REMEDIAL INVESTIGATION/ FEASIBILITY STUDY WORK PLAN

PREPARED FOR

EAST HAMPTON AIRPORT SITE

200 DANIELS HOLE ROAD
WAINSCOTT, NEW YORK 11975

NYSDEC SITE NO. 152250

PREPARED FOR NYSDEC APPROVAL

BY

FPM group™

640 JOHNSON AVENUE, SUITE 101
BOHEMIA, NY 11716

MAY 2021

REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN

Prepared for

Facility: East Hampton Airport Site
Wainscott, Suffolk County, New York 11975

FPM File No: 1028g-20-40 (02)

I, Stephanie O. Davis, PG, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation/Feasibility Study Work Plan was prepared in accordance with all applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Stephanie O. Davis, PG	
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LIST OF ACRONYMS

Acronym	Definition
AFFF	Aqueous film-forming foam
ARFF	Aircraft Rescue and Firefighting Facility
ASP	Analytical Services Protocol
CAMP	Community Air Monitoring Program
COC	Chain-of-custody
CPP	Citizen Participation Plan
CSM	Conceptual Site Model
dB	Decibel
DQOs	Data quality objectives
DUSR	Data Usability Summary Report
EDDs	Electronic data deliverables
EHFD	East Hampton Fire Department
EHTP	East Hampton Town Police
ELAP	Environmental Laboratory Approval Program
FPM	FPM Group, Ltd.
FS	Feasibility Study
GPS	Global positioning system
HAL	Health Advisory Level
HASP	Health and Safety Plan
HDPE	High density polyethylene
HSO	Health and Safety Officer
LIRR	Long Island Rail Road
MCL	Maximum contaminant level
MS/MSD	Matrix spike/matrix spike duplicate
MSL	Mean sea level
NAPL	Non-aqueous-phase liquid
ng/g	Nanograms per gram
ng/L	Nanograms per liter
NTU	Nephelometric turbidity unit
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
ORP	Oxidation reduction potential
PCB	Polychlorinated biphenyl
PE	Professional Engineer

Acronym	**Definition**
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PG	Professional geologist
PID	Photoionization detector
ppb	Parts per billion
PPE	Personal protective equipment
ppt	Parts per trillion
PVC	Polyvinyl chloride
QAO	Quality Assurance Officer
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
QEP	Qualified environmental professional
RAOs	Remedial Action Objectives
RI	Remedial Investigation
SC	Site Characterization
SCDHS	Suffolk County Department of Health Services
SCGs	Standards, criteria and guidance
SCOs	Soil Cleanup Objectives
SIM	Selective ion monitoring
SPLP	Synthetic Precipitation Leaching Procedure
SOP	Standard Operating Procedure
Standards	Part 703.5 Class GA Ambient Water Quality Standards
SVOCs	Semivolatile organic compounds
TAL	Target Analyte List
TCL	Target Compound List
TIC	Tentatively-identified compound
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
VOCs	Volatile organic compounds
WSG	Wainscott Sand and Gravel

SECTION 1.0
INTRODUCTION AND PURPOSE

This Remedial Investigation/Feasibility Study (RI/FS) Work Plan has been prepared by FPM Group (FPM) for the New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal (Superfund) Site #152250, identified as the East Hampton Airport Site, Wainscott, Suffolk County, New York (Site). This work plan describes the procedures to further evaluate the nature and extent of contamination associated with the Site. This work plan also includes procedures to perform an FS to evaluate potential appropriate remedial measures. This work plan has been developed in accordance with the procedures outlined in the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010).

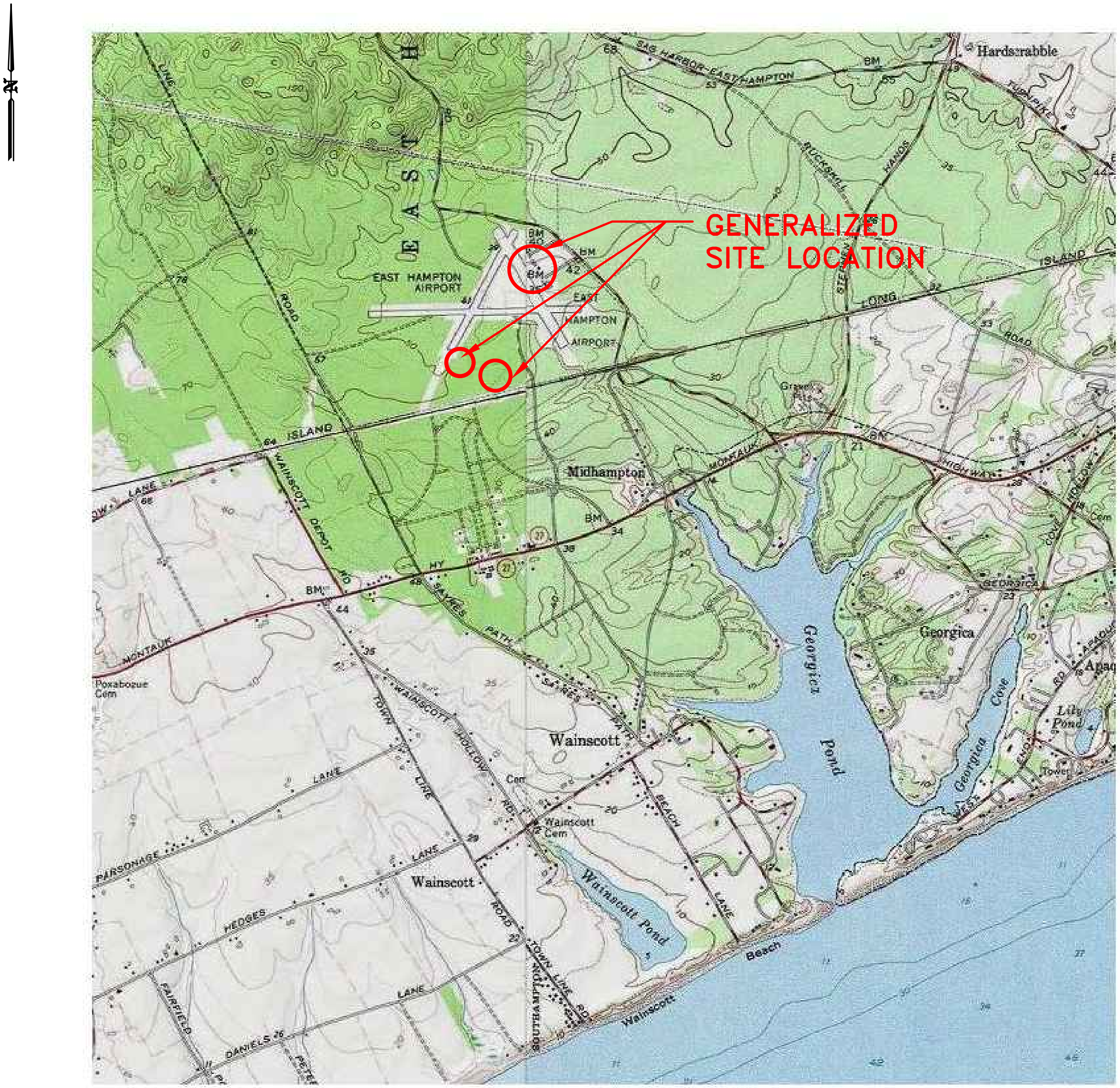
1.1 Site Location and Description

The East Hampton Airport Site occupies approximately 47.454 acres of property and includes the northeastern portion of the East Hampton Airport at 200 Daniels Hole Road, the fire training facility at 65 Industrial Road, and the East Hampton Fire Department at 72 Industrial Road in Wainscott. The Site is owned by the Town of East Hampton (Town) and the parcels that comprise the Site are reported in the Order on Consent to be identified by the following Suffolk County Tax Map numbers:

- 181-200-6000
- 180-100-8013, sublot 13
- 181-200-1000
- 181-200-3000
- 181-300-1001, sublot 1
- 181-100-0042, sublot 2
- 181-300-3000
- 181-300-2000
- 181-200-4000
- 181-200-2000
- 181-200-5000
- 192-300-42001, sublot 1
- 192-300-3700

The general location of the Site is presented in Figure 1.1.1. A plan of the Site and its vicinity is included as Figure 1.1.2. The Site is located approximately 3.4 miles west of the Village of East Hampton. The Site is located in a CI commercial/industrial zone and is surrounded by commercial and industrial uses and open undeveloped land. Long Island Rail Road (LIRR) tracks are present to the south of the Site. The nearest residential properties are located to the south of the LIRR tracks.

The airport is a public use facility with a parking lot, airport terminal, and support buildings. Various commercial and industrial businesses lease portions of the Site from the Town. Tenants at the Site include the East Hampton Fire District Training Facility and the East Hampton Fire Department (EHFD), which operates the Aircraft Rescue and Firefighting (ARFF) facility. Activities at the Site have included fire-fighting and fire-fighting training by the EHFD using Class B fire suppression foam (aqueous film-forming foam, or AFFF), which typically contains per- and/or polyfluoroalkyl substances (PFAS).



4,000 FEET

APPROXIMATE SCALE

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FIGURE 1.1.1
GENERALIZED SITE LOCATION
EAST HAMPTON AIRPORT SITE

WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date: 7/7/20

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 1.1.1.dwg, 7/7/2020 11:44:16 AM, DWG To PDF.pc3

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FIGURE 1.1.2
SITE AND VICINITY
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date:	7/8/20

1.2 Site Environmental Setting

The surface topography of the Site and surrounding vicinity was obtained from the USGS Sag Harbor and East Hampton, New York Quadrangles (2019), portions of which are shown in Figure 1.1.1. The topographic elevation of the Site vicinity generally ranges from 30 to 50 feet above mean sea level (MSL) and the ground surface slopes gently to the southeast and south. The Site surface includes several buildings and large expanses of paved surfaces, with the remaining areas characterized by open grassy fields and wooded areas.

Previous subsurface investigations (discussed in Section 2.0) document that portions of the Site surface are immediately underlain by topsoil and/or gravel. Beneath the topsoil and/or gravel, the Site is underlain by sand and gravel glacial outwash deposits of the Pleistocene Upper Glacial Formation to the maximum depth penetrated (45 feet). Intermittent non-continuous silt and clay lenses were encountered at some locations within the outwash deposits. The Upper Glacial Formation extends to a depth of between 200 and 250 feet below the Site surface (USGS, 1982), below which the Cretaceous Magothy Formation is present. The Magothy Formation consists primarily of sand with interbeds of silt and clay. The Upper Glacial Formation and the Magothy Formation both contain fresh groundwater that is used as a source of water supply.

The depth to groundwater beneath the Site varies from approximately 15 feet below grade in the northern portions of the Site to approximately 30 feet below grade in the portions of the Site along Industrial Road. The regional groundwater flow direction in the Upper Glacial Aquifer in the Site vicinity (USGS, 2015) is generally southerly. The Site-specific groundwater flow direction determined during the Site Characterization (AECOM, 2018 and 2020) was to the southeast at a gradient of 4×10^{-4} feet per foot. Further to the south the groundwater flow direction is expected to be more variable due to the presence of surface water bodies to which groundwater is understood to discharge.

There are no surface water bodies on or adjoining the Site. The closest surface water bodies are Georgica Pond (about 3,500 feet southeast) and Wainscott Pond (about 8,000 feet south). The Atlantic Ocean is present to the southeast of both of these ponds and is approximately 11,000 feet southeast of the Site. The ponds are separated from the Site by the LIRR tracks, commercial and industrial uses along Industrial Road and Montauk Highway, and residential areas.

1.3 Site History

Based on available historic records and historic aerial photographs (Historic Aerials website, Suffolk County Tax Map Viewer, and Stony Brook University digital archives), the airport runways (portions of which are on the Site) were constructed by July 1938 and a small building was present near the east end of the eastern-most section of runway at that time. No other significant development was apparent on the airport or its vicinity and Industrial Road had not yet been opened. By 1954 another building was present near the intersection of the two most eastern airport runways, but no other significant development was apparent on the airport or in its vicinity. By 1960 several additional buildings were present in the area to the north of the current airport terminal building and additional development continued in this area from the 1960s onward.

Industrial Road was opened between 1962 and 1969, by which time at least two properties had been developed on this road. Additional development occurred on Industrial Road parcels in the 1970s through the present. Based on information from historic aerial photos, as supplemented by information obtained during August 25, 2020 interviews with EHFD Chief Gerard Turza, Jr.

and East Hampton Fire District Association Board President Dan Shields, the building that presently houses the East Hampton Fire Training Facility at 65 Industrial Road (part of the Site) was constructed between 1984 and 1994 and was originally used by Disney. The building was modified by the addition of bathrooms circa 2003 when this property was first used for fire training purposes. The ARFF facility at 72 Industrial Road (part of the Site) was reported to have been constructed in 2000, which is consistent with aerial photos that show the building to have been constructed between 1994 and 2001.

Activities at the Site have included fire-fighting and fire-fighting training by the EHFD since at least 1995, including storage and use of AFFF. These activities are reported for several areas of the Site and vicinity, as evaluated from information contained in the Site Characterization reports (AECOM, 2018 and 2020), NYSDEC records, Town records, and East Hampton Town Police (EHTP) records (copies included in Appendix A). The EHTP reported that it did not use or store AFFF at its facilities. The Town has sought information concerning AFFF use and storage from the EHFD and Village of East Hampton for several months, but such records have not yet been provided. The EHTP records document at least 29 plane accidents at the airport between 1991 and 2020, several of which included responses by the EHFD. Some of these responses involved fuel releases and/or fires on which fire-fighting foam was reportedly used or may have been used. Information obtained from Chief Turza, Dan Shields, James Brundige (the current airport manager), and Lt. John Claflin of the EHTP, who was an assistant manager at the airport between 1995 and 2001, obtained during August 25, 2020 interviews and a site visit also informed the assessment of fire-fighting foam use at the Site and vicinity. The activities that involved fire-fighting foam or the possible use of foam at the Site and in its vicinity are summarized as follows and their approximate locations are indicated on Figure 1.3.1:

North End of Hedges Lane: Lt. Claflin reported a plane crash site that involved a fire in a wooded area near the north end of Hedges Lane, just to the southeast of the airport, in the 1990s. This area was observed and noted to be an area of young pine trees that is surrounded by more mature trees, consistent with a prior fire. It is possible that AFFF was used at this location.

North Field Area: A plane crash-landed in the area to the north of Daniels Hole Road and the northern-most runway in 1995. The EHFD is reported to have used AFFF at the crash site. A mass casualty drill was also held in this area by the EHFD on June 1, 2008. This drill reportedly included spray application of AFFF onto a bus in an unpaved area.

Airport Parking Lot: The EHFD conducted a mass casualty drill in 1997 in a field to the northeast of the current terminal building that is now a paved parking lot. The EHFD is reported to have sprayed fire-fighting foam to a bus in an unpaved area.

October 11, 1997 Plane Crash: EHTP records include documentation of a plane crash on this date when a plane skidded off a runway. The EHFD was noted to have been at the scene and boosted up the plane and sprayed foam underneath the aircraft for fire prevention. This crash was reported to have been located near where Runway 16 and former Runway 22 intersection.

August 31, 1998 Plane Crash: The EHTP records include documentation of a plane crash on this date that involved a plane that landed on the “main” runway without having landing gear down. This crash was reported near the east end of Runway 10, just to the east of Runway 16/34. The EHFD was on the scene for a gas leak and possible fire. Fire-fighting foam may have been used in the EHFD response to this plane crash.

N

LEGEND:

- PERMANENT WELL
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- ⊠ CATCH BASIN
- ▲ TAP LOCATION
- SITE BOUNDARY
- ✳ PLANE CRASH SITE

0' 200' 400' 800'

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FIGURE 1.3.1
SUSPECTED PFAS LOCATIONS
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date: 10/27/20

November 27, 1998 Plane Crash: The EHTP records include documentation of a plane crash on this date that involved a plane that skidded off Runway 22 during a landing when the landing gear collapsed; the specific location of this crash was not reported, but may be in proximity to the Fire Training Area noted on Figure 3.1.1. The EHFD responded to the scene for “washdown”. The “washdown” materials was not specified, but may have included firefighting foam.

November 29, 1998 Fuel Spill: The NYSDEC’s records of spill #98-10855 document that a plane crashed off the end of a runway on November 29,1998 resulting in a spill of aviation gasoline onto an unpaved surface. This incident is also documented in the EHTP records. The NYSDEC onsite observer reported that the fire department had foamed the area to suppress vapors, which is consistent with the EHTP records. A photograph confirms the use of foam. The spill/foam location was reported to be “275 feet north and 77 feet west of the fence in the southeast corner” and the foam was reported to have surrounded the spill. This information, together with a photograph included in the spill report, indicates that the spill/foam location was off the south end of Runway 16. An estimated 8 to 10 cubic yards of soil were excavated to a depth of about 6 feet for offsite disposal. No confirmatory sampling is reported.

Aircraft Taxiway: A fuel truck fire occurred in the summer of 2006 on the paved taxiway in front of the current terminal building. The EHFD truck that is used to store AFFF was present onsite, although the EHFD reported that AFFF was not used to extinguish the fire. A storm drain receives runoff from this area.

August 5, 2011 Plane Crash: The EHTP records include documentation of a plane crash on this date that involved a plane that collided with deer on the runway during a landing. The EHFD responded to the scene due to a fuel leak. Fire-fighting foam may have been used in the EHFD response to this plane crash.

Northeast Woods Plane Crash Site: EHTP records document that on August 26, 2012 a plane had taken off from Runway 10, encountered mechanical problems, turned left, and then crashed in a wooded area approximately 300 feet east of the airport. The plane ignited and was engulfed in flames; the EHFD used fire-fighting foam to extinguish the fire. A photo from near the crash scene appears to show residual foam on Daniels Hole Road in this area.

ARFF (EHFD Airport Substation): This facility is located at 72 Industrial Road and has reportedly been leased by the EHFD from the Town since construction of the two-bay garage building in 2000. An Oshkosh T1500 fire truck containing AFFF is stored onsite within the building and was reportedly purchased near the end of the 1990s. This truck is used to fight fires on the airport, which is accessed by a concrete ramp and paved road to the north of the garage or via an unpaved area and the paved Industrial Road located to the west and south of the garage building, respectively. The truck is also used to fight offsite fires involving fuel releases, including a plane crash that occurred in a Village of East Hampton residential area on October 23, 2005 (Bureau of Aircraft Accidents Archives), and for display purposes in parades.

AFFF was not observed to be presently stored onsite in portable containers; however, in a January 2017 Class B Fire Suppression Foam Usage Survey for the NYSDEC that was completed by the then EHFD First Assistant Chief Engineer Turza (copy in Appendix A), it was reported that in addition to storing AFFF, the EHFD used up to 100 gallons of AFFF for training purposes at this facility between 1 and 10 times over a 10-year period. Lt. Claflin of the EHPD reported that a foam bank consisting of containers of AFFF was maintained onsite starting when the building was constructed. Former onsite storage of AFFF is reported to have been in 55-gallon drums and 5-gallon pails in an indoor rack area on a concrete floor that is coated. Transfer of AFFF from the containers to the truck was reported to have been accomplished using a transfer pump from the drums and manual transfer from the pails. Transfer into the truck's ARFF tank was reported to have occurred via the tank hatch at the top of the truck while the truck was in the building. This tank was noted to be full of AFFF during the August 25, 2020 site visit. Chief Turza did not recall what happened with the empty portable containers (drums and pails) that formerly contained ARFF.

AFFF was also reported to have been used for fire-fighting/emergency response purposes between 1 and 10 times over a 10-year period, and was reported to have been used offsite in 2006 and 2015. These uses appeared to be located at a distance from the airport. The offsite use locations were not specified, and Chief Turza did not recall the 2015 use during the August 25, 2020 interview. Chief Turza did report that fire training exercises have been held in an area to the north-northeast of the ARFF around the southwest portion of former Runway 22; these exercises have reportedly occurred 3 or 4 times per year since at least 2006 (reportedly the beginning of his experience at the ARFF) and included truck operations and water practice. Lt. Claflin also reported fire training exercises in this area during his time of employment at the airport.

Multiple stains were observed on the garage floor beneath the truck containing AFFF and were reported to have resulted from leaks of several types of truck fluids. Several of the stains extended from the interior of the garage towards the concrete ramp to the north of the garage bays. This ramp appears to be generally pitched to the north in the direction of a stormwater leaching pool located at the northwest corner of the ramp. A small kitchen and a bathroom are present in the garage building and discharges are directed to an onsite sanitary waste disposal system located to the west of the garage. A utility room with a slop sink is also present in the garage and slop sink discharges also appear to be directed to the sanitary system. Based on the configuration of lids, this system appears to include a septic tank and one leaching pool. Chief Turza reported that this system has not been serviced during his tenure at the ARFF, which began in 2006.

East Hampton Fire District Training Facility: This facility is located at 65 Industrial Road and was formerly used by Disney for unspecified purposes prior to its use as a fire training facility. This property includes one warehouse-style building that has two floor drains. Mr. Shields, who has knowledge of this property since 2003, reported that fire and rescue exercises are conducted inside the building, but do not involve the use of fire-fighting fluids (water or foam) and he is not aware of any storage or use of AFFF in the building. Rosko Smoke Simulation Fluid is used in this building to generate "smoke" for training purposes; a Safety Data Sheet (SDS) for this fluid notes that it contains glycols. The bathrooms in the building discharge to an onsite sanitary waste disposal system located to the north of the building. No slop sink was observed within the building. A concrete ramp area is present adjoining the east side of this structure and is pitched to direct stormwater and any other runoff to two leaching pools present beneath the ramp.

This facility also includes an outdoor training area with a fire training (burn) pad with a propane fuel source and a "roof" structure that is used for non-burn training. Mr. Shields reports that vehicle fire and rescue training are conducted on the burn pad; this activity is supported by historic articles and photographs available online. The concrete burn pad was constructed between September 2013 and June 2014 and appears to have been used for multiple training exercises involving vehicles, as noted on historic aerial photos. An extension of the pad was noted to be under construction in June 2018 and the shed housing the propane-fired burning equipment was in place by September 2019. Prior to the construction of the burn pad, it appears that fire training exercises were conducted directly on the ground in this area of the property, as evidenced by vehicles and indications of disturbed ground noted on several historic aerial photos extending back to at least September 2006. An April 2001 aerial photo shows that the area around the building remained wooded at that time, indicating that outdoor fire training activities had not yet commenced.

The outdoor areas of this portion of the Site are fenced on the east, south, and west sides; these fences are reported to have been in place since at least 2003, which is consistent with the aerial photo information. The eastern fence separates this area of the Site from the adjoining EHTP facility. The southern and western fences separate this area of the Site from the adjoining EHTP impound yard and an access road.

Several areas of the Site were investigated during the Site Characterization (SC) investigation conducted by the NYSDEC. Additional areas were also evaluated during this investigation as follows:

Local Television, Inc.: This facility, which is downgradient of the ARFF, was investigated due to its proximity to the ARFF and the potential for runoff from the ARFF to have impacted groundwater.

East End Hangers: These hangers are located to the southwest of the airport runway area and were investigated to evaluate if impacts from AFFF were present. No significant PFAS impacts were identified.

Water Supply Wells: Drinking water supply wells that service leased hanger spaces at the airport were sampled.

SC and other investigations performed at the Site and in its vicinity between 2017 and 2019 are discussed in detail in Section 2.0. Based on the SC results, the NYSDEC determined that the Site presents a significant threat to public health and/or the environment. The Site was added to the Registry of Inactive Hazardous Waste Disposal Sites as a Class 2 site in 2019.

The scope of the RI described herein is intended to provide additional information to define the nature and extent of contamination present in soil, groundwater, and other parts of the environment that may be affected. The RI is also intended to identify the source(s) of the contamination, to assess the impact of the contamination on public health and the environment, and to provide information to support development of a proposed remedy to address the contamination.

1.4 Property Usage Immediately Adjacent to Site

The portion of the Site that is on the airport property is bounded to the east and northeast by Daniels Hole Road, beyond which undeveloped wooded areas are present, as shown on Figure 1.1.2. The northern-most area of this portion of the Site is just to the north of Daniels Hole Road; this area of the Site is bounded by undeveloped wooded areas. The western and southern areas of this portion of the Site are bounded by an undeveloped wooded area and airport property characterized by open grassy fields and paved runways and taxiways.

The portion of the Site that is located at 65 Industrial Road (Fire Training Facility) is bounded to the north by Industrial Road, beyond which are developed commercial/industrial properties (GT

Power Systems) and the airport property. The western side of this portion of the Site is bounded by an unpaved lot that is used by the EHPD for impounded vehicle parking, beyond which is the Living Water Full Gospel Church. The southern side of this portion of the Site is bounded by an access road to the impound yard, followed by LIRR tracks, beyond which is an undeveloped wooded property. The eastern side of this portion of the Site is bounded by an area of the same lot that is developed with a commercial/industrial building and paved areas used by the EHPD.

The portion of the Site that is located at 72 Industrial Road (ARFF) is bounded to the north and west by wooded areas, open grassy fields and a paved runway associated with the airport property. The southern side of this portion of the Site is bounded by Industrial Road, beyond which commercial/industrial properties are present, including Twin Forks Moving & Storage, LTV Studios, and Living Water Full Gospel Church. The eastern side of this portion of the Site is bounded by a commercial/industrial property (Ron Sullivan Welding & Steel Yard) and an undeveloped wooded property. Additional commercial/industrial businesses are present further to the east.

SECTION 2.0
SUMMARY OF PREVIOUS INVESTIGATIONS

An investigation for PFAS in water supply wells and vertical profile sampling locations south of the Site was conducted by the Suffolk County Department of Health Services (SCDHS) in 2017 and 2018 and identified detectable levels of PFAS in several areas. These detections included perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), the results of which were compared to the US Environmental Protection Agency (USEPA) health advisory level (HAL) of 70 parts per trillion (ppt). We note that current NYSDEC guidance for PFAS sampling and analysis includes more stringent guidelines for PFAS compounds in groundwater and New York State has established Maximum Contaminant Levels (MCLs) of 10 ppt for PFOA and PFOS. The highest concentrations of PFOA and PFOS during the SCDHS sampling were noted to the south of the Site. Point-of-entry water treatment systems were installed at the affected properties with water supply wells and the public water supply network was extended to the affected area. Additional information concerning this investigation is provided in Section 2.1 below.

An SC investigation was conducted by the NYSDEC (contractor: AECOM) in 2018, with additional sampling conducted in 2019 (Addendum) to determine if there was a significant threat to public health and/or the environment. The SC investigations included testing of soil, groundwater and drinking water at the Site and immediate vicinity. The results indicated the presence of PFAS compounds in soil and groundwater at the Site. The SC and SC Addendum reports (AECOM, 2018 and 2020) noted that PFOA and/or PFOS were detected in Site groundwater at concentrations above the EPA HAL at locations where fire-fighting foam training and crash responses occurred, where AFFF was used in a mass casualty training exercise, and AFFF and fire trucks are stored, and adjacent to a burn training structure. In each of these places the EHFD used of stored fire-fighting foam. Additional information concerning the SC investigation is provided in Section 2.2 below.

An SC investigation was conducted by the NYSDEC (contractor: HDR) in 2020 for the Wainscott Sand and Gravel (WSG) Site (Site #152254), which was identified as a “P” or potential Inactive Hazardous Waste Disposal site and is located just to the southeast of the East Hampton Airport Site. The SC investigation included testing of soil and groundwater at the WSG Site and the results indicated the presence of PFAS compounds in soil and groundwater at the Site. Additional information concerning this SC investigation is provided in Section 2.3 below.

Environmental data from the Site and vicinity are evaluated relative to applicable New York State standards, criteria, and guidance (SCGs). The applicable SCGs for soil, groundwater, and soil vapor for most analytes include the 6 CRR-NY Part 375-6 soil cleanup objectives (SCOs) for soil, the 6 CRR-NY Part 703.5 Class GA Ambient Water Quality Standards (Standards) for groundwater, and the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, and May 2017 updated matrices). For the PFAS compounds PFOA and PFOS in drinking water, the USEPA HAL of 70 ppt for either compound and their sum is applicable. For PFAS in groundwater and/or soil, guidance in the NYSDEC’s *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC’s Part 375 Remedial Programs* (October 2020) is applicable.

A preliminary Conceptual Site Model (CSM) is presented at the end of this section. The CSM summarizes the general understanding of the Site based on the existing data and identifies areas for which further investigation is needed.

2.1 SCDHS Sampling

In June 2017, in response to information concerning use of AFFF on the East Hampton Airport property, the NYSDOH requested that the SCDHS sample public water supply wells in the vicinity of the airport for PFAS compounds. The SCDHS was reported to have collected and tested 13 samples from non-community public water supply wells in July 2017. The NYSDEC reviewed these results and requested that the SCDHS sample additional wells downgradient of the Site.

The SCDHS conducted private water supply well sampling in 2017 and 2018 in a phased approach, with the sampling area generally encompassed by Daniels Hole Road on the east, Georgica Pond and the Atlantic Ocean on the south, Wainscott Pond, Wainscott Hollow Road, Townline Road, and Wainscott Harbor Road on the west, and Merchants Path and the airport property on the north. As of October 19, 2018, 498 private water supply wells were reported to have been sampled, with 17 wells noted to contain PFOS and/or PFOA above the HAL and an additional 217 wells with PFOA and/or PFOS detections below the HAL. The remaining 264 wells were not reported to exhibit PFOA or PFOS detections. The available information shows that the PFOS and PFOA detections were noted in the area generally bounded by Daniels Hole Road, Wainscott Stone Road, Sayres Path and Townline Road, and the LIRR tracks. The more elevated concentrations were noted near and downgradient of the intersection of Old Montauk Highway and Hedges Road, near the intersection of Sandown Court and Wainscott Northwest Road, in an area to the southwest of Daniels Hole Road, in the area of Westwood Road and Whitney Lane, and near the north end of Gate Road. We note that the private water supply well locations on each property were not specified, nor were the depths and intervals of each well screen reported; further subsurface investigation is required in these areas for determine the full nature and extent of contamination. We also note that private water supply well screen intervals and depths can be variable, depending on the age of the well, whether it was installed in accordance with current regulatory criteria, and other factors, and are unlikely to be known by homeowners. Finally, the reported data include results for only PFOA and PFOS; data were not provided for other PFAS compounds. Therefore, although the private water supply well data are useful as an indicator of the potential extent of PFAS impacts in groundwater in the area generally to the south of the Site, additional information is needed to evaluate the distribution of PFAS impacts in groundwater and the potential source(s) of the identified impacts.

The SCDHS conducted vertical profile groundwater sampling between February and April 2018. Each profile included at least four samples collected at 10-foot intervals, with the deepest samples generally collected from up to 80 feet below grade. The profile locations are shown in Figure 2.1.1 and most are generally to the south (downgradient) of the Site, although several are located in crossgradient or upgradient positions or in proximity to the Site. The results, which included data for multiple PFAS compounds, are included in the SC Report, which is included in Appendix A to this work plan, and were compared in the report to the EPA's HAL of 70 ppt for PFOA and PFOS, as generally shown on Figure 2.1.1.

Low levels of one PFAS compound (perfluorohexane sulfonic acid, or PFHxS) were found in the two shallowest intervals of the profile located upgradient of the North Field Area of the Site (WPFC-20); no other PFAS compounds were detected at this upgradient location. No PFAS compounds were detected in the other profile upgradient of the study area (WPFC-16, upgradient/crossgradient of the Site). PFAS compounds were detected at all other sampled locations, typically at multiple depths in the Upper Glacial Aquifer. PFOA and/or PFOS was detected in two vertical profiles located crossgradient of the Site (WPFC-3 and WPFC-4) at levels

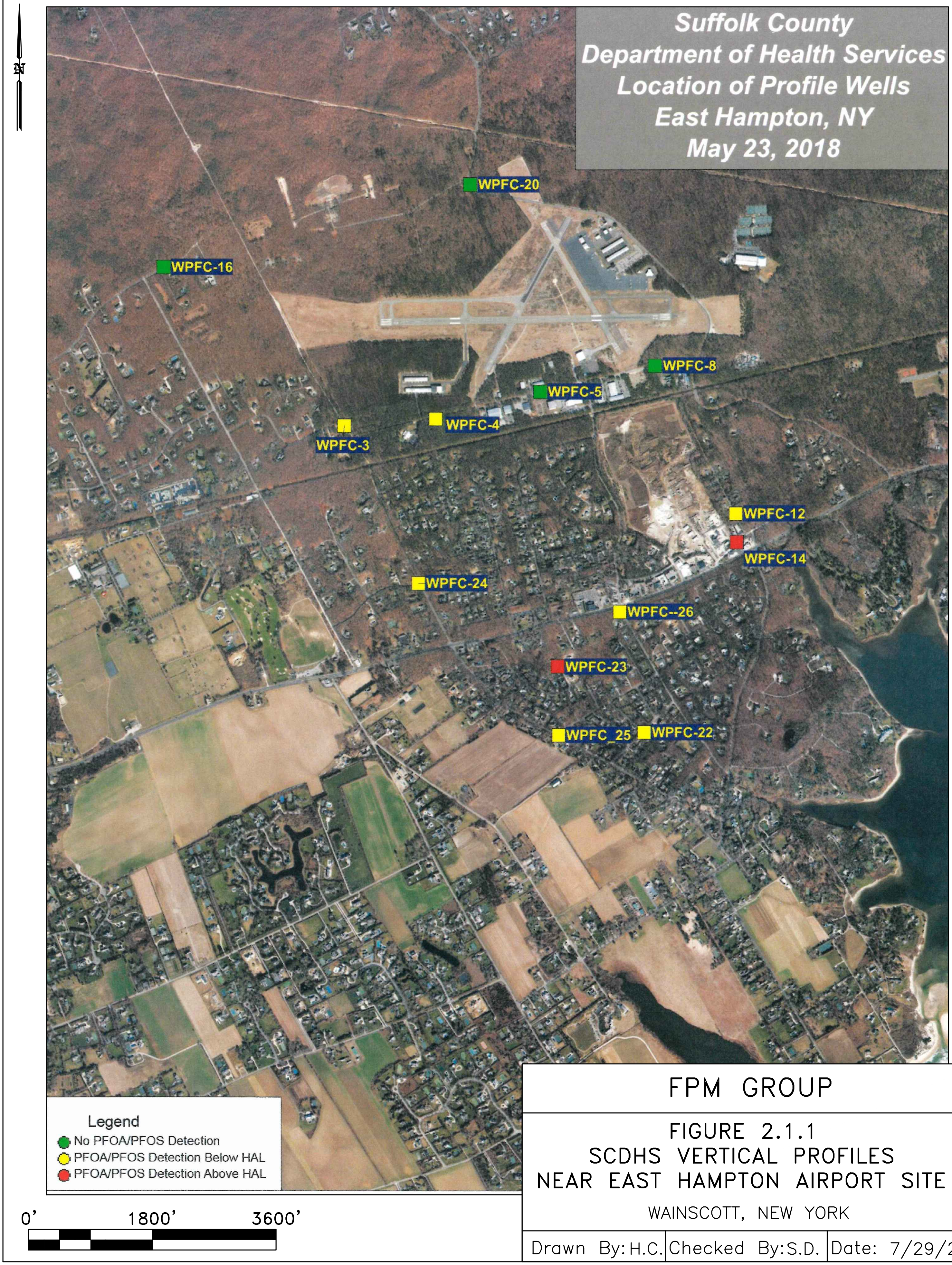

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FIGURE 2.1.1
SCDHS VERTICAL PROFILES NEAR EAST HAMPTON AIRPORT SITE

WAINSCOTT, NEW YORK

Drawn By: H.C. Checked By: S.D. Date: 7/29/20

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 2.1.1.dwg, 7/29/2020 3:28:32 PM, DWG To PDF.pc3 below the HAL; several other PFAS compounds were detected at these locations, including PFHxS at levels above current NYSDEC guidance in two deeper intervals of WPFC-4. PFOS and/or PFOA were generally detected in the profiles located downgradient of the Site, with levels above the HAL in two profiles: WPFC-23 near the intersection of Old Montauk Highway and Hedges Road and WPFC-14 near Roxbury Lane. These profiles are both in areas where more elevated PFOA and/or PFOS concentrations were noted in the private water supply well sampling. PFAS compounds were detected in several profiles to the maximum depth penetrated, suggesting vertical PFAS migration in the Upper Glacial Aquifer. These data are useful for evaluating the vertical distribution of PFAS impacts in the aquifer and the types of PFAS compounds present. However, the profile locations are widely-spaced and additional investigation is needed to evaluate the lateral distribution of PFAS impacts and the potential source(s) of the impacts.

2.2 Site Characterization Investigation

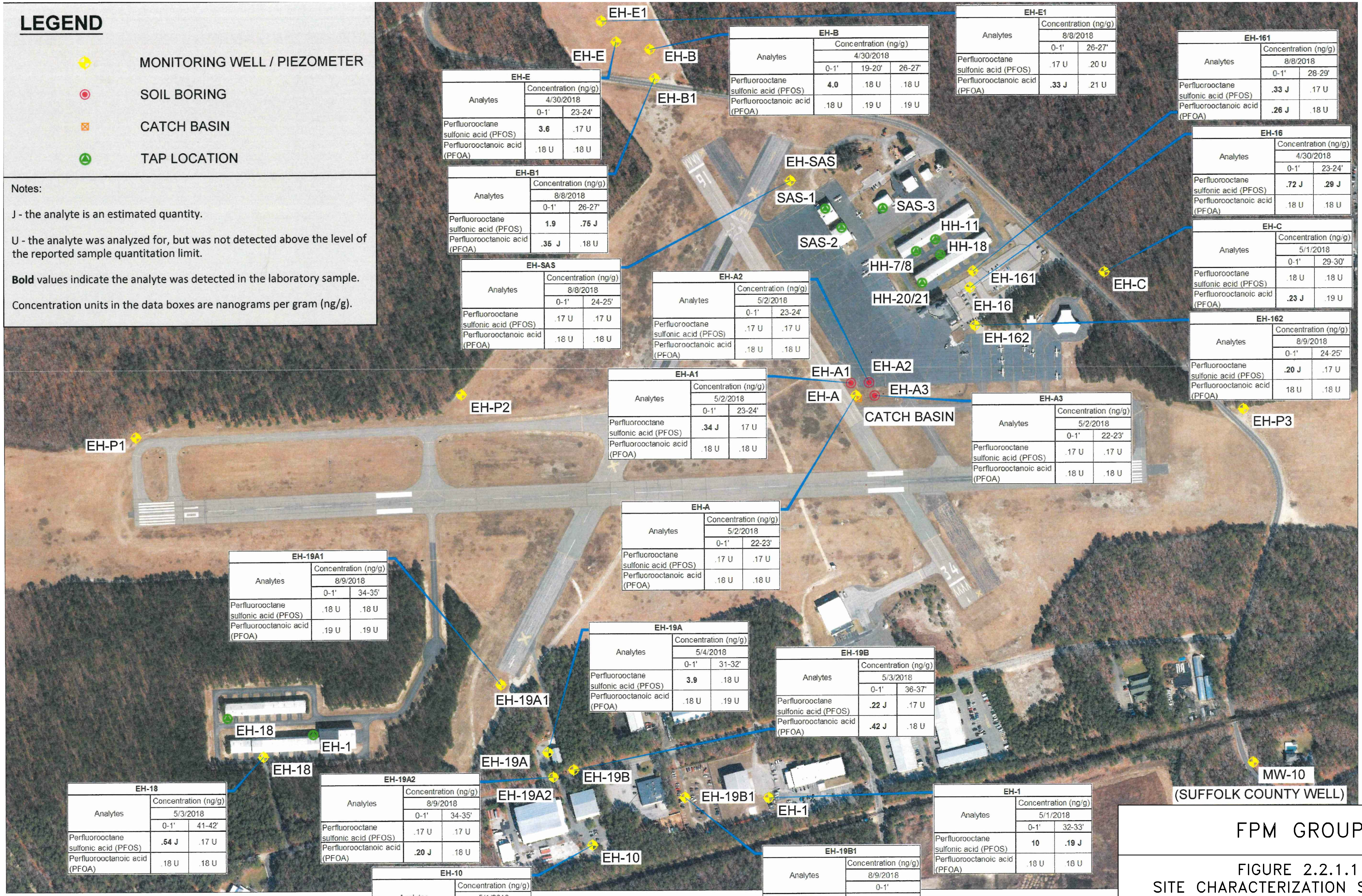
An SC investigation at the East Hampton Airport Site was conducted by the NYSDEC through its contractor AECOM in 2018, with additional sampling conducted in 2019 (Addendum) to determine if there was a significant threat to public health and/or the environment. The SC investigation included testing of soil, groundwater, and drinking water supply wells at the Site and immediate vicinity. The results indicated the presence of PFAS compounds in soil, groundwater, and drinking water supply wells at the Site. The SC results are summarized below.

2.2.1 Soil Sampling and Results

Soil sampling was conducted from soil borings and monitoring well/piezometer borings at 21 locations on the Site and in its vicinity during the SC. Two samples were collected at nearly all locations, generally from the shallow 0 to 1-foot interval and from a deeper interval; the deeper intervals ranged from 22 to 42 feet below grade and were generally just above or below the water table surface. No soil sampling was performed between the shallow and deep intervals except at EH-B, where an intermediate sample was collected from the 19 to 20-foot interval.

The samples were tested for PFAS compounds. Figure 2.2.1.1 (Figure 6 from the SC Report) shows the soil sampling locations and summarizes the results for PFOS and PFOA at each location. The full results are shown on Table 2.2.1.1; concentrations of PFOA and PFOS exceeding current NYSDEC Guidance Values for Unrestricted Use and/or for Protection of Groundwater are highlighted. We note that none of the detections exceed current NYSDEC Guidance Values for Commercial or Industrial Uses.

PFAS compounds were detected in nearly all of the soil samples collected, with only two locations (EH-SAS and EH-A2) showing no detections. In general, the deeper samples showed fewer PFAS compounds and the detections were generally lower than in the shallow interval at each location. This distribution suggests that PFAS releases were to the surface and PFAS compounds have migrated downward to the vicinity of the water table. The most elevated concentrations of PFOA and PFOS all occurred in the shallow interval, with the maximum PFOS detection (15 ng/g) noted in the duplicate of the 0 to 1-foot sample at the EH-1 location on the Fire Training Facility portion of the Site. The maximum PFOA detection (3.8 ng/g) was noted in the 0 to 1-foot sample from the EH-19B1 location in the parking lot immediately to the west of the Fire Training Facility portion of the Site. Detections exceeding the NYSDEC Guidance Value for Protection of Groundwater were noted at the EH-B location in the North Field Area (location of the 1995 plane crash and the 2008 mass casualty training event conducted by the EHFD), the



LEGEND

●	MONITORING WELL / PIEZOMETER
●	SOIL BORING
⊠	CATCH BASIN
●	TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Concentration units in the data boxes are nanograms per gram (ng/g).

EH-E1

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	26-27'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.20 U
Perfluorooctanoic acid (PFOA)	**.33 J**	.21 U

EH-B

Analytes	Concentration (ng/g)		
	4/30/2018		
	0-1'	19-20'	26-27'
Perfluorooctane sulfonic acid (PFOS)	**4.0**	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	.18 U	.19 U	.19 U

EH-E

Analytes	Concentration (ng/g)	
	4/30/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**3.6**	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-161

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	28-29'
Perfluorooctane sulfonic acid (PFOS)	**.33 J**	.17 U
Perfluorooctanoic acid (PFOA)	**.26 J**	.18 U

EH-B1

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	26-27'
Perfluorooctane sulfonic acid (PFOS)	**1.9**	**.75 J**
Perfluorooctanoic acid (PFOA)	**.35 J**	.18 U

EH-16

Analytes	Concentration (ng/g)	
	4/30/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**.72 J**	**.29 J**
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-SAS

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	24-25'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A2

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-C

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	29-30'
Perfluorooctane sulfonic acid (PFOS)	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	**.23 J**	.19 U

EH-162

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	24-25'
Perfluorooctane sulfonic acid (PFOS)	**.20 J**	.17 U
Perfluorooctanoic acid (PFOA)	18 U	.18 U

EH-A1

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**.34 J**	17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A3

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	22-23'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	22-23'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-19A1

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	34-35'
Perfluorooctane sulfonic acid (PFOS)	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	.19 U	.19 U

EH-19A

Analytes	Concentration (ng/g)	
	5/4/2018	
	0-1'	31-32'
Perfluorooctane sulfonic acid (PFOS)	**3.9**	.18 U
Perfluorooctanoic acid (PFOA)	.18 U	.19 U

EH-19B

Analytes	Concentration (ng/g)	
	5/3/2018	
	0-1'	36-37'
Perfluorooctane sulfonic acid (PFOS)	**.22 J**	.17 U
Perfluorooctanoic acid (PFOA)	**.42 J**	.18 U

EH-18

Analytes	Concentration (ng/g)	
	5/3/2018	
	0-1'	41-42'
Perfluorooctane sulfonic acid (PFOS)	**.54 J**	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-19A2

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	34-35'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	**.20 J**	.18 U

EH-1

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	32-33'
Perfluorooctane sulfonic acid (PFOS)	**10**	**.19 J**
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-10

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	33-34'
Perfluorooctane sulfonic acid (PFOS)	**.64 J**	.17 U
Perfluorooctanoic acid (PFOA)	.19 U	.18 U

EH-19B1

Analytes	Concentration (ng/g)
	8/9/2018
	0-1'
Perfluorooctane sulfonic acid (PFOS)	**12**
Perfluorooctanoic acid (PFOA)	**3.8**

SOURCE: SITE CHARACTERIZATION REPORT,
NOVEMBER 30, 2018

FPM GROUP

FIGURE 2.2.1.1
SITE CHARACTERIZATION SOIL DATA
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date: 7/9/20

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 2.2.1.1.dwg, 9/15/2020 3:12:10 PM, DWG To PDF.pc3

TABLE 2.2.1.1
SOIL CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	**North Field**									**Sound Aircraft Services**		**NYSDEC Guidance Value for Unrestricted Use**	**NYSDEC Guidance Value for Protection of Groundwater**
	Boring ID	**EH-B**			**EH-B1**		**EH-E**		**EH-E1**		**EH-SAS**			
	Date	4/30/2018			8/8/2018		4/30/2018		8/8/2018		8/8/2018			
Analytes	**Sample Interval (fbg)**	0-1	19-20	26-27	0-1	26-27	0-1	23-24	0-1	26-27	0-1	24-25		
Perfluorobutance sulfonic acid (PFBS)		0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.20 U	0.17 U	0.17 U	-	-
Perluorohexane sulfonic acid (PFHxS)		**0.53 J**	**0.22 J**	**0.29 J**	0.27 U	0.21 U	**0.25 J**	**0.20 J**	0.27 U	0.28 U	0.18 U	0.17 U	-	-
Perfluoroheptane sulfonic acid (PFHpS)		0.14 U	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.14 U	0.14 U	-	-
Perfluorooctane sulfonic acid (PFOS)		**4.0**	0.17 U	0.17 U	**1.9**	**0.75 J**	**3.6**	0.17 U	0.17 U	0.20 U	0.17 U	0.17 U	0.88	3.7
Perfluorodecane sulfonic acid (PFDS)		0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.20 U	0.17 U	0.17 U	-	-
Perfluorobutanoic acid (PFBA)		0.18 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.21 U	0.18 U	0.18 U	-	-
Perfluoropentanoic acid (PFPeA)		0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	**0.20 J**	0.22 U	0.19 U	0.19 U	-	-
Perfluorohexanoic acid (PFHxA)		0.21 U	0.21 U	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U	**0.34 J**	0.24 U	0.21 U	0.21 U	-	-
Perfluoroheptanoic acid (PFHpA)		**0.28 J**	**0.26 J**	**0.32 J**	0.23 U	0.22 U	**0.27 J**	**0.22 J**	0.22 U	0.26 U	0.22 U	0.22 U	-	-
Perfluorooctanoic acid (PFOA)		0.18 U	0.18 U	0.18 U	**0.35 J**	0.18 U	0.18 U	0.18 U	**0.33 J**	0.21 U	0.18 U	0.18 U	0.66	1.1
Perfluorononanoic acid (PFNA)		0.32 U	0.25 U	0.27 U	**0.32 J**	0.18 U	0.48 U	0.24 U	0.18 U	0.21 U	0.18 U	0.18 U	-	-
Perfluorodecanoic acid (PFDA)		0.41 U	0.25 U	0.20 U	0.21 U	0.20 U	0.29 U	0.21 U	0.20 U	0.23 U	0.20 U	0.20 U	-	-
Perfluoroundecanoic acid (PFUnDA)		**0.26 J**	0.25 U	0.25 U	0.26 U	0.25 U	0.25 U	0.25 U	0.25 U	0.29 U	0.25 U	0.25 U	-	-
Perfluorododecanoic acid (PFDoDA)		0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U	0.26 U	0.30 U	0.26 U	0.26 U	-	-
Perfluorotridecanoic acid (PFTrDA)		**0.24 J**	**0.21 J**	0.15 U	0.16 U	0.15 U	**0.19 J**	0.15 U	0.15 U	0.18 U	0.15 U	0.15 U	-	-
Perfluorotetradecanoic acid (PFTeDA)		0.38 U	0.38 U	0.38 U	0.39 U	0.38 U	0.38 U	0.38 U	0.38 U	0.44 U	0.38 U	0.38 U	-	-
Perflurooctane sulfonamide (FOSA)		0.13 U	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U	0.13 U	0.13 U	-	-
N-Methyl perfluorooctane sulfonamidoacetic acid		0.085 U	0.085 U	0.085 U	**0.24 J**	**0.31 J**	0.085 U	0.085 U	0.085 UJ	**0.45 J**	0.085 UJ	0.085 UJ	-	-
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.11 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	**1.3**	0.11 U	0.11 U	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.20 U	0.17 U	0.17 U	-	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	0.26 U	0.22 U	0.22 U	-	-

Notes:

Units are ng/g (nanogram/gram or ppb).

