2021</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		<b>WELL DEVELOPMENT NOTES</b>
11.0		<p>Developed 1/20/22 1629 to 11705. 2.49' Static DTW. ~1 gpm 0.1 gal- &gt;1000 NTUs. Silty. chemical Odor 5 gal - 7.5' dtw. &gt;1000 NTUs. 19 gal total. 2,500 NTUs after dilution. Dark brown. Organic and chem odor All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
12.0	Boring Terminated at 12.0 feet	
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-6S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>2:20 PM / 12/14/2021</u>	COMPLETED <u>2:45 PM / 12/14/2021</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		<b>WELL DEVELOPMENT NOTES</b>
11.0		<p>Developed 1/20/22 1252 to 1320. 2.24' Static DTW. ~1 gpm 0.1 gal- &gt;1000 NTUs. Dark Brown. Organic odor 4 gal - 383 NTUs, 14 gal - 52 NTUs, brown tint, slight organic odor 18 gal total. 35.5 NTUs. Brown tint. Slight organic odor. 4.10' dtw drawdown All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
12.0	Boring Terminated at 12.0 feet	
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-7S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>2:50 PM / 12/14/2021</u>	COMPLETED <u>12/14/2021 13:10:00</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<b>WELL DEVELOPMENT NOTES</b>
13.0		<p>Developed 1/20/22 1158 to 1238. 2.90' Static DTW. ~1.1 gpm 0.1 gal- &gt;1000 NTUs. Dark Brown. Organic odor 3 gal - 104 NTUs, 9 gal - 65 NTUs 20 gal total. 18.1 NTUs. Dark brown tint. Slight organic odor. All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-8S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>FDEP - SIS Group</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Truck-Mounted GeoProbe 6600</u>	STARTED <u>12/14/2021 15:55:00 PM</u>	COMPLETED <u>12/14/21 16:15:00 PM</u>
		TIME/DATE	TIME/DATE

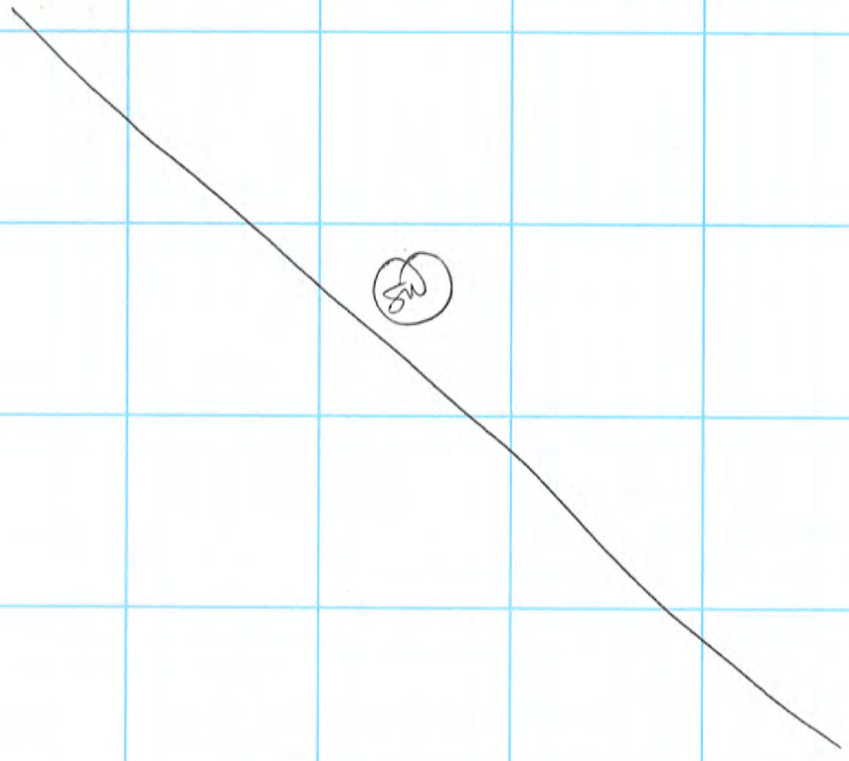
MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~10 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>only in manhole</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p> <p>Well screen pulled from 2-12 ft bgs to 0-10 ft bgs during construction</p>
10.0	<p>Total Well Depth: 10.0 feet</p>	<p><b>WELL DEVELOPMENT NOTES</b></p>
12.0	<p>Boring Terminated at 12.0 feet</p>	<p>Developed 3/8/22 1511 to 1540. 1 gmp. 2.52 ft dtw static 0.1 gal- &gt;1000 NTUs. Dark Brown. Organic odor</p> <p>6 gal total. 15.5 NTUs, clear, slight organic odor, 4.53' dtw max drawdown All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
14.0		



SUBJECT Fire Academy of the South - FSCJ; ERIC-7421		
Job No: 70°, cloudy	Made by Scott Neal	Date 12/13/21
Ref: SNeal, FOEPSIS	Checked Reviewed Jacksonville, FL	Sheet 1 of 1

1030- Pack equipment at Golder Jacksonville, FL office  
 1100- leave Golder office  
 1130- On site. Check-in with Jason (FSCJ)  
 1145- Jeff N. + Dennis on site from Tallahassee, FL  
 1230- Bobby, John, + Justin on site with GeoProbe 6600 truck-mounted drill rig  
 1235- Review S.O.W., HASP, + PFAS SOPs with FDEP + Jason (FSCJ)  
 1255- Bobby + Justin construct decon pit  
 1255- Set up drill rig on HPT-2 / VP-2 location in northern portion of AOC-2  
 1310- Set up hydraulic profiling Tool equipment (GeoProbe K6300 Flow Module + GeoProbe FI 6000), Calibrate HPT sensors  
 1400- Begin HPT activities (See FDEP logs) to identify vertical profiling intervals  
 NOTES: Low-Permeability from ~11' to 15' logs  
 Low-Permeability ~47'  
 " " ~52'-65', 65'-End Point  
 Proposed VP intervals: ~~28-31~~ (SW) 33-37, ~~48-52~~, 64-68, 43-47, 50-54'  
 1530- Break down equipment and move to ~~HPT-2~~ in AOC-1  
 1550- Start ~~HPT-2~~ HPT-1 (SW)  
 NOTES: • Low permeability layers 6-8', 10-12', 15-16', 20', 50'-51'  
 End point @ 53' logs  
 Proposed intervals: ~~33-37~~, 38-42', 46-50', 26-30', 50'+ if possible  
 1645- Remove tooling + pack equipment  
 1705- off site  
 1740- office





SUBJECT Fire Academy of the South - FSCJ; ERIC 7421

Job No.

Made by Scott Neal (Golder)

Date 12/14/2021

Ref. Scott Neal & FDEP SIS

Checked & Reviewed Jacksonville, FL

Sheet 1 of 1

0800 - On site. FDEP SIS (Jeff, Dennis, Justin, Bobby, John) on site. Review HASP + SOW

0830 - Set up ~~truck~~ <sup>(su)</sup> Truck-mounted Geoprobe 6600 on HPT-3 in AOC-3. Moved to edge of asphalt pavement due to inaccessibility of proposed location across drainage swale

0845 - Advance HPT-3. NOTES:

- Low Permeability at ~~5' bgs~~ <sup>(su)</sup> 7', 11', 46-48, 54-56
- HPT pressure sensor suspected broken at ~14'

- Conductivity shows clay at ~26'. Started working again at ~45'
- " " " 54-56'

- stopped HPT @ ~63'

Proposed intervals: 53-57', 36-40', 20-24', Refusal

0955 - Remove tooling and move to HPT-4 in AOC-4

1010 - Set up on HPT-4 with DPT rig. NOTES:

- low conductivity 11-16' bgs. High conductivity 38-48' (clay)

- Pressure log not reliable

- Hardpan suspected site wide @ ~11-15'. Clay unit suspected ~38'-48' 33-37', 48-52, 20-24, Refusal

1130 - Remove tooling. Difficulty pulling through hardpan near surface

1200-1250 - lunch. ~~Karli & Nicki~~ Karli & Nicki (FDEP) on site

1255 - Set up on VP-3 in AOC-3 (HPT-3 location)

1300 - Push stainless steel 2" rods to 24' bgs. Expose 4' slotted screen for vertical profile sampling. Pump with peristaltic pump + disposable 3/8" HDPE tubing.

1335 - Sample VP-3-20-24 for PFAS. ~~~9~~ <sup>(su)</sup> ~ gallons pumped

1345 - Difficulty removing tooling through hardpan. FDEP moves to shallow well installation.

1355 - Push 2 1/4" rods to 12' bgs + install DEPMW-3S at VP-3/HPT-3 location.

See well installation log. 4.2' dtw. ~~0.75~~ <sup>(su)</sup> 0.75"

1420 - Push 2 1/2" rods to 12' bgs + install DEPMW-6S. 0.75" prepack. See Monitoring Well installation log. \* Slight Petroleum/sulfur smell at ~3' in soil

1450 - Push 2 1/2" rods to 12' bgs at DEPMW-7S in AOC-3. SEE Monitoring Well installation log.

1510 - Decon Drill rods/Tooling

1535 - Set up rig on DEPMW-2S in AOC-2. See Monitoring well Installation Log.

1555 - Karli + Nicki off site. Setup on + install shallow monitoring well DEPMW-8S in AOC-1. See Monitoring Well Installation Log. \* Well pulled up during installation. TD: 10 ft. SI: 0'-10' bgs

1615 - Decon tooling; All off site

1705 - off

(2)



SUBJECT Fire Academy of the South; FSCJ		
Job No. FDEP-SIS	Made by Scott Neal (Golder)	Date 12/15/2021
Ref. Scott Neal - Golder	Checked Reviewed Jacksonville, FL	Sheet 1 of 1

67° clear, calm → 77° clear, calm

0755 - On site. FDEP-SIS (Justin, Bobby, John) on site. Review HASP, SOW, PFAS SOPs			
0810 - Move Geoprobe 6600 Truck-mounted rig to Proposed DEPMW-5S shallow monitoring well location in AOC-1. Hand Auger to 5 ft bgs to clear utilities			
0816 - Push 2 1/2" rods to 12' bgs and install 0.75" prepack screen well. See Monitoring well installation Log, DEPMW-5S			
0840 - Move to DEPMW-1S in AOC-1 and install 0.75-inch prepack screen shallow monitoring well to 12' bgs. See Monitoring well installation log.			
0905 - DECON tooling			
0930 - Move to DEPMW-4S in AOC-4 and install 12' shallow monitoring well to $\text{EN}$ with 0.75-inch prepack screen. See Monitoring well installation log.			
*0910 - Jeff & Dennis (FDEP) on site with sand and concrete for wells and well pads. Begin <del>for</del> $\text{EN}$ building 2' x 2' concrete pads for wells.			
0945 - Matt Crews (Golder) on site. Review HASP			
0950 - Collect soil sample DEPSB-111-0.5 for PFAS @ DEPMW-4S location. See Soil Sample Form			
0955 - " " " DEPSB-111-2.0 " "			
1000 - " " " DEPSB-111-3.5 " "			
1020 - Collect SED-8. Previous sample lost in Shipping Process.			
1045 - Break concrete at DEPSB-112 and DEPSB-113 locations in AOC-2			
1055 - Collect soil sample DEPSB-112-0.5 for PFAS. See Soil Sample Collection form.			
1100 - " " " DEPSB-112-2.0 " "			
1110 - " " " DEPSB-113-0.5 " "			
1115 - " " " DEPSB-113-2.0 " "			
1115 - Matt Crews off site			
1125 - Move to HPT-3/DEPMW-3S location & advance Geoprobe soil sleeve to ft bgs to retrieve core of suspected hardpan that is present approximately 4' thick near 10' bgs throughout site			
DEPMW-4S			
DEPTH	Lithology $\text{EN}$	9-13 ft bgs:	
<del>0-0.5'</del>	<del>Dark Brn FS</del>	dark gray fine sand to dark brown fine sand	with some organics
<del>0.5-1.0'</del> $\text{EN}$			
<del>1-2</del>			
<del>2-3</del>			
<del>3-4</del>			
<del>4-5</del>			
1150 - Continue constructing pads, GPS well locations, Place ID tags on wells			
1300 - Collect sample of "Ansilite 3X3" 37. AFFF Product from 5-gal bucket found in the pump shed located to the SW of the aircraft prop in AOC-3. Product is a light green/yellow gel.			
1315 - Collect equipment blank sample EQB-HA-14 from hand Auger			
1320 - Decon pit taken down & 1 55 gallon Drum of IDW water staged on the Eastern portion of AOC-2.			
1345 - All off site. DEP to Tallahassee, FL			
1410 - office, off Job $\text{EN}$			



SUBJECT Fire Academy of the South; ERIC\_17235

Job No. 201470834A

Made by Scott Neal

Date 1/20/2022

Ref: Jacksonville, FL

Checked  
Reviewed 700, clear, calm

Sheet 1 of 1

DEPMW-25  
(5)

- 1000 - Leave Golder office in Rental truck
- 1015 - Food/lunch
- 1045 - On site. Check in with Fire Academy Personnel. Review HASP + PFAS SOPs
- 1100 - Set up on DEPMW-25 to develop well. All wells developed with high-capacity peristaltic pump and 3/8" hdpe tubing. Water pumped directly to drum or to 5-gal bucket then drum.
- 1105 - Begin DEPMW-25 development. 2.98' static DTW. >1,000 ntus initially. ~1.1 gpm  
5 gal: 341 ntus 10 gal: 159 ntus 20 gal total: 82.0 ntus, slight organic odor. Dropped to 4.21' DTW during development
- 1158 - Begin DEPMW-75 development. Static DTW: 2.90', ~1.1 gpm, Initial: >1,000 ntus  
3 gal: 104 ntus. 9 gal: 65 ntus 20 gal: 18.1 ntus, dark brown tint, slight organic odor
- 1252 - Begin DEPMW-65 development. 2.24' static DTW. Initial: Dark Brown, organic, 71000 ntus.  
4 gal: 383 ntus, 14 gal: 52 ntus, Brown tint, Slight organic odor. 18 gal: End development, 35.5 ntus, brown tint, slight organic odor 4.70' DTW
- 1334 - Begin development of DEPMW 35. 2.83' DTW static. Initial: Silty, dark brown, organic odor, >1,000 ntus. 4 gal: >1000 ntus, 8.99' DTW. Slow to 0.5 gpm  
20 gal total: ~4000 ntus after dilution, dark brown, organic odor
- 1424 - Begin DEPMW-45 development. 3.05' DTW static. Initial: >1000 ntus, Dark brown, organic odor. 5 gal: Pumped dry, 624 ntus, slow to ~0.6 gpm  
6 gal: 295 ntus 12 gal total: Brown tint, organic odor, 70 ntus, no sediment
- 1511 - DEPMW -85 development. Static DTW: 2.52' Initial: ~1 gpm, Dark Brown, organic odor, >1000 ntus 6 gal: clear, slight organic odor, 15.5 ntus, 4.53' DTW max drawdown
- 1551 - Begin DEPMW-15 development. Static DTW: 2.44'. Initial: >1000 ntus, brown, organic odor. 8 gal: 19.8 ntus, Slight gray tint, no odor, 4.55' DTW max drawdown
- 1629 - DEPMW-55 development. Static DTW: 2.49' Initial: >1000 ntus, chemical odor + organic odor, Dark brown. 5 gal: 7.5' dtw, >1000 ntus, 19 gal total: ~2,500 ntus after dilution, dark brown, organic + chemical odor
- 1725 - label drums. 4 drums total (liquid) for soil/DPT decon + development.
- 1735 - off site
- 1805 - office. Off job

(5)



From: Newton, Jeff  
To: Neal, Scott; Green, Matt  
Subject: Hydraulic Profiling Tool Results Fire Academy of the South  
Date: Monday, December 20, 2021 2:42:47 PM  
Attachments: [image001.png](#)

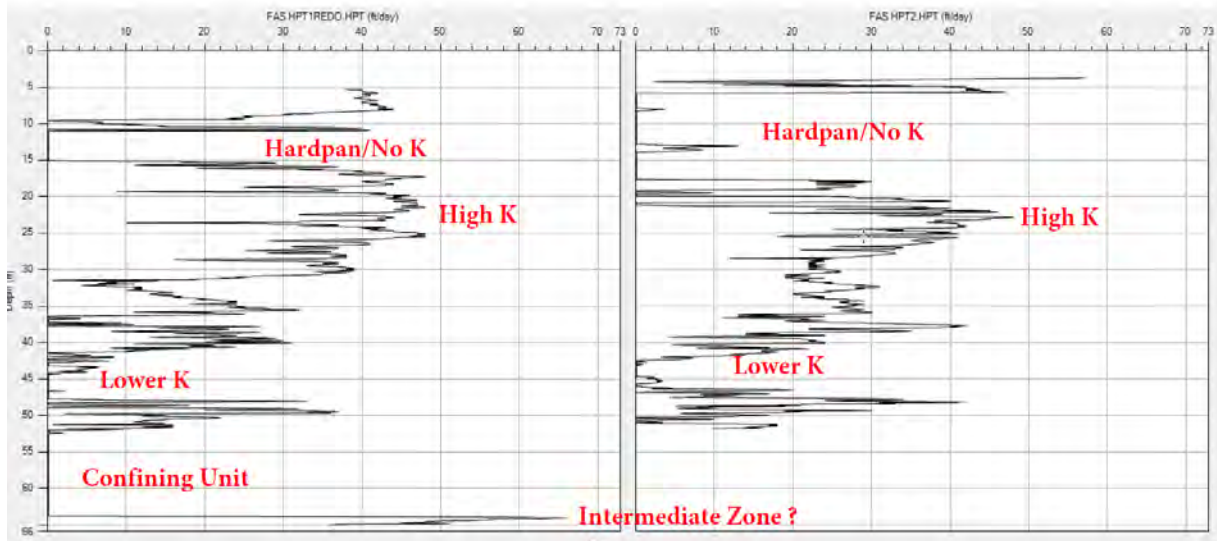
**EXTERNAL EMAIL**

Data from HPT 1 & 2 before the tool started malfunctioning. Let you both take a look and then decide where we go next



**Jeff Newton**  
Florida Department of Environmental Protection  
Waste Management/Site Investigation Section  
Professional Geologist  
[Jeff.Newton@FloridaDEP.gov](mailto:Jeff.Newton@FloridaDEP.gov)  
Office: 850 245-8955  
Cell: 850 508-7712

Hydraulic Conductivity (K) in feet per day at two different locations at FAOS, The hardpan we encountered is an impermeable zone. We set our shallow wells screened from 2 to 12 feet BLS with the screen penetrating into the hardpan and catching the transition from High K to Low K and hopefully at this transition the majority of the PFAS. We may set intermediate depths at 45 feet BLS to catch the second transition from High to Low K. Dave Meyers suggest screen-points as well.



**Jeff Newton**  
Florida Department of Environmental Protection  
Waste Management/Site Investigation Section  
Professional Geologist  
[Jeff.Newton@FloridaDEP.gov](mailto:Jeff.Newton@FloridaDEP.gov)  
Office: 850 245-8955  
Cell: 850 508-7712



## Daily PFAS Sampling Checklist

Date: 12/13/2021

Site Name: ERIC-17235- Fire Academy of the South - FSCJ

Weather (temperature/precipitation): 70°, cloudy

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

Site orientation + Review SOPs w/ drillers.

---

Water used for drilling/decon tested + in PFAA-free

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: 

Date/Time: 12/13/21 / 1250

## Daily PFAS Sampling Checklist

Date: 12/14/2021

Site Name: Fire Academy of the South - FSCJ; ERIC-17235

Weather (temperature/precipitation): 70°, calm, cloudy

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: 

Date/Time: 12/14/21 / 0820

## Daily PFAS Sampling Checklist

Date: 12-15-2021

Site Name: ERIC-17235: Fire Academy of the South

Weather (temperature/precipitation): 67°, calm, clear

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Drilling water on site tested & is PFAS-free

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: Scott Neal

Date/Time: 12/15/2021 / 0800

## Daily PFAS Sampling Checklist

Date: 1/20/2022

Site Name: Fire Academy of the South - ERIC 17235

Weather (temperature/precipitation): 70°, calm

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent



Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

Developing wells with peristaltic pump + disposable hdpe  
Tubing

---

---

---

---

Field Team Leader Name (Print): Scott Neil - Folder

Field Team Leader Signature: Scott Neil

Date/Time: 1/20/2022 / 1045

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-9S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>JAEE - Robbie Crofoot</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~70F</u>	DRILL RIG <u>Track-Mounted GeoProbe 6600</u>	STARTED <u>3/7/2022 14:58:00 PM</u>	COMPLETED <u>3/7/2022 15:55:00 PM</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0		
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	Boring Terminated at 12.0 feet	<p><b>WELL DEVELOPMENT NOTES</b></p> <p>Developed 3/7/22 1555 to 1640. ~.8 0.1 gal- &gt;1000 NTUs. Dark Brown. 18gal total developed - 140 NTUs, slight brown tint</p> <p>All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
13.0		
14.0		

### MONITORING WELL INSTALLATION LOG

JOB NO. <u>GL21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; FacID: ERIC_17235</u>	WELL NO. <u>DEPMW-10S</u>	SHEET <u>1</u> OF <u>1</u>
GAI INSP <u>Scott Neal</u>	DRILLING METHOD <u>Direct Push</u>	GROUND ELEV. <u>--</u>	WATER ELEV. <u>2.5'</u>
WEATHER <u>Clear</u>	DRILLING COMPANY <u>JAEE - Robbie Crofoot</u>	COLLAR ELEV. <u>--</u>	DATE/TIME <u>--</u>
TEMP. <u>~82F</u>	DRILL RIG <u>Track-Mounted GeoProbe 6600</u>	STARTED <u>3/7/2022 16:20:00 PM</u>	COMPLETED <u>3/7/2022 16:40:00 PM</u>
		TIME/DATE	TIME/DATE

MATERIALS INVENTORY			
WELL CASING <u>0.75</u> in. dia. <u>2</u> l.f.	WELL SCREEN <u>0.75</u> in. dia. <u>10</u> l.f.	FINE SAND SEAL <u>NA</u>	
CASING TYPE <u>PVC</u>	SCREEN TYPE <u>PVC</u>	INSTALLATION METHOD <u>Gravity</u>	
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.01</u>	FILTER PACK QTY. <u>Prepack screen w/ ~20 lbs 20/30 in annulus to surface</u>	
GROUT QUANTITY <u>~15 lb, dry</u>	CENTRALIZERS <u>None</u>	FILTER PACK TYPE <u>20/30 Fine Sand</u>	
GROUT TYPE <u>Portland</u>	DRILLING MUD TYPE <u>None</u>	INSTALLATION METHOD <u>Gravity</u>	

ELEV./DEPTH	WELL SKETCH	INSTALLATION NOTES
0.0		<p>0.75-inch schedule 40 PVC well. 0.10-inch slotted screen. 2.5-inch borehole via DPT drill rig</p>
1.0	<p>Ground Surface</p> <p>Dark brown silty sand, dry, no odor</p>	
2.0	<p>Dark brown &amp; dark gray FS, Moist, no odor</p>	<p style="text-align: center;"><b>WELL DEVELOPMENT NOTES</b></p> <p>Developed 3/8/22 0810 to 1300. 0.5 gmp. 7.1 ft dtw static 0.1 gal- &gt;1000 NTUs. Dark Brown. Pumping dry so intermittently developed throughout day. 5 gal total. 140 NTUs. Dark Brown tint. All Development water was drummed. Developed with peristaltic pump and 3/8-inch hdpe tubing</p>
3.0	<p>Dark gray FS, Moist, no odor</p>	
4.0		
5.0		
6.0		
7.0		
8.0		
9.0		
10.0		
11.0		
12.0	<p>Boring Terminated at 12.0 feet</p>	
13.0		
14.0		



SUBJECT Fire Academy of the South - FSCJ, ERIC-17235		
Job No.	Made by Scott Neal	Date 3/4/2022
Ref: 75°, clear, calm	Checked: Golder/WSP	Sheet 1 of 1
	Reviewed	

Geotek Services - Bud Connor, Golder/WSP - Scott Neal

- 0730 - Leave Golder office in personal truck
- 0810 - On Site. Bud Connor (Geotek) on site. Check in with Fire Academy Personnel
- 0820 - Review HASP + S.O.W.
- 0835 - Go to Skid pad in the northern portion of the site. Geotek uses EM Wand + GPR Sled to scan subsurface for utilities in area of proposed shallow monitoring well. Flag/Paint location
- 0900 - Scan area in southern portion of driver training area (NW portion of the site) for utilities near proposed shallow well. Flag/Paint location
- 0930 - Scan near proposed vertical Profile location in AOC-1 near SB-8. Flag/Paint location
- 0950 - Scan near vertical profile location in AOC-4 (DEPMW-4S), Flag/Paint cleared location
- 1005 - Scan near vertical profile location in AOC-3 (DEPMW-3S, VP-3), Flag/Paint cleared location.
- 1020 - Scan alternative AOC-1 location near DEPMW-8S. Flag/Paint location
- 1045 - Scan AOC-2 vertical profile location near ~~SB-8~~ DEPSB-59/VP-1 location. Flag/Paint location.
- 1115 - All areas scanned cleared. Bud reviews GPR survey
- 1200 - Bud off site.
- 1205 - Talk to Jason <sup>Carpenter</sup> Sampett (Fire Academy) + discuss schedule + logistics of upcoming work. Show work areas
- 1245 - off site
- 1300 - lunch
- 1400 - Golder office, off job

(SN) 3/4/22

20-24, 36-40, 48-52



SUBJECT Fire Academy of the South - FSCJ ; ERIC-17235		
Job No.	Made by Scott Neal	Date 3/7/2022
Ref: 88°, Partly Cloudy calm	Checked Golder/WSP	Sheet 1 of
	Reviewed	

Golder/WSP - Scott Neal JAEE Environmental - Robert Crofoot, Demarcus FDEP-SIS - Bobby Williams				
0730 - Pick up/sun for Enterprise Rental F-150				
0800 - Pack truck				
0830 - Leave Golder/WSP Jacksonville office				
0900 - On site. Check in with Jason Carpenter (Fire Academy)				
0915 - JAEE (Robby + Demarcus) on site. with track-mounted Geoprobe 6610 DT drill rig, flat bed trailer, and support truck				
0925 - Review HASP + PFAS SOPs.				
0935 - Set up decon pit + decon dpt tooling				
1105 - Collect Equipment blank sample EQB = Screenpoint - 2 from decontaminated well screenpoint				
1110 - Bobby (FDEP) on site				
1115 - Decon complete. Move to AOC-3, VP-3 vertical profile location. Hand clear utilities to 5 ft bgs				
1130 - Push rods to 24' bgs.				
1205 - Begin pumping water from decontaminated stainless steel screenpoint screened 20-24 ft bgs				
1220 - Collect water sample VP-3-20-24 for PFAS. >10000 NTUS, 2 gal purged. 3rd bottle collected for turbidity				
1230 - Push to 36-40 ft bgs with decontaminated sampling point				
1245 - Collect VP-3-36-40 for PFAS. 3 gal pumped. 31000 ntus. 3rd bottle collected for high turbidity				
1300 - Push to 52 ft bgs. Tube with hdpe tubing (All samples use hdpe + new silicon masterflex with peristaltic pump). Clean screenpoint 48-52 ft bgs interval. Begin pumping				
1325 - Collect VP-3-48-52 for PFAS. >1000 ntus. 2.5 gal pumped. 3rd bottle collected.				
1330 - Remove tooling. Move to staging area to decon DPT tooling				
1420 - Move rig south of skid pad to DEPMW-9S location.				
1445 - Collect Equipment blank sample EQB-HA-1 from hand Auger for PFAS analysis				
1450 - Collect DEPSB-114-0.5 from 0-0.5 ft bgs for PFAS				
1452 - " DEPSB-114-2.0 from 0.5-2.0 ft bgs for PFAS				
1455 - " DEPSB-114-2.5 from 2.0-2.5 ft bgs for PFAS				
DEPSB-114 (DEPMW-9S location)				
0-0.5'	Dark brown fine sand and organics, Moist, N.O.			
0.5-2.0'	Light tan + Gray fine sand, Moist, No odor			
2.0-2.5'	Light Gray fine sand, Moist → wet, No odor, water table ~2.5' bgs			
1458 - Push 2.25" diameter rods to 12' bgs + construct shallow well. 0.75" riser + prepack Screen. Screen interval 2-12 ft bgs. Annulus filled with 20/30 sand to 0.5ft bgs, gravel to surface				
1530 - Construct 2'x2' pad w/ 8" bolt-down manhole				
1555 - Bobby stays at DEPMW-9S for well development. Move rig to DEPMW-10S south of driver training course.				

②  
\$1400  
Demarcus  
off site  
for day

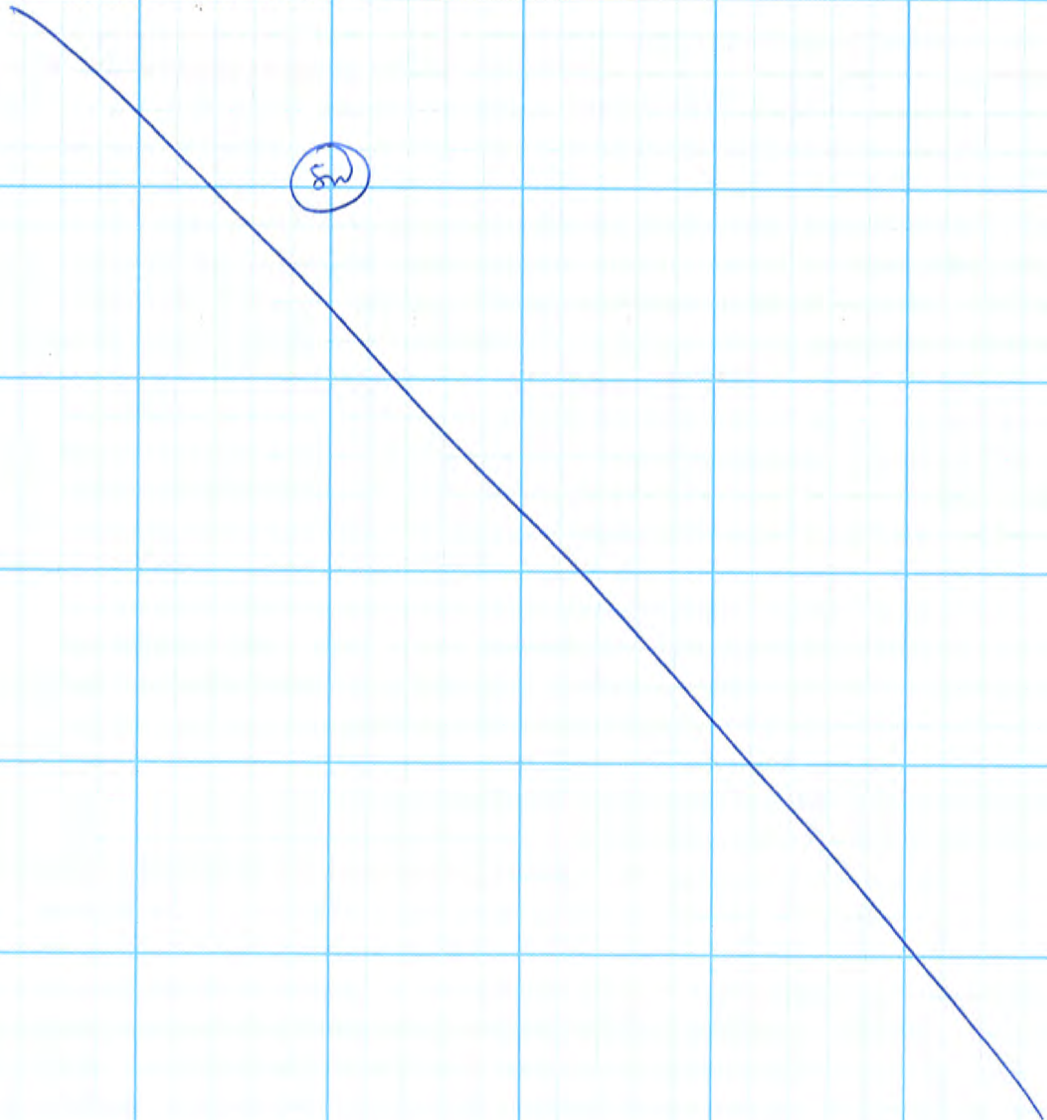
②



SUBJECT Fire Academy of the South - FSCJ; ERIC_17235		
Job No.	Made by Scott Neal - WSP/ Golder	Date 3/7/2022
Ref. 87°, cloudy, calm	Checked FDEP - Bobby W. Reviewed JAE - Robby C.	Sheet 2 of 2