Detected concentrations are in **Bold font.**

Detections exceeding NYSDEC guidance for unrestricted use are highlighted in gray.

Detections exceeding NYSDEC guidance for protection of groundwater are highlighted in yellow.

fbg = feet below grade.

U -The analyte was analyzed for but was not detected above the level of the reported quantitation limit.

UJ -The analyte was analyzed for but was not detected. The reported quantitation limit is approximate.

J - Indicates an estimated value for the analyte.

- = Not established

TABLE 2.2.1.1 (Continued)
SOIL CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	**Airport Parking Lot**							**Northwest Woods**		**East Hampton PD**				**NYSDEC Guidance Value for Unrestricted Use**	**NYSDEC Guidance Value for Protection of Groundwater**
	Boring ID	**EH-16**		**EH-161**			**EH-162**		**EH-C**		**EH-1**					
	Date	4/30/2018		8/8/2018			8/9/2018		5/1/2018		5/1/2018					
Analytes	**Sample Interval (fbg)**	0-1	23-24	0-1	0-1 Duplicate	28-29	0-1	24-25	0-1	29-30	0-1	0-1 Duplicate	32-33	32-33 Duplicate		
Perfluorobutance sulfonic acid (PFBS)		0.17 U	0.17 U	0.18 U	0.19 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
Perluorohexane sulfonic acid (PFHxS)		0.17 U	0.17 U	0.20 U	0.30 U	0.17 U	0.17 U	0.17 U	0.18 U	**0.19 J**	0.17 U	0.17 U	**0.20 J**	**0.37 J**	-	-
Perfluoroheptane sulfonic acid (PFHpS)		0.14 U	0.14 U	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	-
Perfluorooctane sulfonic acid (PFOS)		**0.72 J**	**0.29 J**	**0.33 J**	**0.22 J**	0.17 U	**0.20 J**	0.17 U	0.18 U	0.18 U	**10**	**15**	**0.19 J**	**0.35 J**	0.88	3.7
Perfluorodecane sulfonic acid (PFDS)		0.17 U	0.17 U	0.18 U	0.19 U	0.17 U	0.17 U	0.17 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
Perfluorobutanoic acid (PFBA)		0.18 U	0.18 U	0.19 U	0.2 U	0.18 U	0.18 U	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	-	-
Perfluoropentanoic acid (PFPeA)		0.19 U	0.19 U	0.21 U	0.21 U	0.19 U	0.19 U	0.19 U	**0.48 J**	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	-	-
Perfluorohexanoic acid (PFHxA)		0.21 U	0.21 U	0.23 U	0.23 U	0.21 U	0.21 U	0.21 U	**0.51 J**	0.22 U	0.21 U	0.21 U	0.21 U	0.21 U	-	-
Perfluoroheptanoic acid (PFHpA)		**0.23 J**	0.22 U	0.24 U	0.24 U	0.22 U	0.22 U	0.22 U	**0.51 J**	**0.24 J**	**0.24 J**	**0.25 J**	0.22 U	**0.25 J**	-	-
Perfluorooctanoic acid (PFOA)		0.18 U	0.18 U	**0.26 J**	**0.38 J**	0.18 U	0.18 U	0.18 U	**0.23 J**	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.66	1.1
Perfluorononanoic acid (PFNA)		0.24 U	0.19 U	0.19 U	0.2 U	0.18 U	0.18 U	0.18 U	0.32 U	0.26 U	0.18 U	0.47 U	0.18 U	0.24 U	-	-
Perfluorodecanoic acid (PFDA)		0.2 U	0.20 U	0.22 U	0.22 U	0.20 U	0.20 U	0.20 U	0.25 U	0.21 U	0.20 U	0.24 U	0.20 U	0.21 U	-	-
Perfluoroundecanoic acid (PFUnDA)		0.25 U	0.25 U	0.27 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.55 U	0.25 U	0.25 U	0.25 U	-	-
Perfluorododecanoic acid (PFDoDA)		0.26 U	0.26 U	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U	0.27 U	0.27 U	0.26 U	0.26 U	0.26 U	0.26 U	-	-
Perfluorotridecanoic acid (PFTrDA)		0.15 U	**0.15 J**	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	**0.18 J**	0.16 U	0.15 U	0.15 U	0.15 U	0.15 U	-	-
Perfluorotetradecanoic acid (PFTeDA)		0.38 U	0.38 U	0.41 U	0.41 U	0.38 U	0.38 U	0.38 U	0.40 U	0.39 U	0.38 U	0.38 U	0.38 U	0.38 U	-	-
Perflurooctane sulfonamide (FOSA)		0.13 U	0.13 U	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	-	-
N-Methyl perfluorooctane sulfonamidoacetic acid		0.085 U	0.085 U	0.09 UJ	**0.33 J**	0.085 UJ	**0.41 J**	0.085 UJ	0.088 U	0.087 U	0.085 U	0.085 U	0.085 U	0.085 U	-	-
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		0.17 U	0.17 U	0.18 U	0.19 U	0.17 U	0.17 U	0.17 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.22 U	0.22 U	0.24 U	0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	-	-

Notes:

Units are ng/g (nanogram/gram or ppb).

Detected concentrations are in **Bold font.**

Detections exceeding NYSDEC guidance for unrestricted use are highlighted in gray.

Detections exceeding NYSDEC guidance for protection of groundwater are highlighted in yellow.

fbg = feet below grade.

U -The analyte was analyzed for but was not detected above the level of the reported quantitation limit.

UJ -The analyte was analyzed for but was not detected. The reported quantitation limit is approximate.

J - Indicates an estimated value for the analyte.

- = Not established

TABLE 2.2.1.1 (Continued)
SOIL CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	**Local Television Inc**		**Aircraft/ Helicopter Taxiway**								**NYSDEC Guidance Value for Unrestricted Use**	**NYSDEC Guidance Value for Protection of Groundwater**
	Boring ID	**EH-10**		**EH- A**		**EH- A1**		**EH-A2**		**EH-A3**			
	Date	5/1/2018		5/2/2018		5/2/2018		5/2/2018		5/2/2018			
Analytes	**Sample Interval (fbg)**	0-1	33-34	0-1	22-23	0-1	23-24	0-1	23-24	0-1	22-23		
Perfluorobutance sulfonic acid (PFBS)		0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 UJ	0.17 U	0.17 U	0.17 U	0.17 U	-	-
Perluorohexane sulfonic acid (PFHxS)		0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
Perfluoroheptane sulfonic acid (PFHpS)		0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	-
Perfluorooctane sulfonic acid (PFOS)		**0.64 J**	0.17 U	0.17 U	0.17 U	**0.34 J**	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.88	3.7
Perfluorodecane sulfonic acid (PFDS)		0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
Perfluorobutanoic acid (PFBA)		0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	-	-
Perfluoropentanoic acid (PFPeA)		0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	-	-
Perfluorohexanoic acid (PFHxA)		0.22 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	-	-
Perfluoroheptanoic acid (PFHpA)		0.23 U	0.22 U	0.22 U	0.22 U	**0.25 J**	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	-	-
Perfluorooctanoic acid (PFOA)		0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.66	1.1
Perfluorononanoic acid (PFNA)		0.24 U	0.18 U	0.18 U	0.18 U	0.24 U	0.25 U	0.18 U	0.23 U	0.21 U	0.23 U	-	-
Perfluorodecanoic acid (PFDA)		0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.20 U	0.21 U	0.25 U	0.25 U	-	-
Perfluoroundecanoic acid (PFUnDA)		0.26 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	-	-
Perfluorododecanoic acid (PFDoDA)		0.27 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	-	-
Perfluorotridecanoic acid (PFTrDA)		0.16 U	0.15 U	**0.19 J**	**0.20 J**	**0.16 J**	**0.17 J**	0.15 U	0.15 U	0.15 U	**0.17 J**	-	-
Perfluorotetradecanoic acid (PFTeDA)		0.39 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	-	-
Perflurooctane sulfonamide (FOSA)		0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	-	-
N-Methyl perfluorooctane sulfonamidoacetic acid		0.086 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	-	-
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	-	-

Notes:
Units are ng/g (nanogram/gram or ppb).
Detected concentrations are in **Bold font.**
Detections exceeding NYSDEC guidance for unrestricted use are highlighted in gray.
Detections exceeding NYSDEC guidance for protection of groundwater are highlighted in yellow.

fbg = feet below grade.
U -The analyte was analyzed for but was not detected above the level of the reported quantitation limit.
UJ -The analyte was analyzed for but was not detected. The reported quantitation limit is approximate.
J - Indicates an estimated value for the analyte.
- = Not established

TABLE 2.2.1.1 (Continued)
SOIL CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

Area	**East End Hangars**		**ARFF**									**NYSDEC Guidance Value for Unrestricted Use**	**NYSDEC Guidance Value for Protection of Groundwater**
Boring ID	**EH-18**		**EH-19A**		**EH-19A1**		**EH-19A2**		**EH-19B**		**EH-19B1***		
Date	5/3/2018		5/4/2018		8/9/2018		8/9/2018		5/3/2018		8/9/2018		
Analytes / **Sample Interval (fbg)**	0-1	41-42	0-1	31-32	0-1	34-35	0-1	34-35	0-1	36-37	0-1		
Perfluorobutance sulfonic acid (PFBS)	0.17 U	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.18 U	0.17 U	0.18 U	-	-
Perluorohexane sulfonic acid (PFHxS)	0.17 U	**0.19 J**	0.17 U	0.18 U	0.59 U	0.18 U	0.17 U	0.17 U	**0.28 J**	**0.17 J**	**3.8**	-	-
Perfluoroheptane sulfonic acid (PFHpS)	0.14 U	0.14 U	0.14 U	0.15 U	0.15 U	0.15 U	0.14 U	0.14 U	0.15 U	0.14 U	**1.9**	-	-
Perfluorooctane sulfonic acid (PFOS)	**0.54 J**	0.17 U	**3.9**	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	**0.22 J**	0.17 U	**12**	0.88	3.7
Perfluorodecane sulfonic acid (PFDS)	0.17 U	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.18 U	0.17 U	0.18 U	-	-
Perfluorobutanoic acid (PFBA)	0.18 U	0.18 U	0.18 U	0.19 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	-	-
Perfluoropentanoic acid (PFPeA)	0.19 U	0.19 U	0.19 U	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	**0.48 J**	-	-
Perfluorohexanoic acid (PFHxA)	0.21 U	0.21 U	0.21 U	0.22 U	**0.23 J**	0.22 U	0.21 U	0.21 U	0.21 U	0.21 U	**0.75 J**	-	-
Perfluoroheptanoic acid (PFHpA)	0.26 U	0.22 U	0.22 U	0.29 U	0.23 U	0.23 U	0.22 U	0.22 U	0.30 U	0.22 U	0.24 U	-	-
Perfluorooctanoic acid (PFOA)	0.18 U	0.18 U	0.18 U	0.19 U	0.19 U	0.19 U	**0.20 J**	0.18 U	**0.42 J**	0.18 U	**3.8**	0.66	1.1
Perfluorononanoic acid (PFNA)	0.29 U	0.25 U	0.49 U	0.22 U	0.19 U	0.19 U	0.18 U	0.18 U	0.25 U	0.18 U	**0.49 J**	-	-
Perfluorodecanoic acid (PFDA)	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.20 U	0.22 U	0.20 U	0.21 U	-	-
Perfluoroundecanoic acid (PFUnDA)	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.27 U	-	-
Perfluorododecanoic acid (PFDoDA)	0.26 U	0.26 U	0.26 U	0.27 U	0.27 U	0.27 U	0.26 U	0.26 U	0.27 U	0.26 U	0.28 U	-	-
Perfluorotridecanoic acid (PFTrDA)	**0.16 J**	0.15 U	0.15 U	0.16 U	0.16 U	0.16 U	0.15 U	0.15 U	**0.16 J**	**0.20 J**	0.16 U	-	-
Perfluorotetradecanoic acid (PFTeDA)	0.38 U	0.38 U	0.38 U	0.39 U	0.39 U	0.39 U	0.38 U	0.38 U	0.39 U	0.38 U	0.40 U	-	-
Perflurooctane sulfonamide (FOSA)	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	-	-
N-Methyl perfluorooctane sulfonamidoacetic acid	0.085 U	0.085 U	0.085 U	0.087 U	0.086 UJ	0.086 UJ	0.085 UJ	0.085 UJ	0.087 U	0.085 U	0.09 UJ	-	-
N-Ethyl perfluorooctane sulfonamidoacetic acid	0.11 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.12 U	0.11 U	0.12 U	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.17 U	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18 U	-	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	0.24 U	-	-

Notes:
Units are ng/g (nanogram/gram or ppb).
Detected concentrations are in **Bold font.**
Detections exceeding NYSDEC guidance for unrestricted use are highlighted in gray.
Detections exceeding NYSDEC guidance for protection of groundwater are highlighted in yellow.

fbg = feet below grade.
U -The analyte was analyzed for but was not detected above the level of the reported quantitation limit.
UJ -The analyte was analyzed for but was not detected. The reported quantitation limit is approximate.
J - Indicates an estimated value for the analyte.
- = Not established

EH-1 location at the Fire Training Facility (noted as the East Hampton PD in the SC Report), and the EH-19A and EH-19B1 locations associated with the ARFF, where AFFF is stored by the EHFD.

2.2.2 Groundwater Sampling and Results

Groundwater sampling was conducted from temporary and permanent monitoring wells and piezometers on the Site and in its vicinity during the SC. Temporary monitoring wells and piezometers were installed during the initial SC activities, with permanent wells installed at six of these locations (EH-1, EH-19A, EH-19B, EH-19A2, EH-B1, and EH-162) during the SC Addendum activities. Each temporary well/piezometer was sampled once during the initial SC activities and each permanent monitoring well was sampled once during the Addendum activities. In addition, one monitoring well (MW-10, noted as a Suffolk County Water Authority monitoring well) located to the southeast of the Site was also sampled during the initial SC activities.

The SC well and piezometer screens were noted to each be 10 feet long and were installed across the water table surface. Thus, these wells are designed to monitor the uppermost interval of the Upper Glacial Aquifer. The existing MW-10 well was noted to have a water column of approximately 22 feet and its screen configuration was not reported. This well may be positioned to sample groundwater at a somewhat lower level of the aquifer.

The depth-to-groundwater measurements obtained during SC activities were integrated with the surveyed elevations of the wells/piezometers to determine the site-specific lateral groundwater flow direction at the water table. The August 2018 data, which include measurements from all of the temporary wells and piezometers, show a southeasterly flow at a gradient of 4×10^{-4} ft/ft. The March 2019 data, which include measurements from only the six permanent monitoring wells, also show a southeasterly flow. Although these data are more limited, the gradient appears to be slightly steeper, at 6×10^{-4} ft/ft. We note that the water table elevation was about 4 feet higher in March 2019 relative to the elevation noted in August 2018; this change is likely due to stormwater recharge during the 2018/2019 winter months. Figure 2.2.2.1 (Figure 4 from the SC Report) shows the groundwater flow direction in August 2018 based on data from all of the temporary wells and piezometers installed at that time.

All of the groundwater samples were tested for PFAS compounds. Figure 2.2.2.2 (Figure 3 from the Addendum to the SC Report) shows the groundwater sampling locations and summarizes the results for PFOS and PFOA at each location. The full PFAS results are shown on Table 2.2.2.1; concentrations of PFAS compounds exceeding current NYSDEC guidance (PFOA or PFOS exceeding 10 nanograms per liter (ng/L or ppt), any PFAS compound exceeding 100 ng/l, or total of PFAS compounds exceeding 500 ng/l) are highlighted.

PFAS compounds were detected in groundwater at nearly all of the locations sampled; the only locations with no PFAS detections in groundwater were the catch basin next to the tarmac area on the airport portion of the Site, the EH-P2 location to the north of Runway 10/28 (north and west of the Site), the EH-10 location of the Local Television Inc. property on Industrial Road, and the EH-18 location at the East End Hangers property to the west of the Site. Exceedances of current NYSDEC guidance for PFAS in groundwater were noted at the EH-B, EH-B1 and EH-E locations in the North Field Area (location of the 1995 plane crash and the 2008 mass casualty training event conducted by the EHFD), the EH-16 and EH-162 locations in the Airport parking lot (site of the 1997 EHFD mass casualty drill), EH-1 at the Fire Training Facility, and the EH-19A, EH-19A1,

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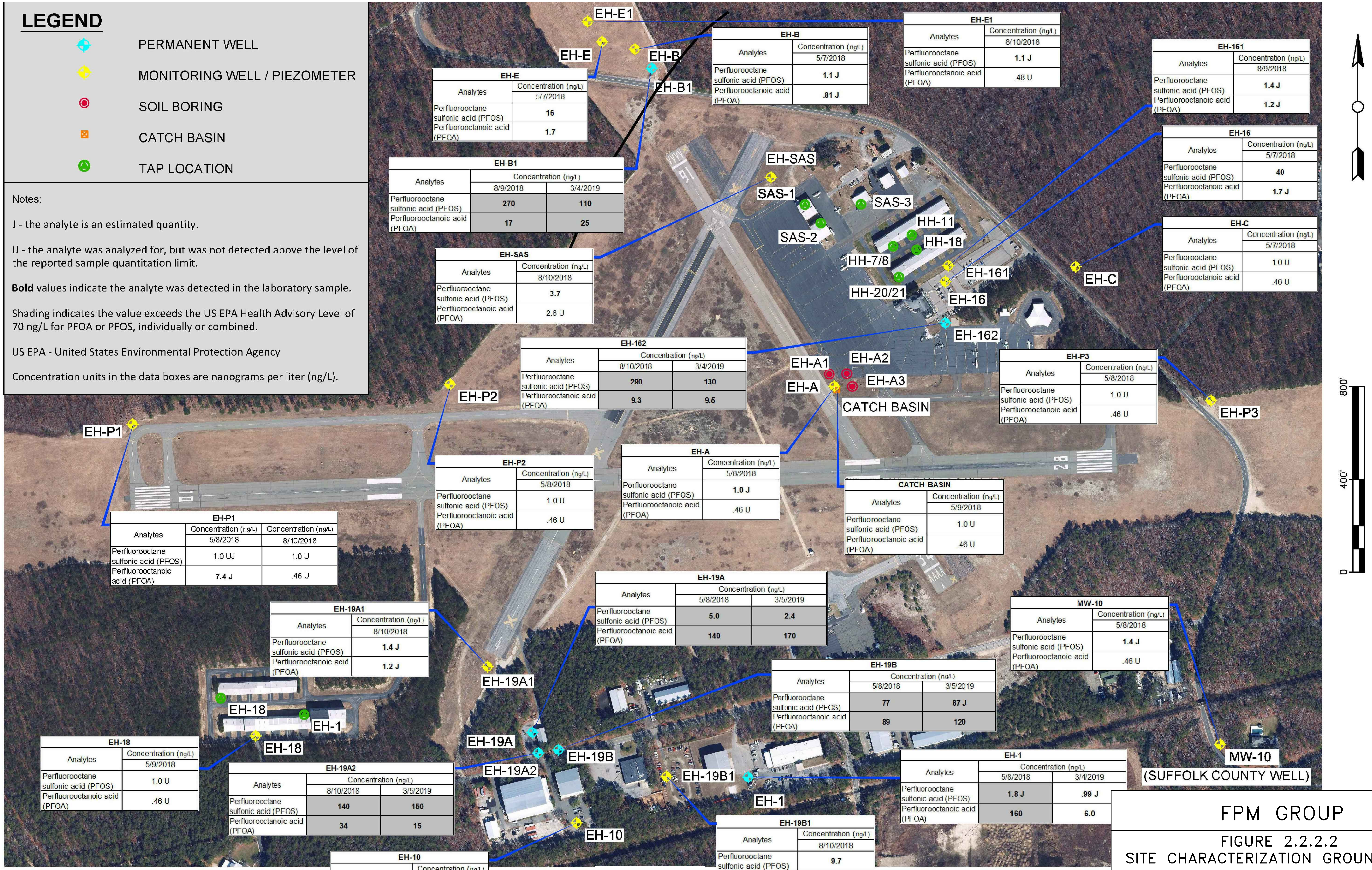
FIGURE 2.2.2.1
SITE CHARACTERIZATION GROUNDWATER
CONTOUR MAP, AUGUST 2018
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date: 10/20/20

SOURCE: SITE CHARACTERIZATION REPORT,
NOVEMBER 30, 2018

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 2.2.2.1_NEW BASE.dwg, 10/20/2020 1:41:48 PM, DWG To PDF.pc3



LEGEND

✜	PERMANENT WELL
✜	MONITORING WELL / PIEZOMETER
◉	SOIL BORING
⊠	CATCH BASIN
●	TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Shading indicates the value exceeds the US EPA Health Advisory Level of 70 ng/L for PFOA or PFOS, individually or combined.

US EPA - United States Environmental Protection Agency

Concentration units in the data boxes are nanograms per liter (ng/L).

EH-E1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	.48 U

EH-B

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	**.81 J**

EH-E

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**16**
Perfluorooctanoic acid (PFOA)	**1.7**

EH-161

Analytes	Concentration (ng/L)
	8/9/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

EH-16

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**40**
Perfluorooctanoic acid (PFOA)	**1.7 J**

EH-B1

Analytes	Concentration (ng/L)	
	8/9/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**270**	**110**
Perfluorooctanoic acid (PFOA)	**17**	**25**

EH-SAS

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**3.7**
Perfluorooctanoic acid (PFOA)	2.6 U

EH-C

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-162

Analytes	Concentration (ng/L)	
	8/10/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**290**	**130**
Perfluorooctanoic acid (PFOA)	**9.3**	**9.5**

EH-P3

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-A

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.0 J**
Perfluorooctanoic acid (PFOA)	.46 U

EH-P2

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

CATCH BASIN

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-P1

Analytes	Concentration (ng/L)	Concentration (ng/L)
	5/8/2018	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 UJ	1.0 U
Perfluorooctanoic acid (PFOA)	**7.4 J**	.46 U

EH-19A

Analytes	Concentration (ng/L)	
	5/8/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**5.0**	**2.4**
Perfluorooctanoic acid (PFOA)	**140**	**170**

EH-19A1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

MW-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	.46 U

EH-19B

Analytes	Concentration (ng/L)	
	5/8/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**77**	**87 J**
Perfluorooctanoic acid (PFOA)	**89**	**120**

EH-18

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-19A2

Analytes	Concentration (ng/L)	
	8/10/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**140**	**150**
Perfluorooctanoic acid (PFOA)	**34**	**15**

EH-1

Analytes	Concentration (ng/L)	
	5/8/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**1.8 J**	**.99 J**
Perfluorooctanoic acid (PFOA)	**160**	**6.0**

EH-19B1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**9.7**
Perfluorooctanoic acid (PFOA)	**2.1**

EH-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

SOURCE: ADDENDUM TO SITE CHARACTERIZATION REPORT, JANUARY 22, 2020

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FIGURE 2.2.2.2
SITE CHARACTERIZATION GROUNDWATER DATA
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date: 10/20/20

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 2.2.2.2.dwg, 10/20/2020 12:41:55 PM, DWG To PDF.pc3

TABLE 2.2.2.1
GROUNDWATER CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	**North Field**					**Northwest Woods**	**Daniels Hole Road**		**NYSDEC Guidance/Screening Values**
	MW ID	**EH-B**	**EH-B1**		**EH-E**	**EH-E1**	**EH-C**	**MW-10**		
Analytes	**Date**	5/7/2018	8/9/2018	3/4/2019	5/7/2018	8/10/2018	5/7/2018	5/8/2018	5/8/2018 Duplicate	
Perfluorobutane sulfonic acid (PFBS)		**42**	**2.4 J**	**4.1 J**	**4.9**	**9.4**	0.9 U	0.90 U	0.90 U	100
Perfluorohexane sulfonic acid (PFHxS)		**130**	**34**	**57**	**52**	**24**	0.94 U	0.94 U	0.94 U	100
Perfluoroheptane sulfonic acid (PFHpS)		0.88 U	**2.8 J**	**5.0**	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	100
Perfluorooctane sulfonic acid (PFOS)		**1.1 J**	**270**	**110**	**16**	**1.1 J**	1 U	**1.4 J**	**1.3 J**	10
Perfluorodecane sulfonic acid (PFDS)		1.3 U	1.3 U	0.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	100
Perfluorobutanoic acid (PFBA)		**37**	**6.5 J**	**13**	**5.6 J**	2.7 U	2.7 U	2.7 U	2.7 U	100
Perfluoropentanoic acid (PFPeA)		**120**	**5.9**	**20**	**17**	**8.1**	1.1 U	1.1 U	1.1 U	100
Perfluorohexanoic acid (PFHxA)		**150**	**13**	**32**	**17**	**11**	0.92 U	0.92 U	0.92 U	100
Perfluoroheptanoic acid (PFHpA)		**8.9**	**2.7 J**	**9.8**	**2.2 J**	1.2 U	**1.3 J**	1.2 U	1.2 U	100
Perfluorooctanoic acid (PFOA)		**0.81 J**	**17**	**25**	**1.7**	0.48 U	0.46 U	0.46 U	0.46 U	10
Perfluorononanoic acid (PFNA)		0.94 U	**1 J**	**1.4 J**	1.7 U	0.94 U	0.99 U	0.94 U	0.94 U	100
Perfluorodecanoic acid (PFDA)		0.92 U	0.52 U	1.2 U	1.6 U	0.52 U	1.1 U	0.67 U	0.82 U	100
Perfluoroundecanoic acid (PFUnDA)		1.6 U	0.31 U	1.5 U	1.1 U	0.31 U	1.1 U	1.0 U	1.0 U	100
Perfluorododecanoic acid (PFDoDA)		0.76 U	0.46 U	1.3 U	0.87 U	0.46 U	0.78 U	0.89 U	0.58 U	100
Perfluorotridecanoic acid (PFTrDA)		0.83 U	0.75 U	1.3 U	**0.82 J**	0.75 U	**1.2 J**	0.75 U	0.78 U	100
Perfluorotetradecanoic acid (PFTeDA)		1.2 U	1.2 U	2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	100
Perflurooctane sulfonamide (FOSA)		0.35 U	0.35 U	0.52 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	100
N-Methyl perfluorooctane sulfonamidoacetic acid		4.2 UJ	4.2 UJ	1.4 U	4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	100
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.83 U	0.83 U	0.5 U	0.83 U	0.83 U	8.3 U	0.83 U	0.83 U	100
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		1.2 U	1.2 U	**7.1**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	100
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.65 U	0.65 U	0.15 U	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	100
Total PFAS		**490**	**355.3**	**284.4**	**117.2**	**53.6**	**2.5**	**1.4**	**1.3**	500

Notes:

Units are ng/L (nanograms/Liter)

Detected concentrations are in **Bold font**.

Detections exceeding NYSDEC Guidance are highlighted in gray.

J - Indicates an estimated value for the analyte

U -The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.

UJ -The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate.

TABLE 2.2.2.1 (Continued)
GROUNDWATER CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	**Sound Aircraft Services**	**Airport Parking Lot**					**East Hampton PD**		**NYSDEC Guidance/Screening Values**
	MW ID	**EH-SAS**	**EH-16**	**EH-161**	**EH-162**			**EH- 1**		
Analytes	**Date**	8/10/2018	5/7/2018	8/9/2018	8/10/2018	3/4/2019	3/4/2019 Duplicate	5/8/2018	3/4/2019	
Perfluorobutane sulfonic acid (PFBS)		0.9 U	0.9 U	0.9 U	**4.2 J**	**4.1 J**	**3.8 J**	**8.3**	**8.8**	100
Perfluorohexane sulfonic acid (PFHxS)		**1.8 J**	**2.1 J**	**1.3 J**	**68**	**32**	**35**	**730**	**25**	100
Perfluoroheptane sulfonic acid (PFHpS)		0.88 U	0.88 U	0.88 U	**4.4**	**1.8**	**1.9 J**	**36**	**0.72 J**	100
Perfluorooctane sulfonic acid (PFOS)		**3.7**	**40**	**1.4 J**	**290**	**130**	**120**	**1.8 J**	**0.99 J**	10
Perfluorodecane sulfonic acid (PFDS)		1.3 U	1.3 U	1.3 U	1.3 U	0.3 U	0.3 U	1.3 U	0.3 U	100
Perfluorobutanoic acid (PFBA)		2.7 U	**5.4 J**	2.7 U	**4.2 J**	**3.9 J**	**4.2**	**37**	**43**	100
Perfluoropentanoic acid (PFPeA)		1.1 U	1.1 U	1.1 U	**3 J**	**2.9 J**	**3.1 J**	**76**	**110**	100
Perfluorohexanoic acid (PFHxA)		0.92 U	**2 J**	0.92 U	**8.9**	8.8 U	8.8 U	**65**	**110**	100
Perfluoroheptanoic acid (PFHpA)		1.2 U	**2.1 J**	1.2 U	**3.3 J**	**3.3 J**	**3.7 J**	**40**	**30**	100
Perfluorooctanoic acid (PFOA)		2.6 U	**1.7 J**	**1.2 J**	**9.3**	**9.5**	**9.1**	**160**	**6.0**	10
Perfluorononanoic acid (PFNA)		**1.5 J**	1.5 U	0.94 U	0.94 U	1.1 U	1.1 U	1.2 U	1.1 U	100
Perfluorodecanoic acid (PFDA)		0.6 U	1 U	**0.7 J**	0.52 U	1.2 U	1.2 U	0.82 U	1.2 U	100
Perfluoroundecanoic acid (PFUnDA)		0.31 U	1.8 U	**1.6 J**	0.31 U	1.5 U	1.5 U	1.4 U	1.5 U	100
Perfluorododecanoic acid (PFDoDA)		0.46 U	1.4 U	0.46 U	0.46 U	1.3 U	1.3 U	1.2 U	1.3 U	100
Perfluorotridecanoic acid (PFTrDA)		0.75 U	**0.94 J**	0.75 U	0.75 U	1.3 U	1.3 U	0.9 U	1.3 U	100
Perfluorotetradecanoic acid (PFTeDA)		1.2 U	1.2 U	1.2 U	1.2 U	2.0 U	2.0 U	1.2 U	2.0 U	100
Perflurooctane sulfonamide (FOSA)		0.35 U	0.35 U	0.35 U	0.35 U	0.52 U	0.52 U	0.35 U	0.52 U	100
N-Methyl perfluorooctane sulfonamidoacetic acid		4.2 U	4.2 UJ	4.2 UJ	4.2 U	1.4 U	1.4 U	4.2 UJ	1.4 U	100
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.83 U	0.83 U	0.83 U	0.83 U	0.50 U	0.50 U	0.83 U	0.50 U	100
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		**1.6 J**	1.2 U	1.2 U	1.2 U	**4.5**	**3.7 J**	**7.0**	**3.0 J**	100
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.65 U	0.65 U	0.65 U	0.65 U	0.15 U	0.15 U	0.65 U	0.15 U	100
Total PFAS		**8.6**	**54**	**6.2**	**395.3**	**192**	**184.5**	**1,161.1**	**337.5**	500

Notes:

Units are ng/L (nanograms/Liter)

Detected concentrations are in **Bold font**.

Detections exceeding NYSDEC Guidance are highlighted in gray.

J - Indicates an estimated value for the analyte

U -The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.

UJ -The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate.

TABLE 2.2.2.1 (Continued)
GROUNDWATER CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

Area	ARFF									NYSDEC Guidance/Screening Values
MW ID	EH-19A		EH-19A1	EH-19A2			EH-19B		EH-19B1	
Date	5/8/2018	3/5/2019	8/10/2018	8/10/2018	8/10/2018 (Duplicate)	3/5/2019	5/8/2018	3/5/2019	8/10/2018	
Analytes										
Perfluorobutane sulfonic acid (PFBS)	**360**	**40**	**12**	**8.5**	**9.1**	**7.8**	**29**	**200**	**8.5**	100
Perfluorohexane sulfonic acid (PFHxS)	**240**	**150**	**1.5 J**	**85**	**57**	**18**	**750**	**930**	**3.7 J**	100
Perfluoroheptane sulfonic acid (PFHpS)	0.88 U	0.44 U	0.88 U	**2.1 J**	**1.6 J**	**2.1 J**	**12**	**17**	0.88 U	100
Perfluorooctane sulfonic acid (PFOS)	**5.0**	**2.4**	**1.4 J**	**140**	**100**	**150**	**77**	**87 J**	**9.7**	10
Perfluorodecane sulfonic acid (PFDS)	1.3 U	0.3 U	1.3 U	1.3 U	1.3 U	0.3 U	1.3 U	0.3 U	1.3 U	100
Perfluorobutanoic acid (PFBA)	**710**	**400**	**3.9 J**	**82**	**73**	**51**	**61**	**120**	**8.8**	100
Perfluoropentanoic acid (PFPeA)	**2,600**	**1,200**	1.1 U	**140**	**160**	**120**	**170**	**360**	**6.5**	100
Perfluorohexanoic acid (PFHxA)	**2,800**	**1,100**	**1.9 J**	**150**	**130**	**93**	**200**	**380**	**7.7**	100
Perfluoroheptanoic acid (PFHpA)	**1,500**	**1,100**	1.2 U	**99**	**100**	**46**	**180**	**290**	1.2 U	100
Perfluorooctanoic acid (PFOA)	**140**	**170**	**1.2 J**	**34**	**28**	**15**	**89**	**120**	**2.1**	10
Perfluorononanoic acid (PFNA)	7 U	1.1 U	0.94 U	**17**	**13**	**10**	**14**	**28**	0.94	100
Perfluorodecanoic acid (PFDA)	1.8 U	1.2 U	0.52 U	**4.1 J**	3.4 U	**4.4 J**	2.3 U	**1.8 J**	0.52 U	100
Perfluoroundecanoic acid (PFUnDA)	2.6 U	1.5 U	0.31 U	**2.2 J**	**1.3 J**	1.5 U	2.2 U	**1.9 J**	**1.1 J**	100
Perfluorododecanoic acid (PFDoDA)	1.1 U	1.3 U	0.46 U	0.46 U	0.46 U	1.3 U	0.63 U	1.3 U	0.46 U	100
Perfluorotridecanoic acid (PFTrDA)	1.7 U	1.3 U	0.75 U	0.75 U	0.75 U	1.3 U	1.2 U	1.3 U	0.75 U	100
Perfluorotetradecanoic acid (PFTeDA)	1.2 U	2 U	1.2 U	1.2 U	1.2 U	2 U	1.2 U	2 U	1.2 U	100
Perfluorooctane sulfonamide (FOSA)	0.35 U	0.52 U	0.35 U	0.35 U	0.35 U	0.52 U	0.35 U	0.52 U	0.35 U	100
N-Methyl perfluorooctane sulfonamidoacetic acid	4.2 UJ	1.4 U	4.2 UJ	4.2 UJ	4.2 U	1.4 U	4.2 UJ	1.4 U	4.2 UJ	100
N-Ethyl perfluorooctane sulfonamidoacetic acid	0.83 U	0.5 U	0.83 U	0.83 U	0.83 U	0.5 U	0.83 U	**0.5** U	0.83 U	100
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	**7.0**	**4.6**	**1.6 J**	**3.9 J**	**5.1**	**2.8 J**	**120**	**120**	1.2 U	100
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	**2.8 J**	**0.65 J**	0.65 U	**50**	**46**	**63**	**14**	**8.7**	**5.0**	100
Total PFAS	**8,364.8**	**4,167.7**	**24**	**818**	**724**	**583**	**1,716**	**2,664**	**54**	500

Notes:

Units are ng/L (nanograms/Liter)

Detected concentrations are in **Bold font**.

Detections exceeding NYSDEC Guidance are highlighted in gray.

J - Indicates an estimated value for the analyte

U -The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.

UJ -The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate.

TABLE 2.2.2.1 (Continued)
GROUNDWATER CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

	Area	Aircraft/Helicopter Taxiway		West End of Main Runway		Middle of Main Runway	East Field	Local Television Inc.	East End Hangars	NYSDEC Guidance/Screening Values
	MW ID	EH-A	CATCH BASIN	EH-P1		EH-P2	EH-P3	EH-10	EH-18	
Analytes	Date	5/8/2018	5/9/2018	5/8/2018	8/10/2018	5/8/2018	5/8/2018	5/8/2018	5/9/2018	
Perfluorobutane sulfonic acid (PFBS)		0.9 U	0.9 U	**1.0 J**	0.9 U	0.9 U	0.9 U	0.90 U	0.90 U	100
Perfluorohexane sulfonic acid (PFHxS)		0.94 U	0.94 U	**3.0 J**	**1.0 J**	0.94 U	**1.0 J**	0.94 U	0.94 U	100
Perfluoroheptane sulfonic acid (PFHpS)		0.88 U	0.88 U	0.88 UJ	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	100
Perfluorooctane sulfonic acid (PFOS)		**1.0 J**	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10
Perfluorodecane sulfonic acid (PFDS)		1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	100
Perfluorobutanoic acid (PFBA)		2.7 U	2.7 U	**3.7 J**	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	100
Perfluoropentanoic acid (PFPeA)		1.1 U	1.1 U	**6.8 J**	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	100
Perfluorohexanoic acid (PFHxA)		0.92 U	0.92 U	**9.9 J**	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	100
Perfluoroheptanoic acid (PFHpA)		1.6 U	2.6 U	8.0 UJ	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	100
Perfluorooctanoic acid (PFOA)		0.46 U	0.46 U	**7.4 J**	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	10
Perfluorononanoic acid (PFNA)		1.5 U	2.1 U	8.9 UJ	0.94 U	1.0 U	**1.1 J**	0.94 U	0.94 U	100
Perfluorodecanoic acid (PFDA)		2.3 U	1.5 U	9.5 UJ	0.52 U	1.0 U	0.93 U	1.0 U	0.7 U	100
Perfluoroundecanoic acid (PFUnDA)		1.5 U	1.6 U	**12 J**	**0.43 J**	1.3 U	1.1 U	1.4 U	1.2 U	100
Perfluorododecanoic acid (PFDoDA)		0.67 U	1.7 U	**21 J**	0.46 U	1.1 U	0.87 U	0.96 U	0.86 U	100
Perfluorotridecanoic acid (PFTrDA)		1.1 U	1.5 U	**20 J**	0.75 U	1.2 U	**1.3 J**	1.1 U	1.3 U	100
Perfluorotetradecanoic acid (PFTeDA)		1.2 U	1.2 U	**19 J**	**1.3 J**	1.2 U	1.2 U	1.2 U	1.2 U	100
Perfluorooctane sulfonamide (FOSA)		0.35 U	0.35 U	0.35 UJ	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	100
N-Methyl perfluorooctane sulfonamidoacetic acid		4.2 UJ	4.2 UJ	4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	100
N-Ethyl perfluorooctane sulfonamidoacetic acid		0.83 U	0.83 U	0.83 UJ	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	100
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		1.2 U	1.2 U	**1.4 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	100
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		0.65 U	0.65 U	0.65 UJ	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	100
Total PFAS		**1.0**	None	**105.2**	**2.7**	None	**3.4**	None	None	500

Notes:
Units are ng/L (nanograms/Liter)
Detected concentrations are in **Bold font**.
Detections exceeding NYSDEC Guidance are highlighted in gray.
J - Indicates an estimated value for the analyte
U -The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.
UJ -The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate.

EH-19A2, and EH-19B locations at the ARFF, where AFFF is stored by the EHFD.

2.2.3 Tap Water Sampling and Results

Sampling of tap water from private water supply wells (sourced from groundwater) was conducted in several of the airport hangar areas during the SC and Addendum work, with all of the tap water samples tested for PFAS compounds. Figure 2.2.3.1 (Figure 5 from the SC Report, as revised to show the location sampled during the Addendum work) shows the tap water sampling locations and summarizes the results for PFOS and PFOA at each location. The full PFAS results are shown on Table 2.2.3.1. It should be noted that the depths and screen intervals of the supply wells from which the tap water samples were obtained were not reported. However, it is likely that the samples originated from the Upper Glacial Aquifer. Additional information concerning the supply well depths and screen intervals will be sought during the RI.

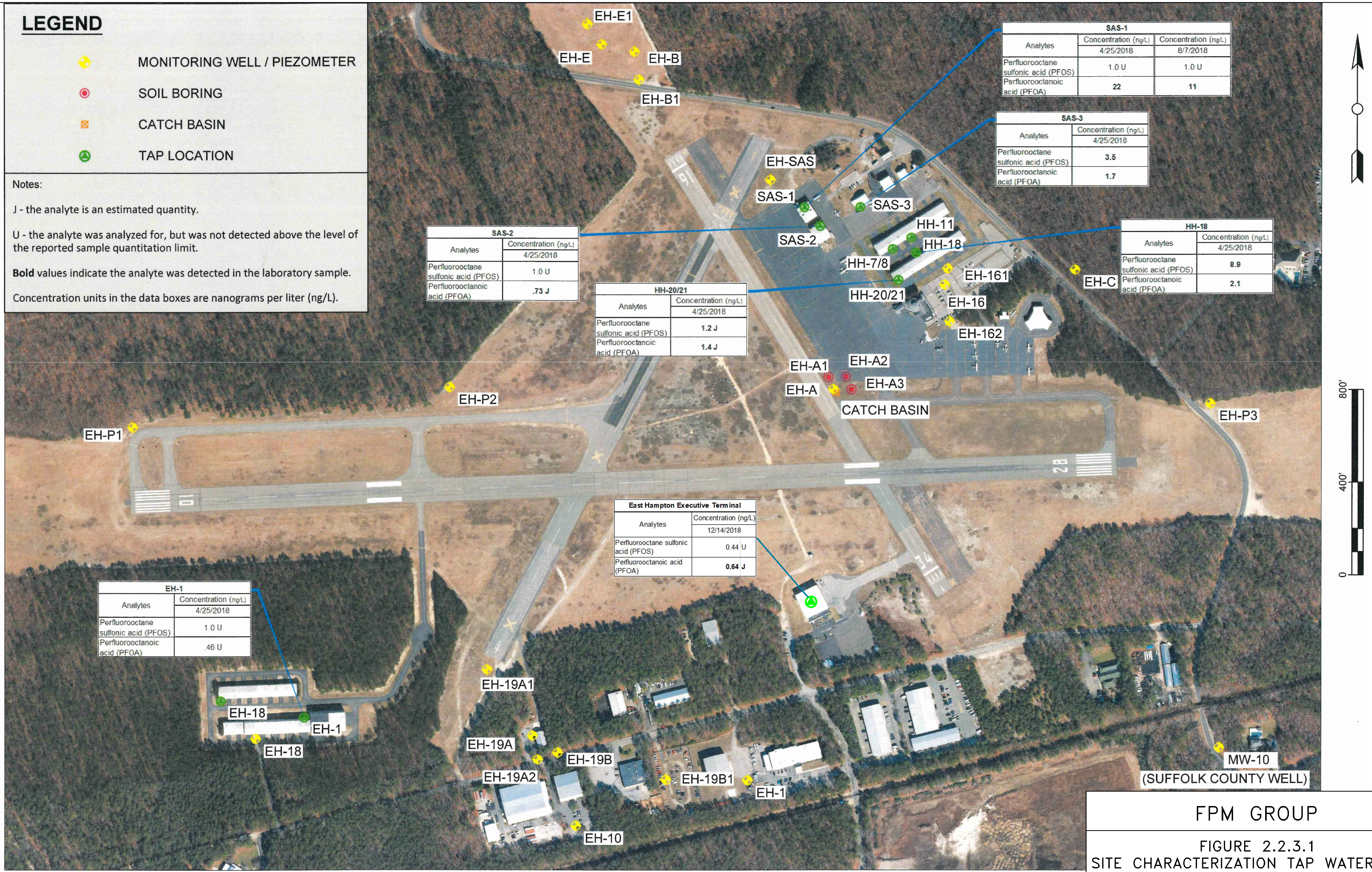
PFAS compounds were detected in all of the tap water samples. Most of the detections were at low estimated concentrations. Three detections of PFAS compounds at the SAS-1 location (Sound Aircraft Services) exceed current NYSDEC guidance for PFAS in groundwater; these detections are PFOA at 11 ng/l and 22 ng/l, and PFHxS at 160 ng/l.