1615 - Hand Auger to 5 ft bgs to clear utilities at DEPMW-105 and collect soil samples  
 -DEPSB-115 (DEPMW-105 location)  
 0-0.5 ft bgs Dark Brown silty sand, dry, no odor  
 0.5-2.0 ft bgs Dark brown + dark gray fine sand, no odor, moist  
 2.0-4.0 ft bgs Dark gray fine sand, moist, no odor  
 \* at 6.0' bgs  
 1620 - Collect DEPSB-115-0.5 for PFAS, 0'-0.5' bgs  
 1622 - " DEPSB-115-2.0 " " 0.5'-2.0' bgs  
 1625 - " DEPSB-115-4.0 " " 2.0'-4.0' bgs  
 1630 - Construct DEPMW-105 (same construction as DEPMW-95)  
 1635 - Collect Field Reagent Blank sample FRB-DEPMW-105 for PFAS  
 1650 - JAE Packed + off site. Pad + development for 3/8  
 1700 - DEPMW-95 developed. ~18 gal + <140 ntus  
 1705 - Bobby + Golder off site  
 1740 - offic - off Job

(SW)





SUBJECT Fire Academy of the South - FSCJ : ERIC - 17235		
Job No.	Made by Scott Neal	Date 3/8/2022
Ref: 75% cloudy, calm	Checked Golder/WSP	Sheet 1 of 1
	Reviewed	

0710 - Golder office. Calibrate YSI meter (See Cal Log) + Pack truck			
0740 - Leave Golder/WBP office in Enterprise Rental F-150			
0805 - On site. Bobby (FDEP) on site. Develop DEPMW-10S. Slow purge with dark brown, stained water			
0830 - JAEF on site. Set up rig on VP-4 in AOC-4			
0850 - Collect surface water sample SW-12 and Duplicate Sample DUP-SW-12 from pond in Northwest corner of site north of driver training course. Suspended detritus and duck weed cover on pond. See Sample form			
0900 - Collect sediment sample SED-15 from SW-12 location			
0905 - Move to AOC-4 and review HASP + PFAS SOPs			
0915 - Push decontaminated rods to 24 ft bgs. HDPE tubing into decontaminated stainless steel screen 20-24 ft bgs			
0930 - Begin pumping			
0945 - Collect water sample VP-4-20-24 for PFAS @ <sup>500</sup> 1000 ntus. 3 <sup>rd</sup> bottle collected			
1000 - Begin pumping in 36-40' bgs interval			
1015 - Collect VP-4-36-40 water sample. 3 bottles. <del>1000</del> ntus, ~3 gal purged, 990 ntus			
1033 - Begin pumping at 48-52' bgs interval			
1048 - Collect VP-4-48-52 with MS/MSD (6 bottles total), ~3 gal, >1000 ntus			
1100 - To staging area to decon tooling			
1135 - Move to AOC-1 and push to 24' bgs with decontaminated rods. Hand clear to 5' bgs			
1150 - Begin pumping through hdpe tubing, peristaltic pump, + decontaminated stainless steel screenpoint in 20-24' bgs interval. JAEF off site for lunch			
1220 - Collect VP-1-20-24 for PFAS. 790 ntus, 4 gal purged, 3 bottles			
1230 - Collect Field Reagent Blank sample FRB-VP-1 next to rig for PFAS			
1245 - JAEF on site. Push decontaminate screen to 36-40 ft bgs interval			
1315 - Collect VP-1-36-40 for PFAS. 620 ntus, 2.5 gal purged			
1318 - Push clean screenpoint to 48-52 ft bgs interval			
1345 - Collect VP-1-48-52 for PFAS. gal purged. ntus			
1350 - Pack rig. Move to staging Area + decon tooling with steam cleaner, brushes, etc			
1435 - Move to VP-2 location in AOC-2.			
1440 - Hand clear utilities to 5-ft bgs. Push decontaminated stainless steel screen point to 24 ft bgs			
1450 - Begin pumping			
1508 - Collect VP-2-20-24 and DUP-2-20-24 for pFas. <sup>2.5</sup> 2 gal. pumped, 920 NTUS			
1535 - Collect VP-2-36-40 for PFAS, 2.5 gal pumped, 7100 NTUS			
1618 - Collect VP-2-48-52 for PFAS 2.5 gal, >1000 ntus			
1630 - Relinquish sample cooler to Bobby Williams to deliver to FDEP Lab, Tallahassee, FL			
1640 - Bobby off site. Pack staging area. drum all decon/development water - 1 55-gal drum IDW water			
1710 - 2'x2' concrete pad + 8" bolt-down manhole at DEPMW-10S			
1740 - Patch VP-4 hole in pavement.			
1750 - All cleaned, secured, + packed. All off site			
1845 - Golder/WSP office. Off Job. Equip unpacked. Post Cal YSI. - See log			

3/8/22







**Field Instrument Conductivity Calibration Records**

 INSTRUMENT (MAKE/MODEL NO.) YSI ProPlus INSTRUMENT NO. 3
**STANDARD INFORMATION**

 Project Number: GL2470834 Project Name: FAOTS, ERIC-17235

 Standard Vendor: Geotech

 Prepared Date: NA Where Prepared: NA

 Grade: N/A Units: umhos/uS-cm

 Standard 200 @25 °C Lot # 1GE217 Exp Date May 2022 Pur Date Apr 2021

 Standard 1000@25 °C Lot # 1GF443 Exp Date Jun 2022 Pur Date Apr 2021

 Standard 2000@25 °C Lot # 1GE871 Exp Date Feb 2022 Pur Date Jun 2021

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C°	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
3/8/22	0724	21.4	200	208.1	< 5%	P	No	Init Cont Final	SN
	0727	21.4	1,000	1020	< 5%	P		Init Cont Final	SN
	0728	21.3	2,000	2015	< 5%	P		Init Cont Final	SN
3/8/22	1830	21.3	200	207.9	< 5%	Pass	No	Init Cont Final	SN
	1833	21.5	1,000	1022	< 5%			Init Cont Final	SN
	1834	21.5	2,000	2014	< 5%			Init Cont Final	SN
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 5% of the appropriate calibration standard.

Note: Standards and instrument response readings are corrected to 25°C.

**Field Instrument Dissolved Oxygen & Oxidation-Reduction Potential Calibration Records**

 INSTRUMENT (MAKE/MODEL NO.) YSI ProPlus INSTRUMENT NO. 3
**STANDARD INFORMATION**

 Project Number: GL21470834A Project Name: Fire Academy of Ten South, ERIC-17235

 Standard Vendor: GEOTECH

 Prepared Date: NA Where Prepared: NA

 Grade: N/A DO Units: mg/L OR Units: mV

 ORP Standard: 220@25 °C Lot # 1GL527 Exp: Date SEP 2022 Pur. Date: APR 2022

 DO Standard Air Calibration Chamber in Air (Table FS 2200-2)

Standard \_\_\_\_\_

Standard \_\_\_\_\_

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	CHART 100% VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
3/8/22	0712	20.0	9.092	9.21	< 0.3	P	N	Init Cont Final	SW
	1820	21.0	8.915	9.04	< 0.3	P	N	Init Cont Final	SW
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
<b>ORP</b>									
3/8/22	0714	21.9	223	220.1	< 10 mV	P	N	Init Cont Final	SW
	1821	22.1	223	219.5	< 10 mV	P	N	Init Cont Final	SW
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 0.3 mg/L of the value of appropriate calibration standard. Need to record DO readings in mg/L and use Table FS 2200-2 "Dissolved Oxygen Saturation". ORP calibration reading must be within +/- 10 mV from the theoretical redox standard value at that temperature.



AOC 1  
2  
3  
4

VP  
VP 2  
VP-3  
VP-4

Equipment Services Program  
Jacksonville, FL

Calibration Standards Data

Used during:  
02/08/2022

Parameter	Temperature	pH			Conductivity			ORP	Turbidity			
Value	ERTCO Thermometer	4.01	7	10	200	1000	2000	220	<0.1/10	20	100	800
Measurement	Celcius	pH	pH	pH	uS/cm	uS/cm	uS/cm	mV	NTU	NTU	NTU	NTU
Volume	Liters	20	20	20	20	20	20	1 of 2	N/A	N/A	N/A	N/A
Unit of Measure	Degrees C	m/L	m/L	m/L	m/L	m/L	m/L	mV	m/L	m/L	m/L	m/L
Lot #	2401	1GF009	1GF003	1GF458	1GE217	1GF443	1GE871	1GL527	A1050	A1042	A1049	A1050
Purchase Date	May '04	Sep-21	Sep-21	Sep-21	Apr-21	Apr-21	Jun-21	Mar-22	Apr-21	Apr-21	Apr-21	Apr-21
Preparation Date	Oct-11	Oct-21	Oct-21	Oct-21	May-21	Jun-21	Jun-21	Mar-22	Apr-21	Apr-21	Apr-21	Apr-21
Expiration Date	Oct-12	Jun-23	Jun-23	Jun-23	May-22	Jun-22	May-22	Sep-22	May-22	May-22	May-22	May-22
Vendor Name	hf scientific	Geotech	Geotech	Geotech	Geotech	Geotech	Geotech	Geotech	HACH	HACH	HACH	HACH
Loc. of Preparation	hf scientific	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER
Acceptance Criteria	+/- 0.2°C	+/- 0.2 pH units			+/- 5%			+/- 10mV	+/- 10%	+/- 8.0%	+/- 6.5%	+/- 5%

"Loc. of Preparation" indicates the transfer of solutions from manufacturers' containers to GAI containers for field use, except where otherwise noted.

No solutions are mixed or created at Golder.

"Preparation Date" is typically 1 - 3 days prior to scheduled activity, except in the case of thermometer calibration check.

ORP solution will yield more calibrations if kept clean and it requires less than 50 mL to perform a calibration check.

NIST Thermometer. Serial # 2401, Product # 1005, Inscription: ERTCO, Scale range: -1 to 101 C, Total Immersion, Scale division: 0.1

**Field Instrument Turbidity Calibration Records**
**INSTRUMENT (MAKE/MODEL NO.)** HACH 2100G **INSTRUMENT NO.** 2
**Project Number:** 9L21470834A **Project Name:** Fire Academy of Fire South, ERIC-17235
**Standard Vendor:** HACH
**Prepared Date:** NA **Where Prepared:** NA
**Purchase Date:** April 2021 **Expiration Date:** May 2022 **Lot Number:** SEE BELOW
**Units: Nephelometric Turbidity Unit**

 Standard 10 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

 Standard 20 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1042

 Standard 100 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1049

 Standard 800 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
3/8/22	0730	-	5.45	5.58	< 10 %	P	N	Init Cont Final	SW
	0730	-	60.2	61.0	< 6.5 %	P	N	Init Cont Final	SU
	0731	-	620	625	< 5 %	P	N	Init Cont Final	SU
3/8/22	1840	-	5.45	5.60	< 10 %	P	N	Init Cont Final	SW
	1841	-	60.2	61.9	< 6.5 %	P	N	Init Cont Final	
	1841	-	620	625	< 5 %	P	N	Init Cont Final	
		-			10 %			Init Cont Final	
		-			6.5 %			Init Cont Final	
		-			5 %			Init Cont Final	
		-			10 %			Init Cont Final	
		-			6.5 %			Init Cont Final	
		-			5 %			Init Cont Final	
		-			10 %			Init Cont Final	
		-			6.5 %			Init Cont Final	
		-			5 %			Init Cont Final	
		-			10 %			Init Cont Final	
		-			6.5 %			Init Cont Final	
		-			5 %			Init Cont Final	

Calibration values for turbidity needs to be within 10% of the standard for values between 0.1-10 NTU; 8% for values between 11-40 NTU; 6.5% for values between 41-100 NTU and 5% for values &gt;100 NTU.

with Temperature Variations and TDEP Acceptance Criteria for the State of Illinois

Acceptance Criteria: +/- 6%			Acceptance Criteria: +/- 0.2 pH units				No Acceptance Criteria	
T	°C	µS	°C	pH 4	pH 7	pH 10	°C	mV
31	0	311.57	0				0	
	1	317.52	1				1	
	2	323.58	2				2	
	3	329.76	3				3	
	4	336.06	4				4	
41	5	342.48	5				5	
	6	349.02	6				6	
	7	355.69	7				7	
	8	362.48	8				8	
	9	369.40	9				9	
50	10	376.46	10	4.00	7.06	10.15	10	245
	11	383.65	11				11	
	12	390.98	12				12	17.5 = 210.5
	13	398.45	13				13	
	14	406.06	14				14	
60	15	413.81	15	4.00	7.04	10.10	15	236
	16	421.71	16				16	
	17	429.77	17				17	17.5 = 211
	18	437.98	18				18	
	19	446.34	19				19	
66.2	20	454.87	20	4.00	7.02	10.05	20	228
	21	463.56	21				21	
	22	472.41	22				22	22.5 = 221
	23	481.43	23				23	
	24	490.63	24				24	
73	25	500.00	25	4.01	7.00	10.00	25	220
	26	509.55	26				26	
	27	519.28	27				27	27.2 = 216
	28	529.20	28				28	
	29	539.31	29				29	
86	30	549.61	30	4.01	6.99	9.96	30	212
	31	560.11	31				31	
	32	570.80	32				32	32.5 = 208
	33	581.71	33				33	
	34	592.82	34				34	
91	35	604.14	35	4.02	6.98	9.92	35	204
	36	615.68	36				36	
	37	627.44	37				37	37.3 = 199.5
	38	639.42	38				38	
	39	651.64	39				39	
01	40	664.08	40	4.01	6.97	9.87	40	195
	41	676.77	41				41	
	42	689.69	42				42	
	43	702.87	43				43	42.5 = 191
	44	716.29	44				44	
13	45	729.97	45				45	187

with Temperature Variations and D.O. Acceptance Criteria

Dissolved Oxygen Saturation Values

Acceptance Criteria  $\pm 0.3$  mg/L

°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%	°C	D.O. SAT.	mg/L 20%
14	10.084	2.017	19	9.275	1.855	23	8.578	1.716	27	7.988	1.594
15.1	10.062	2.012	19.1	9.258	1.852	23.1	8.562	1.712	27.1	7.954	1.591
15.2	10.04	2.008	19.2	9.239	1.848	23.2	8.548	1.709	27.2	7.94	1.588
15.3	10.018	2.004	19.3	9.22	1.844	23.3	8.53	1.706	27.3	7.928	1.585
15.4	9.997	1.999	19.4	9.202	1.84	23.4	8.514	1.703	27.4	7.912	1.582
15.5	9.976	1.995	19.5	9.184	1.837	23.5	8.498	1.7	27.5	7.898	1.58
15.6	9.955	1.991	19.6	9.165	1.833	23.6	8.482	1.696	27.6	7.884	1.577
15.7	9.934	1.987	19.7	9.147	1.829	23.7	8.466	1.693	27.7	7.87	1.574
15.8	9.912	1.982	19.8	9.129	1.828	23.8	8.45	1.689	27.8	7.856	1.571
15.9	9.891	1.978	19.9	9.111	1.822	23.9	8.434	1.687	27.9	7.842	1.568
16	9.87	1.974	20	9.092	1.818	24	8.418	1.684	28	7.828	1.566
16.1	9.849	1.97	20.1	9.074	1.815	24.1	8.402	1.681	28.1	7.814	1.563
16.2	9.828	1.966	20.2	9.058	1.811	24.2	8.387	1.677	28.2	7.8	1.56
16.3	9.808	1.962	20.3	9.039	1.808	24.3	8.371	1.674	28.3	7.786	1.557
16.4	9.787	1.957	20.4	9.021	1.804	24.4	8.355	1.671	28.4	7.773	1.555
16.5	9.767	1.953	20.5	9.003	1.801	24.5	8.34	1.668	28.5	7.759	1.552
16.6	9.746	1.949	20.6	8.985	1.797	24.6	8.325	1.665	28.6	7.745	1.549
16.7	9.726	1.945	20.7	8.968	1.794	24.7	8.309	1.662	28.7	7.732	1.546
16.8	9.705	1.941	20.8	8.95	1.79	24.8	8.294	1.659	28.8	7.718	1.544
16.9	9.685	1.937	20.9	8.932	1.786	24.9	8.279	1.656	28.9	7.705	1.541
17	9.665	1.933	21	8.915	1.783	25	8.263	1.653	29	7.691	1.538
17.1	9.645	1.929	21.1	8.896	1.78	25.1	8.248	1.65	29.1	7.678	1.536
17.2	9.625	1.925	21.2	8.88	1.776	25.2	8.233	1.647	29.2	7.664	1.533
17.3	9.605	1.921	21.3	8.863	1.773	25.3	8.218	1.644	29.3	7.651	1.53
17.4	9.585	1.917	21.4	8.846	1.769	25.4	8.203	1.641	29.4	7.638	1.528
17.5	9.565	1.913	21.5	8.829	1.766	25.5	8.188	1.638	29.5	7.625	1.525
17.6	9.545	1.909	21.6	8.812	1.762	25.6	8.173	1.635	29.6	7.611	1.522
17.7	9.526	1.905	21.7	8.794	1.758	25.7	8.158	1.632	29.7	7.598	1.52
17.8	9.508	1.901	21.8	8.777	1.755	25.8	8.143	1.629	29.8	7.585	1.517
17.9	9.488	1.897	21.9	8.761	1.752	25.9	8.128	1.626	29.9	7.572	1.514
18	9.467	1.893	22	8.744	1.749	26	8.113	1.623	30	7.559	1.512
18.1	9.448	1.89	22.1	8.727	1.745	26.1	8.098	1.62	30.1	7.546	1.509
18.2	9.428	1.886	22.2	8.71	1.742	26.2	8.084	1.617	30.2	7.533	1.507
18.3	9.409	1.882	22.3	8.693	1.738	26.3	8.07	1.614	30.3	7.52	1.504
18.4	9.39	1.878	22.4	8.677	1.735	26.4	8.055	1.611	30.4	7.507	1.501
18.5	9.371	1.874	22.5	8.66	1.732	26.5	8.04	1.608	30.5	7.494	1.499
18.6	9.352	1.87	22.6	8.644	1.729	26.6	8.026	1.605	30.6	7.481	1.496
18.7	9.333	1.867	22.7	8.627	1.725	26.7	8.012	1.602	30.7	7.468	1.494
18.8	9.314	1.863	22.8	8.611	1.722	26.8	7.997	1.599	30.8	7.456	1.491
18.9	9.295	1.859	22.9	8.595	1.718	26.9	7.983	1.597	30.9	7.443	1.489