2.3 Wainscott Sand and Gravel Site Characterization Investigation

An SC investigation was conducted at the WSG Site, just to the southeast of the East Hampton Airport Site, by the NYSDEC through its contractor HDR in 2019, with the results reported in 2020. The SC investigation included testing of soil and groundwater at the Site and the results indicated the presence of PFAS compounds in soil and groundwater, as summarized below. Key figures showing the SC investigation results for groundwater are included in Appendix A. The data from this SC investigation are useful for evaluating the vertical distribution of PFAS impacts and the types of PFAS compounds present in the aquifer downgradient of the East Hampton Airport Site.

Soil sampling was conducted at multiple locations and multiple depths across the site, with select samples analyzed for the full list of NYSDEC parameters and all of the samples analyzed for PFAS. Many of the soil sampling locations were in an area in the northern portion of this site where firefighting training had been reported and confirmed by photographs of the training activities. The results indicated that PFAS compounds were detected in all of the soil samples, with two PFAS compounds (PFOS and/or PFUnA) detected at multiple locations (S2, S3, S4, S5, S6, S7, and S9) in the reported firefighting training area. The soil results were compared to the current NYSDEC Guidance Values and several of the PFOS detections were noted to exceed the NYSDEC Guidance Value for Unrestricted Use but were below the Guidance Value for Protection of Groundwater.

Groundwater sampling was conducted at several locations across the Site, including vertical profiles and water table monitoring wells. Most of the samples were tested for the full list of NYSDEC parameters and all of the samples were tested for PFAS. The groundwater flow direction was noted to generally be to the southeast. PFAS compounds, primarily PFOS and PFOA, but including PFNA, PFUnA, and/or PFHxS in some cases, were noted at each groundwater sampling location, with concentrations noted to be more elevated in upgradient sample locations (GW-9, GW-1, MW-3, MW-5 and MW-6) and lower in central and downgradient sampling locations. Using the SC investigation data, the NYSDEC concluded that PFAS compounds are migrating onto the WSG Site in groundwater from an upgradient offsite source and reclassified the WSG Site to “N” (No further action at this time), indicating that the



LEGEND

⊕	MONITORING WELL / PIEZOMETER
◉	SOIL BORING
⊠	CATCH BASIN
△	TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Concentration units in the data boxes are nanograms per liter (ng/L).

SAS-1

Analytes	Concentration (ng/L)	Concentration (ng/L)
	4/25/2018	8/7/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U	1.0 U
Perfluorooctanoic acid (PFOA)	**22**	**11**

SAS-3

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**3.5**
Perfluorooctanoic acid (PFOA)	**1.7**

SAS-2

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	**.73 J**

HH-18

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**8.9**
Perfluorooctanoic acid (PFOA)	**2.1**

HH-20/21

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**1.2 J**
Perfluorooctanoic acid (PFOA)	**1.4 J**

East Hampton Executive Terminal

Analytes	Concentration (ng/L)	
	12/14/2018	
Perfluorooctane sulfonic acid (PFOS)	0.44	U
Perfluorooctanoic acid (PFOA)	**0.64**	**J**

EH-1

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

SOURCE: SITE CHARACTERIZATION REPORT, NOVEMBER 30,2018
AND ADDENDUM REPORT, JANUARY 22, 2020

FPM GROUP

FIGURE 2.2.3.1
SITE CHARACTERIZATION TAP WATER DATA
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date: 7/14/20

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 2.2.3.1.dwg, 10/20/2020 1:31:10 PM, DWG To PDF.pc3

TABLE 2.2.3.1
TAP WATER CHEMICAL ANALYTICAL DATA - SITE CHARACTERIZATION
EAST HAMPTON AIRPORT
WAINSCOTT, NEW YORK

Area	**Hampton Hangars**		**Sound Aircraft Services**					**East Hampton Executive Terminal**	**East Hampton Hangars**
Sample ID	**HH-20/21**	**HH-18**	**SAS-1**		**SAS-2**	**SAS-2 Duplicate**	**SAS-3**	**Tap Water**	**EH-1**
Date	**4/25/2018**	**4/25/2018**	**4/25/2018**	**8/7/2018**	**4/25/2018**		**4/25/2018**	**12/14/2018**	**4/25/2018**
Perfluorobutane sulfonic acid (PFBS)	0.90 U	0.90 U	**29**	**8.7**	0.90 U	0.90 U	0.90 U	0.28 U	0.90 U
Perfluorohexane sulfonic acid (PFHxS)	**5.8**	**6.6**	**160**	**78**	**1.6 J**	**1.3 J**	**3.8 J**	1.3 U	**1.0 J**
Perfluoroheptane sulfonic acid (PFHpS)	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.44 U	0.88 U
Perfluorooctane sulfonic acid (PFOS)	**1.2 J**	**8.9**	1.0 U	1.0 U	1.0 U	1.0 U	**3.5**	0.44 U	1.0 U
Perfluorodecane sulfonic acid (PFDS)	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	0.3 U	1.3 U
Perfluorobutanoic acid (PFBA)	2.7 U	2.7 U	**3.4 J**	**2.8 J**	**4.1 J**	**3.3 J**	2.7 U	0.4 U	2.7 U
Perfluoropentanoic acid (PFPeA)	1.1 U	1.1 U	**8.9**	**3.1 J**	**4.2 J**	**3.8 J**	1.1 U	1.7 U	1.1 U
Perfluorohexanoic acid (PFHxA)	**1.2 J**	0.92 U	**22**	**12**	**4.1 J**	**3.9 J**	0.92 U	8.8 U	0.92 U
Perfluoroheptanoic acid (PFHpA)	**1.6 J**	**2 J**	**7.3**	**2.5 J**	**1.7 J**	**1.7 J**	**1.7 J**	0.63 U	1.2 U
Perfluorooctanoic acid (PFOA)	**1.4 J**	**2.1**	**22**	**11**	**0.73 J**	**0.71 J**	**1.7**	**0.64 J**	0.46 U
Perfluorononanoic acid (PFNA)	0.94 U	**1.2 J**	**1.0 J**	0.94 U	0.94 U	**0.99 J**	**1.0 J**	1.1 U	0.94 U
Perfluorodecanoic acid (PFDA)	1.0 U	1.0 U	0.86 U	0.52 U	0.87 U	0.58 U	0.82 U	1.2 U	0.81 U
Perfluoroundecanoic acid (PFUnDA)	0.90 U	1.00 U	1.1 U	0.31 U	0.79 U	0.88 U	1.1 U	1.5 U	1.2 U
Perfluorododecanoic acid (PFDoDA)	0.58 U	0.52 U	0.83 U	0.46 U	0.70 U	0.46 U	0.46 U	1.3 U	0.68 U
Perfluorotridecanoic acid (PFTrDA)	0.75 U	0.75 U	0.75 U	0.75 U	0.92 U	0.75 U	0.75 U	1.3 U	0.75 U
Perfluorotetradecanoic acid (PFTeDA)	1.2 U	1.2 U	**1.4 J**	1.2 U	**1.6 J**	1.2 U	1.2 U	2.0 U	1.2 U
Perfluorooctane sulfonamide (FOSA)	**0.37 J**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	**2.1 J**	0.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	4.2 U	4.2 U	4.2 U	4.2 UJ	4.2 U	4.2 U	4.2 U	1.4 U	4.2 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	0.83 U	0.83 UJ	0.83 UJ	0.83 U	0.83 UJ	0.83 UJ	0.83 UJ	0.5 U	0.83 UJ
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.55 U	1.2 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	0.65 U	0.15 U	0.65 U
Total PFAS	**11.6**	**20.8**	**255.0**	**118.1**	**18.03**	**15.7**	**11.7**	**2.74**	**1.0**

Notes:

Units are in ng/L (nanograms/Liter or parts per trillion)

Detected concentrations are in **Bold font.**

Detections exceeding NYSDEC groundwater Guidance are highlighted in gray.

J - The quantity is estimated.

U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ -The analyte was analyzed for, but was not detected. The reported sample quantitation limit is approximate.

contamination that may be present on the site is not sufficient to warrant placing the site on the Registry of Inactive Hazardous Waste Disposal sites.

2.4 Preliminary Conceptual Site Model

A preliminary CSM has been developed for this Site, the boundaries of which are shown on Figure 1.1.2, to describe the existing information regarding contaminants of potential concern, potential sources of contamination, potentially affected media (soil, groundwater, and soil vapor), and transport and exposure pathways that could result in potential receptor exposures. This preliminary CSM synthesizes the available data and will be updated based on the findings of the RI.

Results obtained from previous investigations of the Site indicate that there are contaminants of potential concern, specifically PFAS compounds, in soil and groundwater in areas of the Site. Some of the PFOS detections in onsite soil exceed applicable NYSDEC criteria for protection of groundwater and some of the concentrations of PFAS compounds detected in the onsite groundwater exceed applicable NYSDEC criteria. The lateral and vertical extents of these identified impacts have not been fully defined. A wider range of PFAS compounds was detected in onsite groundwater than in onsite soil; additional investigation is needed to evaluate potential relationships between onsite soil and groundwater conditions.

Groundwater flow at the water table surface onsite and offsite is generally to the south-southeast. The vertical directions of groundwater flow and horizontal directions of groundwater flow at deeper levels of the Upper Glacial Aquifer have not yet been determined. Potential variability in groundwater flow directions due to seasonal effects and/or influences from nearby water supply wells, including likely agricultural irrigation supply wells to the southwest of the Site, have not been evaluated.

PFAS compounds have been identified in offsite groundwater in areas generally downgradient of the Site at levels exceeding applicable NYSDEC criteria. Offsite vertical profiles indicate that in some locations the PFAS compounds are found at multiple depths in the aquifer. The existing vertical profiles are widely-spaced and do not provide sufficient information to confirm the potential source(s) of the PFAS impacts. Available private water supply well data for PFOA and PFOS are variable with respect to detections and concentrations and the depths in the aquifer that these data represent are not known. Additional groundwater flow direction and quality data are needed to evaluate the extent of the Site’s offsite groundwater impacts.

PFOA and PFOS were contaminants of concern identified by the NYSDEC for the Site and the Site was classified as a Class 2 Inactive Hazardous Waste Disposal Site due to the detections of PFOA and PFOS in Site media during the SC. Data have not yet been obtained for other potential contaminants of concern in soil and/or groundwater at the Site, including metals, volatile and semivolatile organic compounds (VOCs and SVOCs), PCBs, pesticides, or 1,4-dioxane, and soil vapor conditions at the Site have not been evaluated. Additional information is needed to fill these data gaps. If additional contaminants of potential concern are identified, then these conditions may require further investigation.

NYSDEC has identified certain Site-related sources of PFAS contaminants where fire-fighting foam training and crash response occurred, where Class B fire-fighting foam (AFFF) was used in a mass casualty training exercise, where AFFF and an associated fire truck are stored, and in association with a fire training structure. Existing soil data have identified PFOS impacts above protection of groundwater criteria (sources) in shallow soil at some of these locations, but not all potential source locations have been investigated. Additional information is needed to assess potential PFAS source locations, to delineate the existing identified source areas, and to evaluate whether Site-related contaminants are migrating from the Site at the downgradient boundaries (point of compliance). As set forth herein, the Town has identified additional potential PFAS source areas where the EHFD used, or may have used, AFFF. These potential source locations include plane crash sites, fire sites, training areas, storage areas, and stormwater and sanitary waste discharge points. The EHFD, which is owned and operated by the Incorporated Village of East Hampton, a separate municipality from the Town, has used and stored AFFF at the Site. The Town and NYSDEC have requested that EHFD provide all information regarding locations where it used and stored AFFF, but the EHFD has not yet provided this information. The scope of work in this RI/FS Work Plan has been prepared with all information pertaining to potential AFFF use and storage locations presently available to the Town; this scope may be supplemented if the EHFD provides additional information concerning AFFF use and storage locations.

Based upon the types of contaminants of potential concern present at the Site (PFAS) and the media in which the contaminants are present (soil and groundwater), the following mechanisms for contaminant transport are presently identified for the Site:

- Transport of soil particles by wind, stormwater, and/or physical tracking;
- Leaching of contaminants of potential concern from soil into groundwater; and
- Transport of contaminants of potential concern in groundwater via groundwater flow.

The following potential exposure routes for contaminants of potential concern are presently identified for the Site:

- Dermal contact, inhalation, and incidental ingestion of soil particulates; and
- Dermal contact, inhalation, and ingestion of groundwater via supply wells.

Additional information to be obtained during the RI will be used to update this preliminary CSM, including the contaminants of potential concern, potential sources of contamination (including any additional information concerning AFFF use and storage locations that may be provided by the EHFD), potentially affected media (soil, groundwater, and soil vapor), and transport and exposure pathways that could result in potential exposures. As noted in Section 3 below, select samples will be tested for the full list of DER-10 contaminants during the RI. If contaminants other than PFAS compounds are identified in excess of applicable NYSDEC criteria, the CSM will be updated to include this information.

The RI will be conducted in a phased manner, with the CSM updated as the RI progresses to further delineate contaminants of concern, Site-related sources, affected media, and transport and exposure mechanisms. The CSM will be used during development of the Exposure Assessment, which will evaluate potential human health risks posed by the Site-related contaminants.

SECTION 3.0
SCOPE OF REMEDIAL INVESTIGATION

The scope of RI work presented below has been developed to evaluate the nature and extent of contamination in all media at this Site, including further evaluation of PFAS impacts identified in onsite soil and groundwater and further evaluation of potential sources of PFAS. The nature and extent of PFAS impacts in offsite groundwater that may be related to the Site will also be evaluated. This scope of work has been developed in accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010) and correspondence with the NYSDEC, and includes soil, groundwater, and soil vapor sampling.

FPM will conduct the RI on behalf of the Town of East Hampton. All RI work will be overseen by a Qualified Environmental Professional (QEP). Contact information for the principal personnel for this project and the Site owner is provided in Table 3.1. Resumes of the principal technical personnel for this project are included in Appendix B.

TABLE 3.1
PROJECT PERSONNEL
EAST HAMPTON AIRPORT SITE, WAINSCOTT, NEW YORK

Role	Name	Phone Numbers		Email
		Office	Cell	
Project Manager	Ben Cancemi, PG	631-737-6200 ext. 509	516-383-7106	b.cancemi@fpm-group.com
QA/QC Officer	Stephanie Davis, PG	631-737-6200 ext. 528	516-381-3400	s.davis@fpm-group.com
Field Services Manager	John Bukoski, PG	631-737-6200 ext. 518	516-381-3535	j.bukoski@fpm-group.com
Town Contact	John Jilnicki	631-324-8787	-	JJilnicki@EHamptonNY.gov

All field work will be performed using a site-specific Health and Safety Plan (HASP), a copy of which is included in Appendix C. Please note that the HASP includes a Community Air Monitoring Plan (CAMP) prepared in accordance with DER-10, Appendix 1A. FPM will implement the CAMP during all intrusive activities at the Site.

A Citizen Participation Plan (CPP) has been approved for this Site. A copy of the approved CPP is located at the document repositories.

3.1 RI Scope of Work

The onsite RI sampling activities have been developed based on an evaluation of the existing SC data presented in Section 2.2, including information concerning storage and use of AFFF onsite as noted in Section 1.3. If additional information concerning AFFF storage and/or use becomes available during the RI, then additional sampling may be proposed. The scope of work was discussed with the NYSDEC during August 13, 2020 and April 27, 2021 conference calls, including use of established NYSDEC standards, criteria and guidance and MCLs for evaluating the RI data. Modifications to the RI scope of work were made based on comments in May 4, 2021 NYSDEC correspondence. The onsite sampling locations were selected for the purpose of investigating and characterizing the nature and extent of contamination that may be present on and in proximity to the Site, including further evaluating previously-identified soil and groundwater conditions and conducting sufficient sampling to fully characterize the soil, soil vapor, and groundwater conditions in these areas.

The offsite RI sampling activities have been developed, in part, based on the groundwater data previously obtained by the SCDHS and NYSDEC at locations more distant from the Site, as described in Sections 2.1 and 2.3. The sampling locations shown in Section 3.1.2 were selected based on the existing available data for the purpose of investigating and characterizing the nature and extent of Site-related PFAS contamination that may be present in groundwater downgradient of the Site. It should be noted that the results of the onsite RI work may be used to modify the selected offsite sampling locations so as to better evaluate the nature and extent of Site-related offsite impacts, as discussed below.

In addition to the onsite and offsite sampling described below, the RI will include further development of the preliminary CSM presented in Section 2.4 such that Site-related potential human exposures and environmental impacts can be evaluated during the Exposure Assessment. The preliminary CSM was developed using the existing onsite and offsite data and will be refined as additional data become available during the RI. The CSM will identify potential sources of contamination, the types of contaminants and affected media, contaminant release mechanisms and potential migration pathways, and actual and potential human and environmental receptors.

3.1.1 Onsite Sampling Locations

The proposed onsite RI sampling locations are shown on Figures 3.1.1 and 3.1.2, together with the previous SC sampling locations and the locations of areas where PFAS impacts may be present, based on the Site history. The scope of the onsite RI work includes the following components:

- Soil sampling will be conducted at multiple onsite soil boring locations (B1 through B58, open red circles on Figure 3.1.1). These locations were selected to be within and in proximity to areas where PFAS soil impacts exceeding NYSDEC groundwater protection criteria were previously identified (North Field EH-B area, Fire Training Facility EH-1 area, and ARFF Station EH-19A and EH-19B1 areas) or PFAS impacts are suspected, including fire training areas, stormwater runoff areas, and select plane crash sites. In general, each soil boring location in proximity to previous locations where PFAS was identified in soil above groundwater protection criteria will be selected to be between 20 and 40 feet from the previous sample location, with the objective of providing lateral delineation of PFAS impacts to soil in areas with no prior soil sampling data. Soil sample locations in areas not previously assessed or where assessment may not be complete (Northeast Woods plane crash site and aircraft taxiway fire site) will be selected so as to evaluate soil conditions where PFAS is most likely to be present. Exact soil boring locations will be established in the field based on observed conditions, proximity to structures, and similar factors. Soil samples will be collected at several depths in each boring, as described in Section 3.2, to characterize the potential vertical extent of impacts;

LEGEND:

— SITE BOUNDARY

✳ PLANE CRASH SITE

PREVIOUS SAMPLING LOCATIONS

● PERMANENT WELL

● MONITORING WELL/PIEZOMETER

● SOIL BORING

☒ CATCH BASIN

▲ TAP LOCATION

PROPOSED SOIL SAMPLING LOCATIONS

○ B1 SOIL BORING (PFAS)

⊗ B2 SOIL BORING (PFAS, 1,4-DIOXANE, DER-10)

X PRIOR BORING, ADDITIONAL SAMPLING (PFAS)

● LP-1 LEACHING STRUCTURE

FPM GROUP

FIGURE 3.1.1
PROPOSED SOIL SAMPLING LOCATIONS
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date: 5/6/21

FPM GROUP

FIGURE 3.1.2
PROPOSED GROUNDWATER AND SOIL VAPOR
SAMPLING LOCATIONS
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date: 5/6/21

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 3.1.2 PROPOSED GW AND SV.dwg, 5/6/2021 9:10:16 AM, AutoCAD PDF (High Quality Print).pc3

- Soil sampling will also be conducted at select previous locations where PFOS was previously detected in soil at levels above groundwater protection criteria. This includes the former EH-B, EH-19A, EH-19B1, and EH-1 locations, as denoted on Figure 3.1.1. Soil samples will be collected at several depths in each boring, as described in Section 3.2, to characterize the vertical extent of previously-identified impacts;

- Soil sampling will also be conducted within stormwater discharge structures in the areas where these structures are present in proximity to previously-identified PFAS-impacted soils and where storage and/or use of AFFF are documented or suspected to have occurred. Soil sampling will also be conducted with in the primary leaching structure of select sanitary waste disposal systems where storage and/or use of AFFF are documented or suspected to have occurred. The stormwater discharge structures are known to be present in several areas of the Site (e.g. the Airport Parking Lot mass casualty training area, the Fire Training Facility, and the ARFF station). The sanitary waste disposal systems at the Fire Training Facility and ARFF station will also be sampled. Additional discharge structures may be identified and sampled in the field during the RI field activities;

- Select soil samples may be analyzed using the Synthetic Precipitation Leaching Procedure (SPLP) in the event that PFAS compounds (not including PFOA or PFOS) are found in onsite soils at levels that could result in leaching to groundwater at concentrations that might exceed applicable NYSDEC groundwater criteria. Specifically, if a PFAS compound (not including PFOA or PFOS) is detected in soil at a level of greater than 2 ug/kg (ppb), it is theoretically possible for that PFAS compound to leach to groundwater at a level greater than 100 ng/l (the NYS Guidance Value for PFAS compounds other than PFOA and PFOS). Therefore, detections of PFAS compounds (other than PFOA and PFOS) in soil at levels greater than 2 ug/kg will trigger SPLP testing of the affected sample(s). SPLP analysis, if performed, would be conducted following a review of the data for the RI soil samples;

- Soil sampling will be conducted at select locations for the NYSDEC DER-10 full list of parameters and 1,4-dioxane, in addition to PFAS. These locations are indicated on Figure 3.1.1 and include two locations in the North Field Area, one location next to Runway 10 at the site of a 1998 plane crash with a reported gas leak, one location at a 1998 plane crash and fuel spill site off the south end of Runway 16, one location at the fuel truck fire site, one location next to Runway 10 where an aircraft/deer collision with a resultant fuel leak was reported, two locations at the ARFF facility, and two locations at the Fire Training Facility. These locations were selected due to reports of fuel spills or the nature of activities that are conducted at the facilities;

- Additional soil sampling will be conducted, with NYSDEC concurrence, if needed to delineate soil impacts that exceed NYSDEC Guidance Values for groundwater protection;

- Following the completion of onsite soil sampling and review of the resulting data, vertical profile groundwater sampling will be conducted at multiple onsite locations (P1 through P40, open pink circles on Figure 3.1.2). These locations, which may be adjusted based on the soil data, were generally selected to be within or downgradient of areas where PFAS impacts were previously identified in shallow groundwater during the SC investigation and/or where PFAS impacts may be present based on the Site history described in Section 1.3. These locations include positions near and along the downgradient side of the Site, the point of compliance, to evaluate whether Site-related impacts may be migrating further downgradient. Groundwater samples will be collected at several depths in each profile, as noted in Section 3.2, to characterize the vertical extent of impacts and the results will be used, together with groundwater flow direction information, to confirm locations and depths for permanent monitoring wells. Results depths will be referenced relative to grade and water table;

- Water level measurements will be obtained from the existing network of permanent monitoring wells. These data will be integrated with the surveyed elevations of the well casings to further evaluate the Site-specific groundwater flow directions;

- The configuration (well screen intervals and depths) will be evaluated for each of the identified onsite water supply wells, as feasible. This evaluation may include obtaining information from the Town, the SCDHS, NYSDEC, and/or the well driller(s) concerning well construction. Information will also be sought concerning well capacity and usage;

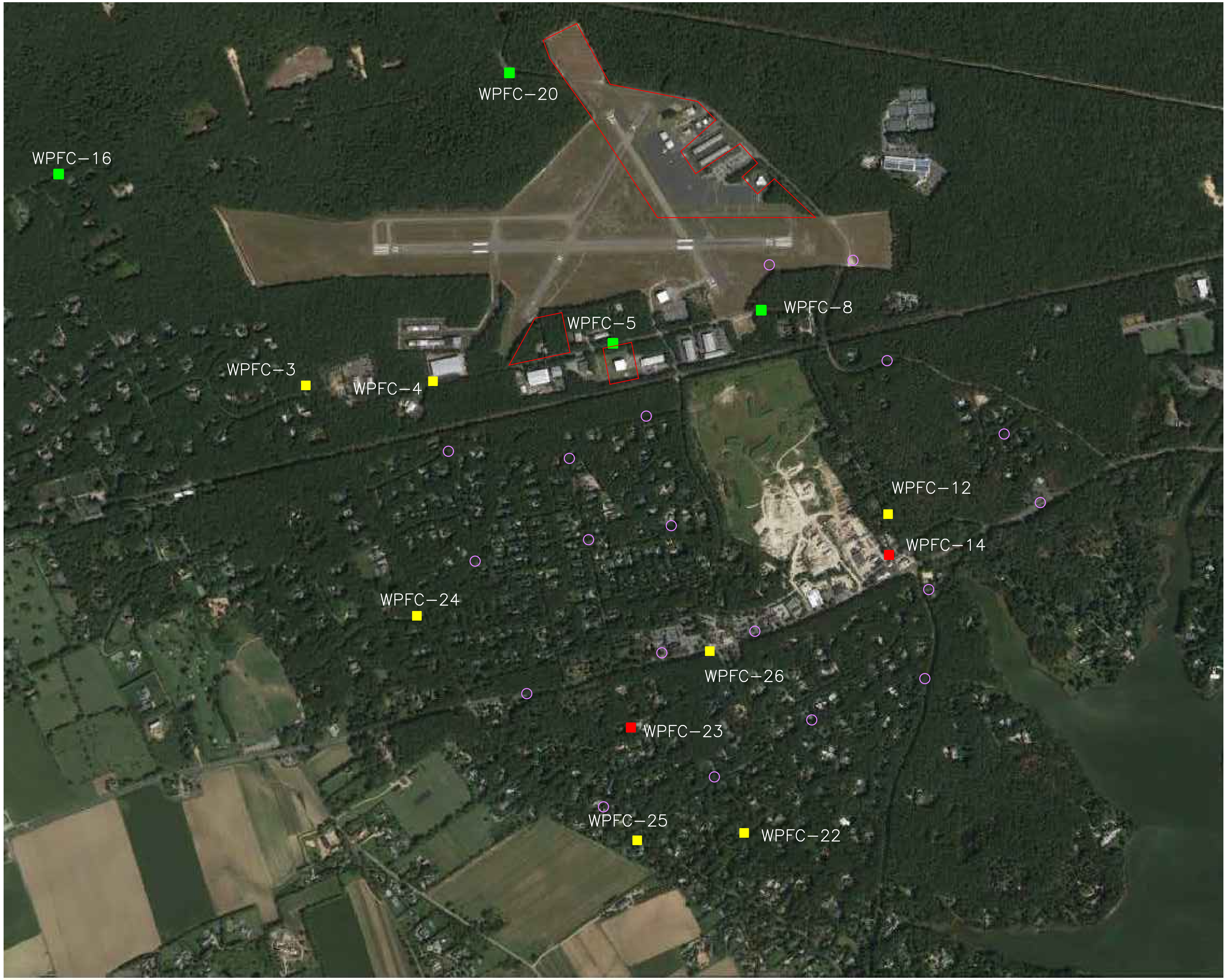
- Multi-level groundwater monitoring wells W1 through W13 will be installed onsite to supplement the existing water table groundwater monitoring network; the open blue circles on Figure 3.1.2 illustrate potential locations of the wells based on existing data. The additional groundwater data obtained during the vertical profile groundwater sampling will be used, together with the existing and newly-obtained groundwater flow direction information, to determine the final number of wells, well locations, and depth intervals, with NYSDEC concurrence. In general, these wells will be located to evaluate groundwater conditions at locations within, upgradient, downgradient, and crossgradient of apparent PFAS source areas, including points of compliance along the downgradient side of the Site. Using these wells, the Site-specific groundwater lateral and vertical flow directions will be further evaluated at multiple depths in the aquifer;

- Groundwater sampling will be performed at these wells (and from existing onsite water supply wells, if applicable) to further evaluate onsite groundwater conditions and the potential for Site-related groundwater contamination to extend offsite. Groundwater will be sampled at all wells and depths for PFAS and at select wells for the NYSDEC DER-10 full list of parameters and 1,4-dioxane, in addition to PFAS. These select wells will be sampled at the water table level only and are indicated on Figure 3.1.2. The select wells include two wells in the North Field Area, three wells in and downgradient of the airport parking lot (also downgradient of the hangar area and fuel farm), one well at the fuel truck fire site, two wells at and downgradient of the ARFF facility (also downgradient of the fire training area), and two wells at the Fire Training Facility. These wells were selected due to their locations in and/or downgradient of actively used areas, including the hangars, fuel farm, ARFF, Fire Training Facility, fire training area, terminal, and parking areas, where there is a greater potential for groundwater impacts to be present; and

- Sub-slab soil vapor sampling will be conducted at 8 representative buildings within the Site (open green triangles on Figure 3.1.2) to provide information concerning the potential for soil vapor intrusion for onsite buildings.

3.1.2 Offsite Sampling Locations

The presently-proposed offsite RI sampling locations are shown on Figure 3.1.3, together with the previous SCDHS vertical profile locations. Note that these proposed locations may be modified, with NYSDEC concurrence, based on a review of the onsite sampling results and



LEGEND:

🟩 🟨 🟥 } PREVIOUS SCDHS VERTICAL PROFILE

PROPOSED GROUNDWATER SAMPLING LOCATIONS

○ VERTICAL PROFILE

— SITE BOUNDARY

NOTE:
THE PROPOSED OFFSITE GROUNDWATER SAMPLING LOCATIONS MAY BE MODIFIED, WITH NYSDEC CONCURRENCE, BASED ON THE ONSITE GROUNDWATER RESULTS AND FLOW DIRECTIONS.

0' 550' 1100' 2200'

FPM GROUP

FIGURE 3.1.3
PROPOSED OFFSITE GROUNDWATER
SAMPLE LOCATIONS
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date: 5/5/21

H:\EAST HAMPTON AIRPORT\RI_FS\FIGURE 3.1.3.dwg, 5/5/2021 1:56:53 PM, AutoCAD PDF (High Quality Print).pc3 groundwater flow direction information. The scope of the offsite RI work includes the following components:

Additional information will be requested from the SCDHS concerning available private water supply well construction and usage data. Any additional available private water supply well testing results will also be requested. Information will also be requested from the NYSDEC concerning reported locations, construction, pumpage, and other relevant details for any documented water supply wells in the Site vicinity and the generally downgradient area;

- Vertical profile groundwater sampling will be conducted at multiple offsite locations (presently-proposed locations are shown as open pink circles on Figure 3.1.3 and may be modified based on the onsite data). These locations were generally selected to be downgradient of areas where PFAS impacts were previously identified in Site groundwater during the SC and near where PFAS impacts were identified during SCDHS groundwater sampling events described in Section 2.1.1. The proposed locations may be modified, with NYSDEC concurrence, based on the onsite groundwater sampling and flow direction results. Groundwater samples will be collected at several depths in each profile (referenced relative to grade and the water table) to characterize the vertical extent of impacts and the results will be used to confirm the locations and depths for permanent monitoring wells; and

- A network of multi-level groundwater monitoring wells will be installed offsite. The additional groundwater data to be obtained during the offsite vertical profile groundwater sampling will be used, together with the existing groundwater flow direction information from the SCDHS, to determine the final number and locations of wells and their depth intervals, with NYSDEC concurrence. In general, these wells will be located to evaluate the nature and extent of Site-related PFAS impacts in groundwater downgradient of the Site. The offsite groundwater lateral and vertical flow directions will also be evaluated at multiple depths. Groundwater sampling will be performed at these wells to further evaluate offsite groundwater conditions that may be related to the Site.

3.1.3 Conceptual Site Model and Exposure Assessment

- Additional information to be obtained during the RI will be used to update the preliminary CSM presented in Section 2.4, including the contaminants of potential concern, potential sources of contamination, potentially affected media (soil, groundwater, and soil vapor), and transport and exposure pathways that could result in potential exposures; and

- A Qualitative Human Health Exposure Assessment will be performed, as described in DER-10, to identify the areas and chemicals of concern, actual or potential exposure pathways, potentially exposed receptors, and how any unacceptable exposures might be eliminated/mitigated. This Exposure Assessment will consider the data obtained during the SC and RI, including the updated CSM.

3.2 Sampling Procedures

The procedures for each type of sampling shown on Figures 3.1.1 through 3.1.3 are described below. Quality assurance/quality control (QA/QC) procedures are presented in Section 4. Table 3.2.1 summarizes the type and purpose of sampling to be performed in each area and the types of analyses to be conducted. More detailed information concerning sample analysis is provided in the Quality Assurance Project Plan (QAPP) presented in Section 5.

Prior to any intrusive work, the One Call service will be contacted to mark the utilities on the public streets adjoining proposed sampling locations. In addition, prior to the start of intrusive activities a subsurface utility markout will be performed at all proposed soil boring, vertical profile, and monitoring well locations that are not located adjoining public streets. Any utilities or other subsurface obstructions identified will be marked on the ground surface. The markings will be reviewed by the QEP and drilling personnel to evaluate the potential presence of subsurface utilities in the work areas and sampling locations will be adjusted as needed to avoid obstructions.

In addition to the utility markout, road-opening permits and/or access agreements will be sought as needed to facilitate sampling at locations adjacent to roadways or on private properties. At present, none of the proposed sampling locations are on private properties and all of the proposed sampling locations along roadways are adjacent to Town-owned roads, which is expected to facilitate obtaining road-opening permits. In the event that samples are required to be obtained adjacent to roads maintained by the NYSDOT or Suffolk County, then road-opening permits will be sought from these agencies. In the event that samples are required to be obtained from private properties, then access agreements will be sought from the affected property owners.

It should be noted that due to the prevalence of PFAS in consumer products, laboratory-recommended quality assurance protocols will be followed during all investigation and sampling efforts to reduce the potential for field contamination. Some of these protocols will include prohibiting the use of certain personal care products by field personnel during field activities and the use of certain common field equipment. These prohibitions will apply to all field personnel, including observers who may be present.

- <u>Soil Sampling</u>

Soil borings will be performed at the onsite locations utilizing hand-operated and direct-push sampling equipment. The soil borings will each be performed through any paving materials that may be present and into the underlying soil to the targeted depth for each location. If visibly-impacted material is encountered in a boring, then that boring will be extended through the visibly-impacted material and into underlying visibly-clean materials. The soil samples from each boring will be obtained continuously, visually examined, screened by an environmental professional with a calibrated photoionization detector (PID), and classified using the Unified Soil Classification System (USCS). The soil observations will be recorded on boring logs and the boring locations will be identified using a global positioning system (GPS).

TABLE 3.2.1
REMEDIAL INVESTIGATION SAMPLING RATIONALE
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Sample Area	Nature of Concern	Soil Samples for PFAS - Rationale	Groundwater Samples for PFAS - Rationale	Soil Samples for NYSDEC DER-10 parameters and 1,4-dioxane*	Groundwater Samples for NYSDEC DER-10 parameters and 1,4-dioxane*	Soil Samples (Other)	Other Samples
North End of Hedges Lane - 1990s plane crash site	Potential use of AFFF	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 4 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	One vertical profile to the SE for PFAS. Additional profiles and/or wells if needed for delineation.	None	None	None	None
North Field Area - 1995 plane crash and 2008 mass casualty drill.	AFFF use reported. Soil and groundwater PFAS impacts identified during SC.	Screening Soil Samples (0 to 0.5, 1 to 2 feet) at 3 locations for PFAS lateral delineation. Vertical delineation samples (0 to 0.5, 1 to 2, 8 to 10, and 20 to 30 feet) at EH-B for PFAS. Additional samples for PFAS delineation to GW protection criteria as needed.	Six vertical profiles to delineate PFAS. Additional profiles if needed for delineation. Anticipate 3 multi-level wells for upgradient, source area and downgradient monitoring for PFAS.	Two soil samples at 0 to 0.5 feet, one each from B1 and B2	Two groundwater samples at water table. Collected from monitoring wells EH-B and W3.	None	None
Airport Parking Lot - 1997 mass casualty drill	AFFF use reported. Groundwater PFAS impacts identified during SC.	Additional Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 3 locations) for PFAS due to soil disturbance/paving after drill, additional samples for delineation if PFAS detected above GW protection criteria	Five vertical profiles to delineate PFAS and 3 downgradient (compliance point) vertical profiles. Additional profiles if needed for delineation. Anticipate 2 multi-level wells for source area and downgradient monitoring and 2 multi-level wells for compliance monitoring.	None	Three groundwater samples at water table. Collected from monitoring wells EH-16, W6 and W7.	Three stormwater drain structures for SCDHS parameters and PFAS	None
Runways 16 and 22 intersection - 1997 plane crash site	Foam use for fire prevention reported	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 4 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	One vertical profile to the SE for PFAS. Additional profiles and/or wells if needed for delineation.	None	None	None	None
Runway 10, east of Runway 16/34 - 1998 plane crash site	EHFD on scene for gas leak and possible fire. Potential use of AFFF.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 4 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	One vertical profile to the SE for PFAS. Additional profiles and/or wells if needed for delineation.	One soil sample at 0 to 0.5 feet from B18	None	None	None
Plane crash and Spill Site, off south end of Runway 16 - 1998	EHFD applied foam to suppress vapors. Potential use of AFFF.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 4 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	One vertical profile to the SE for PFAS. Additional profiles and/or wells if needed for delineation.	One soil sample at 0 to 0.5 feet from B21	None	None	None
Aircraft Taxiway Fuel Truck Fire - EHFD responded and may have used AFFF.	Potential use of AFFF. Stormwater runoff area. PFAS not identified in soil below pavement, low levels of PFAS in groundwater during SC.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 1 unpaved location) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	None	One soil sample at 0 to 0.5 feet from B8	One groundwater sample at water table. Collected from monitoring well EH-A.	None	None
Aircraft/deer collision on Runway 10, east of former Runway 4/22	EHFD responded due to fuel leak and may have used AFFF.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 4 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	One vertical profile to the SE for PFAS. Additional profiles and/or wells if needed for delineation.	One soil sample at 0 to 0.5 feet from B58	None	None	None
Northeast Woods plane crash site, east of Daniels Hole Road.	Foam use reported, crash location not clear. Low-level PFAS impacts in soil and groundwater. No sampling near road where foam was observed.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 3 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	Up to 3 vertical profiles for PFAS. If soil screening does not identify PFAS above GW protection criteria, reduce vertical profiles to 1. Additional profiles and/or wells if needed for delineation.	None	None	None	None
EHFD Airport Substation (ARFF)	AFFF storage. Wastewater and stormwater discharge structures present. Soil and groundwater PFAS impacts identified during SC.	Screening Soil Samples (0 to 0.5, 1 to 2 feet) at 3 locations for lateral delieation of PFAS. Vertical delineation samples (0 to 0.5, 1 to 2, 8 to 10, and 20 to 30 feet) at EH-19A for PFAS. Additional samples for PFAS delineation to GW protection criteria as needed.	Four vertical profiles to delineate PFAS, including 3 downgradient (compliance point) vertical profiles. Additional profiles if needed for delineation. Anticipate 3 multi-level wells for source area and downgradient compliance monitoring.	Two soil samples at 0 to 0.5 feet, one each from B37 and B38	Two groundwater samples at water table. Collected from monitoring wells EH-19A2 and W12.	One stormwater drain structure and one sanitary leaching structure for SCDHS parameters and PFAS	None
Fire Training Area near ARFF	EHFD training activities reported. Potential use of AFFF. One SC location to SW showed no significant PFAS in soil and some PFAS in groundwater.	Screening Soil Samples (0 to 0.5 feet, 1 to 2 feet at 15 locations) for PFAS, additional samples for delineation if PFAS detected above GW protection criteria	Five vertical profiles for PFAS. Additional profiles and/or wells if needed for delineation.	None	None	None	None
EHFD Training Facility	Fire training activities. Wastewater and stormwater discharge structures present. Soil and groundwater PFAS impacts identified during SC.	Screening Soil Samples (0 to 0.5, 1 to 2 feet) at 10 locations for PFAS. Vertical delineation samples (0 to 0.5, 1 to 2, 8 to 10, and 20 to 30 feet) at EH-1 and EH-19B1 for PFAS. Additional samples for PFAS delineation to GW protection criteria as needed.	Eight vertical profiles to delineate PFAS, including 5 downgradient (compliance point) vertical profiles. Additional profiles if needed for delineation. Anticipate 3 multi-level wells for downgradient compliance monitoring.	Two soil samples at 0 to 0.5 feet, one each from B29 and B30	Two groundwater samples at water table. Collected from monitoring wells EH-1 and W9.	Two stormwater drain structures and one sanitary leaching structure for SCDHS parameters and PFAS	None
Sub-slab soil vapor	Potential vapor intrusion by VOCs of concern	None	None	None	None	None	Eight sub-slab vapor samples for TO-15 VOCs
Offsite Groundwater	PFAS identified at multiple downgradient locations by SCDHS and NYSDEC	None	19 vertical profiles to delineate PFAS downgradient of the Site. Locations selected based on existing data and to fill in data gaps. WPFC-4 to be resampled to confirm prior results. Additional profiles if needed for delineation. Anticipate several multi-level wells for downgradient monitoring.	None	None	None	None

Notes:

PFAS = per- and polyfluoroalkyl substances
SC = Site Characterization
NYSDEC = New York State Department of Environmental Conservation
AFFF = Aqueous film-forming foam
VOCs = Volatile organic compounds
* = Additional samples may be collected for DER-10 analytes based on field observations.
SCDHS = Suffolk County Department of Health Services
SPLP = Synthetic Precipitation Leaching Procedure
ARFF = Aircraft Rescue and Firefighting Facility
EHFD = East Hampton Fire District/Department

Soil samples will be collected from each boring and submitted for laboratory analysis. This sampling program is primarily intended to evaluate soil for the potential presence of PFAS compounds in areas that were not previously investigated or where lateral delineation of previously-identified impacts is needed (screening soil sampling), and to characterize the vertical distribution of PFAS compounds in the soil column at locations where PFAS impacts were previously identified in soil (vertical characterization soil sampling). For the locations where screening soil sampling is to be conducted, soil sampling will be conducted at each of these locations in the intervals of 0 to 0.5 feet and 1 to 2 feet, with testing of these soils for PFAS compounds. For the locations where soil characterization sampling for vertical delineation is to be performed, soil sampling will be conducted at each of these locations in the intervals of 0 to 0.5 feet, 1 to 2 feet, 8 to 10 feet, and 20 to 30 feet below grade, with testing of the soil for PFAS compounds. These depths were selected so as to confirm the previously-identified impacts (shallow samples), assess the potential presence of PFAS in soil at a more significant depth (8 to 10 feet), and assess whether PFAS impacts in soil may extend to the vicinity of the water table (20 to 30 feet). These depth intervals are intended to provide data at depths that are useful for evaluation of remedial options. In the event that the water table is encountered during the soil sampling process, soil samples will not be obtained at or below the water table interface. In this case, the deepest soil sample will be obtained from the interval above the water table. In the event that the results of the screening soil sampling indicate the presence of PFAS compounds exceeding applicable NYSDEC criteria (protection of groundwater) at a particular location, then additional soil sampling may be conducted to complete the characterization of soil at the affected location.

Soil sampling and analysis will be performed at select locations in accordance with DER-10 and NYSDEC guidance for emerging contaminant 1,4-dioxane sampling (in addition to PFAS). These locations are identified on Figure 3.1.1 and include two locations in the North Field Area, one location next to Runway 10 at the site of a 1998 plane crash with a reported gas leak, one location at a 1998 plane crash and fuel spill site off the south end of Runway 16, one location at the fuel truck fire site, one location next to Runway 10 where an aircraft/deer collision with a resultant fuel leak was reported, two locations at the ARFF facility, and two locations at the Fire Training Facility. These locations were selected due to reports of fuel spills or the nature of activities that are conducted at the facilities. The samples from the 0 to 0.5-foot interval at these locations will be tested for the full DER-10 list and for 1,4-dioxane.

For all soil sampling locations, additional soil samples will be collected to vertically delineate any visible contamination that may result from VOC, SVOC, metals or other contaminants that typically result in visible impacts. If visibly-impacted material is encountered, then at a minimum soil samples will be collected from the most visibly-impacted material and from visibly-unimpacted material below the impacted interval.

The samples to be tested for PFAS will be collected first, before samples for other analyses are collected. The samples retained for VOC analysis will be collected using Method 5035A preservation procedures. Upon completion of sampling, the sample containers for all analyses will be sealed, labeled, managed, transported, and tracked as described in Section 3.3. Sample analysis is also discussed in Section 3.3. The completed borings will be backfilled with soil cuttings (with the exception of the soil from the uppermost interval, which will be managed as described in Section 3.4) and their surface locations will be marked with surveyor's flags and recorded using GPS for future reference.

- Groundwater Vertical Profile Sampling

The proposed onsite and offsite vertical profile samples, which will be used to characterize the PFAS impacts in groundwater, will be obtained by an experienced drilling contractor at the locations generally shown on Figures 3.1.2 and 3.1.3. Prior vertical profile location WPFC-4 will also be sampled. Profile locations may be adjusted in the field as necessary to avoid obstructions and the offsite locations may be adjusted, with NYSDEC concurrence, based on the results of the onsite sampling. An FPM environmental professional will observe the vertical profile sampling and prepare a log to document the sample intervals and observations. The vertical profile locations will be identified using a GPS and marked in the field for future reference.

At each proposed location, decontaminated stainless steel tooling equipped with dedicated disposable high-density polyethylene (HDPE) tubing will be advanced downward to the targeted intervals in sequence, with sampling conducted at each interval prior to proceeding to the next depth interval. Depth intervals will be referenced relative to grade and the water table. At each interval to be sampled, the tooling will be purged of at least three volumes of groundwater and until the produced groundwater is clear (turbidity less than USEPA-recommended 25 NTU), if feasible. The existing tubing at WPFC-4 will be purged similarly. The groundwater quality parameters pH, temperature, oxidation reduction potential (ORP), and conductivity will be measured during the purging process. Sampling forms documenting purging and sampling procedures and measurements will be completed.

Following purging, sampling will be performed. The retrieved samples will be decanted from the HDPE tubing into laboratory-supplied sample containers. Upon completion of sampling, the sample containers will be sealed, labeled, managed, transported, and tracked as recommended by the laboratory and described in Section 3.3. Sample analysis is also discussed in Section 3.3.

- Groundwater Monitoring Well Installation and Sampling

The proposed multi-level monitoring wells will be installed by an experienced well installation contractor. Potential onsite well locations are shown on Figure 3.1.1; the final well locations and depth intervals will be selected based on groundwater flow direction information and the results of the vertical profiles. Offsite well locations will be selected based on the results of the offsite vertical profiles and the onsite groundwater results. Well locations may be adjusted in the field as necessary to avoid obstructions. An FPM environmental professional will observe each well installation and prepare a boring log/well installation diagram to document the well construction. The monitoring well locations will be identified using a GPS.

To be consistent with the construction of the existing onsite monitoring wells, each multi-level well will include one interval of a two-inch diameter 0.01-inch machine-slotted PVC screen approximately 10 feet long installed to a depth of approximately 6 to 8 feet into the water table. The annulus will be backfilled with Morie #0 well gravel, or equivalent, to approximately two feet above the top of the screen, with an overlying one to two-foot bentonite seal, and the balance will be backfilled with bentonite or cement bentonite grout. The deeper intervals will be constructed using the same materials, with the exceptions that the screens will be five feet long. The top of each well casing will be capped with an expansion-fit locking well cap and the casing will be protected with a bolt-down flush-mounted manhole cover set in concrete. In certain locations, if needed to protect the wells from damage, the casing will be protected with a lockable steel standpipe set in concrete. Protective bollards may be installed around each manhole/standpipe, as needed, to clearly mark each well's location and to protect the surface completions.

Following installation, the wells will be developed by pumping and surging until the produced groundwater is clear (turbidity less than USEPA-recommended 25 NTU) and the groundwater quality parameters pH, temperature, ORP, and conductivity vary by less than 10 percent between removals of successive casing volumes of groundwater. The measurements obtained during well development will be recorded.

Following well installation, a survey will be performed in which the relative elevation of the top of the PVC casing for each well will be determined to the nearest 0.01 foot. The static water level for each of the Site wells will be measured and used in conjunction with the surveyed well casing relative elevations to calculate the Site-specific groundwater flow directions in the horizontal and vertical directions.

Groundwater sampling will be performed at least one week after the wells are installed and the groundwater flow direction determined to allow for groundwater conditions in proximity to the wells to stabilize. Purging and sampling will be in accordance with laboratory-recommended procedures for all analytes. No field equipment containing Teflon or low-density polyethylene parts will be used; the field equipment is anticipated to include stainless steel and HDPE. At each well the depth to the static water level and depth of the well will be measured with an interface probe. The potential presence of non-aqueous-phase liquid (NAPL) will also be assessed. Then a decontaminated low-flow pump equipped with dedicated HDPE tubing will be used to purge the well until the turbidity of the produced water is less than 25 NTU or until five well volumes of water have been purged. Following the removal of each well volume, field parameters, including pH, turbidity, specific conductivity, ORP, and temperature, will be monitored and recorded. When all stability parameters vary by less than 10 percent between the removal of successive well volumes, the well will be sampled. Well sampling forms documenting the well purging and sampling procedures and measurements will be completed.

Samples for PFAS will be obtained before any other sampling is performed. PFAS samples will be obtained using only dedicated disposable HDPE tubing or HDPE bailers suspended from dedicated cotton or polypropylene lines. The retrieved samples will be decanted into laboratory-supplied sample containers. Upon completion of sampling, the sample containers will be sealed, labeled, managed, transported, and tracked as described in Section 3.3. Sample analysis is also discussed in Section 3.3.

Following the completion of PFAS sampling, and after those samples have been properly secured, the select wells targeted for the additional analyses (DER-10 analytes and 1,4-dioxane) will each be sampled first for 1,4-dioxane, followed by sampling for the other analyte groups. These wells are identified on Figure 3.1.2 and include two wells in and downgradient of the North Field Area, three wells in and downgradient of the airport parking lot (also downgradient of the hangar area and fuel farm), one well at the fuel truck fire site, two wells at and downgradient of the ARFF facility (also downgradient of the fire training area), and two wells at the Fire Training Facility. These wells were selected due to their locations in and/or downgradient of actively used areas, including the hangars, fuel farm, ARFF, Fire Training Facility, fire training area, terminal, and parking areas, where there is a greater potential for groundwater impacts to be present. In the event that a multi-level well is present at any of these locations, the samples for full DER-10 list and 1,4-dioxane testing will be obtained from the water table level. Samples for all analyses except PFAS may be obtained directly from the pump or using dedicated disposable polyethylene bailers suspended from dedicated cotton or polypropylene lines. These samples will also be obtained, containerized, labeled and managed under chain of custody procedures and in accordance with laboratory recommendations, as described in Section 3.3.

- <u>Soil Vapor Sampling</u>

Sub-slab soil vapor sampling will be conducted at select onsite building locations as shown on Figure 3.1.2; the sample locations will be identified in the field using a GPS. At each location a boring will be advanced through the lowest floor of the building and approximately 6 inches into the underlying soil and a temporary vapor sampling point will be installed. Each sampling point will consist of a stainless-steel vapor implant connected to sufficient inert tubing so as to bring the tubing above the top of the floor. Each implant will be surrounded with inert porous backfill. The boring above the backfill and around the tubing will be backfilled with a bentonite slurry so as to seal the implant zone from the atmosphere.

Following implant installation, one to three volumes of air will be purged through the implant and tubing at a rate of less than 0.2 liters per minute using an air pump to ensure that a representative sample is obtained. To confirm the integrity of the bentonite seal a helium tracer gas will be confined over the surface seal and the potential presence of helium in the tubing will be checked with a helium meter. Following purging and the seal integrity check, the soil vapor sample will be collected into a laboratory-supplied Summa canister equipped with a calibrated flow controller that is set for an 8-hour sample period and so as not to exceed a flow of 0.2 liters per minute. FPM will observe the flow controllers and seal the canisters while some vacuum remains. Upon completion of sampling, each canister will be sealed, labeled, managed, transported, and tracked as described in Section 3.3. Sample analysis is also discussed in Section 3.3. Following the completion of sampling, the tubing and implants will be removed and the floor penetrations will be sealed in kind with the surrounding materials.

3.3 Sample Management and Analyses

Each sample container will be labeled using a ball-point pen, and the labeled containers containing soil or groundwater samples will be placed in a cooler with ice (blue ice packs will not be used) to depress the sample temperature. Samples for PFAS testing will be placed into individual sealed Zip-lock bags and stored in a separate cooler from all other samples. The filled labeled Summa canisters will be secured in shipping containers. A chain of custody form will be completed and kept with each of the coolers and shipping containers to document the sequence of sample possession. At the end of each day, the filled coolers and shipping containers will be transported by FPM or overnight courier to the analytical laboratory.

The anticipated analytical laboratory for all soil, groundwater, and soil vapor samples is Alpha Analytical of Westborough, Massachusetts, which is NYSDOH ELAP-certified for the proposed analyses.

All of the soil and groundwater samples will be analyzed for PFAS by LC-MS/MS using the modified EPA Method 537.1 with reporting limits less than or equal to 2 nanograms per liter (ng/l, or parts per trillion) in water and 0.5 ug/kg (parts per billion) in soil.

Select soil and groundwater samples will also be tested for Target Compound List (TCL) VOCs plus 10 tentatively-identified compounds (TICs) using EPA Method 8260C; TCL SVOCs plus 20 TICs using Method 8270D, Target Analyte List (TAL) metals using Method 6010C, mercury using Methods 7471A or 7470A, total cyanide using Methods 9010C/9012B, PCBs using Method 8082A, pesticides using Method 8081B, and 1,4-dioxane using Method 8270D and a mass spectrometer in selective ion monitoring (SIM) mode. The detection limit for 1,4-dioxane will be no higher than 0.28 micrograms per liter (µg/l, or parts per billion). In the event that the turbidity of a groundwater sample to be tested for metals is not below 25 NTU, then a separate aliquot of that groundwater sample will be obtained, filtered to remove turbidity, and analyzed for TAL metals using Method 6010C and mercury using Methods 7471A or 7470A.

The sub-slab soil vapor samples will be analyzed for VOCs using Method TO-15.

The analytical methods used for all testing will be as per NYS Analytical Services Protocol (ASP) with Category B deliverables. Electronic data deliverables (EDDs) will be prepared and uploaded into the NYSDEC's environmental information management system.

Additional details concerning sampling, analysis, and QA/QC is provided in the Quality Assurance Project Plan (QAPP) presented in Section 5.

3.4 Management of Investigation-Derived Waste

3.4.1 Soil Cuttings and Groundwater

Soil cuttings may be generated during the onsite and offsite work. Soil cuttings generated from soil borings will be field screened by the environmental professional for indications of potential contamination. If no indications of potential contamination are noted, then these cuttings will be used to backfill the borings from which they originated, with the exception of soil cuttings from the uppermost interval of each boring. For soil cuttings that originate from monitoring well installations, or are from the uppermost interval of a soil boring, or in the event that excess soil cuttings are generated from soil borings, or visibly-impacted soil cuttings are identified, then they will be containerized and managed in accordance with DER-10, Section 3.3(e).

All groundwater generated during well installation, development and purging will be containerized. The containers will be labeled as to their origin and staged onsite in a designated area. The groundwater generated during well development and purging will be examined by the QEP for visual and olfactory indications of potential contamination and any groundwater exhibiting indications of potential contamination will be containerized separately. FPM will review the groundwater sample results to evaluate if any constituents are found in excess of the NYSDEC Standards and at levels of concern. Groundwater exhibiting visible contamination or with constituents in excess of NYSDEC Standards and at levels of concern will be disposed offsite, as described below. Groundwater that does not exhibit visible contamination and does not contain constituents at levels of concern will be discharged to the ground onsite in a source area in a manner that does not result in surface water runoff.

3.4.2 Waste Disposal

Any soil cuttings that are generated and cannot be managed onsite in accordance with DER-10 or that exhibit indications of potential contamination, and any containerized groundwater that cannot be discharged onsite will be transported by a licensed waste transporter and properly disposed offsite at permitted waste disposal facilities. Waste transport and disposal will be documented with manifests, copies of which will be included in the RI Report. Dedicated disposable investigation equipment (gloves, etc.) will be containerized and properly disposed offsite as solid waste.

3.5 Conceptual Site Model and Exposure Assessment

The preliminary CSM presented in Section 2.4 will be refined during the RI as additional data become available. The CSM will identify potential sources of contamination, the types of contaminants and affected media, contaminant release mechanisms and potential migration pathways. In particular, the CSM will evaluate the potential Site-related locations of source area(s) for both onsite and offsite groundwater impacts considering the onsite and offsite history, the types of PFAS compounds typically associated with the materials used and/or discharged in the potential source areas, groundwater flow directions and factors that may affect groundwater flow, the vertical and lateral extents of identified groundwater plume(s), the compositions of the plume(s), and the relationship between identified soil impacts and groundwater impacts. The CSM will also include an evaluation of the potential relationship between the identified onsite and offsite groundwater impacts. The results of the CSM will be used in the development of a human health exposure assessment for the Site-related impacts.

A qualitative human health exposure assessment will be performed during the RI in accordance NYSDEC DER-10 Section 3.3(c)4 to identify the areas and chemicals of concern, actual or potential exposure pathways, potentially exposed receptors, and how any unacceptable exposures might be eliminated/mitigated. This assessment will consider the reasonably anticipated future land use at the Site and reasonably anticipated future groundwater use. The five exposure pathway elements that will be examined include:

- Descriptions of the contaminants and affected media;
- An explanation of the contaminant release and transport mechanisms to the potentially exposed population;
- Identification of potential exposure points where the potential for human contact with contaminated media may occur;
- A description of routes of exposure (i.e., ingestion, inhalation, dermal contact); and
- A characterization of the receptor population that may be exposed to contaminants at a point of exposure.

3.6 Fish and Wildlife Resources Impact Analysis

The potential need for a fish and wildlife resources impact analysis will be evaluated during the RI. Based on the existing information, fish and wildlife resources are not anticipated to be affected by the PFAS impacts identified onsite. The Site is located in a commercial/industrial area that is used as an airport and for commercial and industrial activities. The PFAS impacts have been identified in groundwater at depth beneath the Site and in soil in limited areas of the Site where fire-fighting chemicals have been used and/or stored. The locations where PFAS impacts have been identified are not anticipated to be habitats for fish or wildlife ecological resources. The additional data obtained during the RI will be evaluated and a recommendation will be made as to whether a fish and wildlife assessment is necessary.

3.7 Reporting and Schedule

The proposed schedule is presented in Figure 3.7.1. The NYSDEC will be notified at least 10 working days prior to the anticipated start of the RI fieldwork and at key points during the RI field activities. The NYSDEC will also be notified of any changes to the RI fieldwork schedule.

The schedule shows that fieldwork will proceed in a phased manner, with results from each phase to be assessed and used to modify the proposed locations or scope of work in subsequent phases as needed. NYSDEC concurrence will be obtained for proposed location and scope modifications. Please note that the schedule is likely to be modified due to anticipated scope changes, NYSDEC reviews, and other factors. The RI/FS schedule will be updated as needed.

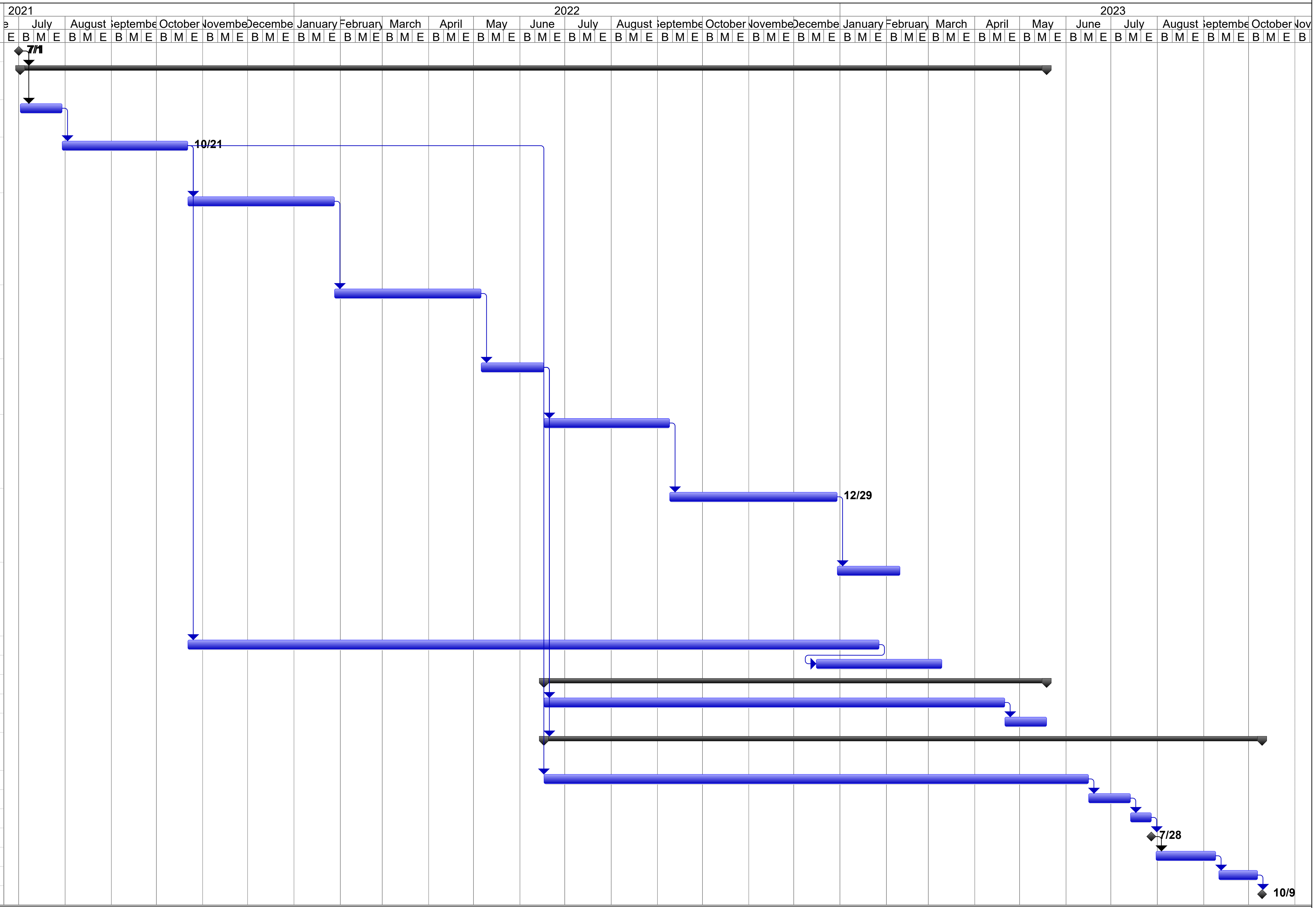
Following the completion of the RI sampling activities, the receipt of all sample results, and updating of the CSM and preparation of the qualitative human health exposure assessment, FPM will prepare an RI Report. The RI Report will be prepared in accordance with NYSDEC DER-10 Section 3.14 and will include an updated site plan, a summary of the work performed, the resulting chemical analytical data, an interpretation of the data, the CSM, the qualitative exposure assessment, and conclusions. Copies of all field logs and the Data Usability Summary Reports (DUSRs) will be provided in appendices to the Report. Copies of the complete laboratory analytical packages will be provided separately from the Report as an electronic submission, in accordance with DER-10 Section 3.14(b).

In accordance with 6 NYCRR Part 375-2, the soil data for most of the analytes will be evaluated with respect to the NYSDEC SCOs for unrestricted use (Table 375-6(a)). However, as the Site use is commercial and industrial, the soil data will also be compared to the NYSDEC SCOs for commercial and industrial uses (Table 375-6(b)). PFAS results will be evaluated in accordance with the NYSDEC's *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS)* dated October 2020 and/or more current NYSDEC guidance, if available. The soil vapor data will be evaluated with respect to NYSDOH soil vapor intrusion guidance with current updates. Groundwater results will be compared to the NYSDEC Class GA Ambient Water Quality Standards and other applicable criteria. A further discussion of standards, criteria and guidance (SCGs) is included in Section 4.

Monthly progress reports will be prepared and submitted to the NYSDEC and NYSDOH during the above-described RI work. The monthly progress reports will include information regarding activities conducted during the reporting period, activities planned for the next reporting period, a summary of any sampling results and community monitoring results, any changes to the schedule, any problems encountered, and other pertinent project information.

FIGURE 3.7.1
RI/FS SCHEDULE
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

ID	Task Name
1	NYSDEC approval of RI/FS Work Plan
2	**RI Work**
3	Fieldwork Preparation - obtain site access, perform utility markout, request/obtain additional info for onsite wells, etc.
4	Onsite Soil and Soil Vapor Sampling - onsite soil and soil vapor sampling, lab analyses, evaluate data, adjust vertical profiles, update CSM
5	Onsite Vertical Profiling and Flow Direction Evaluation - perform vertical profiling, lab analysis, existing well survey, water level measurements, determine groundwater flow direction, evaluate data, adjust proposed MW locations, update CSM
6	Onsite Monitoring Wells - Obtain site access, perform utility markout, install new MWs, survey new wells, sample all onsite MWs, perform additional vertical profiles if needed, lab analyses, evaluate data, update CSM
7	Onsite Data Evaluation - Review all onsite data, evaluate potential offsite migration pathways, adjust proposed offsite vertical profile locations, update CSM
8	Offsite Vertical Profiling - obtain site access/permits, perform utility markout, perform vertical profiling, lab analysis, evaluate data, adjust proposed offsite MW locations, update CSM
9	Offsite Monitoring Wells - Obtain site access/permits, perform utility markout, install and survey new MWs, water level measurements, sample onsite and offsite wells, laboratory analysis, update CSM
10	Data Evaluation - Review all data, evaluate Site sources and migration pathways, identify data gaps and recommend additional investigation as needed, update CSM
11	DUSR preparation
12	Exposure Assessment
13	**FS**
14	Develop and Evaluate Alternatives
15	Develop remedial recommendations
16	**RI/FS Report**
17	Prepare Draft RI/FS Report
18	Internal review
19	Revise RI/FS Report
20	Submit RI/FS Report to NYSDEC
21	NYSDEC Review and comments
22	Revise RI/FS Report and internal review
23	Submit Final RI/FS Report to NYSDEC



Project: RI Schedule
Date: Thu 5/27/21

Task	Summary	External Milestone ◆	Inactive Summary	Manual Summary Rollup	Finish-only]
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Progress
Milestone ◆	External Tasks	Inactive Milestone ◇	Duration-only	Start-only [	Deadline ⇩

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SECTION 4.0
FEASIBILITY STUDY WORK PLAN

In the event that the RI results indicate that remedial measures may be necessary, then a Feasibility Study (FS) will be conducted to evaluate potential remedial alternatives. In general, an FS will be indicated if significant Site-related source material is identified, if soil vapors requiring mitigation are detected, or if Site-related groundwater impacts requiring remediation are identified. The purpose of the FS is to identify and evaluate the most appropriate remedial action(s) for the Site pursuant to guidance provided in NYSDEC DER-10 and 6 NYCRR Subpart 375. Any remedial measures shall be approved by the NYSDEC prior to implementation.

The remedial goal for remedial actions proposed pursuant to this guidance will be the restoration of the Site to pre-disposal/pre-release conditions, to the extent feasible. At a minimum, a proposed remedy will eliminate or mitigate all significant threats to public health and the environment presented by the contaminants at the Site through the proper application of scientific and engineering principles.

4.1 Remedial Action Objectives

Remedial Action Objectives (RAOs) are medium-specific objectives for the protection of public health and the environment and will be developed in the FS based on contaminant-specific standards, criteria and guidance (SCGs). Prior to proposing a remedy at this Site, the RAOs for the Site will first be established by:

- Identifying all contaminants exceeding applicable SCGs and the environmental media impacted by the contaminants;

- Identifying applicable SCGs taking into consideration the current and future land use for the Site:

- Identifying all actual or potential public health and/or environmental exposures resulting from the contaminants in environmental media at, or impacted by, the Site; and

- Identifying any proposed site-specific cleanup levels developed as set forth in 6 NYCRR 375-6.9 and other NYSDEC and NYSDOH guidance documents.

Remedial alternatives will be developed and a remedy proposed that removes the contamination and/or reduces or eliminates exposure to the contaminants above the SCGs. This will include removal of the source of the contamination to the extent technically and practically feasible.

Proposed remedial actions will be developed based on the following criteria:

- Overall Protection of Public Health and the Environment. This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, engineering controls or institutional controls. The remedy's ability to achieve each of the RAOs will be evaluated;

- Compliance with Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance. All SCGs for the Site will be listed along with a discussion of whether or not the remedy will achieve compliance. For those SCGs that will not be met, a discussion and evaluation of the impacts of each will be provided;

- Long-Term Effectiveness and Permanence. These criteria evaluate the long-term effectiveness of the remedy after implementation. If wastes or treated residuals remain onsite after the selected remedy has been implemented, the following items will be evaluated:

    - ✧ The magnitude of the remaining risks (i.e. whether there will be any significant threats, exposure pathways, or risks to the community and environment from the remaining wastes or treated residuals);

    - ✧ The adequacy of the engineering and institutional controls intended to limit the risk;

    - ✧ The reliability of these controls, and;

    - ✧ The ability of the remedy to continue to meet RAOs in the future.

- Reduction of Toxicity, Mobility or Volume with Treatment. The remedy's ability to reduce the toxicity, mobility or volume of Site contamination will be evaluated. Preference will be given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the wastes at the Site;

- Short-Term Effectiveness. The potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during the construction and/or implementation will be evaluated. A discussion of how the identified adverse impacts and health risks to the community or workers at the site will be controlled, and the effectiveness of the controls, will be presented. A discussion of engineering controls that will be used to mitigate short-term impacts (i.e. dust control measures) will also be provided. The length of time needed to achieve the remedial objectives will also be estimated;

- Implementability. The technical and administrative feasibility of implementing the remedy will be evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material will be evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.;

- Cost. Capital, operation, maintenance and monitoring costs will be estimated for the remedy and presented on a present worth basis;

- Community Acceptance. A summary of the public participation program that was followed for the project will be provided. The public's comments, concerns and overall perception of the remedy will be evaluated in a format that responds to all questions that are raised (i.e. responsiveness summary).

4.2 Development and Evaluation of Alternatives

The following are the main steps in the decision-making process for remedy selection and will be presented in the FS:

1. *Establish the remedial goals for the Site*;

2. *Establish RAOs for the Site*;

3. *Identify general response actions, including an estimate of the volumes/areas of contaminated media*. General response actions include non-technology specific categories such as treatment, containment, excavation, extraction, disposal, institutional controls or a combination of these. Where presumptive remedies are available to address the contamination identified, they will be strongly considered. If presumptive remedies are applicable to the identified contamination, pursuant to current EPA or DER guidance the remedy selection process may skip this step (with the exception of estimating volumes/areas of contaminated media) and proceed directly to step 5: assembly of remedial technologies into site-wide alternatives. All applicable general response actions will be developed on a medium-specific basis, similar to the development of RAOs. For each medium addressed, the volumes or areas to be remediated will be identified and characterized with respect to requirements for protectiveness, taking into account the chemical and geologic characterization of the site. During this step, technologies which are not appropriate for the Site due to site-specific factors or constraints will be eliminated from further consideration, with a discussion of the site-specific reasons as appropriate.

4. *Identify and Screen Technologies*. In this step of the process, technology types (i.e. general categories such as chemical treatment, enhanced biodegradation, thermal destruction, immobilization, capping, dewatering, etc.) appropriate to the site-specific conditions and contamination will be identified for each of the general response actions identified. These technologies will then be screened on a medium-specific basis to identify those that are technically implementable for the Site and can meet the Site RAOs. Additional information (i.e. site characterization data, pilot tests) may be required to adequately evaluate alternatives and technologies being considered. Those that are not technically implementable will be dropped from further consideration. Those that remain will be used in the next step to assemble alternatives.

5. *Assemble technologies into site-wide alternative(s)*. In this step, the potential technologies will be assembled into media-specific or Site-wide remedial alternatives. The identified alternatives will be developed and defined to a level of detail that will allow for the estimation of the alternative’s cost and for the subsequent detailed analysis of alternatives. Each alternative will be defined with respect to size and configuration of the process options, time for remediation, spatial requirements, options for disposal, substantive technical permit requirements, limitations or other factors necessary to evaluate the alternatives, and beneficial and/or adverse impacts on fish and wildlife resources. Specific alternatives that will be evaluated include a “no-action” alternative and an alternative that would restore the site to “pre-disposal conditions.” The soil component of the remedial program will consider the SCOs for unrestricted use as representative of pre-disposal conditions. Other alternatives to be considered when evaluating remedial alternatives include those based on current, intended and reasonably-anticipated future use of the Site, removal of source areas of contamination, and containment of contamination.

6. *Analyze the alternative(s) pursuant to the criteria in Section 4.1*. In this step, each of the identified alternatives will be evaluated against the first seven evaluation criteria noted in Section 4.1. The eighth criteria, Community Acceptance of the remedy, will be evaluated after the public comment period, if applicable.

7. *Recommend a remedy for the Site*. This final step in the process will identify the recommended remedy and summarize the reasons why, with reference to the criteria in Section 4.1, it is the best alternative for the remediation of the Site.

4.3 FS Report

An FS Report will be prepared to document the development and evaluation of the options for remedial action at the Site. The FS Report will emphasize data analysis and will generally be performed concurrently and in an interactive fashion with the RI and using data gathered during and prior to the RI. The RI data will be used to define the objectives of the remediation, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The FS Report will identify the goal of the remedial program and develop the RAOs for the Site as detailed above. The FS will also document and provide sufficient detail to support the decision-making process for the selection of a remedy for each of the steps outlined in Section 4.2, steps 1-7. The FS Report will include the following sections:

- Executive summary
- Purpose
- Site description and history
- Summary of RI and exposure/risk assessment
- Remedial goals and remedial action objectives
- General response actions
- Identification and screening of technologies
- Development and analysis of alternatives
    - Assemble technologies into alternatives
    - Evaluation of alternatives with respect to the first seven criteria.
- Recommended remedy and why it was selected

A Professional Engineer (PE) licensed to practice in New York State will sign and seal the completed FS Report.

The FS Report will be initiated shortly before the RI Report is submitted to the NYSDEC such that any comments the NYSDEC may have on the RI may be incorporated in the FS before it is finalized. A schedule for the FS is included on Figure 3.7.1.

SECTION 5.0
QUALITY ASSURANCE PROJECT PLAN

This Quality Assurance Project Plan (QAPP) is applicable to all RI activities for this Site. The RI work is intended to evaluate the nature and extent of contamination in all media at and in proximity to this Site, with emphasis on delineating the nature and extent of Site-related PFAS impacts previously identified in onsite soil and groundwater and offsite groundwater. Further evaluations will be performed in suspect source areas, including the North Field plane crash and training areas, the Airport Parking Lot mass casualty training area, the Northwest Woods plane crash site, the Fire Training Facility burn training area, and the ARFF Station.

The RI will be performed by FPM on behalf of the Town of East Hampton. The FPM project manager is Ben Cancemi, PG and the Quality Assurance Officer (QAO) is Stephanie O. Davis, PG, as identified on Table 3.1. Resumes for FPM project personnel are included in Appendix B.

Sampling procedures are presented in Section 3.2 and sample management is presented in Section 3.3 of this RI/FS Work Plan. Site plans showing the existing sample locations and proposed RI sample locations are presented on Figures 3.1.1 through 3.1.3. Table 3.2.1 (previously presented) summarizes the type and purpose of sampling to be performed in each area and the types of analyses to be conducted. Table 5.1 presents a summary of the analytical methods and the QA/QC sample program. QA/QC samples are further discussed below.

5.1 Data Quality Objectives

The Data Quality Objectives (DQOs) will be applicable to all data-gathering activities at the Site. DQOs will be incorporated into sampling, analysis, and quality assurance tasks associated with RI activities. A QEP will oversee all RI activities.

The data users for this project are FPM, the NYSDEC, and the NYSDOH. The Site owner will also be provided with the data. No other data users are anticipated. The collected data are intended to further evaluate the nature and extent of contaminants in soil, groundwater, and soil vapor on and in proximity to the Site and in offsite groundwater.

For this project, field screening will be performed during sampling activities. Field screening includes monitoring for organic vapors in the soil cuttings as they are generated and in the air in the work zone using a Photovac MicroTIP PID (or equivalent) and visual observations of soil and groundwater characteristics. All readings and observations will be recorded by the FPM QEP in his or her field notebook.

5.2 Standards, Criteria, and Guidance

The following standards, criteria, and guidance (SCGs) have been identified for the Site:

- NYSDEC DER-10;
- The NYSDEC Class GA Ambient Water Quality Standards (Standards), which are used to evaluate the groundwater chemical analytical results;

TABLE 5.1
REMEDIAL INVESTIGATION SAMPLING MATRIX
EAST HAMPTON AIRPORT SITE
WAINSCOTT, NEW YORK

Environmental Sample Type	Number of Locations	Samples per Location	Total Number of Samples (excluding QA/QC)	Number of Select Samples	Sample Depths (feet below grade or water table)	Preparation and Analyses - All Samples	Additional Analyses - Select Samples	Preparation and Analysis, Select Samples	Sample Bottles/Preservation	Holding Time
Soil Samples - new borings for screening and delineation	58	2	116	11	0 to 0.5, 1 to 2	Full PFAS Target Analyte List (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	TCL VOCs and SVOCs, TAL Metals, TCL pesticides, PCBs, 1,4-dioxane	TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A)	One Glass VOA Vial with MeOH Two Glass VOA vials with water One 2 oz. CWM glass, Two 8 oz. CWM glass, For PFAS: Two 8 oz. and one 2 oz. HDPE WM	VOCs: frozen within 48 hours of collection, 14 days until analysis. SVOCs, pesticides and PCBs: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
Soil Samples - re-sample existing borings for vertical delineation	4	4	16	0	0 to 0.5, 1 to 2, 8 to 10, 20 to 30	Full PFAS Target Analyte List (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	-	-	Two 8 oz. and one 2 oz. HDPE WM	28 days
Soil Samples - drainage structures	8	1	8	0	0 to 0.5	SCDHS SVOCs, Metals, and VOCs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, and 7470A/7241A), PFAS TAL (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	-	-	One Glass VOA Vial with MeOH Two Glass VOA vials with water One 2 oz. CWM glass, Two 8 oz. CWM glass, For PFAS: Two 8 oz. and one 2 oz. HDPE WM	VOCs: frozen within 48 hours of collection, 14 days until analysis. SVOCs: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
Groundwater Samples - Onsite Vertical Profiles	40	6	240	0	0 to 5, 15 to 20, 25 to 30, 35 to 40, 45 to 50, 55 to 60	PFAS TAL (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	-	-	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.
Groundwater Samples - Onsite Wells	22	1 to 3	54	10	1 to 3 levels per well	PFAS TAL (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	TCL VOCs and SVOCs, TAL Metals, TCL pesticides, PCBs, 1,4-dioxane	TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A)	Two 40 ml glass VOA vials with HCl, three 1-liter amber glass, 500 ml plastic with HNO3, two 1-liter amber glass, teflon-lined, two 250 ml. HDPE WM	VOCs: 14 days, SVOCs: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
Groundwater Samples - Offsite Vertical Profiles	20	6	120	0	0 to 5, 15 to 20, 25 to 30, 35 to 40, 45 to 50, 55 to 60	PFAS TAL (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	-	-	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.
Groundwater Samples - Offsite New Wells	TBD	3	TBD	0	3 intervals per well	PFAS TAL (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	-	-	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.
Soil Vapor Samples	8	1	8	0	-	VOCs (Method TO-15)	-	-	Summa canister	30 days

QA/QC Sample Type	Number/Frequency	Matrix	Sample Depths (feet below grade)	Preparation and Analysis	Sample Bottles/Preservation	Holding Time
Equipment blanks	One per day during soil or groundwater sampling, select analytes only when these are sampled	Lab Water	-	TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A), 1,4-Dioxane (Method 8270D with SIM-isotope dilution)	Two 40 ml glass VOA vials with HCl, three 1-liter amber glass, 500 ml plastic with HNO3, two 1-liter amber glass, teflon-lined, two 250 ml. HDPE WM	VOCs: 14 days, SVOCs and 1,4-Dioxane: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
				PFAS as per Full PFAS Target Analyte List (Method 537M with SIM-isotope dilution)	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.
Trip blanks	One per cooler with soil or groundwater VOC samples	Lab Water	-	TCL VOCs plus TICs (Method 8260C)	Two glass VOA vials with HCL	14 days
Blind duplicates	One per 20 environmental samples	Soil Vapor	Same as associated primary samples	VOCs (Method TO-15)	One Summa Canister	30 days
	One per 20 environmental samples	Soil		TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A), 1,4-Dioxane (Method 8270D with SIM-isotope dilution)	One Glass VOA Vial with MeOH Two Glass VOA vials with water One 2 oz. CWM glass, Two 8 oz. CWM glass	VOCs: frozen within 48 hours of collection, 14 days until analysis. SVOCs, pesticides, PCBs, 1,4-dioxane: 7 days until extraction, 40 days after extraction, Metals: 28 days
				Full PFAS Target Analyte List (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	Two 8 oz. and one 2 oz. HDPE WM	28 days
	One per 20 environmental samples	Groundwater		TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A), 1,4-Dioxane (Method 8270D with SIM-isotope dilution)	Two 40 ml glass VOA vials with HCl, three 1-liter amber glass, 500 ml plastic with HNO3, two 1-liter amber glass, teflon-lined, two 250 ml. HDPE WM	VOCs: 14 days, SVOCs and 1,4-Dioxane: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
				PFAS as per Full PFAS Target Analyte List (Method 537M with SIM-isotope dilution)	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.
MS/MSD	One per 20 environmental samples	Soil	Same as associated primary samples	TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A), 1,4-Dioxane (Method 8270D with SIM-isotope dilution)	One Glass VOA Vial with MeOH Two Glass VOA vials with water One 2 oz. CWM glass, Two 8 oz. CWM glass	VOCs: frozen within 48 hours of collection, 14 days until analysis. SVOCs, pesticides, PCBs, 1,4-dioxane: 7 days until extraction, 40 days after extraction, Metals: 28 days
				Full PFAS Target Analyte List (Method 537 modified with isotope dilution - LCMSMS-isotope dilution)	Two 8 oz. and one 2 oz. HDPE WM	28 days
	One per 20 environmental samples	Groundwater		TCL VOCs and SVOCs plus TICs, TAL Metals, TCL pesticides, and PCBs (Methods 5030B/8260C, 3541 and 3510C/8270D, 3050B/6010B, 3546/8081B/8082A, and 7470A/7241A), 1,4-Dioxane (Method 8270D with SIM-isotope dilution)	Two 40 ml glass VOA vials with HCl, three 1-liter amber glass, 500 ml plastic with HNO3, two 1-liter amber glass, teflon-lined, two 250 ml. HDPE WM	VOCs: 14 days, SVOCs and 1,4-Dioxane: 7 days until extraction, 40 days after extraction, Metals: 28 days, PFAS: 28 days
				PFAS as per Full PFAS Target Analyte List (Method 537M with SIM-isotope dilution)	Two 250 ml. HDPE WM	14 days until extraction, 28 days after extraction.

Notes:

MS/MSD = Matrix spike/matrix spike duplicate
VOCs = Volatile organic compounds
SVOCs - Semivolatile organic compounds
TAL = Target Analyte List
HCL = hydrochloric acid
CWM = clear wide-mouth
BN = Base-neutral
TICs = tentatively-identified compounds
MEOH = Methanol
TCL = Target Compound List
HNO3 = nitric acid
PCBs = polychlorinated biphenyls
PFAS = Per and poly-fluorinated alkyl substances
TICs = Tentatively-identified compounds
HDPE = High-density polyethylene

- NYSDEC's January 2021 *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS),* which are used to evaluate PFAS results from soil and groundwater samples;

- NYSDEC-provided guidance for 1,4-dioxane;

- The 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (SCOs), which are used to evaluate soil sample results;

- The 6 NYCRR Parts 370, 371, and 372 regulations for hazardous waste management, which are used to guide hazardous waste characterization and disposal; and

- The NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006, with May 2017 updated matrices), which is used to evaluate soil vapor sample results.

5.3 Quality Assurance/Quality Control Procedures

QA/QC procedures will be utilized during the performance of the RI field work to ensure that the resulting chemical analytical data accurately represent subsurface conditions. The following sections include descriptions of the QA/QC procedures to be utilized.

➢ Equipment Decontamination Procedures

In general, all non-disposable downhole equipment (i.e., direct-push rods, hand auger, etc.) used during sampling activities will be decontaminated by washing in a potable water and Alconox solution and rinsing in potable water prior to use at each location to reduce the potential for cross contamination. All sampling equipment will be either dedicated disposable equipment or will be decontaminated prior to use at each location. The decontamination procedures utilized for all non-disposable sampling equipment will be as follows:

1. The equipment will be scrubbed in a bath of potable water and low-phosphate detergent (Alconox or Liquinox) followed by a potable water rinse;

2. The equipment will be rinsed with distilled water; and

3. The equipment will be allowed to air dry, if feasible.

In addition, for sampling activities involving PFAS, the following procedures will be followed due to the prevalence of these compounds in consumer products:

- No field clothing or PPE containing Gore-Tex, Tyvek, or fabric softener, will be worn. Any wet weather clothing will be made of polyurethane or PVC only;

- Waterproof field books, plastic clipboards, binders, or hard cover notebooks will not be used. No materials with adhesives (tape, post-it notes, etc.) will be used. Permanent markers (e.g. Sharpies) will not be used (ballpoint pens are acceptable);

- Field personnel will not use cosmetics, moisturizers, hand cream, sunscreen or insect repellent on the day of sampling. Field personnel must wash hands prior to donning nitrile gloves used during sampling;

- All decontamination will be performed using laboratory-provided PFAS-free water, Alconox, and/or Liquinox. Aluminum foil will not be used;

- All field equipment must not contain Teflon or low-density polyethylene materials. All sampling materials must be made from stainless steel, HDPE, acetate, silicon, or polypropylene; and

- PFAS samples must be maintained in a separate cooler from other types of samples (some sample containers contain PFAS). Coolers containing PFAS samples may be cooled with regular ice only; blue ice packs may not be used.

➢ Sampling Sequence

To reduce the risk of cross-contamination, soil and groundwater sampling will be conducted in the following sequence at all locations where multiple analyte groups will be tested:

- Following the advancement of soil sampling equipment to the target depth or the completion of purging for groundwater, all of the samples for PFAS testing will be obtained, containerized, labeled, and managed under chain of custody procedures and in accordance with laboratory recommendations before sampling for other analytes is conducted. QA/QC samples for PFAS analysis will also be collected at this time;

- Following the completion of PFAS sampling, and after those samples have been properly secured, the samples for 1,4-dioxane testing will be obtained. These samples will also be obtained, containerized, labeled and managed under chain of custody procedures and in accordance with laboratory recommendations prior to conducting sampling for other analytes. QA/QC samples for 1,4-dioxane analysis will also be collected at this time; and

- After all of the samples for PFAS and 1,4-dioxane analyses are secured, sampling for the other analytes will be conducted.

➢ QA/QC Samples

QA/QC samples will be collected and utilized to evaluate the potential for field or laboratory contamination and to evaluate the laboratory's analytical precision and accuracy. A sampling chart showing the number and types of primary samples, analytical methods, and QA/QC samples was presented on Table 5.1. The specific types of QA/QC samples to be collected are described below.

The decontamination procedures will be evaluated by the use of equipment blank samples. These samples consist of aliquots of laboratory-supplied water that are poured over or through the dedicated or decontaminated sampling equipment and then submitted to the laboratory for analysis. An equipment blank sample will be prepared for each day that soil or groundwater sampling is conducted at the Site and will be analyzed for the same analytes as the primary environmental samples collected that day. The equipment blanks will be labeled in a manner to prevent identification by the analytical laboratory.

Particular care will be taken with the equipment blank samples for PFAS. Laboratory-provided PFAS-free water containing the required preservative will be used to prepare the equipment blank samples for PFAS testing. The filled equipment blank container and the empty container that formerly contained the PFAS-free water must be labeled, placed in individual Zip-lock bags, and returned to the laboratory in the same cooler as the PFAS samples.

Trip blank samples will be utilized to evaluate the potential for VOC cross-contamination between samples in the same cooler or shipping container. Trip blank samples consist of laboratory-provided containers filled with laboratory water that are sealed in sample containers at the laboratory and that are transported to and in the field with the other sample containers. A trip blank will be shipped with each group of soil and groundwater samples to be analyzed for VOCs and will be managed in the field and analyzed in the laboratory in the same manner as the primary environmental samples.

Blind duplicate samples will be obtained at a frequency of at least one per every 20 environmental samples and will be used to attest to the precision of the laboratory. A blind duplicate consists of a separate aliquot of sample collected at the same time, in the same manner, and analyzed for the same parameters as the primary environmental sample. The blind duplicate samples are labeled in a manner such that they cannot be identified by the laboratory. The sample results are compared to those of the primary environmental sample to evaluate laboratory analytical precision.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one per 20 environmental soil or groundwater samples. The purpose of the MS/MSD samples is to confirm the accuracy and precision of laboratory results based on a particular matrix. The MS/MSD results will be evaluated during the preparation of the DUSRs, as discussed below.

- Chain-of-Custody Procedures

For each day of sampling, chain-of-custody (COC) sheets will be completed and submitted to the laboratory with the samples collected that day. A copy of each COC sheet will be retained by the FPM QEP for sample tracking purposes. Each COC sheet will include the project name, the sampler's signature, the sampling locations and intervals, and the analytical parameters requested.

- Data Usability Summary Reports

All chemical analytical results will be evaluated using the sample data packages, sample data summary packages, and case narratives provided by the analytical laboratory. The data evaluation will be performed to verify that the analytical results are of sufficient quality to be relied upon to assess the potential presence of contaminants in the groundwater, soil vapor, indoor air, and/or soil samples. A data usability summary report (DUSR) will be prepared for each data package following the “Guidance for the Development of Data Usability Summary Reports” provided by the NYSDEC (Appendix 2B of DER-10). The resume of the anticipated DUSR preparer, Richard Baldwin, PG with Ramboll Environ, who is independent from this project, is included in Appendix B.

5.4 Sample Analysis

All samples will be submitted to NYSDOH ELAP-certified laboratories. The anticipated analytical laboratory for all samples is Alpha Analytical (Alpha) of Westborough, Massachusetts. The analytical data will be provided by the laboratory in electronic format, in accordance with DER-10, Section 1.15. Electronic data deliverables (EDDs) will also be prepared and uploaded into the NYSDEC's environmental information management system.

All of the soil and groundwater samples will be analyzed for PFAS using the LC-MS/MS analysis for PFAS following EPA Method 537.1(modified) using the mass spectrometer in the selective ion monitoring (SIM) mode. For PFOA and PFOS the reporting limits will be less than or equal to 2 nanograms per liter (ng/l, or parts per trillion) for water and 0.5 ug/kg for soil. The reporting limits for all other PFAS compounds will be as close to these limits as possible. Copies of Alpha's Standard Operating Procedure (SOP) for PFAS analyses in soil and groundwater, list of targeted PFAS analytes, reporting limits, and laboratory quality control criteria are included in Appendix B and the PFAS analyte list is provided in Table 5.4.1 below.

TABLE 5.4.1
PFAS ANAYTE LIST

Perfluorobutanoic Acid (PFBA)
1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2) 6:2FTS
PERFLUOROHEPTANESULFONIC ACID (PFHPS)
Perfluoropentanoic Acid (PFPeA)
Perfluorobutanesulfonic Acid (PFBS)
Perfluorohexanoic Acid (PFHxA)
Perfluoroheptanoic Acid (PFHpA)
Perfluorohexanesulfonic Acid (PFHxS)
Perfluorooctanoic Acid (PFOA)
Perfluorononanoic Acid (PFNA)
Perfluorooctanesulfonic Acid (PFOS)
Perfluorodecanoic Acid (PFDA)
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)
Perfluoroundecanoic Acid (PFUnA)
Perfluorodecanesulfonic Acid (PFDS)
Perfluorooctanesulfonamide (FOSA)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)
Perfluorododecanoic Acid (PFDoA)
Perfluorotridecanoic Acid (PFTrDA)
Perfluorotetradecanoic Acid (PFTA)

Select soil and groundwater samples will be analyzed for TCL VOCs plus 10 tentatively-identified compounds (TICs) using EPA Method 5035/5035A and 8260B; TCL SVOCs plus 20 TICs using

Methods 3541 or 3510C/8270C, TAL metals using Methods 3050B or 3010A/6010B, mercury using Methods 7471A or 7470A, PCBs using Methods 3546/8082, and pesticides using Methods 3510C or 3535A and 8141A/8151B/8081/8082. The analytical methods used will be as per NYS Analytical Services Protocol (ASP) with Category B deliverables. These select samples will also be analyzed for 1,4-dioxane using EPA Method 8270D with the mass spectrometer in the SIM mode with isotope dilution. For 1,4-dioxane in water the reporting limit will be 0.15 ug/l and the method detection limit will be 0.075 ug/l. Category B-equivalent deliverables will be provided.

Select soil samples may be analyzed using the Synthetic Precipitation Leaching Procedure (SPLP), with LC-MS/MS analysis for PFAS following EPA Method 537.1(modified) using the mass spectrometer in the SIM mode. These analyses may be performed in the event that PFAS compounds (not including PFOA or PFOS) are found in onsite soils at levels that could result in leaching to groundwater at concentrations that might exceed applicable NYSDEC groundwater criteria.

The soil vapor samples will be analyzed for VOCs using Method TO-15. The analytical method used will be as per NYS ASP with Category B-equivalent deliverables.