Values using the formula by Standard Methods for the Examination of Water and Wastewater, Page 4-101, 18th Edition, 1992

USRI DISSEM/FIELD FORMS and DATA/DO generated from FL DWP SOPs.xls

Parameter Calibration Values

Dissolved Oxygen Saturation Values with Temperature Variations

Supplemental Values from 0°C to 15°C

°C	D.O. SAT.	mg/L	°C	D.O. SAT.	mg/L	°C	D.O. SAT.	mg/L
0.1	13.3171	2.663	5.1	12.2321	2.416	10.1	11.1471	2.229
0.2	13.2954	2.639	5.2	12.2104	2.412	10.2	11.1254	2.225
0.3	13.2737	2.615	5.3	12.1887	2.408	10.3	11.1037	2.221
0.4	13.252	2.590	5.4	12.167	2.403	10.4	11.082	2.216
0.5	13.2303	2.646	5.5	12.1453	2.429	10.5	11.0603	2.212
0.6	13.2086	2.643	5.6	12.1236	2.425	10.6	11.0386	2.208
0.7	13.1869	2.617	5.7	12.1019	2.430	10.7	11.0169	2.203
0.8	13.1652	2.633	5.8	12.0802	2.415	10.8	10.9952	2.199
0.9	13.1435	2.629	5.9	12.0585	2.411	10.9	10.9735	2.195
1	13.1218	2.624	6	12.0368	2.407	11	10.9518	2.190
1.1	13.1001	2.620	6.1	12.0151	2.403	11.1	10.9301	2.186
1.2	13.0784	2.616	6.2	11.9934	2.399	11.2	10.9084	2.183
1.3	13.0567	2.611	6.3	11.9717	2.394	11.3	10.8867	2.177
1.4	13.035	2.607	6.4	11.95	2.390	11.4	10.865	2.173
1.5	13.0133	2.603	6.5	11.9283	2.386	11.5	10.8433	2.169
1.6	12.9916	2.598	6.6	11.9066	2.381	11.6	10.8216	2.164
1.7	12.9699	2.594	6.7	11.8849	2.377	11.7	10.7999	2.160
1.8	12.9482	2.590	6.8	11.8632	2.373	11.8	10.7782	2.156
1.9	12.9265	2.585	6.9	11.8415	2.368	11.9	10.7565	2.151
2	12.9048	2.581	7	11.8198	2.364	12	10.7348	2.147
2.1	12.8831	2.577	7.1	11.7981	2.360	12.1	10.7131	2.143
2.2	12.8614	2.572	7.2	11.7764	2.355	12.2	10.6914	2.138
2.3	12.8397	2.568	7.3	11.7547	2.351	12.3	10.6697	2.134
2.4	12.818	2.564	7.4	11.733	2.347	12.4	10.648	2.130
2.5	12.7963	2.559	7.5	11.7113	2.342	12.5	10.6263	2.125
2.6	12.7746	2.555	7.6	11.6896	2.338	12.6	10.6046	2.121
2.7	12.7529	2.551	7.7	11.6679	2.334	12.7	10.5829	2.117
2.8	12.7312	2.546	7.8	11.6462	2.329	12.8	10.5612	2.112
2.9	12.7095	2.542	7.9	11.6245	2.325	12.9	10.5395	2.108
3	12.6878	2.538	8	11.6028	2.321	13	10.5178	2.104
3.1	12.6661	2.533	8.1	11.5811	2.316	13.1	10.4961	2.099
3.2	12.6444	2.529	8.2	11.5594	2.312	13.2	10.4744	2.095
3.3	12.6227	2.525	8.3	11.5377	2.308	13.3	10.4527	2.091
3.4	12.601	2.520	8.4	11.516	2.303	13.4	10.431	2.086
3.5	12.5793	2.516	8.5	11.4943	2.299	13.5	10.4093	2.082
3.6	12.5576	2.512	8.6	11.4726	2.295	13.6	10.3876	2.078
3.7	12.5359	2.507	8.7	11.4509	2.290	13.7	10.3659	2.073
3.8	12.5142	2.503	8.8	11.4292	2.286	13.8	10.3442	2.069
3.9	12.4925	2.499	8.9	11.4075	2.282	13.9	10.3225	2.065
4	12.4708	2.494	9	11.3858	2.277	14	10.3008	2.060
4.1	12.4491	2.490	9.1	11.3641	2.273	14.1	10.2791	2.056
4.2	12.4274	2.485	9.2	11.3424	2.268	14.2	10.2574	2.051
4.3	12.4057	2.481	9.3	11.3207	2.264	14.3	10.2357	2.047
4.4	12.384	2.477	9.4	11.299	2.260	14.4	10.214	2.043
4.5	12.3623	2.473	9.5	11.2773	2.255	14.5	10.1923	2.038
4.6	12.3406	2.468	9.6	11.2556	2.251	14.6	10.1706	2.034
4.7	12.3189	2.464	9.7	11.2339	2.247	14.7	10.1489	2.030
4.8	12.2972	2.459	9.8	11.2122	2.242	14.8	10.1272	2.025
4.9	12.2755	2.455	9.9	11.1905	2.238	14.9	10.1055	2.021
5	12.2538	2.451	10	11.1688	2.234	15	10.0838	2.017



**ORP MEASUREMENTS  
REFERENCE TABLE**

Temperature °F	Temperature °C	Potential in mV
32	0	237
41	5	232
50	10	230
59	15	227
68	20	223
77	25	220
86	30	216
95	35	213
104	40	209
113	45	205
122	50	201
131	55	197
140	60	193
149	65	189
158	70	185

Created: 10/19/2007(jaf)

Conductivity Temperature Chart  
Solution 1000 $\mu$ s/cm @ 25C

Temp C	Temp F	$\mu$ S
5	41.5	682
10	50.0	751
15	59.0	826
16	60.8	842
17	62.6	858
18	64.4	875
19	66.2	892
20	68.0	909
21	69.8	926
22	71.6	944
23	73.4	962
24	75.2	981
25	77.0	1000
26	78.8	1019
27	80.6	1039
28	82.4	1059
29	84.2	1079
30	86.0	1100

## Daily PFAS Sampling Checklist

Date: 3/8/2022

Site Name: ERIL-17235; Fire Academy of the South

Weather (temperature/precipitation): 75°, cloudy, calm

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

QA/QC samples collected.

---

---

---

---

---

Field Team Leader Name (Print): Scott Neal / Golder/wsp

Field Team Leader Signature: Scott Neal

Date/Time: 5/8/2022/0850

## Daily PFAS Sampling Checklist

Date: 3/7/2022

Site Name: Fire Academy of the South, ERU-17235

Weather (temperature/precipitation): 88°, Partly Cloudy, Calm

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

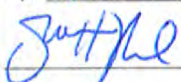
- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Site Orientation & Review of PFAS SOPs with Drillers.

QA/QC samples collected

Field Team Leader Name (Print): Scott Neal / Golden / WSP

Field Team Leader Signature: 

Date/Time: 3/17/2022 / 0925

# MONITORING WELL INSTALLATION LOG

JOB NO <u>21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; ERIC-17235</u>	WELL NO <u>DEPMW-10</u>	SHEET <u>1</u> OF <u>1</u>
GA INSP <u>Scott Neal - Golder</u>	DRILLING METHOD <u>SONIC</u>	GROUND ELEV <u>—</u>	WATER DEPTH <u>4.47</u>
WEATHER <u>Cloudy, 5mph</u>	DRILLING COMPANY <u>Preferred Drilling Solutions</u>	COLLAR ELEV <u>—</u>	DATE/TIME <u>3/17/22 0925</u>
TEMP <u>65°</u>	DRILL RIG <u>TerraSonic 150 Compact Crawler</u>	DRILLER <u>Tim Moyer</u>	STARTED <u>1020</u> <u>3/15/2022</u> COMPLETED <u>1215</u> <u>3/15/2022</u>
			TIME / DATE

## MATERIALS INVENTORY

WELL CASING <u>2</u> in. dia. <u>40.0</u> l.f.	WELL SCREEN <u>2</u> in. dia. <u>10.0</u> l.f.	BENTONITE SEAL <u>NA</u>
CASING TYPE <u>Schedule-40 PVC</u>	SCREEN TYPE <u>2-inch, schedule-40 PVC</u>	INSTALLATION METHOD <u>NA</u>
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.010"</u>	FILTER PACK QTY <u>~300 lbs</u>
GROUT QUANTITY <u>~210 lbs dry / 110 gal wet</u>	CENTRALIZERS <u>NA</u>	FILTER PACK TYPE <u>20/30 silica sand</u>
GROUT TYPE <u>Portland type-II cement w/ ~20 lbs bentonite powder via decontaminated tremmie hose</u>	DRILLING MUD TYPE <u>NA</u>	INSTALLATION METHOD <u>Gravity</u>

ELEV./DEPTH	SOIL/ROCK DESCRIPTION	WELL SKETCH	INSTALLATION NOTES	
	GROUND SURFACE	<p style="font-size: small;">2'x2' concrete pad w/ 8" bolt-down manhole 6" borehole, 2" well</p> <p style="font-size: small;">Expandable gasket well cap</p> <p style="font-size: small;">0-37 ft bgs Portland type-II grout cement</p> <p style="font-size: small;">grade - 40.0' bgs 2" schedule-40 PVC Riser</p> <p style="font-size: small;">36-38 37-38 ft bgs 30/65 sand</p> <p style="font-size: small;">38-50 ft bgs 20/30 sand</p> <p style="font-size: small;">40-50.0 ft bgs 0.010" slot screen</p>	<p>~200 lbs dry grout + 20 lbs bentonite</p> <p>~110 gallons wet grout used</p> <p>* Approximately 375 gallons PFAS free drilling water used</p>	
0.0	NA			
5	NA			
10				
15				
20				
25				
30				
35				
40				
45				
50				
			WELL DEVELOPMENT NOTES	
			<p>ATW BEFRE DEW 4.47</p> <p>START DEW @ 0930</p> <p>START DEW 4:43 PM</p> <p>55 GAL DEW @ 1020</p> <p>55 GAL 6.62 PM</p> <p>55 GAL WL 9.08</p> <p>110 GAL WL 8.60</p> <p>110 GAL 1.90 PM</p> <p>110 GAL @ 1120</p> <p>END DEW @ 1120</p> <p style="text-align: right;">110 GAL 1.90 PM</p> <p>WELL DEVELOPED USING PERISTALTIC PUMP &amp; HDPE TUBING AVE FLOW 1 GPM</p>	

# MONITORING WELL INSTALLATION LOG

JOB NO <u>2147083AA</u>	PROJECT <u>Fire Academy of the South - FSCJ ; ERIC - 17235</u>	WELL NO <u>DEPMW 202D</u>	SHEET <u>1</u> OF <u>1</u>
GA INSP <u>Scott Neal</u>	DRILLING METHOD <u>Sonic</u>	GROUND ELEV <u>—</u>	WATER DEPTH <u>6.76</u>
WEATHER <u>cloudy, 5 mph</u>	DRILLING COMPANY <u>Preferred Drilling Solutions</u>	COLLAR ELEV <u>Grade</u>	DATE/TIME <u>3/17/22 1125</u>
TEMP <u>65°</u>	DRILL RIG <u>TerraSonic 150 Compact Crawler</u>	DRILLER <u>Tim Moyer</u>	STARTED <u>1450</u> <u>3/14/22</u>
			COMPLETED <u>0930</u> <u>3/15/22</u>

## MATERIALS INVENTORY

WELL CASING <u>2</u> in dia. <u>39.0</u> If	WELL SCREEN <u>2</u> in dia. <u>10.0</u> If	BENTONITE SEAL <u>36-37 ft bgs</u>
CASING TYPE <u>Schedule-40 PVC</u>	SCREEN TYPE <u>2-inch, Schedule-40 PVC</u>	INSTALLATION METHOD <u>Gravity</u>
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.010-inch</u>	FILTER PACK QTY <u>~30</u> <u>~275 lbs</u>
GROUT QUANTITY <u>~210 lbs dry / 110 gal wet</u>	CENTRALIZERS <u>NA</u>	FILTER PACK TYPE <u>20/30 silica sand</u>
GROUT TYPE <u>Portland Type-II cement w/ ~30 lb bentonite powder via tremmie hose (decontaminated)</u>	DRILLING MUD TYPE <u>Na</u>	INSTALLATION METHOD <u>Gravity</u>

ELEV./DEPTH	SOIL/ROCK DESCRIPTION	WELL SKETCH	INSTALLATION NOTES
	GROUND SURFACE		
0.0		6-inch borehole, 2-inch well 2' x 2' concrete pad w/ 8-inch bolt-down manhole	
5	See Exploratory Boring Log	EXPANDABLE GASKET WELL CAP	
10		0'-36' bgs Portland Type-II Grout Cement	
15			
20		0'-39' bgs 2" schedule-40 PVC Riser	
25			
30			
35		36'-37' bgs Hydrated bentonite Seal	
40		37'-49' bgs 20/30 sand	
45		0.010" slot screen 39'-49' bgs	
50		49'-55' bgs Hydrated + compressed bentonite chips	
55		Native	
			~200 lbs dry grout + 20 lbs bentonite ~110 gallons wet grout used Approximately 250 gallons drilling water used
			70 ft bgs
			WELL DEVELOPMENT NOTES
			NEW BEBLE DEW 6.76
			START DEW @ 1130
			START DEW >1000 FTU
			55 GAL DEW @ 1330
			55 GAL 6.32 FTU
			55 GAL WL 8.25
			110 GAL WL 8.32
			110 GAL 1.08 FTU
			110 GAL @ 1500
			END DEW @ 1500
			110 GAL
			1.08 FTU
			WELL DEVELOPED USING
			PEDISTATIC PUMP &
			HOPE TUBING
			AWE FLOW 0.53 GPM



# MONITORING WELL INSTALLATION LOG

JOB NO <u>21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ; ERIC-17235</u>	WELL NO <u>DEPMW-3D</u>	SHEET <u>1</u> OF <u>1</u>
GA INSP <u>Scott Neal - Golder</u>	DRILLING METHOD <u>Sonic</u>	GROUND ELEV <u>—</u>	WATER DEPTH <u>5.96</u>
WEATHER <u>Cloudy, Sunph</u>	DRILLING COMPANY <u>Preferred Drilling Solutions</u>	COLLAR ELEV <u>—</u>	DATE/TIME <u>3/17/22 1540</u>
TEMP <u>72°</u>	DRILL RIG <u>TerraSonic 150 Compact Crawler</u>	DRILLER <u>Tim Moyer</u>	STARTED <u>1320 3/15/22</u>
			COMPLETED <u>1020 3/16/22</u>

## MATERIALS INVENTORY

WELL CASING <u>2</u> in. dia <u>39.0</u> i.f.	WELL SCREEN <u>2</u> in. dia <u>10.0</u> i.f.	BENTONITE SEAL <u>NA</u>
CASING TYPE <u>Schedule -40 PVC</u>	SCREEN TYPE <u>2-inch, schedule-40 PVC</u>	INSTALLATION METHOD <u>NA</u>
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.010 -inch</u>	FILTER PACK QTY <u>~325 lbs</u>
GROUT QUANTITY <u>~210 lbs dry / 110 gal wet</u>	CENTRALIZERS <u>NA</u>	FILTER PACK TYPE <u>20/30 silica Sand</u>
GROUT TYPE <u>Portland Type-II cement w/ ~20 lbs bentonite powder via decontaminated tremmie hose</u>	DRILLING MUD TYPE <u>NA</u>	INSTALLATION METHOD <u>Gravity</u>

ELEV./DEPTH	SOIL/ROCK DESCRIPTION	WELL SKETCH	INSTALLATION NOTES
	GROUND SURFACE		
0.0	NA		Rain 3/15 afternoon, begin drilling 3/16 morning 390 gallons PFAS-free drilling water used ~200 lbs dry grout + 20 lbs bentonite
5			
10			
15			
20			
25			
30			
35			
40			
45			
50			
			<b>WELL DEVELOPMENT NOTES</b> DTW BEFORE DEW 5.96 START DEW @ 1545 START DEW >1000 NTU 55 GAL DEW @ 1615 55 GAL 428 NTU 55 GAL 15.88 DTW 110 GAL DEW @ 1645 110 GAL 17.09 DTW 110 GAL 12.4 NTU END DEW @ 1645 110 GAL 12.4 NTU WELL DEVELOPED USING DEW SUBMERSIBLE PUMP (PER JEFF NEWTON) & HOPE TUBING AVE FLOW 1.84 GPM

# MONITORING WELL INSTALLATION LOG

JOB NO. <u>21470834A</u>	PROJECT <u>Fire Academy of the South - FSCJ - ERIC-17235</u>	WELL NO. <u>DEPMW-4D</u>	SHEET <u>1</u> OF <u>1</u>
GA INSP. <u>Scott Neal - Golder</u>	DRILLING METHOD <u>Sonic</u>	GROUND ELEV. <u>-</u>	WATER DEPTH <u>5.23</u>
WEATHER <u>Cloudy/sun, 5 mph</u>	DRILLING COMPANY <u>Preferred Drilling Solutions</u>	COLLAR ELEV. <u>-</u>	DATE/TIME <u>3/17/22 1425</u>
TEMP <u>75°</u>	DRILL RIG <u>TerraSonic 150 Compact Crawler</u>	DRILLER <u>Tim Poyer</u>	STARTED <u>1055</u> <u>3/16/22</u> COMPLETED <u>1420</u> <u>3/16/22</u>

### MATERIALS INVENTORY

WELL CASING <u>2</u> in. dia. <u>39.5</u> lf	WELL SCREEN <u>2</u> in. dia. <u>10.0</u> lf	BENTONITE SEAL <u>NA</u>
CASING TYPE <u>schedule-40 PVC</u>	SCREEN TYPE <u>2-inch, schedule-40 PVC</u>	INSTALLATION METHOD <u>NA</u>
JOINT TYPE <u>Threaded</u>	SLOT SIZE <u>0.010-inch</u>	FILTER PACK QTY <u>~300 lbs</u>
GROUT QUANTITY <u>~210 lbs DRY / 110 gal wet</u>	CENTRALIZERS <u>NA</u>	FILTER PACK TYPE <u>20/30 silica sand</u>
GROUT TYPE <u>Portland Type-II w/ ~20 lbs bentonite powder via decon tremmie hose</u>	DRILLING MUD TYPE <u>NA</u>	INSTALLATION METHOD <u>Gravity</u>

ELEV./DEPTH	SOIL/ROCK DESCRIPTION	WELL SKETCH	INSTALLATION NOTES	
	GROUND SURFACE			
0.0	N/A		~380 gallons drilling water used ~200 lbs dry grout + 20 lbs bentonite ~25 gallons drilling water leaked from mud tub when bentonite seal failed. Water pumped from puddle to drum, sediment to drum	
5				
10				
15				
20				
25				
30				
35				
40				
45				
50				
			<b>WELL DEVELOPMENT NOTES</b> DTW BEBE DEW 5.23 START DEW @ 1430 START DEW >1000 NTU 55 GAL DEW @ 55 GAL 38.2 NTU 55 GAL WL 20.30 110 GAL WL 20.40 110 GAL 22.4 NTU 110 GAL @ 1530 END DEW @ 1530 110 GAL 22.4 NTU WELL DEVELOPED USING DECON SUBMERSIBLE PUMP (PER JEFF JETSON) & HOPE TUBING AVE FLOW 1.84 GPM	



SUBJECT Fire Academy of the South - FSCJ; ERIC-17235

Job No.

Weather: 68°F, cloudy  
Ref.

Made by Scott Neal

Checked WSP/Golder

Reviewed

Date 3/14/2023

Sheet 1 of 1

Golder/WSP - Scott Neal / FDEP - Bobby W / Preferred Drilling Solutions - Tim, Lane, Jay, Torry

1030 - Pack truck at Golder Jacksonville office

1100 - Leave Golder office

1120 - Enterprise office to pay for Rental RAM 1500

1130 - Bobby (FDEP) on site

1130 - leave Enterprise

1155 - On site.

1210 - All of Preferred Drilling Solutions (PDS) on site: Tim, Lane, Jay, Torry, with Box truck with well materials, Tractor trailer with Terra Sonic Compact Crawler drill rig & water hoses, Flatbed truck with drill tooling, and support pickup

1215 - Review HASP, SOW, & PFAS SOPs

1235 - Set up decon pit, check rig, hand clear to 5' bgs at DEPMW-2/VP-2/Exploratory Boring location

1330 - Decon drill tooling

1400 - Collect equipment Blank sample EQB-Sonic-1 from lead sonic core/bit auger

1420 - Set up rig on Exploratory Boring in northern portion of AOC-2

1450 - Use sonic rig to collect continuous soil cores in 4" sleeves to 70 ft bgs. See Boring Log. using 4" cores & 6" outer

1540 - End exploratory boring. Call Jeff Newton & discuss deep well construction.

Will set 10 ft screen approximately 40-50 ft bgs., 1 foot into 4 ft thick clay layer. Depth on other wells will depend upon when rig hits clay at those locations

1550 - Call Bob Wojcik (Golder Project Director) - Bob agrees on construction

1600 - Drum soils. Leave rig on borehole. Clean work area

1705 - DEPMW-2D work area clean & staging area cleared. All off site

1735 - office. Off job

SW



SUBJECT Fire Academy of the South - FSCJ

Job No. Driller: Preferred Drilling Solutions - Tim  
 Ref: Terrasonic Compact Crawler

Made by Scott Neal - Golder / usp  
 Checked 68°, cloudy  
 Reviewed SONIC Drilling

Date 3/14/2022  
 Sheet 1 of 1

EXPLORATORY BORING LOG  
 AOC-2, DEPMW-2D location

DEPTH BGS (ft)	Lithology
0-5	Brown + gray fine sand, moist to wet. $\Delta$ @ # 3.5' bgs
5-7	Dark Brown Fine Sand, saturated, organic odor
7-10	<del>Dark</del> Grayish Brown Fine Sand, Sat, slight organic odor
10-11	Grayish Brown Fine Sand, Sat, sl. organic
11-16	Dark brown. hard silty sand (hardpan), Sat, sl. organic *
16-20 21	Brown silty sand + fine sand, Sat, No odor
21-23	Brown Fine Sand, Sat, No odor
23-30	Tan Fine Sand, <del>Moist</del> , Sat, No odor
30-34	Gray Silty Sand, Sat
34-42	Gray fine to silty sand with ~35% shell hash (0.1" to 2"), Sat, no odor
42-45	Gray Clayey Silt w/ ~10% shell hash
45-48	same as 34'-42'
48-52.5'	Gray, elastic clay w/ ~5% shell hash in possible worm tubes
52.5-54	Gray silty sand with shell hash (~50%)
55-56.5 55.5'	Gray limestone
55.5-57	Gray elastic clay
57-57.5	Gray clayey silt with shell hash
57.5-65	Gray elastic clay
65-67.5	Silty clay with ~5% shell hash (~90% clay)
67.5-70	Gray elastic clay
End Boring	

\* Multiple ~1" thick, hard, brittle/black layers within

SN



SUBJECT Fire Academy of the South - FSCJ; ERIC-17235

Job No. Weather:  
65°, cloudy, 5 mph  
Ref.  
1530 - Rain

Made by Scott Neal - Golder  
Checked  
Reviewed

Date 3/15/2022  
Sheet 1 of 1

Golder/WSP - Scott Neal FDEP - Bobby Preferred Drilling Solutions - Tim, Lane, Jay, Tory

0700 - Leave Golder office  
0725 - On site. PDS + FDEP on site  
0730 - Review HASP, SOW, + PFAS SOPs  
0750 - Move to DEPMW-2D location in northern AOC-2. Borehole collapsed to >55' bgs overnight. Backfill with bentonite chips to ~~23~~<sup>27</sup> ft bgs + cover w/ 2 ft of 20/30 sand. Pressurize borehole with sonic rig to compact bentonite and blow out sand. 250 gal water used  
0805 - Borehole at 49 ft bgs. Construct DEPMW-2D. See Well construction log  
SI: 39-49 ft bgs, 20/30 sand: 37-49 ft, 36-37 ft bentonite, 0-36 grout  
S.S bgs (275 lbs) 20/30 sand, Grout mix: 20 lbs bentonite powder + 200 lbs grout  
0930 - DEPMW-2D constructed ~~to~~<sup>to</sup> except pad/manhole. Grout to ~5 ft bgs. Move rig to DEPMW-1D location in AOC-1 at VP-1 location. Take rack of sonic tooling to Decon area + decon with steam cleaner + brushes per PFAS SOPs  
1020 - Set up on DEPMW-2D<sup>1D</sup>. Post hole to 5 ft bgs to clear utilities  
1035 - Begin drilling to approx. ~~50~~<sup>50</sup> ft bgs or top of clay unit  
1130 - Felt clay at ~49' bgs. Drilled to 50' bgs. Water coming into tub is gray  
1135 - Construct 2" well DEPMW-1D. See Monitoring Well Installation/Construction Log  
SI: 40-50 ft bgs, 20/30 sand 38'-50' bgs, 30/65 sand 37-38' bgs. 30/65 fine sand used instead of bentonite because bentonite was binding to inside of drill pipe and trying to pull well on DEPMW-2D.  
Approx. 375 gallons used  
1150 - Mix grout (~100 lbs grout + 10 lbs bentonite). Grout to 5 ft bgs  
1215 - Pack trucks + rig  
1230-1315 - lunch  
1320 - Hand Clear DEPMW-3D location in AOC-3  
1330 - Take tooling to Decon area to decon  
1400 - Steam cleaner/pressure washer has electrical issue + is not working  
1420 - Can not troubleshoot steam cleaner. Calling for rentals or replacement  
1500 - Preferred will pick up spare steam cleaner from Live Oak, FL office  
1500 - Large ~~F~~<sup>F</sup> weather front with heavy rains in coming. Secure staging area  
1530 - All off site. PDS to Live Oak to pick up cleaner  
1600 - Office

(50)



SUBJECT Fire Academy of the South - FSCJ; ERIC-17235

Job No. Weather:  
70°, cloudy  
Ref.

Made by Scott Neal - Solder/WSP  
Checked  
Reviewed

Date 3/16/2022  
Sheet 1 of 1

Bolder - Scott Neal	FDEP SIS - Bobby Williams	Preferred Drilling Solutions: Tim, Jay, Tory, Lane
0720 - Mob to site		
0725 - All on site		
0730 - Review HASP, SOW, & PFAS SOPs		
0745 - Decon tooling using new steam cleaner per PFAS SOPs		
0805 - Collect equipment blank sample EQB-Sonic-2 from lead sonic rod & bit		
0810 - Set up on DEPMW-3D at VP-3/DEPMW-5 location in AOC-3		
0835 - Begin drilling six-inch O.D. rods to approximately 50 ft bgs or where driller feels transition into clay		
0905 - Clay felt at ~48.5 ft. Drill to 49 ft bgs		
0915-0925 - Heavy Rain - Break		
0925 - Construct DEPMW-3D to 49 ft bgs. See Well Construction Log, 39'-49' SI. 20/30 from 49 to 36.8 ft, 35.8-36.8 30/65 sand, grout to surface. See Well Log. 390 gal used.		
1000 - Grout DEPMW-3D		
1030 - Move rig to DEPMW-4D at VP-4/DEPMW-4S location in AOC-4. Take tooling to decon area and decon.		
1055 - Cut asphalt at DEPMW-4D & Post hole to 5 ft bgs to clear utilities		
1110 - Set up sonic rig on DEPMW-4D		
1130-1230 - lunch		
1230 - Begin drilling 6-inch O.D. rods to approximately 50' bgs or clay layer		
1300 - Collect field reagent blank sample FRB-DEPMW-4D for PFAS by leaving bottles open for 5 minutes ~20 feet from borehole w/ PFAS free water in bottles.		
1323 - Clay at 48 ft bgs. Drill to <del>49 ft bgs</del> <sup>50</sup> 49.5 ft bgs		
1328 - Construct DEPMW-4D to 49.5 ft bgs. See Well Construction Log		
*1315 - Bentonite seal on mud tub failed & water leaked to parking lot. Pump water from puddle to drum. ~25 gal		
1415 - DEPMW-3D grouted to grade.		
1420 - PDS cleans work area & packing equipment & moving to staging area		
1450 - Pack rig, stage drums, build forms, pack vehicles		
1730 - All off site		
1805 - office, off jobs		

(50)



SUBJECT FIRE ACADEMY OF THE SOUTH - FSCS ERIC-17235

Job No.

Made by STEPHEN SIDER

Date 3/17/22

WEATHER 75°F SW  
Ref.

Checked GOLDER/WSP

Sheet 1 of 1

Reviewed

GOLDER/WSP - STEPHEN SIDER / FOEP - BOBBY W / PREFERRED DRINKING (POS)  
SOLUTIONS - TIM, LAKE, JAY  
TERRY

0700 - LEAVE GOLDER/WSP OFFICE, JACKSONVILLE, FL

0730 - ARRIVE AT SITE

0745 - FOEP & POS AT SITE

0800 - REVIEW HAZOP, SOW & PFAS SOP

0830 - JAY OFFSITE W/ DRILL STEPS & DECON DIG, TIM  
OFFSITE W/ STEAM CLEANER / PRESSURE WASHER

0900 - INSTALL WELL PAD (2x2) & MANHOLE (8") ON  
DEPMW-1D, SEE WELL CONSTRUCTION LOG

0930 - BEGIN DEVELOPMENT OF DEPMW-1D, SEE LOG

1100 - INSTALL WELL PAD (2x2) & MANHOLE (8") ON  
DEPMW-2D, SEE WELL CONSTRUCTION LOG

1120 - END DEV DEPMW-1D

1130 - BEGIN DEVELOPMENT OF DEPMW-2D, SEE LOG

1200 - INSTALL WELL PAD (2x2) & MANHOLE (8") ON  
DEPMW-3D, SEE WELL CONSTRUCTION LOG

TIM OFFSITE AFTER RETURNING STEAM/PRESSURE WASHER

1330 - INSTALL WELL PAD (2x2) & MANHOLE (8") ON  
DEPMW-4D, SEE WELL CONSTRUCTION LOG

BOBBY FOEP CALL JEFF NELSON FOEP REGARDING  
PERMISSIBLE DEVELOPMENT PUMPS & VOLUMES.  
REQUIRED TO PUMP 10 GAL PER WELL, PERISTALTIC  
PUMP NOT REQUIRED, MAY DEVELOP USING  
SUBMERSIBLE W/ DECON BETWEEN WELLS,

BOBBY FOEP OFF SITE  
1430 - BEGIN DEVELOPMENT OF DEPMW-4D, SEE LOG.  
DEVELOPMENT PUMP DECON COMPLETED, PER SOP

1500 - END DEV DEPMW-1D - 2D

1530 - END DEV DEPMW-4D, DECON SUBMERSIBLE PUMP PER SOP

1545 - BEGIN DEVELOPMENT OF DEPMW-3D, SEE LOG

1645 - END DEV DEPMW-3D

1700 - STAGE ALL DRUMS IN STAGING AREA SE OF  
CONCRETE BUILD BUILDINGS

14 ~~12~~ LIQUID, 4 SOLID 55 GALLON DRUMS ON SITE

1715 LOAD NEW DIG, 5" DIA STEEL & WOOD PILES (18 TOTAL)  
ON TRAILER CONFIN SITE (WELLS & DRUMS SEPARATE,  
DEPART SITE (GOLDER/WSP & POS)

1745 ARRIVE GOLDER/WSP OFFICE, JACKSONVILLE, FL, UNLOAD  
TRUCK

1800 PARK TRUCK, OFF IEB

(SS)

## Daily PFAS Sampling Checklist

Date: 3/14/2022

Site Name: Fire Academy of the South-FSCJ, ERIC-17235

Weather (temperature/precipitation): 68°, cloudy

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent



Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

Decon Pit, steam cleaner, + all other PFAS SOPs for drilling  
reviewed + followed