5.5 Data Evaluation

The data collected will be assembled, reviewed, and evaluated and the baseline CSM will be updated as needed. The PFAS data for the onsite soil and groundwater samples will be used to further assess the nature and extent of PFAS contamination in the soil and groundwater at the Site and the potential for this contamination to extend offsite. The PFAS data for the offsite groundwater samples will be used to assess the nature and extent of PFAS contamination in groundwater that may be related to the Site.

The data for the other analyte groups for the onsite soil and groundwater samples will be used to assess onsite soil and groundwater conditions and update the CSM as needed.

The soil vapor samples will be used to assess the potential for soil vapor intrusion into the onsite buildings.

5.6 Project Organization

The Project Manager for this project will be Ben Cancemi, PG, who is a Hydrogeologist and Manager of FPM's Hydrogeology Department. Stephanie Davis, PG, who is a Hydrogeologist and Senior Project Manager will be the QAO and provide QA/QC services for all aspects of the RI/FS process. Mr. John Bukoski, PG, who has provided field services at FPM for over 20 years, will be the Field Services Manager and will also serve as the health and safety officer. Resumes for project personnel are included in Appendix B. Subcontracted services will include direct-push/drilling services (subcontractor to be determined), laboratory services (Alpha Analytical), and DUSR preparation (Ramboll).

SECTION 6.0
REFERENCES

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APPENDIX A

PREVIOUS INVESTIGATION DATA, ADDITIONAL INFORMATION

Site Characterization Report (2018)

AECOM Imagine it. Delivered.

Site Characterization Report

East Hampton Airport
Wainscott, Suffolk County, New York

New York State Department of Environmental Conservation
Division of Environmental Remediation

November 30, 2018

Quality information

Prepared by	Checked by	Verified by	Approved by
Alexandra Golden and Caroline Bardwell, CPG, CHMM	Lindsay Mitchell, P.E. Project Manager	Daniel Servetas, P.E. Certifying Engineer	Lindsay Mitchell, P.E. Project Manager

Revision History

Revision	Revision date	Details	Authorized	Name	Position
1	12/11/2018	Appendix C – Soil Boring Logs only	12/11/2018	Lindsay Mitchell	AECOM Project Manager

Distribution List

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List of Acronyms and Abbreviations

AFFF	aqueous film-forming foam
AOC	Area of Concern
ARFF	Aircraft Rescue and Firefighting
bgs	below ground surface
COC	chain of custody
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
ft.	foot/feet
GPR	ground penetrating radar
HAL	US EPA Health Advisory Level
I.D.	inside diameter
IDW	investigation-derived waste
MS/MSD	matrix spike/matrix spike duplicate
MW	monitoring well
ng/g	nanograms per gram
ng/L	nanograms per liter (parts per trillion)
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PFAS	per- and polyfluoroalkyl substances
PFC	perfluorinated compound
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
SC	site characterization
SCDHS	Suffolk County Department of Health Services
SCR	Site Characterization Report
SOW	scope of work
US EPA	United States Environmental Protection Agency
VOC	volatile organic compound

Site Characterization Report Certification

I, Daniel Servetas, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Site Characterization Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Respectfully submitted,
AECOM Technical Services Northeast, Inc.

DANIEL T. SERVETAS
079068

November 30, 2018

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Date

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1. Introduction

This Site Characterization Report (SCR) documents the findings of the 2018 site characterization (SC) completed by AECOM USA, Inc. at the East Hampton Airport in Long Island, New York on behalf of the New York State Department of Environmental Conservation (NYSDEC). The purpose of the SC was to identify the presence or absence of per- and polyfluoroalkyl substances (PFAS) contamination so that a determination could be made as to whether the site poses a significant threat to public health and/or the environment that warrants further investigation or remedial action. As a group, PFAS are chemicals with broad application, primarily in the manufacture of commercial products that resist heat or chemical reactions and repel oil, stains, grease and water. Perfluorooctanoic acid (PFOA) is a specific PFAS compound found in various industrial products (aerospace, automotive, building, and electronics industries) that is commonly used in nonstick cookware, stain-resistant carpeting and fabrics, and paper and cardboard. PFOA was also used in some formulations of aqueous film-forming foam (AFFF), a common and effective firefighting agent. Perfluorooctane sulfonic acid (PFOS) is the primary PFAS compound used in firefighting foam. This SC was undertaken due to the documented presence of AFFF at the East Hampton Airport for firefighting and fire training activities, either currently or historically, and the associated potential for chemical discharge at concentrations that could present a risk for public health or the environment. Site characterization activities were performed between April and September 2018. The remainder of this section outlines the Site Description, Site Background, SC Objectives, Scope of Work, Report Organization and Regulatory Framework.

1.1 Site Location

The approximately 610-acre Site (Draft Master Plan Report, Savik & Murray, LLP, April 2007) is located at 200 Daniels Hole Road in the hamlet of Wainscott in Suffolk County, New York (**Figure 1**), approximately 3.4 miles west of the Village of East Hampton on the South Fork of Long Island. The Site, owned by the Town of East Hampton, includes the airport and the East Hampton Industrial Park at the southern end of the airport along Industrial Road. Various commercial/industrial businesses lease the buildings from the owner. Coordinates for the approximate center of the Site are 40°57'37.2" N, 72°15'03.7" W. The nearest residential properties are located south of the Site beyond the railroad tracks and there are additional residential parcels to the west on Town Line Road. At the time of the SC field activities, a majority of the nearby residences obtained their potable water from private groundwater wells. The public water supply network is currently being expanded to service these homes.

The Atlantic Ocean lies to the south of Wainscott; the Village of Sagaponack is located to the west; and the Village of East Hampton is to the east. Other communities that border Wainscott are East Hampton and Northwest Harbor to the northeast, the village of Sag Harbor to the north, and Noyack and Bridgehampton to the west (north of Sagaponack).

The airport property is zoned Commercial/Industrial according to the Town zoning map. Surrounding properties are used for residential and commercial purposes with areas of open, unoccupied land.

1.2 Site Background

Originally built in the late 1930s, the airport is capable of handling small general aviation aircraft. The site property consists of a public use airport with a parking lot, airport terminal and various support buildings. Additionally, several parcels to the south of the airfield are leased for commercial/industrial and public service tenants. The public service tenants include the East Hampton Fire District Training Facility, the Aircraft Rescue and Firefighting (ARFF) facility, and the East Hampton Police.

In the fall of 2017, the Suffolk County Water Authority initiated a drinking water investigation for PFAS, which included sampling private water supply wells and the installation of monitoring wells. Several residences in East Hampton had detectable levels of PFAS contaminants in their well water, with the highest concentrations exhibited at houses situated in close proximity (south/southwest) to the airport property. The Site has not previously been investigated for the presence of PFAS.

1.3 Site Characterization Objectives

The objective of the SC was to determine if the Site has the potential to be a significant threat to public health and/or the environment. The findings of this investigation are necessary to evaluate the need for further action or investigation.

1.4 Scope of Work

In general, the final scope of work (SOW) for SC included the following tasks:

- Site Review: Identify potential historical events with AFFF use, such as training events, plane/car crashes on airport property where AFFF was applied, as well as current/former AFFF storage areas. Select proposed sample locations with final placement to be established during site visits
- Preliminary Activities: Attend on-site meeting with NYSDEC personnel to discuss proposed sampling locations based on research findings. Solicit subcontractor bids, formalize budget, and prepare health and safety plan
- Mobilization/Utility Clearance: Mark proposed temporary monitoring well (MW) locations on-site; conduct public and private utility markout of proposed locations and adjust as necessary
- Drinking Water Screening: Collect tap water samples at hangar spaces leased by the airport to private tenants and submit for PFAS laboratory analysis
- Drilling Program (two phases): Advancement and continuous sampling of soil borings, collection and analysis of soil samples near ground surface and above the water table, placement of polyvinyl chloride (PVC) well screen in temporary MWs for future sampling
- Groundwater Monitoring Program (two phases): Gauge water level at all temporary MWs and piezometers to calculate groundwater elevation, collect groundwater samples for PFAS laboratory analysis at temporary wells and Suffolk County Water Authority well MW-10
- Surface water/Sediment Sampling: Collect surface water sample at a catch basin near EH-A and corresponding sediment sample, if possible
- Survey: Oversee land survey activities

1.5 Report Organization

This SCR is organized into the following Sections, followed by Figures, Tables, and Appendices:

- Section 1: includes background information and a synopsis of Site characteristics and the SOW.
- Section 2: includes a description of activities that occurred during each phase of the SC fieldwork.
- Section 3: includes a description of the subsurface conditions at the Site.
- Section 4: includes a description and summary of the analytical results for samples collected during SC activities.
- Section 5: describes the SC findings, presents conclusions, and summarizes recommendations for further action, if proposed.

1.6 Regulatory Framework

PFAS are not currently regulated at the federal level and are not regulated in soil and groundwater in New York. Effective March 3, 2017, the NYSDEC added PFOA and PFOS to New York State's 6 New York Codes, Rules and Regulations (NYCRR) Part 597 List of Hazardous Substances. While the Final Rule lists PFOS and PFOA as hazardous substances, no screening or clean-up criteria are provided.

The United States Environmental Protection Agency (US EPA) has established a lifetime Health Advisory Level (HAL) of 70 nanograms per liter (ng/L) for PFOS and PFOA, individually or combined, to protect against potential risk from exposure to drinking water contaminated by these compounds. There are no regulatory criteria for the other 19 PFAS compounds analyzed for in this SC; therefore, report discussion focuses primarily on PFOA and PFOS.

2. Field Activities

Field activities for the SC were performed between February 19, 2018 and August 10, 2018, during multiple site mobilizations. This Section provides detail on the investigation tasks completed during that timeframe. The following subcontractors provided services during the SC:

- Drilling - Cascade Drilling Company (Cascade), AECOM Subcontractor
- Ground Penetrating Radar (GPR) - Advanced Geological Services (AGS), AECOM Subcontractor
- Surveying - C.T. Male Associates (CT Male), AECOM Subcontractor
- Chemical Laboratory Analyses - ALS Environmental, Inc. (ALS), NYSDEC call-out contractor

All field activities were performed or supervised by an AECOM geologist. Photographs of field activities are included in **Appendix A** and daily reports are provided in **Appendix B**.

2.1 Site Review

Based on information gathered by the NYSDEC, Town of East Hampton officials, and AECOM regarding recorded and other potential uses of AFFF on Site property, temporary MW locations were selected for the purpose of site characterization. Potential well locations were sited based on historical information provided by site contacts and municipal officials, including, for example, historical photographs of crash sites (**Appendix A**). Existing geological and hydrogeological information (e.g., groundwater flow direction, depth to groundwater), including data collected from the Suffolk County Water Authority, was utilized to guide the development of the SC SOW.

Temporary MW locations were finalized and marked in the field by an AECOM geologist on-site on August 6, 2018. All prospective MW locations were evaluated for the presence of subsurface utilities by Advanced Geological Services. Any conflicts and MW locations were adjusted accordingly. These activities were overseen by an AECOM geologist.

Using information provided by local, county, and state contacts along with available topographic and geologic mapping, AECOM staff identified several target areas that warranted subsurface investigation, including known areas of AFFF discharge. Additional locations were selected for a second phase of investigation after initial results were reviewed. The following table presents the justification behind each soil boring, piezometer, temporary well location, and water supply well sample.

Target Area	Location ID	Justification	Drilling Phase
North Field (Area E and Area B)	EH-E	Location of a plane that crash landed	Initial Phase
	EH-B	Fire Department mass casualty exercise using AFFF and small bus	Initial Phase
	EH-E1	Upgradient of EH-E	Second Phase
	EH-B1	Downgradient of EH-B	Second Phase
Airport Parking Lot (Parcel 16)	EH-16	Fire Department training exercise location with AFFF and a large bus	Initial Phase
	EH-161	Upgradient of EH-16	Second Phase
	EH-162	Downgradient of EH-16	Second Phase
Northeast Woods (Area C)	EH-C	Historical vehicle incident where car left road and entered the woods, marked by a break in the fence. The Fire Department had been called as a precautionary measure	Initial Phase
Aircraft/Helicopter Taxiway (Area A)	EH-A	Previous car fire with documented AFFF discharge (Area A). The potential runoff of AFFF off of the tarmac into nearby grass warranted placement of 3 additional soil borings (SB-1, SB-2 and SB-3)	Initial Phase

Target Area	Location ID	Justification	Drilling Phase
ARFF (Parcel 19)	EH-19A	Located near the Fire Department garage where AFFF and fire trucks are stored	Initial Phase
	EH-19B	Located near the Fire Department garage where AFFF and fire trucks are stored	Initial Phase
	EH-19A1	Upgradient of EH-19A	Second Phase
	EH-19A2	Downgradient of EH-19A	Second Phase
	EH-19B1	Downgradient of Parcel 19 and upgradient of Parcel 1. On East Hampton Fire District Training Facility parcel	Second Phase
East Hampton Police Dept. (Parcel 1)	EH-1	Fire training structure where AFFF may have been discharged.	Initial Phase
Local Television Inc. (Parcel 10)	EH-10	This location was sampled to investigate potential impacts from AFFF runoff from the historical use at fire garage. The temporary well is located downgradient of the fire garage.	Initial Phase
East End Hangars (Parcel 18)	EH-18	Downgradient of hangar buildings	Initial Phase
Upgradient of Water Supply well	EH-SAS	Upgradient of drinking water supply well associated with tap sample SAS-1	Second Phase
Piezometers	EH-P1, EH-P2, EH-P3	Installed across the site to supplement groundwater elevation data collected during the SC	Initial Phase
Soil Borings	EH-A1, EH-A2, EH-A3	Evaluate runoff from Area A (Taxiway) where a historical car fire occurred	Initial Phase
Storm Drain Sample	Catch Basin	Evaluate runoff from Area A (Taxiway) where a historical car fire occurred	Initial Phase
Supply Well Tap Samples	HH-20/21, HH-18, SAS-1, SAS-2, SAS-3, EH-1	At least one sample was collected from each of six drinking water supply wells that service leased hangar spaces at Parcel 16 and Parcel 18. Taps located at Hangars 7, 8 and 18 (HH-7/8 and EH-18) were inaccessible during sampling activities.	Initial Phase/ Second Phase
Existing County Well	MW-10	To supplement SC water quality and elevation data with permanent off-site well location	Initial Phase

For the initial phase of investigation, prospective boring locations were flagged and marked by AECOM personnel while escorted by East Hampton Airport Staff. The following day all prospective locations were checked for subsurface utility interference by AGS. Any conflicts resulted in adjustment of the location to a more favorable position. These activities were overseen by an AECOM geologist. The final temporary well locations are depicted on **Figure 2**.

2.2 Mobilization/Utility Clearance

During the investigation, extensive precautions were used to eliminate the potential for cross-contamination from PFAS-containing materials. This preparation included ensuring field staff used perfluorinated compound (PFC)-free clothing, equipment, and supplies during SC activities and using certified PFC-free water during drilling and sampling (supplied by Cascade).

Prior to commencing any intrusive activities, AECOM arranged for utility mark-outs through Dig Safely New York, Inc. and a subcontractor, Advanced Geological Services. The locations for some of the temporary MW locations were adjusted after GPR results indicated they may be situated too close to an underground utility.

2.3 Drinking Water Tap Sampling

Several hangars on the airport property are leased to private tenants and some of them have installed potable water supply wells. As an initial screening measure, AECOM collected samples from tap locations at six spaces, to avoid any unnecessary disruption of tenant operations.

On April 25, 2018, the tap water samples were collected by an AECOM Geologist from Sound Aircraft Services (SAS-1, SAS-2, SAS-3), Hampton Hangars (HH-20/21 and HH-18), and East Hampton Hangars (EH-1). Sample locations are shown on **Figure 2**. An East Hampton Airport employee escorted AECOM personnel throughout the process. The tap was purged for a brief period to ensure sampled water was coming from the well and not the piping. The samples were preserved on ice, packaged, and submitted under standard chain of custody (COC) to ALS Environmental for PFAS analyses. On August 7, 2018, tap location SAS-1 was resampled by AECOM based on the initial analytical results, which showed higher concentrations than other samples.

2.4 Drilling Program

2.4.1 Soil Sampling

Between April 30, 2018 and May 4, 2018, soil borings were advanced to depths ranging from 25 to 45 feet below ground surface (bgs) by Cascade using a track-mounted Geoprobe® unit equipped with a macrocore sampler. Continuous soil samples were collected in acetate liners in 5-foot intervals during the drilling of temporary MWs and piezometers for the initial phase. Two soil samples were collected for each of the initial ten borings, with an additional sample collected at EH-B. An AECOM field geologist logged soil descriptions and screened soil for the presence of volatile organic compounds (VOC) using a Photoionization Detector. Soil samples were collected in laboratory-supplied bottleware, placed on ice, and submitted to ALS for laboratory analysis under standard COC protocols. Investigation-derived waste (IDW) was placed in a labeled drum for later characterization and off-site disposal. Soil boring logs are presented in **Appendix C** and well locations are provided on **Figure 2**.

After reviewing analytical results from the initial phase of drilling, AECOM coordinated with the NYSDEC to identify target areas where elevated concentrations of PFAS were reported. At each of these areas, one upgradient and one downgradient temporary well were installed during a second phase of investigation on August 8 and 9, 2018. This exercise resulted in advancement of eight additional temporary MWs. Soil sampling was not completed at these additional borings, with the exception of EH-19B1. Additionally, EH-SAS was installed upgradient of the water supply well for tap sample SAS-1; however, no downgradient well was installed.

2.4.2 Temporary MW Installation

After the depth to groundwater was confirmed at each of the 18 borings, a 1.75-inch inside diameter (I.D.) PVC well screen was placed in the borehole to act as a temporary MW to keep the borehole open and facilitate groundwater sampling. Each MW was constructed with 10-ft. length sections of 0.010-inch slot well screen and capped with a 4-inch steel protective casing, with locking cap secured in place. Field observations, measurements, and well construction timetables were recorded in the Daily Notes in **Appendix B**.

Once the depth to groundwater was determined for each soil boring, Cascade set a 10 ft. PVC screen, the depth of which was recorded by an AECOM geologist. Each monitoring well was constructed with 10-ft. length sections of 0.010-inch slot, Schedule 40 well screen with the exception of EH-19B1, which had a 15-ft. screen. Each well was capped with a 4-inch steel protective casing with a locking cap secured in place.

The three piezometers for groundwater monitoring (EH-P1, EH-P2 and EH-P3) were placed so that they transect the site perpendicular to the flow of groundwater. **Figure 3** displays a cross-section of the groundwater present between the piezometers.

2.5 Groundwater Monitoring Program

Groundwater elevation measurements were collected and recorded prior to groundwater sampling activities in May and August 2018, which are presented in **Table 1**. Water levels were determined using an electronic water level meter, which was decontaminated before proceeding to the next well location. Measurements were referenced to the top of each PVC well riser.

Groundwater sampling was performed using a 1-inch bailer with high density polyethylene PFC-free tubing, PFC-free twine, a YSI 556 multi-meter, and a HACH 2100 turbidity meter. AECOM Standard Operating Procedures for Sampling PFAS were followed by all field staff during the SC activities. The groundwater samples were transported under standard COC procedures to ALS Environmental and analyzed for the list of 21 PFAS compounds shown in **Table 1**. Groundwater sampling logs are presented in **Appendix D**.

2.6 Quality Assurance/Quality Control

Field duplicates, matrix spikes/matrix spike duplicates (MS/MSD), equipment blanks, and trip blanks were collected and analyzed as appropriate for quality assurance/quality control (QA/QC) purposes. Duplicate soil samples were collected from EH-1 both from the 0-1 foot bgs interval (DUP-1) and 32-33 feet bgs interval (DUP-2). Two MS/MSD samples were collected for QA/QC purposes. MS/MSD-1 was collected from EH-A1 at a depth of 23-24 feet bgs. MS/MSD-2 was collected from EH-A3 at a depth of 0-1 foot bgs. During the second drilling phase, duplicate soil samples were also collected from EH-161 at a depth of 0-1 foot bgs. Two sets of MS/MSD samples were collected from EH-E for QA/QC purposes, from depths of 0-1 foot bgs and 26-27 feet bgs. For groundwater monitoring, duplicate samples were also collected from MW-10, and MS/MSD samples were collected from EH-A. In August 2018, AECOM also collected duplicate aqueous samples from EH-19A2 and MS/MSD samples from EH-19A1.

2.7 Site Survey

At the conclusion of the field activities described above, C.T. Male Associates completed a survey of all temporary MWs including the sampled Suffolk County-installed MW (MW-10).

3. Physical Setting

3.1 Site Topography and Drainage

Ground elevations on-site range between 30 and 55 feet above Mean Sea Level, based on data collected during the monitoring well survey. Some areas of higher elevation exist to the west and south. The airport property is developed with numerous buildings and includes large expanses of paved (impermeable) surfaces. The remainder of the property is characterized by open fields and wooded areas.

3.2 Site Geology and Hydrogeology

The Site geologic setting consists of a glacial outwash plain that slopes south from the Ronkonkoma Moraine to bays and barrier islands, which form the southern boundary of Long Island. Shallow soils are generally comprised of glacial outwash sands with intermittent non-continuous silt and clay lenses that originated from the receding Wisconsin ice sheets at the end of the Pleistocene epoch.

A geologic cross-section of the soils encountered during the installation of the SC soil borings is provided on **Figure 3** and soil boring logs are included in this report as **Appendix C**.

Groundwater beneath the airport is found within three different aquifers:

1. Lloyd Aquifer: the deepest aquifer, providing a reliable source of drinking water unimpacted by the salt water intrusion that commonly affects shallow aquifers on Long Island;
2. Magothy: a good source of drinking water; and
3. Upper Glacial: the unconfined, shallow surficial aquifer, which is the major source of potable water in the area. This unconfined aquifer consists of very porous and highly permeable coarse sands and gravels, and can yield large quantities of water.

Depth to groundwater on-site varies from 15 feet bgs in the northern portion of the site to 30 feet bgs at the industrial park. Groundwater flows from northwest to southeast across the Site with a gradient of 4.0×10^{-4} ft./ft. A groundwater contour map is included as **Figure 4**.

4. Analytical Results

The following sections present the laboratory results for samples collected during the SC activities. All samples were analyzed for 21 PFAS compounds via US EPA Method 537.

4.1 Drinking Water

During the SC investigation, six tap water samples were collected from leased aircraft hangars located on airport property. These results are listed in **Table 2** and presented on **Figure 5**. Although PFOA and PFOS were not detected above the HAL of 70 ng/L, either individually or combined, trace to low levels of the compounds were identified. Sample location SAS-1 exhibited the highest concentration of PFOA, with 22 ng/L in May 2018. SAS-1 was subsequently resampled in August 2018 to verify this detection. The initial detection of PFOA was confirmed, but at a lower concentration of 11 ng/L. No PFOS was reported in the well. Other water supply wells exhibited PFOS concentrations ranging from non-detect to 8.9 ng/L and PFOA concentrations ranging from non-detect to 2.1 ng/L. Other PFAS compounds were detected in tap water samples; however, there are no current state or federal advisory levels for PFAS compounds other than PFOS and PFOA for comparison purposes.

4.2 Soil

A total of 41 soil samples were collected and analyzed during the SC's two drilling phases at a total of 21 boring/well locations. In general, one shallow soil sample (0-1 ft. bgs) and one deep soil sample (greater than 20 ft. bgs) were collected at each temporary well location. The soil analytical results are presented in **Table 3** and on **Figure 6**.

PFOA and PFOS were not detected above the PFOS/PFOA HAL of 70 ng/g (either individually or combined) in any of the soil samples. Of the 41 samples collected, 16 exhibited detectable concentrations of PFOS, ranging from 0.19 J ng/g to 12 ng/g, and seven samples exhibited detectable concentrations of PFOA, ranging from 0.2 ng/g to 3.8 ng/g. Trace to low levels of other unregulated PFAS compounds in the 21-compound analyte list were also detected in soil samples.

4.3 Groundwater

During SC field activities in May and August 2018, AECOM collected groundwater samples from 18 temporary wells, three piezometers, and Suffolk County monitoring well MW-10. An aqueous storm drain sample (Catch Basin) is also included in the groundwater results, which are presented in **Table 1** and portrayed on **Figure 7**.

Of the 25 sample locations, the HAL of 70 ng/L was exceeded at a total of six wells, including EH-1, EH-19A, EH-19B, EH-19A2, EH-B1, and EH-162. At these locations, the combined PFOS/PFOA concentrations ranging from 145 ng/L to 299.3 ng/L. Trace to low levels of PFOS and PFOA were reported in several other locations at concentrations below the HAL.

As previously stated, there are no current state or federal advisory levels for PFAS compounds other than PFOS and PFOA for comparison purposes. Each of the remaining 19 PFAS analytes was identified in at least one groundwater sample at varying concentrations. In addition to elevated PFOS/PFOA impacts, samples from wells in Parcel 19 exhibited concentrations of other perfluoroalkyl carboxylic acids that were one to two orders of magnitude higher than wells for other target areas.

4.4 Data Quality

Data Usability Summary Reports (DUSRs) were prepared by EDS, which included review of full Category B analytical packages. Data qualifiers were modified, as appropriate, and final values are presented in the tables, figures and appendices attached to this report. All data was deemed usable by the data validator and DUSRs are provided in **Appendix E**.

4.5 Electronic Data Deliverables

All laboratory data was received in a format compatible for submission to NYSDEC's centralized database. A separate electronic data deliverable submission will be made to NYSDEC, which will include validated analytical data from the DUSR process and survey data.

5. Conclusions and Recommendations

The following conclusions and recommendations can be made based on the SC findings for the East Hampton Airport PFAS assessment. As additional information for this site becomes available, it will be reviewed by NYSDEC and NYSDOH officials and incorporated into the site conceptual model to determine whether site contamination presents public health exposure concerns.

5.1 Conclusions

- Drinking Water: Samples were collected from several private water supply wells that service leased hangar spaces. Samples were collected from sink taps located within each space. Trace to low levels of PFOS and PFOA were detected in each of the tap samples, with PFOS concentrations ranging from 1.2 to 8.9 ng/L and PFOA reported at 1.4 to 22 ng/L. No detections were reported above the 70 ng/L HAL.
- Soil: The presence of PFAS compounds in soil above laboratory reporting limits indicate that release(s) have occurred on-site. To date no regulatory guidelines have been established to determine soil cleanup objectives or protection of groundwater standards for PFAS in soil. The highest reported concentration of PFAS compounds were from boring EH-19B1, with 12 ng/g of PFOS and 3.8 ng/g of PFOA.
- Groundwater: Investigation findings show that the historic use and/or storage of AFFF have impacted Site groundwater quality. In particular, PFOS and PFOA have been identified in Site groundwater at concentrations above the US EPA HAL of 70 ng/L. Analytical results from upgradient and downgradient wells indicate that there are four distinct areas of concern (AOCs, as shown on **Figure 8**), including:
  - **AOC-1**: Groundwater beneath Areas B and E located north of the airfield, where firefighting foam was historically used for crash response and training. PFOS (270 ng/L) and PFOA (17 ng/L) are present in temporary well EH-B1.
  - **AOC-2**: Groundwater beneath Area 16, where AFFF was deployed during a mass casualty training exercise, is impacted by PFOS above the HAL. PFOS was reported at 290 ng/L in the groundwater sample from downgradient temporary well EH-162, with lower levels of PFOA (9.3 ng/L).
  - **AOC-3**: Groundwater beneath Parcel 19, where the ARFF station is located, has been impacted by both PFOS and PFOA above the HAL. Although no documented discharge of AFFF could be confirmed, AFFF is stored in the station. Analytical results for three temporary wells (EH-19A, EH-19A2, and EH-19B) exhibited one or more exceedances of the HAL, with a maximum reported concentration of 174 ng/L for combined PFOS/PFOA.
  - **AOC-4**: Groundwater beneath Parcel 1, occupied by the East Hampton Police Department, has been impacted with PFOA above the HAL. Temporary well EH-1, located adjacent to the burn training structure, exhibited PFOA at 160 ng/L. Groundwater quality in upgradient well EH-19B1 indicates that the contamination originated on the parcel.

5.2 Recommendations

AECOM offers the following recommendations based on the data collected to date:

- Due to the presence of PFAS contamination at concentrations above the federal HAL, a supplemental investigation is recommended for the four identified AOCs to delineate the nature and extent of impacts. The investigation should include the following:
  - Collection of additional soil samples to evaluate whether an ongoing source of PFAS contamination to groundwater is present in Site soils at each AOC.
  - Expansion of the on-site monitoring well network, including conversion of key temporary wells into permanent wells and new monitoring well locations. Implement a groundwater sampling program to complete horizontal and vertical delineation of the PFAS impacts to groundwater. Include vertical profile sampling since the SC was limited to the evaluation of shallow groundwater impacts and well usage in the area may have drawn impacts to greater depth.

- Install off-site monitoring wells to determine whether Site groundwater quality has been impacted by upgradient sources and better understand whether PFAS-impacted groundwater from the East Hampton Airport Site has migrated off-site. If appropriate, this off-site evaluation should include sampling of monitoring wells installed by the Suffolk County Department of Health Services (SCDHS). **Appendix F** contains water level information and PFAS groundwater data collected by Suffolk County from public wells during 2018, as well as a figure of the monitoring well locations.

FIGURES

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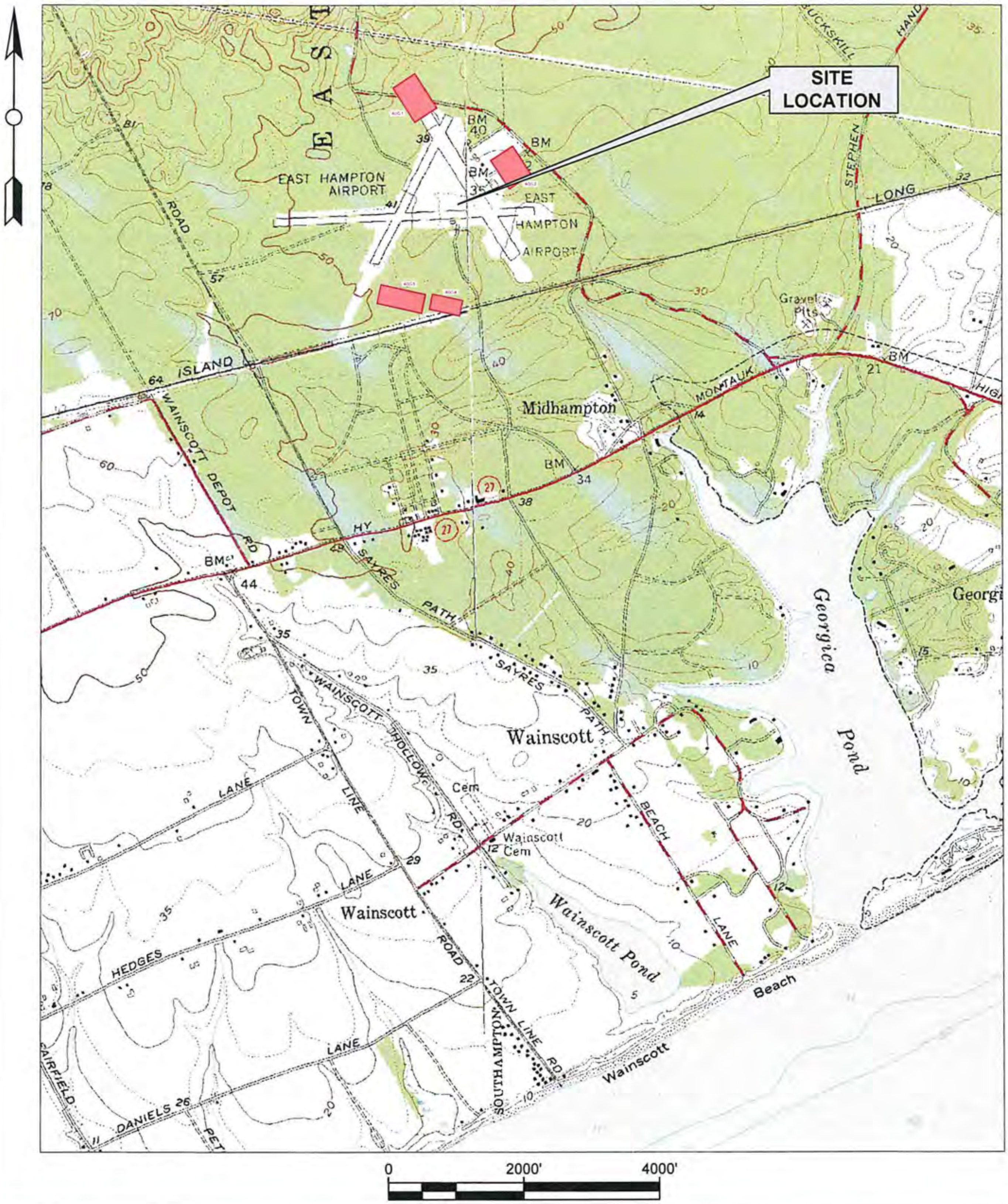

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

SITE LOCATION
PLAN

AECOM

Figure: 1

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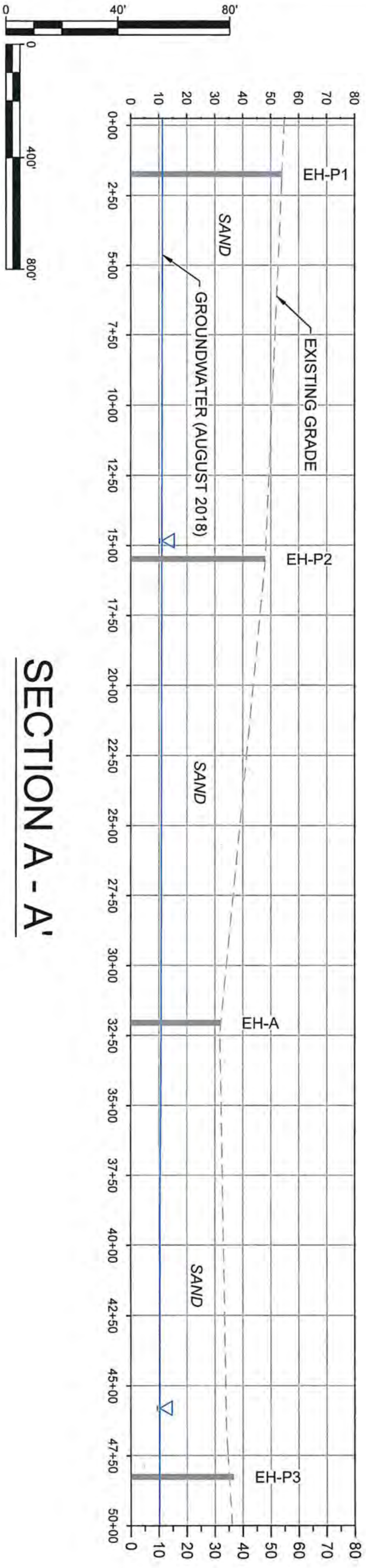
EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

EXISTING SITE FEATURES

AECOM

Figure: 2



EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

SECTION A - A'

AECOM

Figure: 3

PLAN

AECOM

Figure: 4

GROUNDWATER CONTOUR
MAP
AUGUST 2018

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

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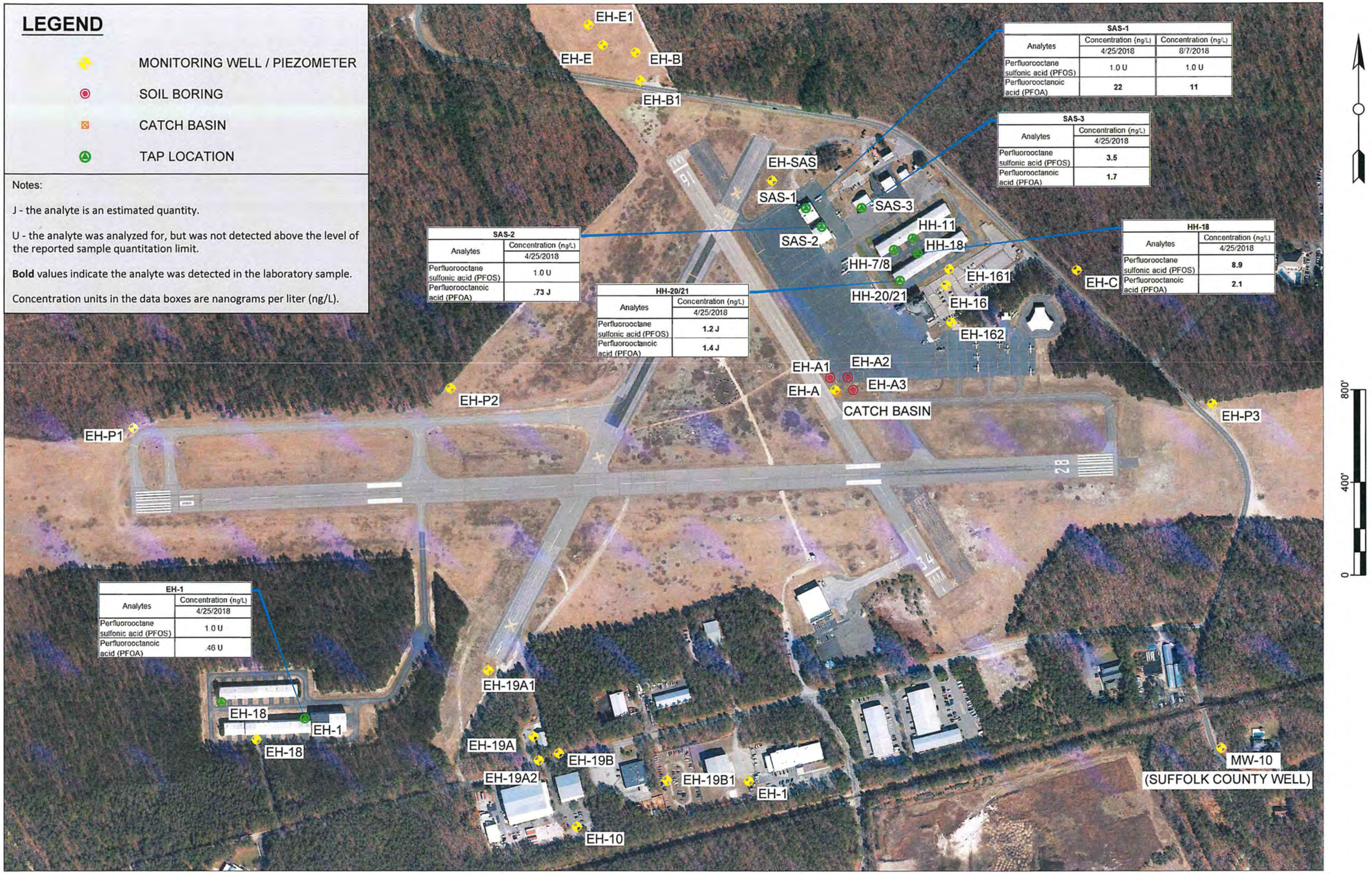
Project Management Initials: Designer: KAM Checked:____ Approved:____ ANSI B 11" x 17"



LEGEND

⊕	MONITORING WELL / PIEZOMETER
◉	SOIL BORING
⊠	CATCH BASIN
▲	TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Concentration units in the data boxes are nanograms per liter (ng/L).

SAS-1

Analytes	Concentration (ng/L)	Concentration (ng/L)
	4/25/2018	8/7/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U	1.0 U
Perfluorooctanoic acid (PFOA)	**22**	**11**

SAS-3

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**3.5**
Perfluorooctanoic acid (PFOA)	**1.7**

SAS-2

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	**.73 J**

HH-18

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**8.9**
Perfluorooctanoic acid (PFOA)	**2.1**

HH-20/21

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	**1.2 J**
Perfluorooctanoic acid (PFOA)	**1.4 J**

EH-1

Analytes	Concentration (ng/L)
	4/25/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

PLAN

Figure: 5

AECOM

TAP WATER ANALYTICAL RESULTS

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

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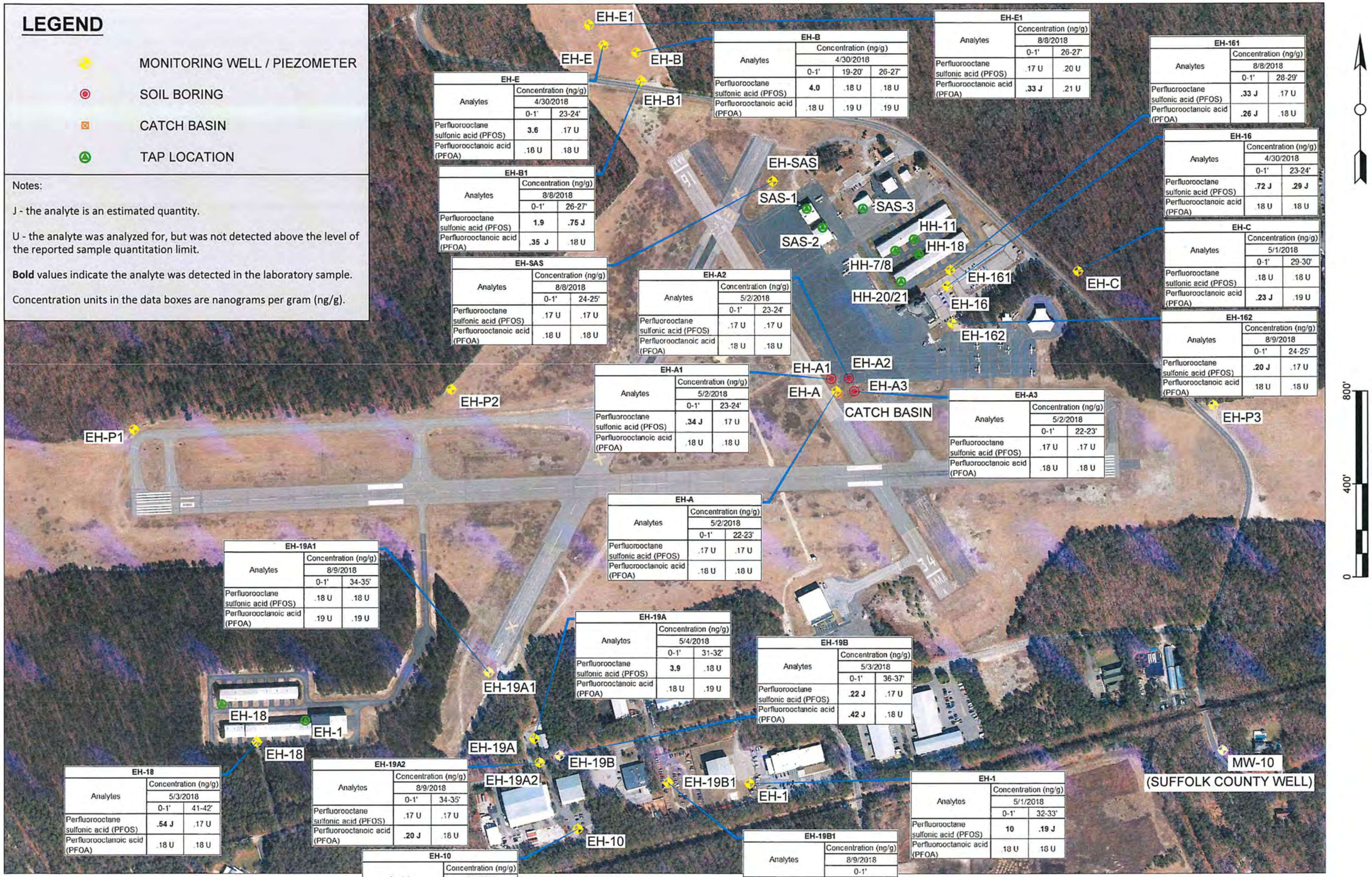
Project Management Initials: Designer: KAM Checked: Approved: ANSI B 11" x 17"



LEGEND

- MONITORING WELL / PIEZOMETER
- SOIL BORING
- CATCH BASIN
- TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Concentration units in the data boxes are nanograms per gram (ng/g).