Field Team Leader Name (Print): Scott Neal - Golder

Field Team Leader Signature: Scott Neal

Date/Time: 3/14/2022 1225

## Daily PFAS Sampling Checklist

Date: 3/15/22

Site Name: Fisc Academy of the South - FSCJ; ERIC-17235

Weather (temperature/precipitation): 67°, cloudy - Rain in afternoon (SD)

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

N/A

---

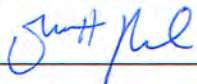
---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golden/WSP

Field Team Leader Signature: 

Date/Time: 3/15/2022

## Daily PFAS Sampling Checklist

Date: 3/16/2022

Site Name: Fire Academy of the South - FSCJ; ERIL-17235

Weather (temperature/precipitation): 68°, cloudy

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

Equip. Blank taken from sonic drill tooling after decon

---


---

---

---

---

Field Team Leader Name (Print): Scott Neal - Golder/WSP

Field Team Leader Signature: 

Date/Time: 3/16/22 0740

## Daily PFAS Sampling Checklist

Date: 3/17/22

Site Name: FIRE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 75° F Sun

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

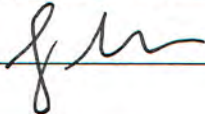
---

---

---

---

Field Team Leader Name (Print): STEPHEN SIDER

Field Team Leader Signature: 

Date/Time: 3/17/22

FIRE ACADEMY OF THE SOUTH

4/4/22

S. SIDER / H. BROOKS

80° F SUN

0700 ARRIVE GOLDER JACKSONVILLE, FL, LOAD TRUCK,  
PREPARE COOLERS & PAPERWORK

0720 CALIBRATE YSI & TURBIDIMETER, SEE LOGS

0800 DEPART GOLDER JACKSONVILLE, FL

0815 STOP AT HOME DEPOT ON SOUTHSIDE BLVD  
FOR FIELD SUPPLIES

0830 STOP AT ENTERPRISE RENTAL CAR TO SWIPE  
RENTAL CREDIT CARD

0915 ARRIVE ON SITE, CHECK IN W/ JASON CARPENTER,  
REVIEW HASEP & SOW

0930 BEGIN WL MEASUREMENT, DELON ACCORDING  
TO FDEP PFAS SOP

1200 COMPLETE WL MEASUREMENT, FSCS-TM-195  
COULD NOT BE LOCATED, SUSPECT COVERED  
BY JUNK VEHICLES OR ROLL OFF CONTAINER

1200-1300 LUNCH

1300 BEGIN GW SAMPLING ACTIVITIES ACCORDING TO  
FDEP PFAS SOP, SEE GW SAMPLING LOGS

1600 END GW SAMPLING ACTIVITIES, ARM PURGE &  
NEED WATER

1615 DEPART SITE

1700 ARRIVE GOLDER JACKSONVILLE, FL, PARK TRUCK,  
SECURE SAMPLES & EQUIPMENT, OFF JOB



FIRE ACADEMY OF THE SOUTH

4/4/22

S. SIDER/H. BROOKS

80°F Sun

WELL ID	WL @ TOC	WELL ID	WL @ TOC
FCS-TW-1S	2.84	DEPW-1S	1.90
FCS-TW-2SR	3.05	DEPW-2S	1.59
FCS-TW-2A	5.19	DEPW-3S	2.25
FCS-TW-3S	2.10	DEPW-4S	1.68
FCS-TW-4SR	2.66	DEPW-5S	1.92
FCS-TW-4AR	6.89	DEPW-6S	1.68
FCS-TW-5SR	OBSTRUCTED	DEPW-7S	2.35
FCS-TW-6S	1.72	DEPW-8S	1.33
FCS-TW-6A	4.79	DEPW-9S	0.76
FCS-TW-7SR	2.62	DEPW-10S	4.74
FCS-TW-8S	3.31	DEPW-1A	4.62
FCS-TW-9S	4.72	DEPW-2A	5.94
FCS-TW-10S	2.68	DEPW-3A	6.15
FCS-TW-11S	1.22	DEPW-4A	5.30
FCS-TW-12S	0.63		
FCS-TW-13S	1.53		
FCS-TW-14S	2.91		
FCS-TW-15S	2.62		
FCS-TW-16S	0.90		
FCS-TW-17S	0.81		
FCS-TW-18S	0.90		
FCS-TW-19S	COVERED		
FCS-TW-20S	3.06		

FIRE ACADEMY OF THE SOUTH

4/5/22

S. SIDER / H. BROOKS

82° F Sun

0700 ARRIVE GOLDER JACKSONVILLE, FL, CALIBRATE

YSI & TURBIDIMETER, SEE LOGS

0745 <sup>(3)</sup> DEPART GOLDER JACKSONVILLE, FL

0830 ARRIVE ON SITE, REVIEW HASHP & SOLU,  
CALL JEA PAUL SCARBETTERA TO COORDINATE  
JEA WELL ACCESS FOR 2PH, BEGIN GW  
SAMPLING ACTIVITY, SEE GW SAMPLING LOGS

1235-1335 LUNCH

1335 MEET PAUL SCARBETTERA JEA AT ONYDALE WELL  
STATION, FOLLOW TO 4 JEA WELLS (1, 5, 6 & -

1445 END GW SAMPLING ACTIVITY, DRUM ALL PURGE  
& DECAW WATER

1515 DEPART SITE

1600 ARRIVE GOLDER JACKSONVILLE, FL, PARK TRUCK,  
SECURE SAMPLES & EQUIPMENT, OFF JOB

FIRE ACADEMY OF THE SOUTH

4/6/22

S. SIDOR / H. BROOKS

80° F SW

0645 ARRIVE GOLDER JACKSONVILLE, FL, CALIBRATE  
YSI & TURBIDIMETER, SEE LOGS

0715 DEPART GOLDER JACKSONVILLE, FL

0750 BUY ICE AT WAWA BEACH BLVD @ 295 E

0800 ARRIVE @ SITE, REVIEW HASEP & SW

0830 BEGIN GW SAMPLING ACTIVITIES, SEE GW  
SAMPLING LOGS

1015 DARIL BARKS, BARKS & BARKS SUBJECTS @  
SITE, REVIEW HASEP & SW

1115 JEFF HEWITT & BOBBY WILLIAMS @ SITE,  
REVIEW HASEP

1145 SCOTT HEAL & MATT CRENS @ SITE, REVIEW HASEP  
WALK SITE NEAR FSCJ-TM-95

1215-1330 LUNCH

1330 RESUME GW SAMPLING

\* 1200 DELIVER 4/4 & 4/5 PFAS SAMPLES TO JEFF HEWITT  
FSDP

1455 ATTEMPT PURGE OF FSCJ-TM-55R, WELL PURGE  
DRY AFTER ~ 200 ML, SAND BOTTOM @ 2.7 FT  
BGS, PUMP CAP NOT CLEAR SEDIMENT, CALL  
SCOTT HEAL, ADVISED TO STOP UNTIL FURTHER  
DIRECTION

1645 END GW SAMPLING ACTIVITY, DRUM ALL DECON  
& PURGE WATER

1700 DEPART SITE

1745 ARRIVE GOLDER JACKSONVILLE, FL, PACK TRUCK, SECURE  
SAMPLES & EQUIPMENT OFF JOB

FIRE ACADEMY OF THE SOUTH

4/7/22

S. SIDER / H. BROOKS

82° F SCATTERED SHOWERS / CLOUD

0645 ARRIVE GOLDER JACKSONVILLE, FL CALIBRATE  
YSI & TURBIDIMETER, SEE LOGS

0715 DEPART GOLDER JACKSONVILLE, FL

0745 BUY ICE AT TWICE THE ICE BEACH BLDG &  
SOUTHSIDE BLDG

0800 ARRIVE ON SITE, REVIEW HASSEP & SOW

0815 BEGIN GW SAMPLING ACTIVITIES, SEE LOGS

0910 - 0945 HEAVY RAIN, LIGHTING STRUCK DOWN

1145 - 1245 ~~1200~~ <sup>1300</sup> LUNCH

1245 RESUME GW SAMPLING ACTIVITIES

1545 END GW SAMPLING ACTIVITY, DRUM ALL DECO  
& PURGE WATER, LIGHTING APPROXIMATELY

1600 DEPART SITE

1645 ARRIVE GOLDER JACKSONVILLE, FL, PARK TRUCK,  
SECURE SAMPLES & EQUIPMENT, OFF JOB

FIRE ACADEMY OF THE SOUTH

4/8/22

S. SIOER/H. BROOKS

800 F Sun

0730 ARRIVE GOLDER JACKSONVILLE, FL CALIBRATE YSI  
& TURBIDIMETER SEE LOGS

0800 DEPART GOLDER JACKSONVILLE, FL

0830 BUY ICE AT TWICE THE ICE BEACH BLDG &  
SOUTHSIDE BLDG

0845 ARRIVE ON SITE, REVIEW HAZARD & SOU,  
BEGIN GW SAMPLING ACTIVITIES

1115 END GW SAMPLING ACTIVITIES, DRUM ALL  
DECON & PURGE WATER (+ 3' LIQUID DRUMS  
= 17 LIQUID, 4 SOL ON SITE)

1145 CHECK & SECURE ALL DRUMS W/LABELS  
& WELL CAPS, DEPART SITE

1215 ARRIVE GOLDER JACKSONVILLE, FL, UNLOAD  
TRUCK / EQUIPMENT, SECURE SAMPLES,  
CALIBRATE YSI & TURBIDIMETER, SEE LOGS  
POST EVENT PAPERWORK ORGANIZATION/  
SCANNING

1330 OFF JOB

FIRE ACADEMY OF THE SOUTH

4/11/22

S. SIDER

80°F SW

0830 ARRIVE GULDER JACKSONVILLE, FL, PREPARE  
SAMPLES FOR DROP OFF, PREPARE / CHECK COC  
DOCUMENTS, CONFIRM / ADD ICE, LOAD TRUCK

0930 DEPART GULDER JACKSONVILLE, FL

1100 ARRIVE AT BUSY BEE TRAVEL CENTER  
1-10 & US-129 LIVE OAK, FL

1110 DELIVER 4/6 - 4/8 SAMPLES TO  
BOBBY WILLIAMS, FDEP

1130-1200 LUNCH

1200 DEPART BUSY BEE TRAVEL CENTER

1330 ARRIVE GULDER JACKSONVILLE, FL, UNLOAD /  
UNLOAD TRUCK

1400 OFF TR







































DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: FIRE ACADEMY OF THE SOUTH		SITE LOCATION: JACKSONVILLE, FL	
WELL NO: <b>FGJ-Trw-205</b>	SAMPLE ID: <b>FGJ-Trw-205</b>	DATE: <b>4/6/22</b>	

PURGING DATA

WELL DIAMETER (inches): <b>1 1/2</b>	TUBING DIAMETER (inches): <b>1/4</b>	WELL SCREEN INTERVAL DEPTH: <b>2</b> feet to <b>12</b> feet	STATIC DEPTH TO WATER (feet): <b>3.06</b>	PURGE PUMP TYPE OR BAILER: <b>PP</b>							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( <b>12</b> feet - <b>3.06</b> feet ) X <b>0.09</b> gallons/foot = <b>0.80</b> gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + ( _____ gallons/foot X _____ feet ) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>5.0</b>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>5.0</b>	PURGING INITIATED AT: <b>1348</b>	PURGING ENDED AT: <b>1408</b>	TOTAL VOLUME PURGED (gallons): <b>1.57</b>							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
<b>1404</b>	<b>1.25</b>	<b>1.25</b>	<b>0.08</b>	<b>3.72</b>	<b>4.12</b>	<b>23.1</b>	<b>196.2</b>	<b>0.32/3.8</b>	<b>32.2</b>	<b>57.5</b>	<b>8 Down/page</b>
<b>1406</b>	<b>0.16</b>	<b>1.41</b>	<b>0.08</b>	<b>3.72</b>	<b>4.12</b>	<b>23.2</b>	<b>196.2</b>	<b>0.31/3.7</b>	<b>35.0</b>	<b>57.6</b>	<b>" "</b>
<b>1408</b>	<b>0.16</b>	<b>1.57</b>	<b>0.08</b>	<b>3.72</b>	<b>4.12</b>	<b>23.2</b>	<b>195.8</b>	<b>0.32/3.8</b>	<b>36.2</b>	<b>56.8</b>	<b>" "</b>
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY Golder Associates: H. BROOKS/GOLDER S. SIDER/GOLDER				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: <b>1409</b>		SAMPLING ENDED AT: <b>1414</b>		
PUMP OR TUBING DEPTH IN WELL (feet): <b>5.0</b>				TUBING MATERIAL CODE: <b>HDPE</b>			FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTRATION EQUIPMENT TYPE: _____		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)			DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<b>FGJ-Trw-205</b>	<b>3</b>	<b>PE</b>	<b>150 mL</b>	<b>NONE</b>	<b>-</b>	<b>*</b>	<b>PFAS</b>	<b>APP</b>	<b>335</b>		
						*					
						*					
						*					
						*					
REMARKS: * All samples were put in a cooler with ice and the PH is checked in the lab. <b>3 PFAS BOTTLES (HIGH TURBIDITY)</b>											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)  
"J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.



**DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: FIRE ACADEMY OF THE SOUTH	SITE LOCATION: JACKSONVILLE, FL
WELL NO: <b>DEPMW-15</b>	SAMPLE ID: <b>DEPMW-15</b>
DATE: 4/4/22	

**PURGING DATA**

WELL DIAMETER (inches): <b>3/4</b>	TUBING DIAMETER (inches): <b>1/4</b>	WELL SCREEN INTERVAL DEPTH: <b>2</b> feet to <b>12</b> feet	STATIC DEPTH TO WATER (feet): <b>1.90</b>	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( <b>12</b> feet - <b>1.90</b> feet ) X <b>0.02</b> gallons/foot = <b>0.21</b> gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + ( _____ gallons/foot X _____ feet ) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>3.75</b>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>3.75</b>	PURGING INITIATED AT: <b>1531</b>	PURGING ENDED AT: <b>1544</b>	TOTAL VOLUME PURGED (gallons): <b>0.70</b>							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
1540	0.50	0.50	0.05	2.06	6.24	22.0	291.5	0.41 / 4.7	15.8	-181.9	clear
1542	0.10	0.60	0.05	2.06	6.24	22.0	291.7	0.34 / 3.9	15.3	-191.0	" "
1544	0.10	0.70	0.05	2.06	6.24	22.0	292.0	0.34 / 3.9	12.6	-192.1	" "
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

**SAMPLING DATA**

SAMPLED BY Golder Associates: H. BROOKS/GOLDER S. SIDER/GOLDER				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: <b>1545</b>		SAMPLING ENDED AT: <b>1550</b>	
PUMP OR TUBING DEPTH IN WELL (feet): <b>3.75</b>				TUBING MATERIAL CODE: HDPE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<b>DEPMW-15</b>	<b>2</b>	<b>PE</b>	<b>150 mL</b>	<b>NONE</b>	<b>-</b>	<b>*</b>	<b>PFAS</b>	<b>APP</b>	<b>~200</b>		
						*					
						*					
						*					
						*					
REMARKS: * All samples were put in a cooler with ice and the PH is checked in the lab.											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)  
 "J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: FIRE ACADEMY OF THE SOUTH		SITE LOCATION: JACKSONVILLE, FL	
WELL NO: DEP RW - 25	SAMPLE ID: DEP RW - 25	DATE: 4/7/22	

PURGING DATA

WELL DIAMETER (inches): 3/4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 2.35	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY		(only fill out if applicable)		
= ( 12 feet - 2.35 feet ) X 0.06 gallons/foot = 0.60 gallons		0.20 0.21		
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME				
(only fill out if applicable)				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3.25		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3.25		TOTAL VOLUME PURGED (gallons): 1.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
1510	1.0	1.0	0.03	1.70	5.48	26.5	109.3	0.44/5.5	26.3	33.9	400/none
1512	0.06	1.06	0.03	1.70	5.48	26.5	109.3	0.46/5.8	26.1	42.0	' '
1514	0.06	1.12	0.03	1.70	5.48	26.6	108.4	0.45/5.7	25.2	44.8	- ?
								/			
								/			
								/			
								/			
								/			
								/			
								/			
								/			

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016  
 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY: Golder Associates; H. BROOKS/GOLDER; S. SIDER/GOLDER	SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>	SAMPLING INITIATED AT: 1515	SAMPLING ENDED AT: 1535
PUMP OR TUBING DEPTH IN WELL (feet): 3.25	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)	DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
DEP RW 25	23	PE	150 mL	NONE	-	*	PFAS	APP	~125
"	2	AG	500 mL	-	-	*	PAH	"	~125
"	2	AG	500 mL	H2SO4	-	*	TRP4	"	~125
"	2	CG	40 mL	HCL	-	*	VOC	"	~125
						*			
						*			

REMARKS: \* All samples were put in a cooler with ice and the PH is checked in the lab.  
 3 PFAS BOTTLES (HIGH TURBIDITY)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)  
 "J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

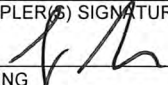
**DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: FIRE ACADEMY OF THE SOUTH	SITE LOCATION: JACKSONVILLE, FL
WELL NO: <b>DEPMW-35</b>	SAMPLE ID: <b>DEPMW-35</b>
DATE: 4/ 5 /22	

**PURGING DATA**

WELL DIAMETER (inches): <b>3/4</b>	TUBING DIAMETER (inches): <b>1/4</b>	WELL SCREEN INTERVAL DEPTH: <b>2</b> feet to <b>12</b> feet	STATIC DEPTH TO WATER (feet): <b>2.25</b>	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( <b>12</b> feet - <b>2.25</b> feet ) X <b>0.02</b> gallons/foot = <b>0.20</b> gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + ( gallons/foot X feet ) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>	PURGING INITIATED AT: <b>0840</b>	PURGING ENDED AT: <b>0904</b>	TOTAL VOLUME PURGED (gallons): <b>0.96</b>							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{hos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
<b>0900</b>	<b>0.80</b>	<b>0.80</b>	<b>0.04</b>	<b>2.55</b>	<b>5.76</b>	<b>21.6</b>	<b>339.5</b>	<b>0.41/4.6</b>	<b>128</b>	<b>-139.4</b>	<b>8000/1000</b>
<b>0902</b>	<b>0.08</b>	<b>0.88</b>	<b>0.04</b>	<b>2.55</b>	<b>5.76</b>	<b>21.6</b>	<b>341.9</b>	<b>0.33/3.7</b>	<b>129</b>	<b>-141.8</b>	" "
<b>0904</b>	<b>0.08</b>	<b>0.96</b>	<b>0.04</b>	<b>2.55</b>	<b>5.77</b>	<b>21.7</b>	<b>344.9</b>	<b>0.31/3.5</b>	<b>125</b>	<b>-142.2</b>	" "
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

**SAMPLING DATA**

SAMPLED BY Golder Associates: H.BROOKS/GOLDER S.SIDER/GOLDER				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: <b>0905</b>		SAMPLING ENDED AT: <b>0910</b>	
PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>				TUBING MATERIAL CODE: HDPE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ $\mu\text{m}$	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<b>DEPMW-35</b>	<b>3</b>	<b>PE</b>	<b>150 mL</b>	<b>NONE</b>	<b>-</b>	<b>*</b>	<b>PFAS</b>	<b>APP</b>	<b>~150</b>		
						*					
						*					
						*					
						*					
REMARKS: * All samples were put in a cooler with ice and the PH is checked in the lab. <b>3 PFAS BOTTLES (HIGH TURBIDITY)</b>											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater) "J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.





**DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: FIRE ACADEMY OF THE SOUTH	SITE LOCATION: JACKSONVILLE, FL
WELL NO: <b>DEPMW-65</b>	SAMPLE ID: <b>DEPMW-65</b>
DATE: 4/4/22	

**PURGING DATA**

WELL DIAMETER (inches): <b>3/4</b>	TUBING DIAMETER (inches): <b>1/4</b>	WELL SCREEN INTERVAL DEPTH: <b>2</b> feet to <b>12</b> feet	STATIC DEPTH TO WATER (feet): <b>1.68</b>	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( <b>12</b> feet - <b>1.68</b> feet ) X <b>0.02</b> gallons/foot = <b>0.21</b> gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + ( _____ gallons/foot X _____ feet ) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>3.5</b>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>3.5</b>	PURGING INITIATED AT: <b>1450</b>	PURGING ENDED AT: <b>1515</b>	TOTAL VOLUME PURGED (gallons): <b>0.66</b>							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
1505	0.40	0.40	0.026	1.94	5.94	21.6	369.0	0.21/2.4	94.8	-217.6	Red/white
1507	0.052	0.452	0.026	1.94	5.94	21.5	367.8	0.21/2.3	73.5	-238.8	" "
1509	0.052	0.504	0.026	1.94	5.93	21.4	366.3	0.18/2.1	67.4	-233.0	" "
1511	0.052	0.556	0.026	1.94	5.94	21.4	365.8	0.18/2.0	56.0	-235.9	" "
1513	0.052	0.608	0.026	1.94	5.94	21.4	366.0	0.19/2.1	51.2	-237.4	" "
1515	0.052	0.660	0.026	1.94	5.94	21.5	365.8	0.18/2.1	53.8	-240.2	" "
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

**SAMPLING DATA**

SAMPLED BY Golder Associates: H. BROOKS/GOLDER S. SIDER/GOLDER				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: <b>1516</b>	SAMPLING ENDED AT: <b>1521</b>
PUMP OR TUBING DEPTH IN WELL (feet): <b>3.5</b>				TUBING MATERIAL CODE: HDPE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N				TUBING Y <input checked="" type="checkbox"/> N (replaced)		DUPLICATE: Y <input checked="" type="checkbox"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
<b>DEPMW-65</b>	<b>3</b>	<b>PE</b>	<b>150 mL</b>	<b>NONE</b>	<b>-</b>	<b>*</b>	<b>PFAS</b>	<b>APP</b>	<b>~ 600</b>
						*			
						*			
						*			
						*			
REMARKS: * All samples were put in a cooler with ice and the PH is checked in the lab <b>3 PFAS BOTTLES (HIGH TURBIDITY)</b>									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)  
"J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

**DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG**

SITE NAME: FIRE ACADEMY OF THE SOUTH	SITE LOCATION: JACKSONVILLE, FL
WELL NO: <b>DEPmw-75</b>	SAMPLE ID: <b>DEPmw-75</b>
DATE: 4/4/22	

**PURGING DATA**

WELL DIAMETER (inches): <b>3/4</b>	TUBING DIAMETER (inches): <b>1/4</b>	WELL SCREEN INTERVAL DEPTH: <b>2</b> feet to <b>12</b> feet	STATIC DEPTH TO WATER (feet): <b>2.35</b>	PURGE PUMP TYPE OR BAILER: PP							
<b>WELL VOLUME PURGE:</b> 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( <b>12</b> feet - <b>2.35</b> feet ) X <b>0.02</b> gallons/foot = <b>0.20</b> gallons											
<b>EQUIPMENT VOLUME PURGE:</b> 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + ( _____ gallons/foot X _____ feet ) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>	PURGING INITIATED AT: <b>1418</b>	PURGING ENDED AT: <b>1434</b>	TOTAL VOLUME PURGED (gallons): <b>0.40</b>							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L and % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
<b>1428</b>	<b>0.25</b>	<b>0.25</b>	<b>0.025</b>	<b>2.55</b>	<b>5.46</b>	<b>22.1</b>	<b>406.8</b>	<b>0.37/4.4</b>	<b>11.3</b>	<b>-24.8</b>	<b>clear/none</b>
<b>1430</b>	<b>0.05</b>	<b>0.30</b>	<b>0.025</b>	<b>2.55</b>	<b>5.49</b>	<b>22.1</b>	<b>413.6</b>	<b>0.34/3.9</b>	<b>16.1</b>	<b>-25.3</b>	" "
<b>1432</b>	<b>0.05</b>	<b>0.35</b>	<b>0.025</b>	<b>2.55</b>	<b>5.53</b>	<b>22.1</b>	<b>418.6</b>	<b>0.33/3.8</b>	<b>18.9</b>	<b>-193.0</b>	" "
<b>1434</b>	<b>0.05</b>	<b>0.40</b>	<b>0.025</b>	<b>2.55</b>	<b>5.52</b>	<b>22.1</b>	<b>416.2</b>	<b>0.31/3.8</b>	<b>20.1</b>	<b>-191.2</b>	" "
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

**SAMPLING DATA**

SAMPLED BY Golder Associates: H. BROOKS/GOLDER S. SIDER/GOLDER				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: <b>1435</b>		SAMPLING ENDED AT: <b>1440</b>	
PUMP OR TUBING DEPTH IN WELL (feet): <b>4.0</b>				TUBING MATERIAL CODE: HDPE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ $\mu\text{m}$	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<b>DEPmw-75</b>	<b>3</b>	<b>PE</b>	<b>150 mL</b>	<b>NONE</b>	<b>-</b>	<b>*</b>	<b>PFAS</b>		<b>APP</b>	<b>~ 100</b>	
						*					
						*					
						*					
						*					
REMARKS: * All samples were put in a cooler with ice and the PH is checked in the lab. <b>3 PFAS BOTTLES (HIGH TURBIDITY)</b>											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)  
 "J" = Indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.



































Field Instrument Dissolved Oxygen & Oxidation-Reduction Potential Calibration Records

INSTRUMENT (MAKE/MODEL NO.) YSI

INSTRUMENT NO. P20-05

STANDARD INFORMATION

Project Number: 62200834A Project Name: FIDE ACADEMY OF THE SOUTH

Standard Vendor: GEOTECH

Prepared Date: NA Where Prepared: NA

Grade: N/A DO Units: mg/L OR Units: mV

ORP Standard: 220@25 °C Lot # 1GL527 Exp: Date SEP 2022 Pur. Date: APR 2022

DO Standard Air Calibration Chamber in Air (Table FS 2200-2)

Standard \_\_\_\_\_

Standard \_\_\_\_\_

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	CHART 100% VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT, FINAL)	SAMPLER INITIALS
4/4/22	0720	21.2	8.88	9.08	0.3	P	Y	Init Cont Final	SS
4/5/22	0710	19.9	9.11	9.27	0.3	P	Y	Init Cont Final	SS
4/6/22	0645	20.1	9.07	9.22	0.3	P	Y	Init Cont Final	SS
4/7/22	0647	20.1	9.07	9.18	0.3	P	Y	Init Cont Final	SS
4/8/22	0740	20.2	9.05	9.09	0.3	P	Y	Init Cont Final	SS
4/8/22	125	21.2	8.88	9.05	0.3	P	Y	Init Cont Final	SS
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
					0.3			Init Cont Final	
<b>ORP</b>									
4/4/22	0725	21.4	229	229.2	10 mV	P	Y	Init Cont Final	SS
4/5/22	0712	21.2	229	229.6	10 mV	P	Y	Init Cont Final	SS
4/6/22	0647	21.2	229	229.8	10 mV	P	Y	Init Cont Final	SS
4/7/22	0649	21.3	229	228.9	10 mV	P	Y	Init Cont Final	SS
4/8/22	0742	21.1	229	227.4	10 mV	P	Y	Init Cont Final	SS
4/8/22	1217	21.3	229	228.7	10 mV	P	Y	Init Cont Final	SS
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	
					10 mV			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 0.3 mg/L of the value of appropriate calibration standard. Need to record DO readings in mg/L and use Table FS 2200-2 "Dissolved Oxygen Saturation". ORP calibration reading must be within +/- 10 mV from the theoretical redox standard value at that temperature.

**Field Instrument pH Calibration Records**

 INSTRUMENT (MAKE/MODEL NO.) YSI INSTRUMENT NO. PRO-05
**STANDARD INFORMATION**

 Project Number: 6221470834A Project Name: FIRE ACADEMY OF THE SOUTH

 Standard Vendor: GEOTECH

 Prepared Date: NOV 2020 Where Prepared: NA

 Purchase Date: SEE BELOW Expiration Date: Varies Grade: N/A Units: Standard Units

 Standard 4.00 @25 °C Lot # 1GF009 Exp Date JUN 2023 Purch Date SEP 2021

 Standard 7.00 @25 °C Lot # 1GF003 Exp Date JUN 2023 Purch Date SEP 2021

 Standard 10.0 @25 °C Lot # 1GF458 Exp Date JUN 2023 Purch Date SEP 2021

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/4/22	0729	21.7	7.02	6.97	0.2	P	L	Init Cont Final	SS
4/4/22	0731	21.6	4.00	4.02	0.2	P	L	Init Cont Final	SS
4/4/22	0732	21.6	10.05	10.13	0.2	P	L	Init Cont Final	SS
4/5/22	0716	21.3	7.02	6.98	0.2	P	L	Init Cont Final	SS
4/5/22	0720	21.3	4.00	4.08	0.2	P	L	Init Cont Final	SS
4/5/22	0724	21.3	10.05	10.14	0.2	P	L	Init Cont Final	SS
4/6/22	0657	21.4	7.02	6.99	0.2	P	L	Init Cont Final	SS
4/6/22	0659	21.4	4.00	4.05	0.2	P	L	Init Cont Final	SS
4/6/22	0702	21.4	10.05	10.07	0.2	P	L	Init Cont Final	SS
4/7/22	0700	21.5	4.00	4.05	0.2	P	L	Init Cont Final	SS
4/7/22	0703	21.5	7.02	7.08	0.2	P	L	Init Cont Final	SS
4/7/22	0705	21.4	10.05	10.12	0.2	P	L	Init Cont Final	SS
4/8/22	0732	21.5	4.00	4.10	0.2	P	L	Init Cont Final	SS
4/8/22	0735	21.5	7.02	6.89	0.2	P	L	Init Cont Final	SS
4/8/22	0737	21.6	10.05	9.89	0.2	P	L	Init Cont Final	SS
4/8/22	1219	21.6	7.02	6.96	0.2	P	L	Init Cont Final	SS
4/8/22	1222	21.6	4.00	4.05	0.2	P	L	Init Cont Final	SS
4/8/22	1225	21.7	10.05	10.13	0.2	P	L	Init Cont Final	SS
					0.2			Init Cont Final	
					0.2			Init Cont Final	
					0.2			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 0.2 pH units of the value of appropriate calibration standard.



Field Instrument Conductivity Calibration Records

INSTRUMENT (MAKE/MODEL NO.) YSI INSTRUMENT NO. Pro-05

STANDARD INFORMATION

Project Number: GL2470834A Project Name: FIRE ACADEMY OF THE SOUTH

Standard Vendor: Geotech

Prepared Date: NA Where Prepared: NA

Grade: N/A Units: umhos/uS-cm

Standard 200@25 °C Lot # 1GE217 Exp Date May 2022 Pur Date Apr 2021

Standard 1000@25 °C Lot # 1GF443 Exp Date Jun 2022 Pur Date Apr 2021

Standard 2000@25 °C Lot # 1GE871 Exp Date Feb 2022 Pur Date Jun 2021

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C°	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4/4/22	0735	21.5	200	208.1	5%	P	Y	Init Cont Final	SS
4/4/22	0737	21.6	1,000	1010	5%	P	Y	Init Cont Final	SS
4/4/22	0739	21.6	2,000	2010	5%	P	Y	Init Cont Final	SS
4/5/22	0730	21.3	200	209.2	5%	P	Y	Init Cont Final	SS
4/5/22	0733	21.7	1,000	1006	5%	P	Y	Init Cont Final	SS
4/5/22	0736	21.3	2,000	1985	5%	P	Y	Init Cont Final	SS
4/6/22	0649	21.2	200	208.7	5%	P	Y	Init Cont Final	SS
4/6/22	0652	21.3	1,000	1009	5%	P	Y	Init Cont Final	SS
4/6/22	0655	21.3	2,000	1988	5%	P	Y	Init Cont Final	SS
4/7/22	0652	21.5	200	207.1	5%	P	Y	Init Cont Final	SS
4/7/22	0655	21.5	1,000	1985	5%	P	Y	Init Cont Final	SS
4/7/22	0658	21.4	2,000	2004	5%	P	Y	Init Cont Final	SS
4/8/22	0745	21.2	200	207.5	5%	P	Y	Init Cont Final	SS
4/8/22	0747	21.2	1,000	1020	5%	P	Y	Init Cont Final	SS
4/8/22	0749	21.2	2,000	2011	5%	P	Y	Init Cont Final	SS
4/8/22	1227	21.6	200	206.1	5%	P	Y	Init Cont Final	SS
4/8/22	1230	21.7	1,000	1009	5%	P	Y	Init Cont Final	SS
4/8/22	1232	21.6	2,000	2022	5%	P	Y	Init Cont Final	SS
			200		5%			Init Cont Final	
			1,000		5%			Init Cont Final	
			2,000		5%			Init Cont Final	

Acceptable calibration check is if the meter reads within +/- 5% of the appropriate calibration standard.

Note: Standards and instrument response readings are corrected to 25°C.