EH-E1

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	26-27'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.20 U
Perfluorooctanoic acid (PFOA)	**.33 J**	.21 U

EH-B

Analytes	Concentration (ng/g)		
	4/30/2018		
	0-1'	19-20'	26-27'
Perfluorooctane sulfonic acid (PFOS)	**4.0**	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	.18 U	.19 U	.19 U

EH-161

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	28-29'
Perfluorooctane sulfonic acid (PFOS)	**.33 J**	.17 U
Perfluorooctanoic acid (PFOA)	**.26 J**	.18 U

EH-E

Analytes	Concentration (ng/g)	
	4/30/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**3.6**	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-16

Analytes	Concentration (ng/g)	
	4/30/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**.72 J**	**.29 J**
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-B1

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	26-27'
Perfluorooctane sulfonic acid (PFOS)	**1.9**	**.75 J**
Perfluorooctanoic acid (PFOA)	**.35 J**	.18 U

EH-C

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	29-30'
Perfluorooctane sulfonic acid (PFOS)	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	**.23 J**	.19 U

EH-SAS

Analytes	Concentration (ng/g)	
	8/8/2018	
	0-1'	24-25'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A2

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-162

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	24-25'
Perfluorooctane sulfonic acid (PFOS)	**.20 J**	.17 U
Perfluorooctanoic acid (PFOA)	18 U	.18 U

EH-A1

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	23-24'
Perfluorooctane sulfonic acid (PFOS)	**.34 J**	17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A3

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	22-23'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-A

Analytes	Concentration (ng/g)	
	5/2/2018	
	0-1'	22-23'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-19A1

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	34-35'
Perfluorooctane sulfonic acid (PFOS)	.18 U	.18 U
Perfluorooctanoic acid (PFOA)	.19 U	.19 U

EH-19A

Analytes	Concentration (ng/g)	
	5/4/2018	
	0-1'	31-32'
Perfluorooctane sulfonic acid (PFOS)	**3.9**	.18 U
Perfluorooctanoic acid (PFOA)	.18 U	.19 U

EH-19B

Analytes	Concentration (ng/g)	
	5/3/2018	
	0-1'	36-37'
Perfluorooctane sulfonic acid (PFOS)	**.22 J**	.17 U
Perfluorooctanoic acid (PFOA)	**.42 J**	.18 U

EH-18

Analytes	Concentration (ng/g)	
	5/3/2018	
	0-1'	41-42'
Perfluorooctane sulfonic acid (PFOS)	**.54 J**	.17 U
Perfluorooctanoic acid (PFOA)	.18 U	.18 U

EH-19A2

Analytes	Concentration (ng/g)	
	8/9/2018	
	0-1'	34-35'
Perfluorooctane sulfonic acid (PFOS)	.17 U	.17 U
Perfluorooctanoic acid (PFOA)	**.20 J**	.18 U

EH-1

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	32-33'
Perfluorooctane sulfonic acid (PFOS)	**10**	**.19 J**
Perfluorooctanoic acid (PFOA)	.18 U	18 U

EH-10

Analytes	Concentration (ng/g)	
	5/1/2018	
	0-1'	33-34'
Perfluorooctane sulfonic acid (PFOS)	**.64 J**	.17 U
Perfluorooctanoic acid (PFOA)	.19 U	.18 U

EH-19B1

Analytes	Concentration (ng/g)
	8/9/2018
	0-1'
Perfluorooctane sulfonic acid (PFOS)	**12**
Perfluorooctanoic acid (PFOA)	**3.8**

PLAN

AECOM

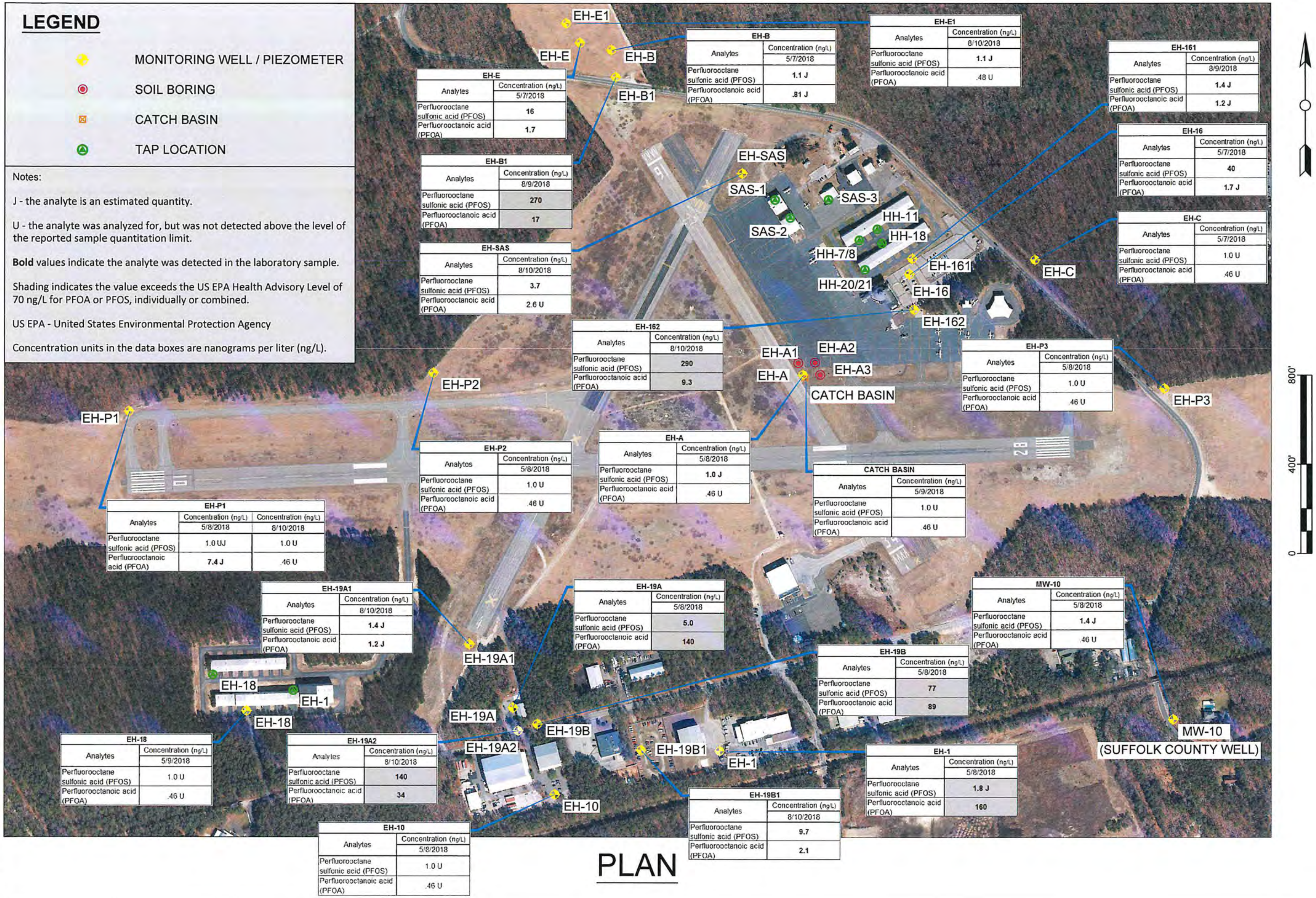
Figure: 6

SOIL ANALYTICAL
RESULTS

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

ANSI B 11" x 17"

Approved:____ Checked:____ Designer: KAM Project Management Initials:



LEGEND

- MONITORING WELL / PIEZOMETER
- SOIL BORING
- CATCH BASIN
- TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Shading indicates the value exceeds the US EPA Health Advisory Level of 70 ng/L for PFOA or PFOS, individually or combined.

US EPA - United States Environmental Protection Agency

Concentration units in the data boxes are nanograms per liter (ng/L).

EH-E1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	.48 U

EH-B

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	**.81 J**

EH-E

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**16**
Perfluorooctanoic acid (PFOA)	**1.7**

EH-161

Analytes	Concentration (ng/L)
	8/9/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

EH-B1

Analytes	Concentration (ng/L)
	8/9/2018
Perfluorooctane sulfonic acid (PFOS)	**270**
Perfluorooctanoic acid (PFOA)	**17**

EH-16

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**40**
Perfluorooctanoic acid (PFOA)	**1.7 J**

EH-SAS

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**3.7**
Perfluorooctanoic acid (PFOA)	2.6 U

EH-C

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-162

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**290**
Perfluorooctanoic acid (PFOA)	**9.3**

EH-P3

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-A

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.0 J**
Perfluorooctanoic acid (PFOA)	.46 U

EH-P2

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

CATCH BASIN

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-P1

Analytes	Concentration (ng/L)	Concentration (ng/L)
	5/8/2018	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 UJ	1.0 U
Perfluorooctanoic acid (PFOA)	**7.4 J**	.46 U

EH-19A1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

EH-19A

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**5.0**
Perfluorooctanoic acid (PFOA)	**140**

MW-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	.46 U

EH-19B

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**77**
Perfluorooctanoic acid (PFOA)	**89**

EH-18

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-19A2

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**140**
Perfluorooctanoic acid (PFOA)	**34**

EH-1

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.8 J**
Perfluorooctanoic acid (PFOA)	**160**

EH-19B1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**9.7**
Perfluorooctanoic acid (PFOA)	**2.1**

EH-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

PLAN

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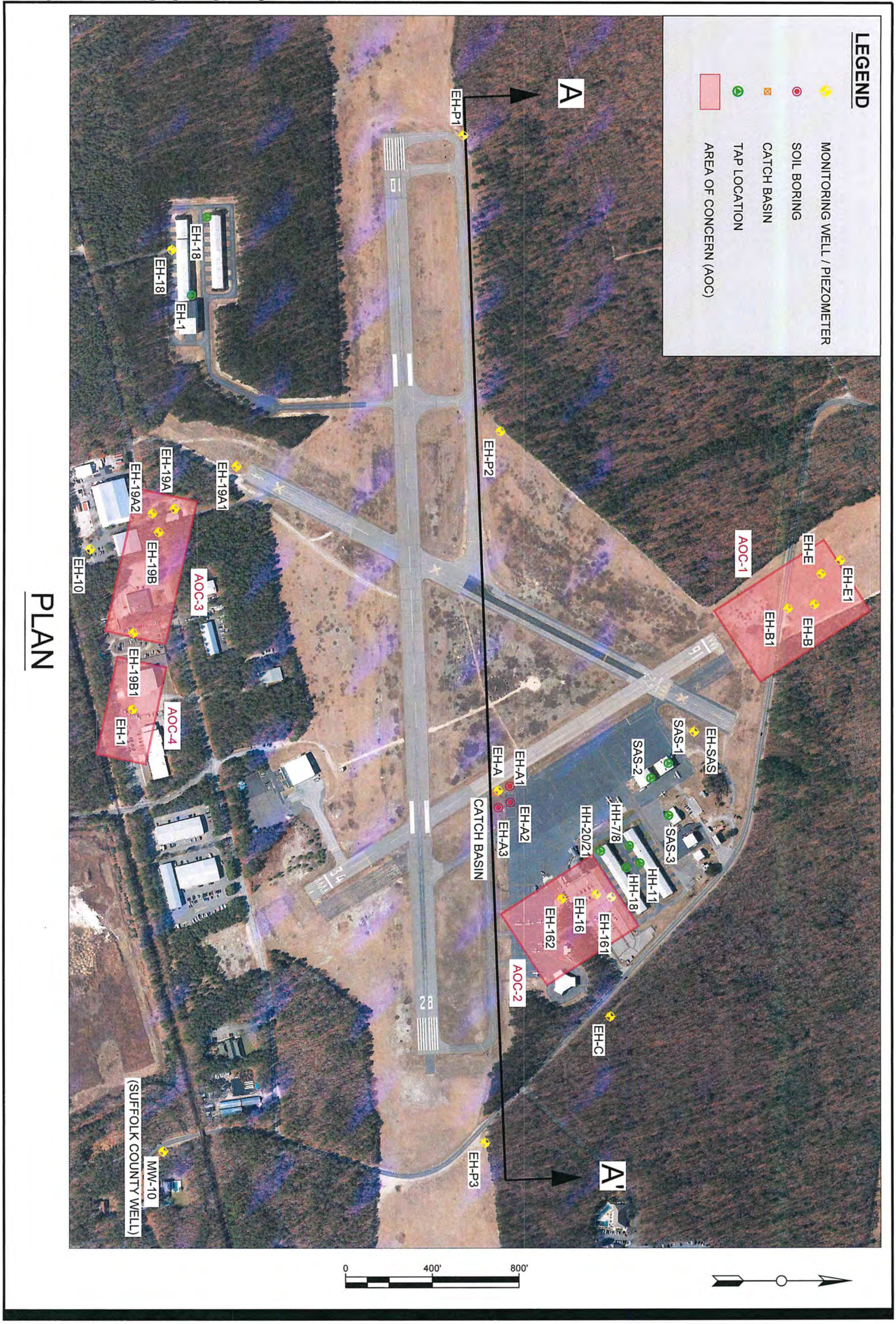
AECOM

Figure: 7

GROUNDWATER ANALYTICAL RESULTS

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018



EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: September 2018

IDENTIFIED AREAS OF CONCERN

AECOM

Figure: 8

TABLES

Table 1
Groundwater Sample Data

Analytes	Health Advisory Water Quality Standards¹		Groundwater Sample Data												
		Area	**North Field**				**Sound Aircraft Services**	**Airport Parking Lot**			**Northwest Woods**	**Daniels Hole Road**	**East Hampton PD**	**ARFF**	
		MW ID	**EH-B**	**EH-B1**	**EH-E**	**EH-E1**	**EH-SAS**	**EH-16**	**EH-161**	**EH-162**	**EH-C**	**MW-10***	**EH- 1**	**EH-19A**	**EH-19A1**
		Date	5/7/2018	8/9/2018	5/7/2018	8/10/2018	8/10/2018	5/7/2018	8/9/2018	8/10/2018	5/7/2018	5/8/2018	5/8/2018	5/8/2018	8/10/2018
Perfluoroalkane Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	NS		**42**	**2.4 J**	**4.9**	**9.4**	.90 U	.90 U	.90 U	**4.2 J**	.90 U	.90 U	**8.3**	**360**	**12**
Perfluorohexane sulfonic acid (PFHxS)	NS		**130**	**34**	**52**	**24**	**1.8 J**	**2.1 J**	**1.3 J**	**68**	.94 U	.94 U	**730**	**240**	**1.5 J**
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	**2.8 J**	.88 U	.88 U	.88 U	.88 U	.88 U	**4.4**	.88 U	.88 U	**36**	.88 U	.88 U
Perfluorooctane sulfonic acid (PFOS)	70		**1.1 J**	**270**	**16**	**1.1 J**	**3.7**	**40**	**1.4 J**	**290**	1.0 U	**1.4 J**	**1.8 J**	**5.0**	**1.4 J**
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Perfluoroalkane Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	NS		**37**	**6.5 J**	**5.6 J**	2.7 U	2.7 U	**5.4 J**	2.7 U	**4.2 J**	2.7 U	2.7 U	**37**	**710**	**3.9 J**
Perfluoropentanoic acid (PFPeA)	NS		**120**	**5.9**	**17**	**8.1**	1.1 U	1.1 U	1.1 U	**3.0 J**	1.1 U	1.1 U	**76**	**2600**	1.1 U
Perfluorohexanoic acid (PFHxA)	NS		**150**	**13**	**17**	**11**	.92 U	**2.0 J**	.92 U	**8.9**	.92 U	.92 U	**65**	**2800**	**1.9 J**
Perfluoroheptanoic acid (PFHpA)	NS		**8.9**	**2.7 J**	**2.2 J**	1.2 U	1.2 U	**2.1 J**	1.2 U	**3.3 J**	**1.3 J**	1.2 U	**40**	**1500**	1.2 U
Perfluorooctanoic acid (PFOA)	70		**.81 J**	**17**	**1.7**	.48 U	2.6 U	**1.7 J**	**1.2 J**	**9.3**	.46 U	.46 U	**160**	**140**	**1.2 J**
Perfluorononanoic acid (PFNA)	NS		.94 U	**1.0 J**	1.7 U	.94 U	**1.5 J**	1.5 U	.94 U	.94 U	.99 U	.94 U	1.2 U	7.0 U	.94 U
Perfluorodecanoic acid (PFDA)	NS		.92 U	.52 U	1.6 U	.52 U	.60 U	1.0 U	**.70 J**	.52 U	1.1 U	.67 U	.82 U	1.8 U	.52 U
Perfluoroundecanoic acid (PFUnDA)	NS		1.6 U	.31 U	1.1 U	.31 U	.31 U	1.8 U	**1.6 J**	.31 U	1.1 U	1.0 U	1.4 U	2.6 U	.31 U
Perfluorododecanoic acid (PFDoDA)	NS		.76 U	.46 U	.87 U	.46 U	.46 U	1.4 U	.46 U	.46 U	.78 U	.89 U	1.2 U	1.1 U	.46 U
Perfluorotridecanoic acid (PFTrDA)	NS		.83 U	.75 U	**.82 J**	.75 U	.75 U	**.94 J**	.75 U	.75 U	**1.2 J**	.75 U	.90 U	1.7 U	.75 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroalkyl Sulfonamides															
Perflurooctane sulfonamide (FOSA)	NS		.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	4.2 UJ	4.2 UJ	4.2 U	4.2 U	4.2 UJ	4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	8.3 U	.83 U	.83 U	.83 U	.83 U
(n:2) Fluorotelomer Sulfonic Acids															
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		1.2 U	1.2 U	1.2 U	1.2 U	**1.6 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	**7.0**	**7.0**	**1.6 J**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	**2.8 J**	.65 U

Notes:

NS - No standard exists

Detected concentrations are in bold font.

Detections exceeding the US EPA HAL of 70 ng/L for either PFOA, PFOS or a combination of both are highlighted in gray.

J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Units are in ng/L (nanograms/liter)

* - MW-10 is a Suffolk County well installed during a previous investigation (not installed by AECOM)

1 - United States Environmental Protection Agency (US EPA)-established Drinking Water Health Advisory Level (HAL)

Table 1
Groundwater Sample Data

Analytes	Health Advisory Water Quality Standards[1]	Groundwater Sample Data											
		Area	ARFF			Aircraft/Helicopter Taxiway		West End of Main Runway		Middle of Main Runway	East Field	Local Television Inc.	East End Hangars
		MW ID	EH-19A2	EH-19B	EH-19B1	EH-A	CATCH BASIN	EH-P1		EH-P2	EH-P3	EH-10	EH-18
		Date	8/10/2018	5/8/2018	8/10/2018	5/8/2018	5/9/2018	5/8/2018	8/10/2018	5/8/2018	5/8/2018	5/8/2018	5/9/2018
Perfluoroalkane Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	NS		**8.5**	**29**	**8.5**	.90 U	.90 U	**1.0 J**	.90 U	.90 U	.90 U	.90 U	.90 U
Perfluorohexane sulfonic acid (PFHxS)	NS		**85**	**750**	**3.7 J**	.94 U	.94 U	**3.0 J**	**1.0 J**	.94 U	**1.0 J**	.94 U	.94 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		**2.1 J**	**12**	.88 U	.88 U	.88 U	0.88 UJ	.88 U	.88 U	.88 U	.88 U	.88 U
Perfluorooctane sulfonic acid (PFOS)	70		**140**	**77**	**9.7**	**1.0 J**	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Perfluoroalkane Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	NS		**82**	**61**	**8.8**	2.7 U	2.7 U	**3.7 J**	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Perfluoropentanoic acid (PFPeA)	NS		**140**	**170**	**6.5**	1.1 U	1.1 U	**6.8 J**	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Perfluorohexanoic acid (PFHxA)	NS		**150**	**200**	**7.7**	.92 U	.92 U	**9.9 J**	.92 U	.92 U	.92 U	.92 U	.92 U
Perfluoroheptanoic acid (PFHpA)	NS		**99**	**180**	1.2 U	1.6 U	2.6 U	8.0 UJ	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluorooctanoic acid (PFOA)	70		**34**	**89**	**2.1**	.46 U	.46 U	**7.4 J**	.46 U	.46 U	.46 U	.46 U	.46 U
Perfluorononanoic acid (PFNA)	NS		**17**	**14**	.94 U	1.5 U	2.1 U	8.9 UJ	.94 U	1.0 U	**1.1 J**	.94 U	.94 U
Perfluorodecanoic acid (PFDA)	NS		**4.1 J**	2.3 U	.52 U	2.3 U	1.5 U	9.5 UJ	.52 U	1.0 U	.93 U	1.0 U	.71 U
Perfluoroundecanoic acid (PFUnDA)	NS		**2.2 J**	2.2 U	**1.1 J**	1.5 U	1.6 U	**12 J**	**.43 J**	1.3 U	1.1 U	1.4 U	1.2 U
Perfluorododecanoic acid (PFDoDA)	NS		.46 U	.63 U	.46 U	.67 U	1.7 U	**21 J**	.46 U	1.1 U	.87 U	.96 U	.86 U
Perfluorotridecanoic acid (PFTrDA)	NS		.75 U	1.2 U	.75 U	1.1 U	1.5 U	**20 J**	.75 U	1.2 U	**1.3 J**	1.1 U	1.3 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	**19 J**	**1.3 J**	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroalkyl Sulfonamides													
Perflurooctane sulfonamide (FOSA)	NS		.35 U	.35 U	.35 U	.35 U	.35 U	.35 UJ	.35 U	.35 U	.35 U	.35 U	.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.83 U	.83 U	.83 U	.83 U	.83 UJ	.83 U	.83 U	.83 U	.83 U	.83 U
(n:2) Fluorotelomer Sulfonic Acids													
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		**3.9 J**	**120**	1.2 U	1.2 U	1.2 U	**1.4 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		**50**	**14**	**5.0**	.65 U	.65 U	.65 UJ	.65 U	.65 U	.65 U	.65 U	.65 U

Notes:

NS - No standard exists

Detected concentrations are in bold font.

Detections exceeding the US EPA HAL of 70 ng/L for either PFOA, PFOS or a combination of both are highlighted in gray.

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Table 1
Groundwater Sample Data

Analytes	Health Advisory Water Quality Standards[1]	Area	QA/QC Samples												
		MW ID	DUP		EQUIPMENT BLANK				FIELD BLANK			MS/MSD			
		Date	5/8/2018	8/10/2018	5/7/2018	5/8/2018	5/9/2018	8/10/2018	5/7/2018	5/8/2018	8/10/2018	5/8/2018	5/8/2018	8/10/2018	8/10/2018
Perfluoroalkane Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	NS		.90 U	**9.1**	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U
Perfluorohexane sulfonic acid (PFHxS)	NS		.94 U	**57**	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	**1.6 J**	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U
Perfluorooctane sulfonic acid (PFOS)	70		**1.3 J**	**100**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Perfluoroalkane Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	NS		2.7 U	**73**	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Perfluoropentanoic acid (PFPeA)	NS		1.1 U	**160**	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Perfluorohexanoic acid (PFHxA)	NS		.92 U	**130**	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U
Perfluoroheptanoic acid (PFHpA)	NS		1.2 U	**100**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	**1.4 J**	1.2 U	1.2 U
Perfluorooctanoic acid (PFOA)	70		.46 U	**28**	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	**.55 J**
Perfluorononanoic acid (PFNA)	NS		.94 U	**13**	.94 U	.94 U	.94 U	.94 U	**1.0 J**	.94 U	.94 U	.94 U	**1.1 J**	.94 U	.94 U
Perfluorodecanoic acid (PFDA)	NS		.82 U	3.4 U	.52 U	.73 U	.68 U	.52 U	.71 U	.52 U	.52 U	**.87 J**	**.84 J**	.52 U	**.60 J**
Perfluoroundecanoic acid (PFUnDA)	NS		1.0 U	**1.3 J**	.85 U	.90 U	.73 U	.31 U	.94 U	.87 U	.31 U	**1.1 J**	**1.0 J**	.31 U	.31 U
Perfluorododecanoic acid (PFDoDA)	NS		.58 U	.46 U	.55 U	.80 U	.73 U	.46 U	.75 U	.46 U	.46 U	**.81 J**	**.95 J**	.46 U	.46 U
Perfluorotridecanoic acid (PFTrDA)	NS		.78 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	**.79 J**	.75 U	.75 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	NS		.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 U	4.2 U	4.2 U	4.2 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U
(n:2) Fluorotelomer Sulfonic Acids															
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		1.2 U	**5.1**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.65 U	**46**	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U

Notes:

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Table 2
Tap Water Sample Data

East Hampton Airport
200 Daniels Hole Rd
Wainscott, New York

Analytes	Health Advisory Water Quality Standards[1]	Tap Water Sample Data								QA/QC SAMPLES		
		Area	Hampton Hangars		Sound Aircraft Services				East Hampton Hangars			
		Sample ID	HH-20/21	HH-18	SAS-1		SAS-2	SAS-3	EH-1	DUP	FIELD BLANK	MS/MSD
		Date	4/25/2018	4/25/2018	4/25/2018	8/7/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018
Perfluoralkane Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	NS		.90 U	.90 U	**29**	**8.7**	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U
Perfluorohexane sulfonic acid (PFHxS)	NS		**5.8**	**6.6**	**160**	**78**	**1.6 J**	**3.8 J**	**1.0 J**	**1.3 J**	.94 U	.94 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U
Perfluorooctane sulfonic acid (PFOS)	70		**1.2 J**	**8.9**	1.0 U	1.0 U	1.0 U	**3.5**	1.0 U	1.0 U	1.0 U	1.0 U
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Perfluroralkane Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	NS		2.7 U	2.7 U	**3.4 J**	**2.8 J**	**4.1 J**	2.7 U	2.7 U	**3.3 J**	2.7 U	2.7 U
Perfluoropentanoic acid (PFPeA)	NS		1.1 U	1.1 U	**8.9**	**3.1 J**	**4.2 J**	1.1 U	1.1 U	**3.8 J**	1.1 U	1.1 U
Perfluorohexanoic acid (PFHxA)	NS		**1.2 J**	.92 U	**22**	**12**	**4.1 J**	.92 U	.92 U	**3.9 J**	.92 U	.92 U
Perfluoroheptanoic acid (PFHpA)	NS		**1.6 J**	**2.0 J**	**7.3**	**2.5 J**	**1.7 J**	**1.7 J**	1.2 U	**1.7 J**	1.2 U	1.2 U
Perfluorooctanoic acid (PFOA)	70		**1.4 J**	**2.1**	**22**	**11**	**.73 J**	**1.7**	.46 U	**.71 J**	.46 U	.46 U
Perfluorononanoic acid (PFNA)	NS		.94 U	**1.2 J**	**1.0 J**	.94 U	.94 U	**1.0 J**	.94 U	**.99 J**	.94 U	.94 U
Perfluorodecanoic acid (PFDA)	NS		1.0 U	.99 U	.86 U	.52 U	.87 U	.82 U	.81 U	.58 U	.84 U	**.92 J**
Perfluoroundecanoic acid (PFUnDA)	NS		.90 U	1.0 U	1.1 U	.31 U	.79 U	1.1 U	1.2 U	.88 U	.96 U	**1.1 J**
Perfluorododecanoic acid (PFDoDA)	NS		.58 U	.52 U	.83 U	.46 U	.70 U	.46 U	.68 U	.46 U	.76 U	**.74 J**
Perfluorotridecanoic acid (PFTrDA)	NS		.75 U	.75 U	.75 U	.75 U	.92 U	.75 U	.75 U	.75 U	.75 U	**.92 J**
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	**1.4 J**	1.2 U	**1.6 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroalkyl Sulfonamides												
Perfluorooctane sulfonamide (FOSA)	NS		**.37 J**	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 U	4.2 U	4.2 U	4.2 UJ	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		0.83 UJ	0.83 UJ	0.83 UJ	.83 U	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ	.83 U
(n:2) Fluorotelomer Sulfonic Acids												
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U

Notes:

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Detected concentrations are in bold font.

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Table 3
Soil Sample Data

Analytes		Soil Sample Data																				
	Area	North Field									Sound Aircraft Services		Airport Parking Lot						Northwest Woods		East Hampton PD	
	Boring ID	EH-B			EH-B1		EH-E		EH-E1		EH-SAS		EH-16		EH-161		EH-162		EH-C		EH-1	
	Date	4/30/2018			8/8/2018		4/30/2018		8/8/2018		8/8/2018		4/30/2018		8/8/2018		8/9/2018		5/1/2018		5/1/2018	
	Boring Interval (fbg)	0-1'	19-20'	26-27'	0-1'	26-27'	0-1'	23-24'	0-1'	26-27'	0-1'	24-25'	0-1'	23-24'	0-1'	28-29'	0-1'	24-25'	0-1'	29-30'	0-1'	32-33'
Perfluoroalkane Sulfonic Acids																						
Perfluorobutance sulfonic acid (PFBS)		.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.17 U	.17 U	.20 U	.17 U	.17 U	.17 U	.17 U	.18 U	.17 U	.17 U	.17 U	.18 U	.18 U	.17 U	.17 U
Perluorohexane sulfonic acid (PFHxS)		**.53 J**	**.22 J**	**.29 J**	.27 U	.21 U	**.25 J**	**.20 J**	.27 U	.28 U	.18 U	.17 U	.17 U	.17 U	.20 U	.17 U	.17 U	.17 U	.18 U	**.19 J**	.17 U	**.20 J**
Perfluoroheptane sulfonic acid (PFHpS)		.14 U	.15 U	.15 U	.15 U	.14 U	.14 U	.14 U	.14 U	.16 U	.14 U	.14 U	.14 U	.14 U	.15 U	.14 U	.14 U	.14 U	.15 U	.15 U	.14 U	.14 U
Perfluorooctane sulfonic acid (PFOS)		**4.0**	.18 U	.18 U	**1.9**	**.75 J**	**3.6**	.17 U	.17 U	.20 U	.17 U	.17 U	**.72 J**	**.29 J**	**.33 J**	.17 U	**.20 J**	.17 U	.18 U	.18 U	**10**	**.19 J**
Perfluorodecane sulfonic acid (PFDS)		.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.17 U	.17 U	.20 U	.17 U	.17 U	.17 U	.17 U	.18 U	.17 U	.17 U	.17 U	.18 U	.18 U	.17 U	.17 U
Perfluoroalkane Carboxylic Acids																						
Perfluorobutanoic acid (PFBA)		.18 U	.19 U	.19 U	.19 U	.18 U	.18 U	.18 U	.18 U	.21 U	.18 U	.18 U	.18 U	.18 U	.19 U	.18 U	.18 U	.18 U	.19 U	.19 U	.18 U	.18 U
Perfluoropentanoic acid (PFPeA)		.19 U	.20 U	.20 U	.20 U	.19 U	.19 U	.19 U	**.20 J**	.22 U	.19 U	.19 U	.19 U	.19 U	.21 U	.19 U	.19 U	.19 U	**.48 J**	.20 U	.19 U	.19 U
Perfluorohexanoic acid (PFHxA)		.21 U	.22 U	.22 U	.22 U	.21 U	.21 U	.21 U	**.34 J**	.24 U	.21 U	.21 U	.21 U	.21 U	.23 U	.21 U	.21 U	.21 U	**.51 J**	.22 U	.21 U	.21 U
Perfluoroheptanoic acid (PFHpA)		**.28 J**	**.26 J**	**.32 J**	.23 U	.22 U	**.27 J**	**.22 J**	.22 U	.26 U	.22 U	.22 U	**.23 J**	.22 U	.24 U	.22 U	.22 U	.22 U	**.51 J**	**.24 J**	**.24 J**	.22 U
Perfluorooctanoic acid (PFOA)		.18 U	.19 U	.19 U	**.35 J**	.18 U	.18 U	.18 U	**.33 J**	.21 U	.18 U	.18 U	.18 U	.18 U	**.26 J**	.18 U	.18 U	.18 U	**.23 J**	.19 U	.18 U	.18 U
Perfluorononanoic acid (PFNA)		.32 U	.25 U	.27 U	**.32 J**	.18 U	.48 U	.24 U	.18 U	.21 U	.18 U	.18 U	.24 U	.19 U	.19 U	.18 U	.18 U	.18 U	.32 U	.26 U	.55 U	.25 U
Perfluorodecanoic acid (PFDA)		.41 U	.25 U	.21 U	.21 U	.20 U	.29 U	.21 U	.20 U	.23 U	.20 U	.20 U	.20 U	.20 U	.22 U	.20 U	.20 U	.20 U	.25 U	.21 U	.27 U	.21 U
Perfluoroundecanoic acid (PFUnDA)		**.26 J**	.26 U	.26 U	.26 U	.25 U	.25 U	.25 U	.25 U	.29 U	.25 U	.25 U	.25 U	.25 U	.27 U	.25 U	.25 U	.25 U	.26 U	.26 U	.25 U	.25 U
Perfluorododecanoic acid (PFDoDA)		.26 U	.27 U	.27 U	.27 U	.26 U	.26 U	.26 U	.26 U	.30 U	.26 U	.26 U	.26 U	.26 U	.28 U	.26 U	.26 U	.26 U	.27 U	.27 U	.26 U	.26 U
Perfluorotridecanoic acid (PFTrDA)		**.24 J**	**.21 J**	.16 U	.16 U	.15 U	**.19 J**	.15 U	.15 U	.18 U	.15 U	.15 U	.15 U	**.15 J**	.16 U	.15 U	.15 U	.15 U	**.18 J**	.16 U	.15 U	.15 U
Perfluorotetradecanoic acid (PFTeDA)		.38 U	.39 U	.39 U	.39 U	.38 U	.38 U	.38 U	.38 U	.44 U	.38 U	.38 U	.38 U	.38 U	.41 U	.38 U	.38 U	.38 U	.40 U	.39 U	.38 U	.38 U
Perfluoroalkyl Sulfonamides																						
Perflurooctane sulfonamide (FOSA)		.13 U	.14 U	.14 U	.14 U	.13 U	.13 U	.13 U	.13 U	.15 U	.13 U	.13 U	.13 U	.13 U	.14 U	.13 U	.13 U	.13 U	.14 U	.14 U	.13 U	.13 U
N-Methyl perfluorooctane sulfonamidoacetic acid		.085 U	.086 U	.088 U	**.24 J**	**.31 J**	.085 U	.085 U	.085 UJ	**.45 J**	.085 UJ	.085 UJ	.085 U	.085 U	.09 UJ	.085 UJ	**.41 J**	.085 UJ	.088 U	.087 U	.085 U	.085 U
N-Ethyl perfluorooctane sulfonamidoacetic acid		.11 U	.12 U	.12 U	.12 U	.11 U	.11 U	.11 U	.11 U	**1.3**	.11 U	.11 U	.11 U	.11 U	.12 U	.11 U	.11 U	.11 U	.12 U	.12 U	.11 U	.11 U
(n:2) Fluorotelomer Sulfonic Acids																						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.17 U	.17 U	.20 U	.17 U	.17 U	.17 U	.17 U	.18 U	.17 U	.17 U	.17 U	.18 U	.18 U	.17 U	.17 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		.22 U	.23 U	.23 U	.23 U	.22 U	.22 U	.22 U	.22 U	.26 U	.22 U	.22 U	.22 U	.22 U	.24 U	.22 U	.22 U	.22 U	.23 U	.23 U	.22 U	.22 U

Notes:

Detected concentrations are in bold font.

J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

The depth interval of the soil sample indicates feet below grade (fbg).

U - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Units for soil results are ng/g (nanograms/gram)

Units for field and equipment blanks are ng/L (nanograms/liter)

Table 3
Soil Sample Data

Analytes		Soil Sample Data																				
	Area	Local Television Inc.		Aircraft/ Helicopter Taxiway								East End Hangars		ARFF								
	Boring ID	EH-10		EH- A		EH- A1		EH-A2		EH-A3		EH-18		EH-19A		EH-19A1		EH-19A2		EH-19B		EH-19B1
	Date	5/1/2018		5/2/2018		5/2/2018		5/2/2018		5/2/2018		5/3/2018		5/4/2018		8/9/2018		8/9/2018		5/3/2018		8/9/2018
	Boring Interval (fbg)	0-1'	33-34'	0-1'	22-23'	0-1'	23-24'	0-1'	23-24'	0-1'	22-23'	0-1 '	41-42'	0-1'	31-32'	0-1'	34-35'	0-1'	34-35'	0-1'	36-37'	0-1'
Perfluoroalkane Sulfonic Acids																						
Perfluorobutance sulfonic acid (PFBS)		.18 U	.17 U	.17 U	.17 U	.17 U	.17 UJ	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.18 U	.17 U	.18 U
Perluorohexane sulfonic acid (PFHxS)		.18 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	**.19 J**	.17 U	.18 U	.59 U	.18 U	.17 U	.17 U	**.28 J**	**.17 J**	**3.8**
Perfluoroheptane sulfonic acid (PFHpS)		.15 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.14 U	.15 U	.15 U	.15 U	.14 U	.14 U	.15 U	.14 U	**1.9**
Perfluorooctane sulfonic acid (PFOS)		**.64 J**	.17 U	.17 U	.17 U	**.34 J**	.17 U	.17 U	.17 U	.17 U	.17 U	**.54 J**	.17 U	**3.9**	.18 U	.18 U	.18 U	.17 U	.17 U	**.22 J**	.17 U	**12**
Perfluorodecane sulfonic acid (PFDS)		.18 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.18 U	.17 U	.18 U
Perfluoroalkane Carboxylic Acids																						
Perfluorobutanoic acid (PFBA)		.19 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.19 U	.19 U	.19 U	.18 U	.18 U	.18 U	.18 U	.19 U
Perfluoropentanoic acid (PFPeA)		.20 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.19 U	.20 U	.20 U	.20 U	.19 U	.19 U	.19 U	.19 U	**.48 J**
Perfluorohexanoic acid (PFHxA)		.22 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.21 U	.22 U	**.23 J**	.22 U	.21 U	.21 U	.21 U	.21 U	**.75 J**
Perfluoroheptanoic acid (PFHpA)		.23 U	.22 U	.22 U	.22 U	**.25 J**	.22 U	.22 U	.22 U	.22 U	.22 U	.26 U	.22 U	.22 U	.29 U	.23 U	.23 U	.22 U	.22 U	.30 U	.22 U	.24 U
Perfluorooctanoic acid (PFOA)		.19 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U	.19 U	.19 U	.19 U	**.20 J**	.18 U	**.42 J**	.18 U	**3.8**
Perfluorononanoic acid (PFNA)		.24 U	.18 U	.29 U	.18 U	.24 U	.25 U	.18 U	.23 U	.21 U	.23 U	.29 U	.25 U	.49 U	.22 U	.19 U	.19 U	.18 U	.18 U	.25 U	.18 U	**.49 J**
Perfluorodecanoic acid (PFDA)		.21 U	.21 U	.23 U	.20 U	.20 U	.20 U	.20 U	.21 U	.25 U	.25 U	.21 U	.22 U	.21 U	.21 U	.21 U	.21 U	.20 U	.20 U	.22 U	.20 U	.21 U
Perfluoroundecanoic acid (PFUnDA)		.26 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.26 U	.26 U	.26 U	.25 U	.25 U	.26 U	.25 U	.27 U
Perfluorododecanoic acid (PFDoDA)		.27 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.26 U	.27 U	.27 U	.27 U	.26 U	.26 U	.27 U	.26 U	.28 U
Perfluorotridecanoic acid (PFTrDA)		.16 U	.15 U	**.19 J**	**.20 J**	**.16 J**	**.17 J**	.15 U	.15 U	.15 U	**.17 J**	**.16 J**	.15 U	.15 U	.16 U	.16 U	.16 U	.15 U	.15 U	**.16 J**	**.20 J**	.16 U
Perfluorotetradecanoic acid (PFTeDA)		.39 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.38 U	.39 U	.39 U	.39 U	.38 U	.38 U	.39 U	.38 U	.40 U
Perfluoroalkyl Sulfonamides																						
Perflurooctane sulfonamide (FOSA)		.14 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.13 U	.14 U	.14 U	.14 U	.13 U	.13 U	.14 U	.13 U	.14 U
N-Methyl perfluorooctane sulfonamidoacetic acid		.086 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.085 U	.087 U	.086 UJ	.086 UJ	.085 UJ	.085 UJ	.087 U	.085 U	0.09 UJ
N-Ethyl perfluorooctane sulfonamidoacetic acid		.12 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.11 U	.12 U	.12 U	.12 U	.11 U	.11 U	.12 U	.11 U	.12 U
(n:2) Fluorotelomer Sulfonic Acids																						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		.18 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.17 U	.18 U	.18 U	.18 U	.17 U	.17 U	.17 U	.17 U	.18 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		.23 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.22 U	.23 U	.23 U	.23 U	.22 U	.22 U	.22 U	.22 U	.24 U

Notes:

Detected concentrations are in bold font.

J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

The depth interval of the soil sample indicates feet below grade (fbg).

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UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Units for soil results are ng/g (nanograms/gram)

Units for field and equipment blanks are ng/L (nanograms/liter)

Table 3
Soil Sample Data

Analytes	Area	QA/QC Samples														
	Boring ID	DUP-1	DUP-2	DUP	EQ-BLANK 1	EQ-BLANK 2	EQ-BLANK 3	EQ-BLANK 4	EQ-BLANK 5	EQ-BLANK	FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK	MS/MSD 1	MS/MSD 2	MS/MSD
	Date	5/1/2018	5/1/2018	8/8/2018	4/30/2018	5/1/2018	5/2/2018	5/3/2018	5/4/2018	8/8/2018	5/1/2018	5/3/2018	8/8/2018	5/2/2018	5/2/2018	8/8/2018
	Boring Interval (fbg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Perfluoroalkane Sulfonic Acids																
Perfluorobutance sulfonic acid (PFBS)		.17 U	.17 U	.19 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.90 U	.17 U	.17 U	.17 U
Perluorohexane sulfonic acid (PFHxS)		.17 U	**.37 J**	.30 U	.94 U	.94 U	.94 U	.94 U	**.96 J**	.94 U	.94 U	.94 U	.94 U	.17 U	.17 U	**.24 J**
Perfluoroheptane sulfonic acid (PFHpS)		.14 U	.14 U	.15 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.88 U	.14 U	.14 U	.14 U
Perfluorooctane sulfonic acid (PFOS)		**15**	**.35 J**	**.22 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	.17 U	.17 U	.17 U
Perfluorodecane sulfonic acid (PFDS)		.17 U	.17 U	.19 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	.17 U	.17 U	.17 U
Perfluoroalkane Carboxylic Acids																
Perfluorobutanoic acid (PFBA)		.18 U	.18 U	.20 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	.18 U	.18 U	.18 U
Perfluoropentanoic acid (PFPeA)		.19 U	.19 U	.21 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	.19 U	.19 U	.19 U
Perfluorohexanoic acid (PFHxA)		.21 U	.21 U	.23 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.92 U	.21 U	.21 U	.21 U
Perfluoroheptanoic acid (PFHpA)		**.25 J**	**.25 J**	.24 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	.22 U	**.22 J**	.22 U
Perfluorooctanoic acid (PFOA)		.18 U	.18 U	**.38 J**	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.18 U	.18 U	.18 U
Perfluorononanoic acid (PFNA)		.47 U	.24 U	.20 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	.94 U	**.22 J**	**.20 J**	.18 U
Perfluorodecanoic acid (PFDA)		.24 U	.21 U	.22 U	.74 U	.55 U	.54 U	.68 U	.55 U	.52 U	.69 U	.52 U	.52 U	**.22 J**	**.21 J**	.20 U
Perfluoroundecanoic acid (PFUnDA)		.25 U	.25 U	.27 U	.31 U	.31 U	.31 U	.31 U	.31 U	.31 U	.31 U	.31 U	.31 U	.27 U	.27 U	.25 U
Perfluorododecanoic acid (PFDoDA)		.26 U	.26 U	.28 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.46 U	.28 U	.28 U	.26 U
Perfluorotridecanoic acid (PFTrDA)		.15 U	.15 U	.16 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.75 U	.16 U	.16 U	.15 U
Perfluorotetradecanoic acid (PFTeDA)		.38 U	.38 U	.41 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	.41 U	.41 U	.38 U
Perfluoroalkyl Sulfonamides																
Perflurooctane sulfonamide (FOSA)		.13 U	.13 U	.14 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.13 U	.13 U	.13 U
N-Methyl perfluorooctane sulfonamidoacetic acid		.085 U	.085 U	**.33 J**	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 UJ	4.2 U	4.2 U	4.2 UJ	.085 U	.085 U	.085 U
N-Ethyl perfluorooctane sulfonamidoacetic acid		.11 U	.11 U	.12 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.11 U	.11 U	.11 U
(n:2) Fluorotelomer Sulfonic Acids																
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		.17 U	.17 U	.19 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	.17 U	.17 U	.17 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		.22 U	.22 U	.24 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.22 U	.22 U	.22 U

Notes:

Detected concentrations are in bold font.

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Units for soil results are ng/g (nanograms/gram)

Units for field and equipment blanks are ng/L (nanograms/liter)

APPENDIX F

Suffolk County Groundwater PFAS Data

Suffolk County
Department of Health Services
Location of Profile Wells
East Hampton, NY
May 23, 2018

Legend

- 🟢 No PFOA/PFOS Detection
- 🟡 PFOA/PFOS Detection Below HAL
- 🔴 PFOA/PFOS Detection Above HAL

Well ID	MP (using airport benchmark)	DTW (8-7-18)	GW Elevation	Long	Lat
WPFC-1	56.96	44.59	12.37	-72.265	40.95412
WPFC-2	68.75	56.35	12.40	-72.265	40.95612
WPFC-3	51.48	39.35	12.13	-72.2622	40.95479
WPFC-4	52.29	40.24	12.05	-72.2574	40.95505
WPFC-5	44.82	33.06	11.76	-72.2518	40.95614
WPFC-6	43.14	31.63	11.51	-72.2499	40.9564
WPFC-7	42.00	30.69	11.31	-72.249	40.95535
WPFC-8	21.89	11.87	10.02	-72.2458	40.95717
WPFC-9	23.62	13.85	9.77	-72.2437	40.9571
WPFC-10	26.85	17.38	9.47	-72.243	40.95829
WPFC-11	18.36	9.00	9.36	-72.2433	40.95559
WPFC-12	12.82	5.53	7.29	-72.2415	40.9513
WPFC-13	13.02	6.32	6.70	-72.2407	40.9505
WPFC-14	17.59	10.48	7.11	-72.2415	40.95015
WPFC-15	9.19	2.88	6.31	-72.2399	40.95077
WPFC-16	69.64	55.63	14.01	-72.2717	40.96108
WPFC-17	76.38	62.51	13.87	-72.2727	40.96066
WPFC-18	78.40	64.75	13.65	-72.2723	40.95993
WPFC-19	20.97	8.70	12.27	-72.2552	40.96624
WPFC-20	19.68	7.58	12.10	-72.2556	40.96437
WPFC-21	37.92	26.03	11.89	-72.2539	40.96396
WPFC-22	33.84	26.55	7.29	-72.2463	40.9426
WPFC-23	41.35	32.62	8.73	-72.2509	40.94522
WPFC-24	52.86	42.58	10.28	-72.2583	40.94853
WPFC-25	40.02	31.72	8.30	-72.2509	40.94249
WPFC-26	37.06	28.48	8.58	-72.2476	40.94739
S-48518	34.96	26.40	8.56	-72.2474	40.94736

SCDHS Profile Well PFAS Results
East Hampton PFAS Investigation

DRAFT
5/23/18

Sample Information				Perflourinated Compounds																				
Well ID	Field Sample ID	Screen Interval (ft) (depth below grade)	Sample Date	PFBA ng/l	PFPeA ng/l	PFHxA ng/l	PFHpA ng/l	PFOA ng/l	PFNA ng/l	PFDA ng/l	PFUnA ng/l	PFDoA ng/l	PFTriA ng/l	PFTeA ng/l	PFBS ng/l	PFHxS ng/l	PFHpS ng/l	PFOS ng/l	PFDS ng/l	FOSA ng/l	NMeFOSSA ng/l	NEtFOSAA ng/l	6:2FTS ng/l	8:2FTS ng/l
Drinking Water Standard Subpart 5-1 (MCL) ng/l				50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
USEPA Health Advisory Level (HAL) 70 ng/l Combined or 70 ng/l Individual PFOA, PFOS				-	-	-	-	70	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-
WPFC-3	050-816-180227	45-50	2/27/2018	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	0.28	<1.94	<1.94	<1.94	<1.94	<19.4	<19.4	<19.4	<19.4
WPFC-3	060-816-180227	55-60	2/27/2018	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	0.38	0.28	<1.95	<1.95	<1.95	<1.95	<19.5	<19.5	<19.5	<19.5
WPFC-3	070-816-180226	65-70	2/26/2018	2.6	0.71	1.54	0.64	3.22	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	14.1	1.14	<1.95	<1.95	<1.95	<1.95	<19.5	<19.5	5.74	<19.5
WPFC-3	080-816-180222	75-80	2/22/2018	1.92	0.7	1.69	1.02	3.11	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	6.46	1.04	<1.76	0.55	<1.76	<1.76	<17.6	<17.6	<17.6	<17.6
WPFC-3	080-816-180222 DUP	75-80	2/22/2018	2.34	0.87	1.85	1.12	3.45	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	6.61	1.13	<1.79	<1.79	<1.79	<1.79	<17.9	<17.9	<17.9	<17.9
WPFC-4	050-816-180213	45-50	2/13/2018	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<19.5	<19.5	<19.5	<19.5
WPFC-4	060-816-180213	55-60	2/13/2018	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	2.1	10.1	<1.96	<1.96	<1.96	<1.96	<19.6	<19.6	<19.6	<19.6
WPFC-4	070-816-180208	65-70	2/8/2018	2.15	3.21	14.3	2.66	15.8	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	4.88	231	<1.92	3.5	<1.92	<1.92	<19.2	<19.2	<19.2	<19.2
WPFC-4	070-816-180208 DUP	65-70	2/8/2018	2.18	3.32	14.6	2.9	16.5	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	5.31	228	<1.92	3.3	<1.92	<1.92	<19.2	<19.2	<19.2	<19.2
WPFC-4	080-816-180208	75-80	2/8/2018	<1.93	<1.93	2.94	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	26.4	<1.93	6.96	<1.93	<1.93	<19.3	<19.3	<19.3	<19.3
WPFC-4	090-816-180208	85-90	2/8/2018	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<18.1	<18.1	<18.1	<18.1
WPFC-4D	150-816-180208	140-145	2/8/2018	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	2.26	<1.96	<1.96	<1.96	<1.96	<19.6	<19.6	<19.6	<19.6
WPFC-5	040-816-180206	35-40	2/6/2018	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<19.9	<19.9	<19.9	<19.9
WPFC-5	050-816-180206	45-50	2/6/2018	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<19.3	<19.3	<19.3	<19.3
WPFC-5	060-816-180206	55-60	2/6/2018	4.58	11.4	7.36	2.23	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<19.6	<19.6	<19.6	<19.6
WPFC-5	070-816-180206	65-70	2/6/2018	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<19.6	<19.6	<19.6	<19.6
WPFC-8	020-816-180205	15-20	2/5/2018	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	1.94	<1.77	<1.77	<1.77	<1.77	<17.7	<17.7	<17.7	<17.7
WPFC-8	030-816-180205	25-30	2/5/2018	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<18.2	<18.2	<18.2	<18.2
WPFC-8	040-816-180205	35-40	2/5/2018	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<17.2	<17.2	<17.2	<17.2
WPFC-8	050-816-180205	45-50	2/5/2018	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<17.2	<17.2	<17.2	<17.2
WPFC-8	060-816-180205	55-60	2/5/2018	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<17.9	<17.9	<17.9	<17.9
WPFC-12	010-816-180220	5-10	2/20/2018	5.16	16.6	12.6	2.02	5.51	1.12	<1.79	<1.79	<1.79	<1.79	<1.79	1.41	6.14	0.63	3.69	<1.79	<1.79	<17.9	<17.9	<17.9	<17.9
WPFC-12	020-816-180220	15-20	2/20/2018	5.63	4.35	4.35	3.98	9.16	3.61	0.47	<1.75	<1.75	<1.75	<1.75	1.77	3.26	0.32	13.5	<1.75	<1.75	<17.5	<17.5	<17.5	<17.5
WPFC-12	030-816-180220	25-30	2/20/2018	3.52	6.3	5.79	3.85	7.44	6.6	<1.81	<1.81	<1.81	<1.81	<1.81	1.32	3.19	0.3	9.45	<1.81	<1.81	<18.1	<18.1	<18.1	<18.1
WPFC-12	040-816-180215	35-40	2/15/2018	<1.94	2.32	2.64	<1.94	4.71	6.91	<1.94	<1.94	<1.94	<1.94	<1.94	2.49	<1.94	3.6	<1.94	<1.94	<1.94	<19.4	<19.4	<19.4	<19.4
WPFC-12	050-816-180215	45-50	2/15/2018	1.72	2.78	2.5	<1.95	4.32	3.74	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<19.5	<19.5	<19.5	<19.5
WPFC-12	061-816-180214	55-60	2/14/2018	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67	<16.7	<16.7	<16.7	<16.7
WPFC-12	061-816-180214 DUP	55-60	2/14/2018	<1.71	<1.71	<1.71	<1.71	3.14	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<17.1	<17.1	<17.1	<17.1
WPFC-14S	015-944-180221	10-15	2/21/2018	2.31	2.81	2.93	1.93	4.63	0.92	0.85	<1.88	<1.88	<1.88	<1.88	0.51	1.06	<1.88	5.05	<1.88	<1.88	<18.8	<18.8	<18.8	<18.8
WPFC-14S	015-944-180221 DUP	10-15	2/21/2018	2.15	3.05	2.51	2.21	4.69	0.92	0.81	<1.95	<1.95	<1.95	<1.95	0.44	1.08	<1.95	4.99	<1.95	<1.95	<19.5	<19.5	<19.5	<19.5
WPFC-14	020-944-180221	15-20	2/21/2018	17.1	18	17	21.4	68.5	1.9	2.52	<2.04	<2.04	<2.04	<2.04	5.08	21.7	0.47	12.8	<2.04	<2.04	<20.4	<20.4	<20.4	<20.4
WPFC-14	030-944-180220	25-30	2/20/2018	9.89	15.6	14.5	8.54	13.2	1.83	<2.02	<2.02	<2.02	<2.02	<2.02	2.86	21.9	1.37	37	<2.02	<2.02	<20.2	<20.2	<20.2	<20.2
WPFC-14	040-944-180220	35-40	2/20/2018	11.6	19.2	18.6	10.6	15.6	2.6	<1.92	<1.92	<1.92	<1.92	<1.92	2.7	33.5	1.68	38.9	<1.92	<1.92	<19.2	<19.2	<19.2	<19.2
WPFC-14	050-944-180220	45-50	2/20/2018	8.74	11.9	16.4	8.7	15.9	1.41	<2.11	<2.11	<2.11	<2.11	<2.11	3.34	83.6	2.03	33.9	<2.11	<2.11	<21.1	<21.1	<21.1	<21.1
WPFC-14	050-944-180220 DUP	45-50	2/20/2018	8.06	12.6	16.1	8.5	16.6	1.09	<2.01	<2.01	<2.01	<2.01	<2.01	3.56	85.9	2.16	34.2	<2.01	<2.01	<20.1	<20.1	<20.1	<20.1
WPFC-14	060-816-180214	55-60	2/14/2018	5.25	5.01	7.15	4.79	13.2	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	3.62	67.7	2.03	31	<1.81	<1.81	<18.1	<18.1	<18.1	<18.1
WPFC-14	060-816-180214 DUP	55-60	2/14/2018	5.42	4.91	7.46	4.66	13.9	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	3.55	64.6	1.96	31.4	<1.84	<1.84	<18.4	<18.4	<18.4	<18.4

SCDHS Profile Well PFAS Results
East Hampton PFAS Investigation

DRAFT
5/23/18

Sample Information				Perflourinated Compounds																				
Well ID	Field Sample ID	Screen Interval (ft) (depth below grade)	Sample Date	PFBA ng/l	PFPeA ng/l	PFHxA ng/l	PFHpA ng/l	PFOA ng/l	PFNA ng/l	PFDA ng/l	PFUnA ng/l	PFDoA ng/l	PFTriA ng/l	PFTeA ng/l	PFBS ng/l	PFHxS ng/l	PFHpS ng/l	PFOS ng/l	PFDS ng/l	FOSA ng/l	NMeFOSSA ng/l	NEtFOSAA ng/l	6:2FTS ng/l	8:2FTS ng/l
Drinking Water Standard Subpart 5-1 (MCL) ng/l				**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
USEPA Health Advisory Level (HAL) 70 ng/l Combined or 70 ng/l Individual PFOA, PFOS				-	-	-	-	**70**	-	-	-	-	-	-	-	-	-	**70**	-	-	-	-	-	-
WPFC-16	070-866-180411	60-65	4/11/2018	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91
WPFC-16	080-866-180410	70-75	4/10/2018	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88
WPFC-16	080-866-180410 DUP	70-75	4/10/2018	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12	<2.12
WPFC-16	090-866-180409	80-85	4/9/2018	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
WPFC-16	100--816-180327	90-95	3/27/2018	<1.72	<1.72	<1.68	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72
WPFC-20S	820-944-180221	15-20	2/21/2018	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**0.3**	<1.99	<1.99	<1.99	<1.99	<19.9	<19.9	<19.9	<19.9
WPFC-20S	820-944-180221 DUP	15-20	2/20/2018	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	**0.3**	<1.9	<1.9	<1.9	<1.9	<19.0	<19.0	<19.0	<19.0
WPFC-20	010-816-180320	5-10	3/20/2018	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.00	<20.00	<20.00	<20.00
WPFC-20	020-816-180320	15-20	3/20/2018	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<19.50	<19.50	<19.50	<19.50
WPFC-20	030-816-180320	25-30	3/20/2018	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<19.80	<19.80	<19.80	<19.80
WPFC-20	040-816-180319	35-40	3/19/2018	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<19.40	<19.40	<19.40	<19.40
WPFC-20	040-816-180319 DUP	35-40	3/19/2018	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<19.90	<19.90	<19.90	<19.90
WPFC-20	050-816-180319	45-50	3/19/2018	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<19.70	<19.70	<19.70	<19.70
WPFC-22	030-866-180424	25-30	4/24/2018	**5.14**	**11.10**	**8.27**	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	**4.15**	**3.18**	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84
WPFC-22	040-866-180424	35-40	4/24/2018	**3.56**	**13.80**	**14.80**	**4.94**	**25.7**	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	**4.14**	**45**	**2.46**	**8.49**	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87
WPFC-22	050-866-180424	45-50	4/24/2018	**5.90**	**18.90**	**14.90**	**3.52**	**6.05**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	6.42	**15.7**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
WPFC-22	060-866-180423	55-60	4/23/2018	**10.20**	**59.30**	**24.50**	**7.72**	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	**1.87**	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84
WPFC-22	060-866-180423 DUP	55-60	4/23/2018	**10.60**	**59.20**	**24.60**	**7.73**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**2.2**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
WPFC-22	070-886-180418	65-70	4/18/2018	**5.96**	**21.50**	**20.20**	**8.50**	**2.33**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	**26.6**	<1.93	**7.28**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
WPFC-22	080-886-180412	75-80	4/12/2018	<1.93	**2.90**	**5.88**	**2.51**	**4.32**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	**40.10**	<1.93	**20.80**	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
WPFC-23	080-816-180502	35-40	5/02/2018	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	**1.96**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76
WPFC-23	080-816-180501	45-50	5/01/2018	<1.75	**3.93**	**1.86**	<1.75	**2.15**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	**3.08**	<1.75	**2.46**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75
WPFC-23	080-816-180501	55-60	5/01/2018	<1.81	**16.4**	**10.2**	**2.64**	**5.29**	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	**2.1**	**31.4**	<1.81	**7.61**	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81
WPFC-23	080-816-180430	65-70	4/30/2018	<2.09	**8.6**	**10.3**	**2.95**	**3.47**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	**54**	**2.28**	**45.9**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09
WPFC-23	080-816-180430 DUP	65-70	4/30/2018	**1.77**	**6.62**	**8.89**	**2.22**	**3.5**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	**45.1**	**1.97**	**38.1**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76
WPFC-23	080-816-180423	75-80	4/23/2018	**7.88**	**27.60**	**50.90**	**14.30**	**49.70**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	**9.32**	**366**	**28**	**307**	<1.76	<1.76	<1.76	<1.76	**1.89**	**2.11**
WPFC-24	050-816-180404	45-50	4/4/2018	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73
WPFC-24	060-816-180403	55-60	4/3/2018	<1.75	**2.53**	**2.01**	<1.75	**1.99**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	**2.90**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75
WPFC-24	070-816-180403	65-70	4/3/2018	**2.98**	**8.16**	**4.72**	**2.41**	**3.23**	**2.32**	<1.74	<1.74	<1.74	<1.74	<1.74	**10.40**	<1.74	<1.74	**2.30**	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74
WPFC-24	080-816-180328	75-80	3/28/2018	**3.05**	**4.43**	**2.18**	<1.70	**1.90**	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	**14.70**	<1.70	<1.70	**1.93**	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70
WPFC-24	090-816-180328	85-90	3/28/2018	<1.71	<1.71	<1.71	<1.71	**1.99**	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	**8.65**	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71
WPFC-24	090-816-180328 DUP	85-90	3/28/2018	**1.75**	<1.70	<1.63	<1.70	**2.02**	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	**9.19**	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70
WPFC-25	040-816-180412	35-40	4/12/2018	**1.96**	**6.17**	**5.16**	**2.32**	**1.83**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	**3.14**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77
WPFC-25	050-816-180412	45-50	4/12/2018	**3.64**	**12.40**	**10.80**	**2.00**	**3.38**	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	**2.89**	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74
WPFC-25	060-816-180410	55-60	4/10/2018	**6.97**	**28.30**	**22.00**	**3.40**	**9.16**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	**2.17**	<1.76	<1.76	**8.70**	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76
WPFC-25	070-816-180410	65-70	4/10/2018	**4.24**	**13.7**	**13.5**	**2.46**	**8.23**	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	**7.33**	**2.61**	<1.78	**7.95**	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78
WPFC-25	070-816-180410 DUP	65-70	4/10/2018	**4.59**	**14.20**	**12.70**	**2.20**	**7.96**	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	**6.77**	**2.17**	<1.78	**6.75**	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78
WPFC-25	080-816-180409	75-80	4/9/2018	**5.57**	**24.20**	**16.30**	**3.06**	**12.00**	**2.06**	<1.71	<1.71	<1.71	<1.71	<1.71	**2.54**	**2.50**	<1.71	**10.8**	<1.71	<1.71	<1.71	<1.71	<1.71	<1.71
WPFC-26	040-816-180419	35-40	4/19/2018	**8.02**	**21.40**	**12.10**	**3.62**	**4.34**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	**1.79**	**3.35**	<1.75	**5.72**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75
WPFC-26	050-816-180419	45-50	4/19/2018	**7.02**	**16.1**	**7.5**	**3.8**	**2.98**	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	**2.11**	<1.79	<1.79	**6.68**	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79
WPFC-26	060-816-180419	55-60	4/19/2018	**4.31**	**8.36**	**9.26**	**2.88**	**5.52**	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	**3.28**	**2.18**	<1.73	**1.90**	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73
WPFC-26	070-816-180417	65-70	4/17/2018	**2.66**	**2.62**	**3.63**	<1.72	**2.14**	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	**2.34**	**2.35**	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72
WPFC-26	070-816-180417 DUP	65-70	4/17/2018	**2.77**	**2.57**	**3.43**	<1.75	**2.27**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	**2.45**	**2.17**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75
WPFC-26	080-816-180417	75-80	4/17/2018	**1.84**	**3.62**	**10.1**	**1.83**	**1.54**	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	**4.84**	**29.4**	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73

Addendum to Site Characterization Report (2020)

Addendum to Site Characterization Report

East Hampton Airport
Wainscott, Suffolk County, New York

New York State Department of Environmental Conservation
Division of Environmental Remediation
NYSDEC Site No. 152250

January 22, 2020

Quality information

Prepared by	Checked by	Verified by	Approved by
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Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

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List of Acronyms and Abbreviations

AFFF	aqueous film-forming foam
AGS	Advanced Geological Services
AOC	Area of Concern
ARFF	Aircraft Rescue and Firefighting
bgs	below ground surface
COC	chain of custody
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
EDD	Electronic Data Deliverable
EDS	Environmental Data Services, Inc.
EP&S	Environmental Products & Services of Vermont
FOSA	Perfluorooctane sulfonamide
ft.	foot/feet
GPR	ground penetrating radar
HAL	US EPA Health Advisory Level
I.D.	inside diameter
IDW	investigation-derived waste
MCL	maximum contaminant level
MS/MSD	matrix spike/matrix spike duplicate
MW	monitoring well
ng/g	nanograms per gram
ng/L	nanograms per liter (parts per trillion)
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PFAS	per- and polyfluoroalkyl substances
PFC	perfluorinated compound
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PID	photoionization detector
ppt	parts per trillion
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
SC	site characterization
SCDHS	Suffolk County Department of Health Services
SCR	Site Characterization Report
SOW	scope of work
US EPA	United States Environmental Protection Agency

Site Characterization Report Certification

I, Daniel Servetas, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Site Characterization Report Addendum was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Respectfully submitted,
AECOM Technical Services Northeast, Inc.

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079068

January 22, 2020

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Registered Professional Engineer
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Date

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1. Introduction

This Addendum to the November 2018 Site Characterization Report (SCR) documents the findings of supplemental activities performed following the 2018 site characterization (SC) completed by AECOM Technical Services Northeast, Inc. at the East Hampton Airport in Long Island, New York (Site No. 152250) on behalf of the New York State Department of Environmental Conservation (NYSDEC). The purpose of the SC was to identify the presence or absence of per- and polyfluoroalkyl substances (PFAS) contamination so that a determination could be made as to whether the Site poses a significant threat to public health and/or the environment that warrants further investigation or remedial action. As a group, PFAS are chemicals with broad application, primarily in the manufacture of commercial products that resist heat or chemical reactions and repel oil, stains, grease and water. Perfluorooctanoic acid (PFOA) is a specific PFAS compound found in various industrial products (aerospace, automotive, building, and electronics industries) that is commonly used in nonstick cookware, stain-resistant carpeting and fabrics, and paper and cardboard. PFOA was also used in some formulations of aqueous film-forming foam (AFFF), a common and effective firefighting agent. Perfluorooctane sulfonic acid (PFOS) is the primary PFAS compound used in firefighting foam. This SC was undertaken due to the documented presence of AFFF at the East Hampton Airport for firefighting and fire training activities, either currently or historically, and the associated potential for chemical discharge at concentrations that could present a risk for public health or the environment. Initial Site characterization activities were performed between April and September 2018.

1.1 Site Location

The approximately 610-acre Site (Draft Master Plan Report, Savik & Murray, LLP, April 2007) is located at 200 Daniels Hole Road in the hamlet of Wainscott in Suffolk County, New York (**Figure 1**), approximately 3.4 miles west of the Village of East Hampton on the South Fork of Long Island. The Site, owned by the Town of East Hampton, includes the airport and the East Hampton Industrial Park at the southern end of the airport property along Industrial Road. Various commercial/industrial businesses lease the buildings from the town. Coordinates for the approximate center of the Site are 40°57'37.2" N, 72°15'03.7" W. The nearest residential properties are located south of the Site beyond the railroad tracks and there are additional residential parcels to the west on Town Line Road. At the time of the SC field activities, a majority of the nearby residences obtained their potable water from private groundwater wells. The public water supply network is currently being expanded to service these homes.

The Atlantic Ocean lies to the south of Wainscott; the Village of Sagaponack is located to the west; and the Village of East Hampton is to the east. Other communities that border Wainscott are East Hampton and Northwest Harbor to the northeast, the village of Sag Harbor to the north, and Noyack and Bridgehampton to the west (north of Sagaponack).

The airport property is zoned commercial/industrial according to the town zoning map. Surrounding properties are used for residential and commercial purposes with areas of open, unoccupied land.

1.2 Site Background

Originally built in the late 1930s, the airport is capable of handling small general aviation aircraft. The Site property consists of a public use airport with a parking lot, airport terminal and various support buildings. Additionally, several parcels to the south of the airfield are leased for commercial/industrial and public service tenants. The public service tenants include the East Hampton Fire District Training Facility, the Aircraft Rescue and Firefighting (ARFF) facility, and the East Hampton Police Department.

In the fall of 2017, the Suffolk County Water Authority initiated a drinking water investigation for PFAS, which included sampling private water supply wells and the installation of monitoring wells. Several residences in East Hampton had detectable levels of PFAS contaminants in their well water, with the highest concentrations exhibited at houses situated in close proximity (south/southwest) to the airport property. The Site had not previously been investigated for the presence of PFAS at that time.

1.3 2018 Site Characterization Report Findings

The November 2018 Site Characterization Report provided the following conclusions with regard to SC activities completed at that time:

- Drinking Water: Samples were collected from several private water supply wells that service leased hangar spaces. Samples were collected from sink taps located within each space. Trace to low levels of PFOS and PFOA were detected in each of the tap samples, with PFOS concentrations ranging from 1.2 to 8.9 nanograms per liter (ng/L) and PFOA reported at 1.4 to 22 ng/L. No detections were reported above the 70 ng/L United States Environmental Protection Agency (US EPA) lifetime Health Advisory Level (HAL).
- Soil: The presence of PFAS compounds in soil above laboratory reporting limits indicate that release(s) have occurred on-site. To date no regulatory guidelines have been established to determine soil cleanup objectives or protection of groundwater standards for PFAS in soil. The highest reported concentration of PFAS compounds were from boring EH-19B1, with 12 nanograms per gram (ng/g) of PFOS and 3.8 ng/g of PFOA.
- Groundwater: Investigation findings show that the historic use and/or storage of AFFF have impacted Site groundwater quality. In particular, PFOS and PFOA have been identified in site groundwater at concentrations above the US EPA HAL of 70 ng/L. Analytical results from upgradient and downgradient wells indicate that there are four distinct areas of concern (AOCs), including:
  - **AOC-1**: Groundwater beneath Areas B and E located north of the airfield, where firefighting foam was historically used for crash response and training. PFOS (270 ng/L) and PFOA (17 ng/L) are present in temporary well EH-B1.
  - **AOC-2**: Groundwater beneath Area 16, where AFFF was used during a mass casualty training exercise, is impacted by PFOS above the HAL. PFOS was reported at 290 ng/L in the groundwater sample from downgradient temporary well EH-162, with lower levels of PFOA (9.3 ng/L).
  - **AOC-3**: Groundwater beneath Parcel 19, where the ARFF is located, has been impacted by both PFOS and PFOA above the HAL. Although no documented discharge of AFFF could be confirmed, AFFF is stored in the station. Analytical results for three temporary wells (EH-19A, EH-19A2, and EH-19B) exhibited one or more exceedances of the HAL, with a maximum reported concentration of 174 ng/L for combined PFOS/PFOA.
  - **AOC-4**: Groundwater beneath Parcel 1, occupied by the East Hampton Police Department, has been impacted with PFOA above the HAL. Temporary well EH-1, located adjacent to the burn training structure, exhibited PFOA at 160 ng/L. Groundwater quality in upgradient well EH-19B1 suggests that the contamination originated on the parcel.

1.4 Scope of Work

Based on the 2018 SC findings, AECOM developed a scope of work (SOW) for a supplemental SC including the following tasks:

- Six temporary monitoring well (MW) locations having contained PFOS and/or PFOA concentrations in exceedance of the HAL in 2018 were converted to permanent two-inch wells and developed between December 4 and December 14, 2018.
- Investigation-derived waste (IDW) drum samples were collected for waste characterization purposes, and a tap water sample was collected from the East Hampton Executive Terminal, located to the south of the Airport on Industrial Road. The tap water sample was collected because a tank of potable drilling water had frozen overnight at one point during the permanent well installation activities, and water from the East Hampton Executive Terminal was used instead during one day of work. The tap sample results were used to confirm that the water did not contain PFOS or PFOA.
- On March 4, 2019, AECOM subcontractor C.T. Male Associates (C.T. Male) surveyed the six new permanent wells.

- On March 4 and 5, 2019, AECOM gauged and sampled the permanent MWs using low-flow techniques with perfluorinated compound (PFC)-free pumps/tubing or bailers.
- On March 6, 2019, Environmental Products & Services of Vermont (EP&S) was subcontracted by AECOM to pick up, transport and dispose of all IDW waste drums that had been generated on-site in 2018 and 2019.

1.5 Regulatory Framework

PFAS are not currently regulated at the federal level and are not regulated in soil and groundwater in New York. Effective March 3, 2017, the NYSDEC added PFOA and PFOS to New York State's 6 New York Codes, Rules and Regulations (NYCRR) Part 597 List of Hazardous Substances. While the Final Rule lists PFOS and PFOA as hazardous substances, no screening or clean-up criteria are provided.

The US EPA has established a lifetime HAL of 70 ng/L for PFOS and PFOA, individually or combined, to protect against potential risk from exposure to drinking water contaminated by these compounds. There are no regulatory criteria for the other 19 PFAS compounds analyzed for at this time; therefore, discussion focuses primarily on PFOA and PFOS. In December 2018, the New York State Drinking Water Quality Council recommended that the New York State Department of Health (NYSDOH) adopt low maximum contaminant levels (MCLs) for PFOA and PFOS of 10 parts per trillion (ppt) for each compound.

2. Field Activities

Field activities for the supplemental SC were performed between December 4, 2018 and March 6, 2019 during multiple site mobilizations. This Section provides detail on the investigation tasks completed during that timeframe. The following subcontractors provided services during the supplemental SC:

- Drilling - Aztech Environmental Technologies (Aztech), AECOM Subcontractor
- Surveying **-** C.T. Male, AECOM Subcontractor
- Chemical Laboratory Analyses **-** ALS Environmental, Inc., AECOM subcontractor
- IDW Removal – Environmental Products & Services of Vermont (EP&S), AECOM Subcontractor
- Data Validation – Environmental Data Services, Inc. (EDS), AECOM Subcontractor

All field activities were performed or supervised by an AECOM geologist. Photographs of field activities are included in **Appendix A** and daily reports are provided in **Appendix B**.

2.1 Mobilization/Utility Clearance

During the investigation, extensive precautions were used to eliminate the potential for cross-contamination from PFAS-containing materials. This preparation included ensuring field staff used PFC-free clothing, equipment, and supplies during supplemental SC activities and using certified PFC-free water during drilling and sampling (supplied by Aztech and the East Hampton Executive Terminal).

Prior to commencing any intrusive activities, AECOM confirmed clearance of offsets to pre-existing temporary well locations with Advanced Geological Services (AGS). The locations for permanently installed MWs were offset from corresponding temporary MW locations by approximately 1 ft. Additional ground penetrating radar (GPR) mark-outs were not necessary prior to the permanent MW installation, as they were within the radius around the temporary MW locations originally cleared by AGS in August 2018.

2.2 Drilling Program

2.2.1 Soil Sampling

Soil samples were not collected during the process of installing permanent MWs and abandoning the corresponding temporary MWs in December 2018, since soil was collected and analyzed when the temporary MWs were installed in spring 2018.

2.2.2 Permanent MW Installation

Six temporary MWs (EH-1, EH-19A, EH-19B, EH-19A2, EH-B1, and EH-162) were designated to be converted to permanent MWs. These six wells contained the highest concentrations of PFOA and/or PFOS from the 2018 SC sampling event. From December 4 through 13, 2018, Aztech installed the permanent wells with AECOM oversight within ± 1 foot of the corresponding temporary well locations, the names of which were carried over to the permanent wells. A Geoprobe 3230 DT direct push track-mounted unit was used for the permanent well installation activities. After the depth to groundwater was confirmed in each location, a 2-inch inside diameter (I.D.) PVC well was installed with a 10-ft. length section of 0.010-inch slot well screen to facilitate groundwater sampling. Aztech used totes of PFC-free water during drilling activities. The soils comprising the permanent wells were screened with a PID and logged. Each MW was finished with #0 filter sand pack, bentonite and grout and sealed with a 4-inch diameter steel protective casing with locking cap and a flush-mount road box. The six temporary wells were abandoned by filling the 1-inch boreholes with sand to match the existing surface elevation. Drilling equipment was decontaminated between well locations and stakes were placed to mark the locations for future surveying. Following completion of well installation, Aztech developed all six wells by purging each location of ten well volumes. IDW was placed into 55-gallon steel drums stored in temporary secondary containment structures in the northeastern portion of the airport property pending sampling, analysis and disposal (refer to **Figure 2**). Upwind and downwind air monitoring was performed by AECOM field personnel on a regular basis using a photoionization detector (PID). Field observations, measurements, and well construction timetables were recorded in the Daily Reports as provided in **Appendix B**. Monitoring well construction and development logs are presented in **Appendix C** and surveyed well locations are provided on **Figure 2**.

2.3 Drinking Water Tap Sampling

On December 14, 2018, a tap water sample was collected from inside the East Hampton Executive Terminal building. Water from the tap had to be used for one day during the permanent well drilling process since the tote of water supplied by Aztech had frozen overnight and was unusable at the time. As a result, the tap was tested for the presence of PFAS. The sample location is shown on **Figure 2**. An East Hampton Airport employee escorted AECOM personnel throughout the process. The tap was purged for a brief period to ensure sampled water was newly extracted from the well and not stagnant in the piping. The tap was sampled in accordance with AECOM Standard Operating Procedures for Sampling PFAS. The sample was preserved on ice, packaged, and submitted under standard chain of custody (COC) procedures to ALS Environmental for PFAS analysis. Sample results are discussed in Section 4.1 and laboratory data is provided in **Appendix E**.

2.4 Groundwater Monitoring Program

During groundwater sampling activities in March 2019, water levels in the permanent wells were collected and recorded on monitoring well purging/sampling forms (**Appendix D**) using an electronic water level meter, which was decontaminated before proceeding to the next well location. Measurements were referenced to the top of each PVC well riser.

Groundwater sampling was performed using low-flow sampling techniques, when possible, with a peristaltic pump, high density polyethylene PFC-free tubing, a YSI-556 multi-meter, and a HACH 2100 turbidity meter. When the groundwater level was too low to use a peristaltic pump (i.e., in EH-19A, EH-19A2, and EH-19B), purging and sampling were performed using a PFC-free 2-inch diameter PVC bailer, PFC-free twine, a YSI-556 multi-meter, and a HACH 2100 turbidity meter. AECOM Standard Operating Procedures for Sampling PFAS were followed by all field staff during the supplemental SC activities. The groundwater samples were preserved on ice, packaged, and submitted under standard COC procedures to ALS Environmental and analyzed for the list of 21 PFAS compounds shown in **Table 1**. Purge water was placed into the water drums left on-site during the December 2018 field activities for disposal at the end of the field mobilization. Daily reports describing field activities are provided in **Appendix B**, and groundwater purging/sampling logs are presented in **Appendix D**. Sample results are discussed in Section 4.2 and laboratory data is provided in **Appendix E**.

2.5 Quality Assurance/Quality Control

Field duplicates, matrix spikes/matrix spike duplicates (MS/MSD), equipment blanks, and trip blanks are often collected and analyzed as needed for quality assurance/quality control (QA/QC) purposes. In December 2018, AECOM did not collect any QA/QC samples in conjunction with the IDW and tap water samples. During the permanent well groundwater monitoring event in March 2019, AECOM collected a duplicate sample (DUP) from EH-162, and MS/MSD samples were collected from EH-19B. Additionally, equipment blanks were collected from the 2-inch bailers and twine and field blanks were collected using the PFAS-free water provided by ALS Environmental on each sampling day. All QA/QC samples were stored and shipped with the PFAS groundwater samples.

2.6 Site Survey

On March 4, 2019, C.T. Male completed a survey of all permanent MWs during the groundwater sampling mobilization. Collected data for each location included grade elevation, top of casing, top of PVC, northing, easting, latitude, and longitude. A revised Monitoring Well Locations map which includes the coordinates of the six new permanent wells is provided as **Appendix F**.

2.7 IDW Sampling

IDW drums containing soil cuttings, water from drilling activities, and water from well development and sampling were generated on-site in December 2018 and March 2019. The drums were stored in temporary secondary containment structures consisting of a wooden frame and polyethylene sheeting and covered with polyethylene sheeting. IDW sampling was performed on December 14, 2018 following the installation and development of the permanent MWs.

Three composite IDW samples were collected: two from drums containing soil cuttings and one from a purge water drum. The IDW samples were preserved on ice, packaged, and submitted under standard COC procedures to ALS Environmental and analyzed for the list of 21 PFAS compounds, TCLP volatile organic compounds, TCLP semi-volatile organic compounds, TCLP pesticides, TCLP herbicides, TCLP metals, pH and/or flash point as required for transportation and disposal of the drums. Sample results are discussed in Section 4.3 and laboratory data is provided in **Appendix E**.

3. Physical Setting

3.1 Site Topography and Drainage

Ground elevations on-site range between 30 and 55 feet above Mean Sea Level, based on data collected during the monitoring well survey. Some areas of higher elevation exist to the west and south. The airport property is developed with numerous buildings and includes large expanses of paved (impermeable) surfaces. The remainder of the property is characterized by open fields and wooded areas.

3.2 Site Geology and Hydrogeology

The Site geologic setting consists of a glacial outwash plain that slopes south from the Ronkonkoma Moraine to bays and barrier islands, which form the southern boundary of Long Island. Shallow soils are generally comprised of glacial outwash sands with intermittent non-continuous silt and clay lenses that originated from the receding Wisconsin ice sheets at the end of the Pleistocene epoch.

Groundwater beneath the airport is found within three different aquifers:

1. Lloyd Aquifer: the deepest aquifer, providing a reliable source of drinking water unimpacted by the salt water intrusion that commonly affects shallow aquifers on Long Island;
2. Magothy: a productive source of drinking water; and
3. Upper Glacial: the unconfined, shallow surficial aquifer, which is the major source of potable water around the Site. This unconfined aquifer consists of very porous and highly permeable coarse sand and gravel and can yield large quantities of water.

Depth to groundwater at the Site varies from 15 feet bgs in the northern portion of the Site to 30 feet bgs at the industrial park located along the southern boundary of the airport. Groundwater flows from northwest to southeast across the Site with a gradient of 4.0×10^{-4} ft./ft.

4. Analytical Results

The following sections present the laboratory results for samples collected during the December 2018 and March 2019 SC activities. All samples were analyzed for 21 PFAS compounds via US EPA Method 537 unless otherwise noted.

4.1 East Hampton Executive Terminal Tap Sampling

During the permanent well installation activities, one water tap was sampled inside the East Hampton Executive Terminal. These results are provided in **Table 2**. Although PFOA and PFOS were not detected at elevated concentrations, PFOA was detected at a low concentration of 0.64 J ng/L, while PFOS was not detected. One other PFAS compound, Perfluorooctane sulfonamide (FOSA), was detected in the tap water sample; however, there is not currently a state or federal advisory level for this PFAS for comparison purposes. The laboratory report containing the tap sample results is provided in **Appendix E**.

4.2 Permanent MW Groundwater Sampling

During SC field activities in March 2019, AECOM collected groundwater samples from six permanent monitoring wells (EH-1, EH-19A, EH-19B, EH-19A2, EH-B1, and EH-162). The laboratory data package containing the groundwater sample results was submitted to EDS for data validation. The sample results are presented in **Table 1** and portrayed on **Figure 3**. **Figure 4** displays approximate groundwater elevation contours for the East Hampton Airport site based on permanent well data only. QA/QC sample results are also included in **Table 1**. None of the QA/QC samples contained detectable concentrations of PFAS except the DUP sample, which contained similar concentrations as sample EH-162.

PFOS and/or PFOA were detected in all six of the permanent monitoring wells, with combined concentrations ranging from 6.99 ng/L to 207 ng/L. The HAL of 70 ng/L was exceeded in samples from five of the six permanent monitoring wells. The only well with concentrations below the HAL was EH-1 located on the East Hampton Police Department lease property south of the airport.

As previously stated, there are no current state or federal advisory levels for PFAS compounds other than PFOS and PFOA. Many of the remaining 19 PFAS analytes were identified in at least one groundwater sample at a variety of concentrations. In addition to elevated PFOS/PFOA impacts, samples from wells in Parcel 19 exhibited concentrations of other perfluoroalkyl carboxylic acids that were one to two orders of magnitude higher than wells for other target areas. The laboratory report containing the permanent well groundwater sample results is provided in **Appendix E**.

4.3 IDW Sampling and Disposal

During the field activities in December 2018, AECOM collected one purge water and two soil IDW samples. PFAS were not detected in the soil samples. In the IDW water sample, PFOS was detected at a concentration of 150 ng/L and PFOA was detected at 130 ng/L, exceeding the US EPA lifetime HAL for both compounds. 11 of the 19 other PFAS compounds were also detected in the sample. The PFAS sampling results are provided in **Table 2**. The laboratory reports containing all IDW analytical data are provided in **Appendix E**. On March 6, 2019, EP&S transferred a total of 19 soil drums and three water drums to a box truck using a rented skid steer from Sunbelt Rentals and transported the waste off-site. The drums were disposed at Waste Recovery Solutions in Myerstown, Pennsylvania. A bill of lading for the shipment is provided as **Appendix G**.

4.4 Data Quality

A Data Usability Summary Report (DUSR) was prepared by EDS for the permanent well groundwater sampling data; this process included a review of the full Category B analytical packages. Data qualifiers were modified on the laboratory data sheets provided in the DUSR and in the electronic data deliverables (EDDs), as appropriate, and final values are presented in the tables, figures and appendices attached to this report. All data was deemed usable by the data validator. The DUSR is provided in **Appendix E**.

4.5 Electronic Data Deliverables

All laboratory data was received in a format compatible for submission to NYSDEC's centralized database. A separate electronic data deliverable submission will be made to the NYSDEC for the permanent well groundwater results, which will include validated analytical data and well survey coordinates.

5. Conclusions and Recommendations

The following conclusions and recommendations can be made based on the SC findings for the East Hampton Airport PFAS assessment. As additional information for this site becomes available, it will be reviewed by NYSDEC and NYSDOH officials and incorporated into the site conceptual model to determine whether site contamination presents public health exposure concerns.

5.1 Conclusions

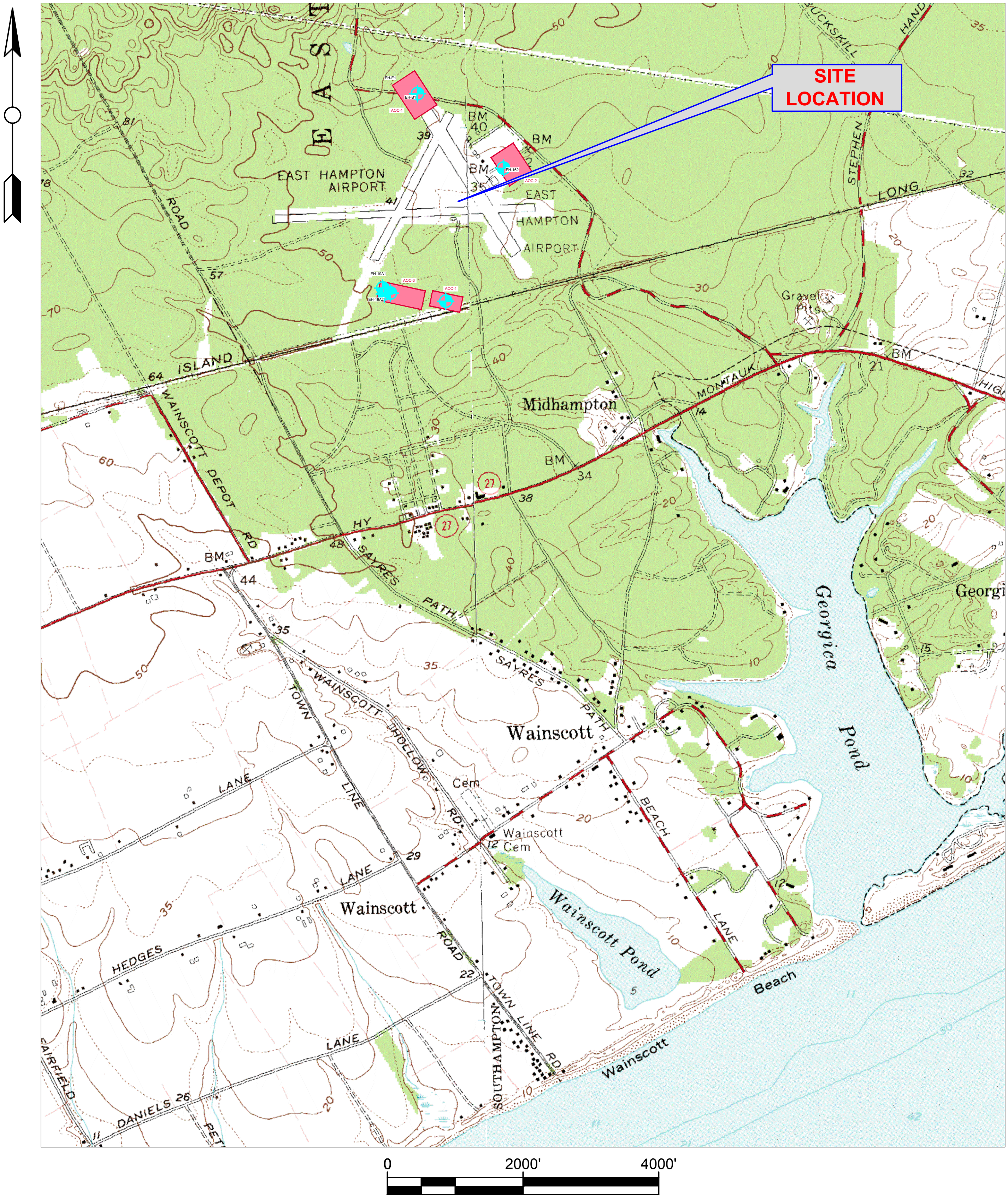
- Drinking Water: Samples were collected from the tap located within the East Hampton Executive Terminal. Trace amounts of PFOA were detected in the tap sample, with a concentration of 0.64 ng/L; however, this was well below other tap sample results collected during the initial SC.
- Groundwater: Investigation findings show that the historic use and/or storage of AFFF have impacted Site groundwater quality. In particular, PFOS and PFOA have been identified in Site groundwater at concentrations above the US EPA HAL of 70 ng/L in five of the six permanent monitoring wells installed as part of the supplemental SC. Consistent with the findings of the November 2018 SC Report, analytical results from upgradient and downgradient wells indicate that there are four distinct areas of concern including:
    - **AOC-1**: Groundwater beneath Area B located north of the airfield, where firefighting foam was historically used for crash response and training. PFOS (110 ng/L) and PFOA (25 ng/L) are present in permanent well EH-B1. These levels are relatively similar to the previous sampling event.
    - **AOC-2**: Groundwater beneath Area 16, where AFFF was deployed during a mass casualty training exercise, is impacted by PFOS above the HAL. PFOS was reported at 130 ng/L in the groundwater sample from downgradient permanent well EH-162, with lower levels of PFOA (9.5 ng/L). Previously recorded levels were relatively similar (PFOA = 9.3 ng/L and PFOS = 290 ng/L).
    - **AOC-3**: Groundwater beneath Parcel 19, where the ARFF station is located, has been impacted by both PFOS and PFOA above the HAL. Although no documented discharge of AFFF could be confirmed, AFFF is stored in the station. Analytical results for three permanent wells in this area (EH-19A, EH-19A2, and EH-19B) exhibited exceedances of the HAL for PFOA and/or PFOS, with a maximum reported concentration of 207 ng/L for combined PFOS/PFOA. The level recorded in March 2019 was greater than the previously reported maximum concentration in Parcel 19 (174 ng/L).
    - **AOC-4**: Groundwater beneath Parcel 1, occupied by the East Hampton Police Department, has been impacted with low levels of PFOA/PFOS. Permanent monitoring well EH-1, located adjacent to the burn training structure, contained PFOA at a concentration of 6 ng/L and PFOS at a concentration of 0.99 J ng/L. This is significantly lower than the previously reported levels of 160 ng/L and 1.8 J ng/L, respectively, from the temporary well sampled during the initial SC. Additional monitoring is required to determine if there is a seasonal or other variable that may be the cause of the differing results.

5.2 Recommendations

The NYSDEC combined the multiple AOCs into one site listing. The NYSDEC reclassified the three individual parcels back into one site as a Class 2 Inactive Hazardous Waste Site. Based on the reclassification and guidance from the NYSDEC AECOM can offer further recommendations regarding how to precede~~.~~

FIGURES

Last saved by: CARRIE.SZCZEPANSKI(2019-07-09) Last Plotted: 2019-07-09 Project Management Initials: Designer: KAM Checked:_____ Approved:_____ ANSI A 8.5" x 11"
Filename: P:\60566160 EAST HAMPTON AP NYSDEC\900-CAD-GIS\910 CAD_BIM\20-SHEETS\C\DRAFT-REPORT\DRAFT-GW-REPORT-2019 FIGURE 1.DWG



EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT ADDENDUM
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: July 2019

SITE LOCATION PLAN

AECOM

Figure: 1

PLAN

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Project Management Initials: Designer: KAM Checked:_____ Approved:_____ ANSI B 11" x 17"

AECOM

Figure: 2

EXISTING SITE FEATURES

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT ADDENDUM
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: July 2019

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LEGEND

⌖	PERMANENT WELL
⌖	MONITORING WELL / PIEZOMETER
◉	SOIL BORING
⊠	CATCH BASIN
▲	TAP LOCATION

Notes:

J - the analyte is an estimated quantity.

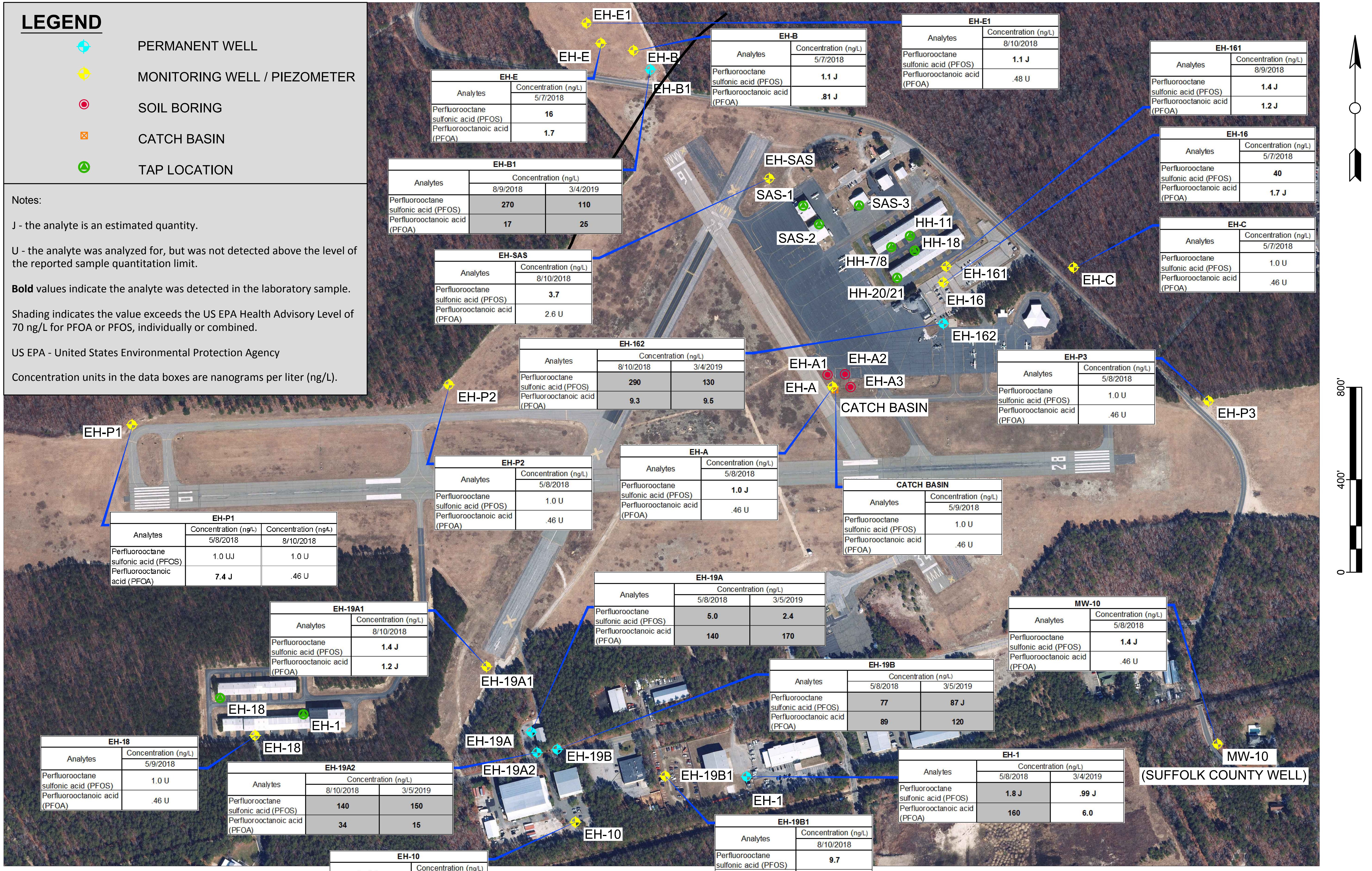
U - the analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Bold values indicate the analyte was detected in the laboratory sample.