**Field Instrument Turbidity Calibration Records**

INSTRUMENT (MAKE/MODEL NO.) HACH INSTRUMENT NO. HT-6

Project Number: GL21470834A Project Name: FIRE ACADEMY OF THE SOUTH

Standard Vendor: HACH

Prepared Date: NA Where Prepared: NA

Purchase Date: April 2021 Expiration Date: May 2022 Lot Number: SEE BELOW

Units: Nephelometric Turbidity Unit

Standard 10 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

Standard 20 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1042

Standard 100 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1049

Standard 800 Nephelometric Turbidity Unit Exp Date May 2022 LOT# A1050

DATE (mm/dd/yy)	TIME (hr:min)	TEMP DEG C	STD VALUE	INSTRUMENT RESPONSE	% DEV	PASS/ FAIL	CALIBRATED (YES, NO)	TYPE (INIT, CONT, FINAL)	SAMPLER INITIALS
4/4/22	0743	-	5.37	5.36	10%	P	L	Init Cont Final	SS
4/4/22	0745	-	56.4	56.2	6.5%	P	L	Init Cont Final	SS
4/4/22	0747	-	568	572	5%	P	L	Init Cont Final	SS
4/5/22	0739	-	5.37	5.36	10%	P	T	Init Cont Final	SS
4/5/22	0740	-	56.4	56.1	6.5%	P	T	Init Cont Final	SS
4/5/22	0741	-	568	570	5%	P	L	Init Cont Final	SS
4/6/22	0705	-	5.37	5.34	10%	P	T	Init Cont Final	SS
4/6/22	0707	-	56.4	56.9	6.5%	P	T	Init Cont Final	SS
4/6/22	0709	-	568	669	5%	P	T	Init Cont Final	SS
4/7/22	0707	-	5.37	5.38	10%	P	T	Init Cont Final	SS
4/7/22	0709	-	56.4	57.2	6.5%	P	T	Init Cont Final	SS
4/7/22	0711	-	568	570	5%	P	T	Init Cont Final	SS
4/8/22	0751	-	5.37	5.35	10%	P	T	Init Cont Final	SS
4/8/22	0752	-	56.4	57.4	6.5%	P	T	Init Cont Final	SS
4/8/22	0753	-	568	571	5%	P	L	Init Cont Final	SS
4/8/22	1235	-	5.37	5.39	10%	P	T	Init Cont Final	SS
4/8/22	1236	-	56.4	57.2	6.5%	P	T	Init Cont Final	SS
4/8/22	1237	-	568	567	5%	P	L	Init Cont Final	SS
		-			10%			Init Cont Final	
		-			6.5%			Init Cont Final	
		-			5%			Init Cont Final	

Calibration values for turbidity needs to be within 10% of the standard for values between 0.1-10 NTU; 8% for values between 11-40 NTU; 6.5% for values between 41-100 NTU and 5% for values >100 NTU.

## Daily PFAS Sampling Checklist

Date: 4/4/22

Site Name: FIDE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 80° F / SW

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---


---

---

---

---

Field Team Leader Name (Print): STEPHEN SLOPE

Field Team Leader Signature: 

Date/Time: 4/4/22 0915

## Daily PFAS Sampling Checklist

Date: 4/5/22

Site Name: FIRE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 82°F SW

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): STEPHEN SIDER

Field Team Leader Signature: 

Date/Time: 4/5/22 0830

## Daily PFAS Sampling Checklist

Date: 4/6/22

Site Name: FIRE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 80° F SW

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---


---

---

---

---

Field Team Leader Name (Print): STEPHEN SIDER

Field Team Leader Signature: 

Date/Time: 4/6/22 0800

## Daily PFAS Sampling Checklist

Date: 4/7/22

Site Name: FIRE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 80° F SUN W / SCATTERED T-STORMS

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent



Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): STEPHEN SIDER

Field Team Leader Signature: 

Date/Time: 4/7/22 0800

### Daily PFAS Sampling Checklist

Date: 4/8/22

Site Name: FIRE ACADEMY OF THE SOUTH

Weather (temperature/precipitation): 80° F SW

**Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.**

#### Field Clothing and PPE:

- No water- or stain-resistant clothing (e.g., GORE-TEX®)
- During collection of water and sediment samples, no water- or stain-resistant boots OR water- or stain-resistant boots covered by PFAS-free over-boots
- Field boots (or over-boots) are made of polyurethane, PVC, rubber, or untreated leather
- Waders or rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- Clothing has not been recently laundered with a fabric softener
- No coated HDPE suits (e.g., coated Tyvek® suits)
- Field crew has not used cosmetics, moisturizers, or other related products today
- Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

#### Field Equipment:

- Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- No materials containing Teflon™, Viton™, or fluoropolymers
- No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- No plastic clipboards, binders, or spiral hard cover notebooks
- No waterproof field books
- No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- No chemical (blue) ice, unless it is contained in a sealed bag
- No aluminum foil
- No sticky notes (e.g., certain Post-It® products)

#### Decontamination:

- Reusable field equipment (e.g., inner drill rods, samplers) decontaminated prior to reuse
- "PFAS-free" water is on-site for decontamination of field equipment
- Alconox® or Liquinox® used as decontamination detergent

Food and Drink:

- No food or drink on-site, except within staging area
- Food in staging area is contained in HDPE or stainless steel container

Notes:

---

---

---

---

---

---

---

Field Team Leader Name (Print): STEPHEN SIDOR

Field Team Leader Signature: [Signature]

Date/Time: 4/8/22 0830



Chain of Custody Record

Project Name <b>FIRE ACADEMY OF THE SOUTH - FSKJ, FAC-7421</b>					# B O T T L E S	Analyses										Comments	
Sampled by <b>S. SIMPSON / H. BROOKS</b>			Module#			<b>60A 8321 - PFAS</b>											
RQ# <b>RQ-2021-11-15-48</b>	Site Name <b>FIRE ACADEMY OF THE SOUTH - FSKJ</b>																
Field ID	Matrix	Date	Time <input type="checkbox"/> ET <input type="checkbox"/> CT	Bottle Group													
<b>DEPMW-40</b>	<b>GW</b>	<b>4/5/22</b>	<b>1032</b>	<b>A</b>	<b>2</b>	<b>x</b>											
<b>WELL 1</b>	<b>GW</b>	<b>4/5/22</b>	<b>1435</b>	<b>A</b>	<b>2</b>	<b>x</b>											
<b>WELL 5</b>	<b>GW</b>	<b>4/5/22</b>	<b>1345</b>	<b>A</b>	<b>2</b>	<b>x</b>											
<b>WELL 6</b>	<b>GW</b>	<b>4/5/22</b>	<b>1415</b>	<b>A</b>	<b>2</b>	<b>x</b>											
<b>WELL 7</b>	<b>GW</b>	<b>4/5/22</b>	<b>1405</b>	<b>A</b>	<b>2</b>	<b>x</b>											
Relinquished by: <b>[Signature]</b>		Date/Time <b>4/6/22 1200</b>		Method of Dispatch <b>Hand</b>		Received by: <b>[Signature]</b>			Date/Time <b>04/06/22</b>								
Relinquished by:		Date/Time		Method of Dispatch		Received by:			Date/Time								
Relinquished by:		Date/Time		Method of Dispatch		Received by:			Date/Time								

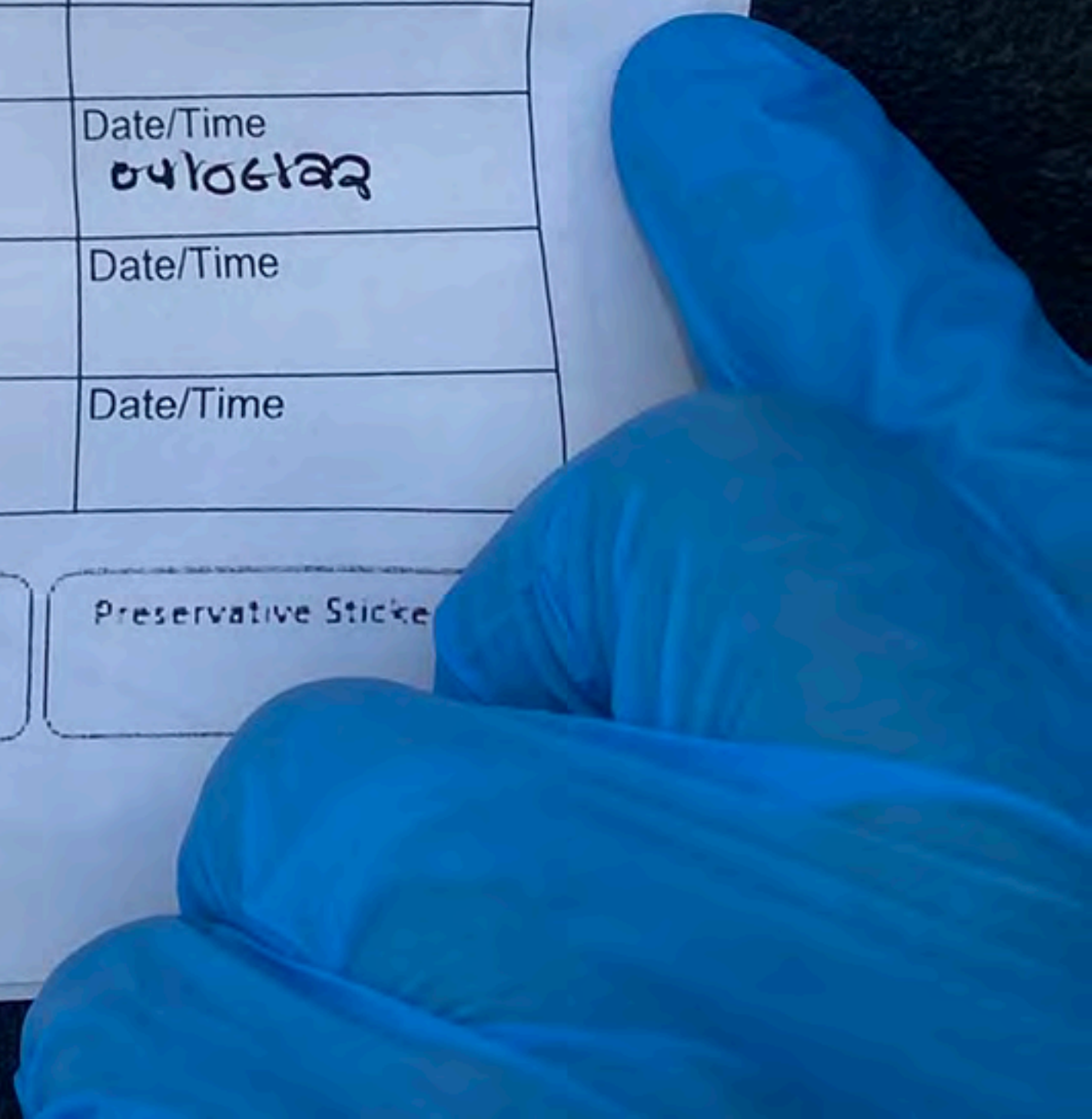
Remarks:

Preservative Sticker 1

Preservative Sticker 2

Preservative Sticker 3

Preservative Sticker 4



Chain of Custody Record

Project Name <b>FIRE ACADEMY OF THE SOUTH - FSCJ, EDIC-7421</b>					# B O T T L E S	Analyses						Comments	
Sampled by <b>S. SIDER/H. BROWN</b>			Module#			PA 8321 - PFAS	8260 - VOC	8270 - PAH	FL-AB - TRPH				
RQ# <b>RD-2021-11-15-48</b>	Site Name <b>FIRE ACADEMY OF THE SOUTH - FSCJ</b>												
Field ID	Matrix	Date	Time <input type="checkbox"/> ET <input type="checkbox"/> CT	Bottle Group									
<b>FSCJ-TMw-15</b>	<b>GW</b>	<b>4/7/22</b>	<b>1133</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-25R</b>		<b>4/7/22</b>	<b>0853</b>	<b>A/F</b>	<b>8</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>				
<b>FSCJ-TMw-35</b>		<b>4/7/22</b>	<b>1035</b>	<b>A/F</b>	<b>8</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>				
<b>FSCJ-TMw-45R</b>		<b>4/6/22</b>	<b>0946</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-75R</b>		<b>4/6/22</b>	<b>1028</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-85</b>		<b>4/6/22</b>	<b>1523</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-95</b>		<b>4/6/22</b>	<b>1139</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-105</b>		<b>4/6/22</b>	<b>1439</b>	<b>A</b>	<b>3</b>	<b>x</b>							
<b>FSCJ-TMw-115</b>		<b>4/8/22</b>	<b>0908</b>	<b>A/F</b>	<b>8</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>				
<b>FSCJ-TMw-125</b>		<b>4/8/22</b>	<b>0942</b>	<b>A/F</b>	<b>8</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>				
<b>FSCJ-TMw-135</b>		<b>4/6/22</b>	<b>1601</b>	<b>A</b>	<b>2</b>	<b>x</b>							
<b>FSCJ-TMw-155</b>		<b>4/6/22</b>	<b>0850</b>	<b>A</b>	<b>4</b>	<b>x</b>					<b>MS/MSD</b>		
Relinquished by: <b>[Signature]</b>		Date/Time <b>4/11/22 1110</b>	Method of Dispatch <b>HAND DROP</b>		Received by: <b>[Signature]</b>			Date/Time <b>4/11/22 11:10</b>					
Relinquished by:		Date/Time	Method of Dispatch		Received by:			Date/Time					
Relinquished by:		Date/Time	Method of Dispatch		Received by:			Date/Time					

Remarks:

Preservative Sticker 1

Preservative Sticker 2

Preservative Sticker 3

Preservative Sticker 4

Chain of Custody Record

Project Name FIRE ACADEMY OF THE SOUTH-FSCS, ERIC-7421					# B O T T L E S	Analyses						Comments	
Sampled by S. SIDER/H. BROOKS			Module#			8221-AFAS	8260-XXL	8270-PART	TC-APD-TRPH				
RQ# DO-2021-11-15-48		Site Name FIRE ACADEMY OF THE SOUTH-FSCS											
Field ID	Matrix	Date	Time <input type="checkbox"/> ET <input type="checkbox"/> CT	Bottle Group									
FSCS-TMw-16S	GW	4/8/22	1013	A	4	x					MS/MSD		
FSCS-TMw-17S		4/8/22	1036	A/F	8	x	x	x	x				
FSCS-TMw-18S		4/8/22	1106	A/F	8	x	x	x	x				
FSCS-TMw-20S		4/6/22	1409	A	3	x							
DEPMw-2S		4/7/22	1515	A/F	9	x	x	x	x				
DEPMw-5S		4/6/22	1629	A	2	x							
DEPMw-8S		4/7/22	1320	A/F	8	x	x	x	x				
FSCS-TMw-2D		4/7/22	1026	A/F	8	x	x	x	x				
FSCS-TMw-4DR		4/6/22	1055	A	2	x					MS/MSD		
DEPMw-1D		4/7/22	1341	A	4	x							
DEPMw-2D		4/7/22	1505	A	2	x							
DUP-FSCS-TMw-4SR		4/6/22	0946	A	2	x							
Relinquished by: <i>[Signature]</i>	Date/Time 4/11/22	1110	Method of Dispatch HAND		Received by: <i>[Signature]</i>		Date/Time 4/11/22 11:10						
Relinquished by:	Date/Time		Method of Dispatch		Received by:		Date/Time						
Relinquished by:	Date/Time		Method of Dispatch		Received by:		Date/Time						

Remarks:

Preservative Sticker 1

Preservative Sticker 2

Preservative Sticker 3

Preservative Sticker 4

Chain of Custody Record

Project Name					#	Analyses								Comments
Sampled by						B	/	/	/	/	/	/	/	
RQ#					T									T
Site Name						L	L	L	L	L	L	L	L	
Field ID	Matrix	Date	Time	Bottle Group	ET									CT
DUP - FSCJ-TMw-135	GW	4/6/22	1601	A	2	X								
DUP - FSCJ-TMw-185		4/8/22	1106	A	2	X								
DEPTW-85		4/7/22	1320	A	2	X								
EQB-PP-1		4/6/22	0910	C	2	X								
EQB-PP-2		4/7/22	1415	C/G	8	X	X	X	X					
FRB-FSCJ-TMw-85		4/6/22	1523	D	2	X								
TRIP BLANK		-	-	H	2		X						TRIP BLANK	
Relinquished by: <i>[Signature]</i>					Date/Time	Method of Dispatch	Received by: <i>[Signature]</i>					Date/Time		
Relinquished by: <i>[Signature]</i>					4/11/22 11:10	HAND DEL						4/11/22 11:10		
Relinquished by:					Date/Time	Method of Dispatch	Received by:					Date/Time		
Relinquished by:					Date/Time	Method of Dispatch	Received by:					Date/Time		

Remarks:

Preservative Sticker 1

Preservative Sticker 2

Preservative Sticker 3

Preservative Sticker 4