Shading indicates the value exceeds the US EPA Health Advisory Level of 70 ng/L for PFOA or PFOS, individually or combined.

US EPA - United States Environmental Protection Agency

Concentration units in the data boxes are nanograms per liter (ng/L).



EH-E1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	.48 U

EH-B

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**1.1 J**
Perfluorooctanoic acid (PFOA)	**.81 J**

EH-E

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**16**
Perfluorooctanoic acid (PFOA)	**1.7**

EH-161

Analytes	Concentration (ng/L)
	8/9/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

EH-16

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	**40**
Perfluorooctanoic acid (PFOA)	**1.7 J**

EH-B1

Analytes	Concentration (ng/L)	
	8/9/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**270**	**110**
Perfluorooctanoic acid (PFOA)	**17**	**25**

EH-SAS

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**3.7**
Perfluorooctanoic acid (PFOA)	2.6 U

EH-C

Analytes	Concentration (ng/L)
	5/7/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-162

Analytes	Concentration (ng/L)	
	8/10/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**290**	**130**
Perfluorooctanoic acid (PFOA)	**9.3**	**9.5**

EH-P3

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-P2

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-A

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.0 J**
Perfluorooctanoic acid (PFOA)	.46 U

CATCH BASIN

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-P1

Analytes	Concentration (ng/L)	Concentration (ng/L)
	5/8/2018	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 UJ	1.0 U
Perfluorooctanoic acid (PFOA)	**7.4 J**	.46 U

EH-19A

Analytes	Concentration (ng/L)	
	5/8/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**5.0**	**2.4**
Perfluorooctanoic acid (PFOA)	**140**	**170**

EH-19A1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	**1.2 J**

MW-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	**1.4 J**
Perfluorooctanoic acid (PFOA)	.46 U

EH-19B

Analytes	Concentration (ng/L)	
	5/8/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**77**	**87 J**
Perfluorooctanoic acid (PFOA)	**89**	**120**

EH-18

Analytes	Concentration (ng/L)
	5/9/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

EH-19A2

Analytes	Concentration (ng/L)	
	8/10/2018	3/5/2019
Perfluorooctane sulfonic acid (PFOS)	**140**	**150**
Perfluorooctanoic acid (PFOA)	**34**	**15**

EH-1

Analytes	Concentration (ng/L)	
	5/8/2018	3/4/2019
Perfluorooctane sulfonic acid (PFOS)	**1.8 J**	**.99 J**
Perfluorooctanoic acid (PFOA)	**160**	**6.0**

EH-19B1

Analytes	Concentration (ng/L)
	8/10/2018
Perfluorooctane sulfonic acid (PFOS)	**9.7**
Perfluorooctanoic acid (PFOA)	**2.1**

EH-10

Analytes	Concentration (ng/L)
	5/8/2018
Perfluorooctane sulfonic acid (PFOS)	1.0 U
Perfluorooctanoic acid (PFOA)	.46 U

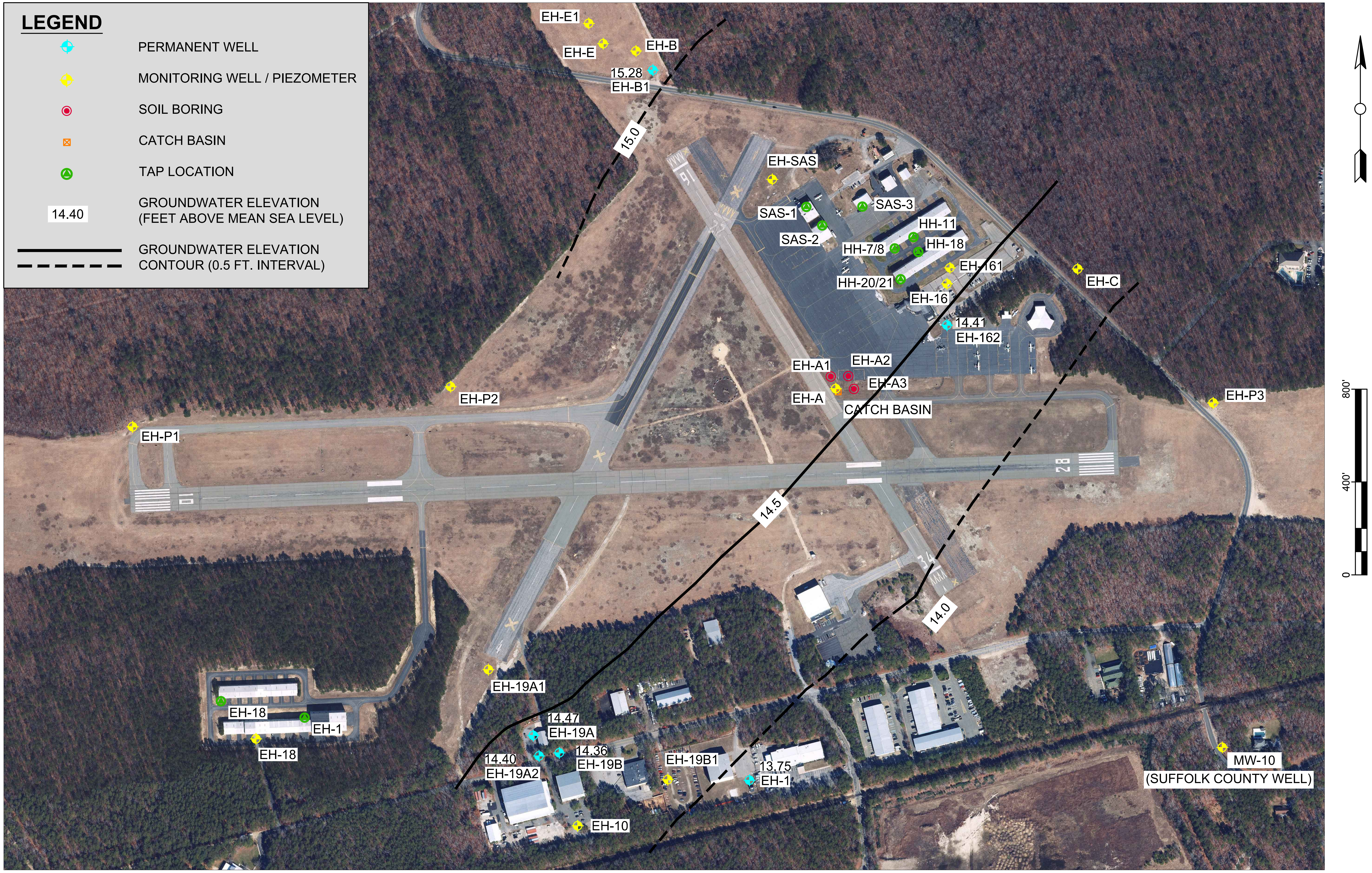
PLAN

GROUNDWATER ANALYTICAL RESULTS - 2018 AND 2019

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT ADDENDUM
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: July 2019

AECOM

Figure: 3



PLAN

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Project Management Initials: Designer: KAM Checked:____ Approved:____ ANSI B 11" x 17"

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Figure: 4

GROUNDWATER CONTOUR MAP
PERMANENT WELLS
MARCH 2019

EAST HAMPTON AIRPORT
SITE CHARACTERIZATION REPORT ADDENDUM
New York State Department of Environmental Conservation
Wainscott, Suffolk County, New York
Project No.: 60566160 Date: July 2019

TABLES

Table 1
Groundwater Sampling Data
(May 2018 through March 2019)

Analytes	Health Advisory Water Quality Standards[1]	**Groundwater Sampling Data**														
		Area	**North Field**				**Sound Aircraft Services**	**Airport Parking Lot**				**Northwest Woods**	**Daniels Hole Road**	**East Hampton PD**		
		MW ID	**EH-B**	**EH-B1**		**EH-E**	**EH-E1**	**EH-SAS**	**EH-16**	**EH-161**	**EH-162**		**EH-C**	**MW-10***	**EH- 1**	
		Date	5/7/2018	8/9/2018	3/4/2019	5/7/2018	8/10/2018	8/10/2018	5/7/2018	8/9/2018	8/10/2018	3/4/2019	5/7/2018	5/8/2018	5/8/2018	3/4/2019
Perfluoroalkane Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	NS		**42**	**2.4 J**	**4.1 J**	**4.9**	**9.4**	.90 U	.90 U	.90 U	**4.2 J**	**4.1 J**	.90 U	.90 U	**8.3**	**8.8**
Perfluorohexane sulfonic acid (PFHxS)	NS		**130**	**34**	**57**	**52**	**24**	**1.8 J**	**2.1 J**	**1.3 J**	**68**	**32**	.94 U	.94 U	**730**	**25**
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	**2.8 J**	**5.0**	.88 U	.88 U	.88 U	.88 U	.88 U	**4.4**	**1.8 J**	.88 U	.88 U	**36**	**.72 J**
Perfluorooctane sulfonic acid (PFOS)	70		**1.1 J**	**270**	**110**	**16**	**1.1 J**	**3.7**	**40**	**1.4 J**	**290**	**130**	1.0 U	**1.4 J**	**1.8 J**	**.99 J**
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	.30 U	1.3 U	1.3 U	1.3 U	.30 U
Perfluoroalkane Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	NS		**37**	**6.5 J**	**13**	**5.6 J**	2.7 U	2.7 U	**5.4 J**	2.7 U	**4.2 J**	**3.9 J**	2.7 U	2.7 U	**37**	**43**
Perfluoropentanoic acid (PFPeA)	NS		**120**	**5.9**	**20**	**17**	**8.1**	1.1 U	1.1 U	1.1 U	**3.0 J**	**2.9 J**	1.1 U	1.1 U	**76**	**110**
Perfluorohexanoic acid (PFHxA)	NS		**150**	**13**	**32**	**17**	**11**	.92 U	**2.0 J**	.92 U	**8.9**	8.8 U	.92 U	.92 U	**65**	**110**
Perfluoroheptanoic acid (PFHpA)	NS		**8.9**	**2.7 J**	**9.8**	**2.2 J**	1.2 U	1.2 U	**2.1 J**	1.2 U	**3.3 J**	**3.3 J**	**1.3 J**	1.2 U	**40**	**30**
Perfluorooctanoic acid (PFOA)	70		**.81 J**	**17**	**25**	**1.7**	.48 U	2.6 U	**1.7 J**	**1.2 J**	**9.3**	**9.5**	.46 U	.46 U	**160**	**6.0**
Perfluorononanoic acid (PFNA)	NS		.94 U	**1.0 J**	**1.4 J**	1.7 U	.94 U	**1.5 J**	1.5 U	.94 U	.94 U	1.1 U	.99 U	.94 U	1.2 U	1.1 U
Perfluorodecanoic acid (PFDA)	NS		.92 U	.52 U	1.2 U	1.6 U	.52 U	.60 U	1.0 U	**.70 J**	.52 U	1.2 U	1.1 U	.67 U	.82 U	1.2 U
Perfluoroundecanoic acid (PFUnDA)	NS		1.6 U	.31 U	1.5 U	1.1 U	.31 U	.31 U	1.8 U	**1.6 J**	.31 U	1.5 U	1.1 U	1.0 U	1.4 U	1.5 U
Perfluorododecanoic acid (PFDoDA)	NS		.76 U	.46 U	1.3 U	.87 U	.46 U	.46 U	1.4 U	.46 U	.46 U	1.3 U	.78 U	.89 U	1.2 U	1.3 U
Perfluorotridecanoic acid (PFTrDA)	NS		.83 U	.75 U	1.3 U	**.82 J**	.75 U	.75 U	**.94 J**	.75 U	.75 U	1.3 U	**1.2 J**	.75 U	.90 U	1.3 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	2.0 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.0 U	1.2 U	1.2 U	1.2 U	2.0 U
Perfluoroalkyl Sulfonamides																
Perfluorooctane sulfonamide (FOSA)	NS		.35 U	.35 U	.52 U	.35 U	.35 U	.35 U	.35 U	.35 U	.35 U	.52 U	.35 U	.35 U	.35 U	.52 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	4.2 UJ	1.4 U	4.2 UJ	4.2 U	4.2 U	4.2 UJ	4.2 UJ	4.2 U	1.4 U	4.2 UJ	4.2 UJ	4.2 UJ	1.4 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.83 U	.50 U	.83 U	.83 U	.83 U	.83 U	.83 U	.83 U	.50 U	8.3 U	.83 U	.83 U	.50 U
(n:2) Fluorotelomer Sulfonic Acids																
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		1.2 U	1.2 U	**7.1**	1.2 U	1.2 U	**1.6 J**	1.2 U	1.2 U	1.2 U	**4.5**	1.2 U	1.2 U	**7.0**	**3.0 J**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.65 U	.65 U	.15 U	.65 U	.65 U	.65 U	.65 U	.65 U	.65 U	.15 U	.65 U	.65 U	.65 U	.15 U

Notes:
NS - No standard exists
Detected concentrations are in bold font.
Detections exceeding the US EPA HAL of 70 ng/L for either PFOA, PFOS or a combination of both are highlighted in gray.
J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
U - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
Units are in ng/L (nanograms/liter)
* - MW-10 is a Suffolk County well installed during a previous investigation (not installed by AECOM)
1 - United States Environmental Protection Agency (US EPA)-established Drinking Water Health Advisory Level (HAL)

Table 1
Groundwater Sampling Data
(May 2018 through March 2019)

Analytes	Health Advisory Water Quality Standards[1]		Groundwater Sampling Data															
		Area	**ARFF**								**Aircraft/Helicopter Taxiway**		**West End of Main Runway**		**Middle of Main Runway**	**East Field**	**Local Television Inc.**	**East End Hangars**
		MW ID	**EH-19A**		**EH-19A1**	**EH-19A2**		**EH-19B**		**EH-19B1**	**EH-A**	**CATCH BASIN**	**EH-P1**		**EH-P2**	**EH-P3**	**EH-10**	**EH-18**
		Date	5/8/2018	3/5/2019	8/10/2018	8/10/2018	3/5/2019	5/8/2018	3/5/2019	8/10/2018	5/8/2018	5/9/2018	5/8/2018	8/10/2018	5/8/2018	5/8/2018	5/8/2018	5/9/2018
Perfluoroalkane Sulfonic Acids																		
Perfluorobutane sulfonic acid (PFBS)	NS		**360**	**40**	**12**	**8.5**	**7.8**	**29**	**200**	**8.5**	.90 U	.90 U	**1.0 J**	.90 U	.90 U	.90 U	.90 U	.90 U
Perfluorohexane sulfonic acid (PFHxS)	NS		**240**	**150**	**1.5 J**	**85**	**18**	**750**	**930**	**3.7 J**	.94 U	.94 U	**3.0 J**	**1.0 J**	.94 U	**1.0 J**	.94 U	.94 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	.44 U	.88 U	**2.1 J**	**2.1 J**	**12**	**17**	.88 U	.88 U	.88 U	0.88 UJ	.88 U	.88 U	.88 U	.88 U	.88 U
Perfluorooctane sulfonic acid (PFOS)	70		**5.0**	**2.4**	**1.4 J**	**140**	**150**	**77**	**87 J**	**9.7**	**1.0 J**	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	.30 U	1.3 U	1.3 U	.30 U	1.3 U	.30 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Perfluoroalkane Carboxylic Acids																		
Perfluorobutanoic acid (PFBA)	NS		**710**	**400**	**3.9 J**	**82**	**51**	**61**	**120**	**8.8**	2.7 U	2.7 U	**3.7 J**	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Perfluoropentanoic acid (PFPeA)	NS		**2600**	**1200**	1.1 U	**140**	**120**	**170**	**360**	**6.5**	1.1 U	1.1 U	**6.8 J**	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Perfluorohexanoic acid (PFHxA)	NS		**2800**	**1100**	**1.9 J**	**150**	**93**	**200**	**380**	**7.7**	.92 U	.92 U	**9.9 J**	.92 U	.92 U	.92 U	.92 U	.92 U
Perfluoroheptanoic acid (PFHpA)	NS		**1500**	**1100**	1.2 U	**99**	**46**	**180**	**290**	1.2 U	1.6 U	2.6 U	8.0 UJ	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluorooctanoic acid (PFOA)	70		**140**	**170**	**1.2 J**	**34**	**15**	**89**	**120**	**2.1**	.46 U	.46 U	**7.4 J**	.46 U	.46 U	.46 U	.46 U	.46 U
Perfluorononanoic acid (PFNA)	NS		7.0 U	1.1 U	.94 U	**17**	**10**	**14**	**28**	.94 U	1.5 U	2.1 U	8.9 UJ	.94 U	1.0 U	**1.1 J**	.94 U	.94 U
Perfluorodecanoic acid (PFDA)	NS		1.8 U	1.2 U	.52 U	**4.1 J**	**4.4**	2.3 U	**1.8 J**	.52 U	2.3 U	1.5 U	9.5 UJ	.52 U	1.0 U	.93 U	1.0 U	.71 U
Perfluoroundecanoic acid (PFUnDA)	NS		2.6 U	1.5 U	.31 U	**2.2 J**	1.5 U	2.2 U	**1.9 J**	**1.1 J**	1.5 U	1.6 U	**12 J**	**.43 J**	1.3 U	1.1 U	1.4 U	1.2 U
Perfluorododecanoic acid (PFDoDA)	NS		1.1 U	1.3 U	.46 U	.46 U	1.3 U	.63 U	1.3 U	.46 U	.67 U	1.7 U	**21 J**	.46 U	1.1 U	.87 U	.96 U	.86 U
Perfluorotridecanoic acid (PFTrDA)	NS		1.7 U	1.3 U	.75 U	.75 U	1.3 U	1.2 U	1.3 U	.75 U	1.1 U	1.5 U	**20 J**	.75 U	1.2 U	**1.3 J**	1.1 U	1.3 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	2.0 U	1.2 U	1.2 U	2.0 U	1.2 U	2.0 U	1.2 U	1.2 U	1.2 U	**19 J**	**1.3 J**	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroalkyl Sulfonamides																		
Perfluorooctane sulfonamide (FOSA)	NS		.35 U	.52 U	.35 U	.35 U	.52 U	.35 U	.52 U	.35 U	.35 U	.35 U	.35 UJ	.35 U	.35 U	.35 U	.35 U	.35 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	1.4 U	4.2 UJ	4.2 UJ	1.4 U	4.2 UJ	1.4 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	4.2 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.50 U	.83 U	.83 U	.50 U	.83 U	**0.5**	.83 U	.83 U	.83 U	.83 UJ	.83 U	.83 U	.83 U	.83 U	.83 U
(n:2) Fluorotelomer Sulfonic Acids																		
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		**7.0**	**4.6**	**1.6 J**	**3.9 J**	**2.8 J**	**120**	**120**	1.2 U	1.2 U	1.2 U	**1.4 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		**2.8 J**	**.65 J**	.65 U	**50**	**63**	**14**	**8.7**	**5.0**	.65 U	.65 U	.65 UJ	.65 U	.65 U	.65 U	.65 U	.65 U

Notes:
NS - No standard exists
Detected concentrations are in bold font.
Detections exceeding the US EPA HAL of 70 ng/L for either PFOA, PFOS or a combination of both are highlighted in gray.
J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
U - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
Units are in ng/L (nanograms/liter)
* - MW-10 is a Suffolk County well installed during a previous investigation (not installed by AECOM)
1 - United States Environmental Protection Agency (US EPA)-established Drinking Water Health Advisory Level (HAL)

Table 1
Groundwater Sampling Data
(May 2018 through March 2019)

Analytes	Health Advisory Water Quality Standards^1	Area	QA/QC Samples																		
		MW ID	**DUP**			**EQUIPMENT BLANK**						**FIELD BLANK**					**MS/MSD**				
		Date	5/8/2018	8/10/2018	3/4/2019	5/7/2018	5/8/2018	5/9/2018	8/10/2018	3/4/2019	3/5/2019	5/7/2018	5/8/2018	8/10/2018	3/4/2019	3/5/2019	5/8/2018	5/8/2018	8/10/2018	8/10/2018	3/5/2019
Perfluoroalkane Sulfonic Acids																					
Perfluorobutane sulfonic acid (PFBS)	NS		.90 U	**9.1**	**3.8 J**	.90 U	.90 U	.90 U	.90 U	.28 U	.28 U	.90 U	.90 U	.90 U	.28 U	.28 U	.90 U	.90 U	.90 U	.90 U	.28 U
Perfluorohexane sulfonic acid (PFHxS)	NS		.94 U	**57**	**35**	.94 U	.94 U	.94 U	.94 U	1.3 U	1.3 U	.94 U	.94 U	.94 U	1.3 U	1.3 U	.94 U	.94 U	.94 U	.94 U	1.3 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		.88 U	**1.6 J**	**1.9 J**	.88 U	.88 U	.88 U	.88 U	.44 U	.44 U	.88 U	.88 U	.88 U	.44 U	.44 U	.88 U	.88 U	.88 U	.88 U	.44 U
Perfluorooctane sulfonic acid (PFOS)	70		**1.3 J**	**100**	**120**	1.0 U	1.0 U	1.0 U	1.0 U	.44 U	.44 U	1.0 U	1.0 U	1.0 U	.44 U	.44 U	1.0 U	1.0 U	1.0 U	1.0 U	.44 U
Perfluorodecane sulfonic acid (PFDS)	NS		1.3 U	1.3 U	.30 U	1.3 U	1.3 U	1.3 U	1.3 U	.30 U	.30 U	1.3 U	1.3 U	1.3 U	.30 U	.30 U	1.3 U	1.3 U	1.3 U	1.3 U	.30 U
Perfluoroalkane Carboxylic Acids																					
Perfluorobutanoic acid (PFBA)	NS		2.7 U	**73**	**4.2**	2.7 U	2.7 U	2.7 U	2.7 U	.40 U	.40 U	2.7 U	2.7 U	2.7 U	.40 U	.40 U	2.7 U	2.7 U	2.7 U	2.7 U	.40 U
Perfluoropentanoic acid (PFPeA)	NS		1.1 U	**160**	**3.1 J**	1.1 U	1.1 U	1.1 U	1.1 U	1.7 U	1.7 U	1.1 U	1.1 U	1.1 U	1.7 U	1.7 U	1.1 U	1.1 U	1.1 U	1.1 U	1.7 U
Perfluorohexanoic acid (PFHxA)	NS		.92 U	**130**	8.8 U	.92 U	.92 U	.92 U	.92 U	8.8 U	8.8 U	.92 U	.92 U	.92 U	8.8 U	8.8 U	.92 U	.92 U	.92 U	.92 U	8.8 U
Perfluoroheptanoic acid (PFHpA)	NS		1.2 U	**100**	**3.7 J**	1.2 U	1.2 U	1.2 U	1.2 U	.63 U	.63 U	1.2 U	1.2 U	1.2 U	.63 U	.63 U	1.2 U	**1.4 J**	1.2 U	1.2 U	.63 U
Perfluorooctanoic acid (PFOA)	70		.46 U	**28**	**9.1**	.46 U	.46 U	.46 U	.46 U	.35 U	.35 U	.46 U	.46 U	.46 U	.35 U	.35 U	.46 U	.46 U	.46 U	**.55 J**	.35 U
Perfluorononanoic acid (PFNA)	NS		.94 U	**13**	1.1 U	.94 U	.94 U	.94 U	.94 U	1.1 U	1.1 U	**1.0 J**	.94 U	.94 U	1.1 U	1.1 U	.94 U	**1.1 J**	.94 U	.94 U	1.1 U
Perfluorodecanoic acid (PFDA)	NS		.82 U	3.4 U	1.2 U	.52 U	.73 U	.68 U	.52 U	1.2 U	1.2 U	.71 U	.52 U	.52 U	1.2 U	1.2 U	**.87 J**	**.84 J**	.52 U	**.60 J**	1.2 U
Perfluoroundecanoic acid (PFUnDA)	NS		1.0 U	**1.3 J**	1.5 U	.85 U	.90 U	.73 U	.31 U	1.5 U	1.5 U	.94 U	.87 U	.31 U	1.5 U	1.5 U	**1.1 J**	**1.0 J**	.31 U	.31 U	1.5 U
Perfluorododecanoic acid (PFDoDA)	NS		.58 U	.46 U	1.3 U	.55 U	.80 U	.73 U	.46 U	1.3 U	1.3 U	.75 U	.46 U	.46 U	1.3 U	1.3 U	**.81 J**	**.95 J**	.46 U	.46 U	1.3 U
Perfluorotridecanoic acid (PFTrDA)	NS		.78 U	.75 U	1.3 U	.75 U	.75 U	.75 U	.75 U	1.3 U	1.3 U	.75 U	.75 U	.75 U	1.3 U	1.3 U	.75 U	**.79 J**	.75 U	.75 U	1.3 U
Perfluorotetradecanoic acid (PFTeDA)	NS		1.2 U	1.2 U	2.0 U	1.2 U	1.2 U	1.2 U	1.2 U	2.0 U	2.0 U	1.2 U	1.2 U	1.2 U	2.0 U	2.0 U	1.2 U	1.2 U	1.2 U	1.2 U	2.0 U
Perfluoroalkyl Sulfonamides																					
Perfluorooctane sulfonamide (FOSA)	NS		.35 U	.35 U	.52 U	.35 U	.35 U	.35 U	.35 U	.52 U	.52 U	.35 U	.35 U	.35 U	.52 U	.52 U	.35 U	.35 U	.35 U	.35 U	.52 U
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		4.2 UJ	4.2 U	1.4 U	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ	1.4 U	1.4 U	4.2 UJ	4.2 UJ	4.2 UJ	1.4 U	1.4 U	4.2 U	4.2 U	4.2 U	4.2 U	1.4 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.83 U	.83 U	.50 U	.83 U	.83 U	.83 U	.83 U	.50 U	.50 U	.83U	.83 U	.83 U	.50 U	.50 U	.83 U	.83 U	.83 U	.83 U	.50 U
(n:2) Fluorotelomer Sulfonic Acids																					
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		1.2 U	**5.1**	**3.7 J**	1.2 U	1.2 U	1.2 U	1.2 U	.55 U	.55 U	1.2 U	1.2 U	1.2 U	.55 U	.55 U	1.2 U	1.2 U	1.2 U	1.2 U	.55 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.65 U	**46**	.15 U	.65 U	.65 U	.65 U	.65 U	.15 U	.15 U	.65 U	.65 U	.65 U	.15 U	.15 U	.65 U	.65 U	.65 U	.65 U	.15 U

Notes:

NS - No standard exists

Detected concentrations are in bold font.

Detections exceeding the US EPA HAL of 70 ng/L for either PFOA, PFOS or a combination of both are highlighted in gray.

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Units are in ng/L (nanograms/liter)

* - MW-10 is a Suffolk County well installed during a previous investigation (not installed by AECOM)

1 - United States Environmental Protection Agency (US EPA)-established Drinking Water Health Advisory Level (HAL)

Table 2
Investigation Derived Waste and East Hampton Executive Terminal Tap Sampling Data (December 2018)

Analytes	Health Advisory Water Quality Standards[1]		**Drum Waste Sampling Data**			**East Hampton Executive Terminal**
			Soil		**Water**	
		Sampling Location	**IDW 1**	**IDW 2**	**IDW**	**Tap Water**
		Date	12/14/2018	12/14/2018	12/14/2018	12/14/2018
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	NS		.22 U	.22 U	**200**	.28 U
Perfluorohexane sulfonic acid (PFHxS)	NS		.30 U	.30 U	**610**	1.3 U
Perfluoroheptane sulfonic acid (PFHpS)	NS		.062 U	.062 U	**34**	.44 U
Perfluorooctane sulfonic acid (PFOS)	70		.13 U	.13 U	**150**	.44 U
Perfluorodecane sulfonic acid (PFDS)	NS		.17 U	.17 U	.30 U	.30 U
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	NS		.39 U	.39 U	**180**	.40 U
Perfluoropentanoic acid (PFPeA)	NS		.21 U	.21 U	**490**	1.7 U
Perfluorohexanoic acid (PFHxA)	NS		.31 U	.31 U	**510**	8.8 U
Perfluoroheptanoic acid (PFHpA)	NS		.19 U	.19 U	**300**	.63 U
Perfluorooctanoic acid (PFOA)	70		.13 U	.13 U	**130**	**.64 J**
Perfluorononanoic acid (PFNA)	NS		.33 U	.33 U	**27**	1.1 U
Perfluorodecanoic acid (PFDA)	NS		.26 U	.26 U	**1.3 J**	1.2 U
Perfluoroundecanoic acid (PFUnDA)	NS		.18 U	.18 U	1.5 U	1.5 U
Perfluorododecanoic acid (PFDoDA)	NS		.27 U	.27 U	1.3 U	1.3 U
Perfluorotridecanoic acid (PFTrDA)	NS		.21 U	.21 U	1.3 U	1.3 U
Perfluorotetradecanoic acid (PFTeDA)	NS		.18 U	.18 U	2.0 U	2.0 U
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	NS		.067 U	.067 U	.52 U	**2.1 J**
N-Methyl perfluorooctane sulfonamidoacetic acid	NS		.27 U	.27 U	1.4 U	1.4 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	NS		.20 U	.20 U	.50 U	.50 U
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NS		.15 U	.15 U	**100**	.55 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NS		.029 U	.029 U	**14**	.15 U

Notes:

NS - No standard exists

Detected concentrations are in bold font.

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J - The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Units are in ng/L (nanograms/liter)

1 - United States Environmental Protection Agency (US EPA)-established Drinking Water Health Advisory Level (HAL)

NYSDEC records for Spill #98-10855

Notell
769-1665

NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☐ Field Notes ☒ Phone Conversation ☐ Meeting Notes **Spill No.** 98-10855

Location

Name East Hampton Airport
Address Daniel Hale Rd
Town East Hampton
Phone

Representatives on site	time in	time out
DEC Matt Dassangelo		
PRP		

Weather	Temperature	General conditions
humidity		
Dry	Cold	Sunny
Humid	Fair	Partly Cloudy
Very humid	Warm	Cloudy
	Hot	Rain / Snow

Date	Time	Inspection Narrative
11/29/98	13:41	Telcon to officer Notell onsite 769-1665 cell#
		- Single Engine Plane
		- 2 -30 gallon tanks
		- Maderial is Aviation Gasoline
		- Plane Started leaking After the incident
		- Approx 2-3 gal spilled on grass remainder was transferd from tanks by fire department
		- Owner Info at Terminal Right Now David Scheinberg 8-29-61 5 Horizon Rd Apt 1102 Fort Lee NJ 07024 (201) 224-7547
	13:55	Telcon to Airport terminal 537-1130
		- Plane landed to fast ran off end of runway
		- She will have her boss return my call within 15 minutes

Continued Page ____ Of ____

NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☒ Field Notes ☐ Phone Conversation ☐ Meeting Notes **Spill No.** 98-10855

Location

Name East Hampton Airport

Address Daniel Hale RD

Town East Hampton

Phone

Weather

humidity: [✓ Dry] Humid Very humid

Temperature: Cold Fair [✓ Warm] Hot

General conditions: [✓ Sunny] Partly Cloudy Cloudy Rain / Snow

Representatives on site	time in	time out
DEC Matt Darcangelo	15:22	16:38
John Claflan Town Airport	—	
Pat Ryan Town Airport	—	
537-1130		
PRP David Scheinberg	—	—

Date	Time	Inspection Narrative
11/29/98	15:22	Onsite
		• Plane has been removed from Area
		- Fire Department has foamed Area to supress vapors
		- 2 spill pillows placed in under wing of plane
		- Gasoline odors present in area when soil is disturbed
		- PID readings of 2000 + meter maxed out
		- Dug small test pits with shovel and used PID to estabilsh perimeter of surface contamination 5x5 area
		- Used hand auger to Establish vertical extent
		0-3' feet light brown sand with cobbles up to 3" D
		3' refusal 1180 ppm on PID
		- Cone placed in center of impacted area and perimiter staked and marked with caution tape
		- Very little Land marks near by
		- 275' North and 77' West of Fence in SE corner

Continued Page _____ Of _____

NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☒ Field Notes ☐ Phone Conversation ☐ Meeting Notes **Spill No.** 98-10855

Location

Name East Hampton Airport

Address Daniel Hole Rd

Town East Hampton

Phone

Representatives on site	time in	time out
DEC Matt Darcangelo		
PRP		

Weather

humidity	Temperature	General conditions
Dry	Cold	Sunny
Humid	Fair	Partly Cloudy
Very humid	Warm	Cloudy
	Hot	Rain / Snow

Date	Time	Inspection Narrative
11/29/98	Continued	- Limited time to darkness
		- RP and Airport to make arrangements to do cleanup tommorow 11/30
		- Requested inspection tommorrow so that excavation may be backfilled same day since it is at end of Runway
	16:38	offsite

Continued Page ____ Of ____

NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☐ Field Notes ☒ Phone Conversation ☐ Meeting Notes **Spill No.** 98- 10855

Location	
Name	EAst Hampton Air Port
Address	Daniel Hale Rd
Town	East Hampton
Phone	

Representatives on site	time in	time out
DEC Matt Darcangelo		
PRP		

Weather	Temperature	General conditions
humidity	Cold	Sunny
Dry	Fair	Partly Cloudy
Humid	Warm	Cloudy
Very humid	Hot	Rain / Snow

Date	Time	Inspection Narrative
11/30/98	10:58	Telcon to Tom Spadafora of Blue Water
		- Rob DeFandia is onsite
		- Will Pull Excavator from other work
		at Airport to Excavate in his presence

Continued Page _____ Of _____

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790-2356

TEL # (516) 444-0320
FAX # (516) 444-0373

REQUEST FOR CLEANUP NOTIFICATION FORM - FIELD ISSUE

Date 11/25/98

✓ **IMMEDIATE CLEANUP REQUIRED**

___ **WITHIN 10-DAY PERIOD (Unless otherwise specified, the 10-day period will begin with the above date.)**

SPILL #: 98-10855 **SPILL LOCATION:** East Hampton Town Airport Daniel Hale Rd East Hampton

RESPONSIBLE PARTY INFORMATION:

Address: 5 Horizon Rd Apt 1102

Telephone: (201) 224-7547

Contact Person(s): David Scheinberg

= =

FINDINGS: Elevated readings of Volatile organic Compounds in soil Beneath location were plane incedent occurred releasing Aviadion Gasoline into soil.

WORK TO BE PERFORMED: Excavate all impacted soil. Properly Dispose of soil according to all state and federal regulations and supply a copy of the disposal documents to the above address.

= =

This letter serves as notice that the Department is directing you or your company to proceed with a cleanup of the above-referenced site within the time frame indicated. You may either hire a contractor or do the work yourself. However, you must use a contractor with a 364 Transporter Permit to transport the contaminated material to a proper disposal facility.

If you do not proceed with the required cleanup within the time frame noted above, this office will proceed with the cleanup of the site, and the New York State Department of Law will seek reimbursement along with an assessment of penalties from you in accordance with Article 12 of the New York State Navigation Law.

Responsible Party/Agent — 11/24/98 Date — (Signature acknowledges receipt only)

Spill Response Investigator — 11/25/98 Date — (Original to RP, Copy to DEC)

(CNF rev 10/96)

98-10855

End of Runway
where Plane crashes
spilling AV. Gas
Cone in Location of spill
Foam surrounding spill
East Hampton Air Port

98-10855

MSP
11/22/98

Airport / RP To do

Clean up Today 11/30

- Need to Backfill today
- Will need a inspection today.
- Contact Airport
  Pat Ryan, or John Ckfkn
  Secretary Monica
  To see what time.
- Blue water will most likely Be contractor,

w York State Department of Environmental Conservation
ilding 40 - SUNY, Stony Brook, New York 11790-2356

TEL # (516) 444-0320
FAX # (516) 444-0373

REQUEST FOR CLEANUP NOTIFICATION FORM - FIELD ISSUE

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SPILL #: 98-10855 **SPILL LOCATION:** East Hampton Town Airport Daniel Hale Rd East Hampton

RESPONSIBLE PARTY INFORMATION:

Address: 5 Horizon Rd Apt 1102

Telephone: (201) 224-7547

Contact Person(s): David Scheinberg

FINDINGS: Elevated readins of Volatile organic Compounds in soil Beneath location were plane incedent occurred releasing Aviation Gasoline into soil.

WORK TO BE PERFORMED: Excavate all impacted soil. Properly Dispose of soil according to all state and federal regulations and supply a copy of the disposal documents to the above address.

This letter serves as notice that the Department is directing you or your company to proceed with a cleanup of the above-referenced site within the time frame indicated. You may either hire a contractor or do the work yourself. However, you must use a contractor with a 364 Transporter Permit to transport the contaminated material to a proper disposal facility.

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Responsible Party/Agent — Date 11/24/98 (Signature acknowledges receipt only)

Spill Response Investigator — Date 11/25/98 (Original to RP, Copy to DEC)

(CNF rev 10/96)

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790-2356

COVER SHEET

Faxed by MJD
12/1/98
9:55

FAX

To: Tom Spadafora Blue Water

Fax #: 752-3008

Date: 12/1/98

Page: 1 of 2

RE: East Hampton Airport
98-10855

COMMENTS:

Clean up letter As per your request

From the desk of...

Matthew Darcangelo
Environmental Engineer
Spill Response
(516) 444-0336
Fax: (516) 444-0373

NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☐ Field Notes ☐ Phone Conversation ☐ Meeting Notes **Spill No.** 98-10855

Location

Name EAST HAMPTON AIRPORT

Address

Town

Phone

Representatives on site	time in	time out
DEC		
PRP		

Weather

humidity	Temperature	General conditions
Dry	Cold	Sunny
Humid	Fair	Partly Cloudy
Very humid	Warm	Cloudy
	Hot	Rain / Snow

Date	Time	Inspection Narrative
11/30/98		
	10:50	DECANDIA on SITE
		met with terminal mgr
		Tom Dolan JD Possillico on site
	11:30	excavation started in marked out area (done by MD)
		8-10 yds of contaminated soil excavated to be stockpiled near JD construction trailer & loaded into roll off on 12/1 for disposal
	12:00	off site
		depth of excavation ~6 ft

East Hampton Town Police Records

EAST HAMPTON TOWN POLICE

Event List

Case Folder No.	Event No.	Event Occurrence Date	Event Type	Street Address	Event Received Date
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
✓ EHT-CR-314-20	EHT-EV-3687-20	4/25/2020 1:39:36 PM	ACCIDENT PLANE	173 DANIELS HOLE RD	4/25/2020 1:39:36 PM
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
✓ EHT-CR-1135-16	EHT-EV-11792-16	8/4/2016 1:07:30 PM	ACCIDENT PLANE	200 DANIELS HOLE RD	8/4/2016 1:07:30 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
✓ EHT-CR-270-15	EHT-EV-2628-15	3/18/2015 4:57:56 PM	ACCIDENT PLANE	200 DANIELS HOLE RD	3/18/2015 4:57:56 PM
	✓ EHT-EV-12228-12	8/26/2012 5:24:03 PM	ACCIDENT PLANE	200 DANIELS HOLE RD	8/26/2012 5:24:03 PM
	✓ EHT-EV-7728-12	7/2/2012 4:09:21 PM	ACCIDENT PLANE	200 DANIELS HOLE RD	7/2/2012 4:09:21 PM
	✓ EHT-EV-10836-11	8/5/2011 8:30:27 PM	ACCIDENT PLANE	DEFAULT UNKNOWN	8/5/2011 8:30:27 PM
	✓ EHT-EV-4136-11	4/30/2011 6:47:00 PM	ACCIDENT PLANE	200 DANIELS HOLE RD	4/30/2011 6:47:00 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	✓ EHT-EV-15192-09	12/27/2009 3:07:00 PM	ACCIDENT PLANE	75 DANIELS HOLE RD	12/27/2009 3:07:00 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	✓ EHT-EV-4958-08	5/22/2008 5:29:00 PM	ACCIDENT PLANE	DANIELS HOLE RD	5/22/2008 5:29:00 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	✓ EHT-EV-5025-07	5/29/2007 2:00:00 PM	ACCIDENT PLANE	DANIELS HOLE RD	5/29/2007 2:00:00 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	✓ EH-012084-04	10/29/2004 3:28:00 PM	ACCIDENT PLANE	DANIELS HOLE ROAD	10/29/2004 3:28:00 PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

se Folder No.	Event No.	Event Occurrence Date	Event Type	Street Address	Event Received Date
					PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] AM
✓	EH-013453-02	12/11/2002 9:18:00 AM	ACCIDENT PLANE	STEPHEN HANDS PATH	12/11/2002 9:18:00 AM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] PM
	[redacted]	[redacted]	[redacted]	[redacted] AIRPORT	[redacted] PM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] PM
✓	EH-003625-01	5/18/2001 3:32:00 PM	ACCIDENT PLANE	DANIELS HOLE ROAD	5/18/2001 3:32:00 PM
	[redacted]	[redacted]	[redacted]	[redacted] AIRPORT	[redacted] PM
	[redacted]	[redacted]	[redacted]	[redacted] AIRPORT	[redacted] 4:54:00 PM
✓	EH-007629-00	8/15/2000 4:41:00 PM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	8/15/2000 4:41:00 PM
✓	EH-005039-00	6/21/2000 10:59:00 AM	ACCIDENT PLANE	DANIELS HOLE ROAD	6/21/2000 10:59:00 AM
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] AM
	[redacted]	[redacted]	[redacted]	[redacted] LAKE DRIVE	[redacted] PM
✓	EH-006588-99	7/29/1999 3:10:00 PM	ACCIDENT PLANE	AIRPORT DANIELS HOLE ROAD	7/29/1999 3:10:00 PM
✓	EH-002169-99	4/2/1999 11:18:00 PM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	4/2/1999 11:18:00 PM
✓	EH-010273-98	11/29/1998 12:31:00 PM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	11/29/1998 12:31:00 PM
✓	EH-010193-98	11/26/1998 11:36:00 AM	ACCIDENT PLANE	EH AIRPORT DANIELS HOLE RD	11/26/1998 11:36:00 AM
✓	EH-007596-98	8/30/1998 2:20:00 PM	ACCIDENT PLANE	DANIELS HOLE ROAD	8/30/1998 2:20:00 PM
✓	EH-008533-97	10/11/1997 2:13:00 PM	ACCIDENT PLANE	EH AIRPORT	10/11/1997 2:13:00 PM
	[redacted]	[redacted]	[redacted]	[redacted] AIRPORT	[redacted] PM
✓	EH-003906-97	6/15/1997 12:13:00 PM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	6/15/1997 12:13:00 PM
	[redacted]	[redacted]	[redacted]	[redacted] AMAGANSETT	[redacted] AM
	[redacted]	[redacted]	[redacted]	[redacted] MONTAUK	[redacted] AM
✓	EH-009870-95	12/23/1995 11:26:00 AM	ACCIDENT PLANE	EAST HAMPTON TOWN AIRPORT	12/23/1995 11:26:00 AM
✓	EH-007067-95	9/4/1995 4:01:00 PM	ACCIDENT PLANE	EAST HAMPTON AIRPORT, EAST	9/4/1995 4:01:00 PM

e Folder No.	Event No.	Event Occurrence Date	Event Type	Street Address	Event Received Date
				HAMPTON	
✓	EH-006486-95	8/21/1995 2:19:00 PM	ACCIDENT PLANE	DANIELS HOLE RD, WAINSCOTT	8/21/1995 2:19:00 PM
✓	EH-008685-93	12/3/1993 8:22:00 AM	ACCIDENT PLANE	SOUND AIRCRAFT SERVICE, EAST HAMPTON	12/3/1993 8:22:00 AM
✓	EH-007470-93	10/6/1993 12:38:00 PM	ACCIDENT PLANE	,	10/6/1993 12:38:00 PM
	[redacted]	[redacted]	[redacted]	[redacted] MONTAUK	[redacted]44:00 PM
—	EH-006350-91	8/23/1991 12:31:00 AM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	8/23/1991 12:31:00 AM
—	EH-006357-91	8/23/1991 12:31:00 AM	ACCIDENT PLANE	EAST HAMPTON AIRPORT	8/23/1991 12:31:00 AM
	[redacted]	[redacted]	[redacted]	[redacted] AIRPORT, MONTAUK	[redacted] AM
	[redacted]	11/15/1990 11:14:00 AM	ACCIDENT PLANE	[redacted] MONTAUK	[redacted] 11:14:00 AM

Record Count: 57

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-314-20
6. Incident No.: EHT-EV-3687-20
7. Report Day: Sat
8. Date: 04 25 20
9. Report Time: 1339
Occurred On/From: →
10. Day: Sat
11. Date: 04 25 20
12. Time: 1339
Occurred To: →
13. Day: Sat
14. Date: 04 25 20
15. Time: 1339
16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 173 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	MCAULIFFE, ELEANOR	06/05/1961	196 JEFFERSTON ST ,STRATFORD, CT 06615	[redacted]
OT2	GRADY, MONICA	12/25/1958	15 HUNTING LN ,WESTPORT, CT 06880	
OT3	DEMATOS, JACQUELINE	05/07/1961	196 JEFFERSON ST ,STRATFORD, CT 06615	
OT4	BRANCATO, DANA, K	08/03/1954	23 FORT POND RD AP12,MONTAUK, NY 11954	

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Resident ☐ Tourist ☐ Student ☐ Commuter ☐ Military ☐ Homeless ☐ Temp. Res.- Foreign Nat. ☐ Other ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99	49	0				wood post with metal deer fencing damaged from plane accident	0

VEHICLE

60. Vehicle Status: 11-TOWED
61. License Plate No.: N33005
Full ☐ Partial ☐
62. State:
63. Exp. Yr.: 1
64. Plate Type:
65. Value:
66. Veh. Yr.: 1975
67. Make: OTHER
68. Model: WARRIOR
69. Style:
70. VIN.:
71. Color(s): WH
72. Towed By:
To:
73. Vehicle Notes: 1975 Piper Warrior PA28 151/161 both wings damaged front wheel cover, engine housing damaged towed back to EHT Airport tarmac

NARRATIVE

74. Police Officer GOMEZ, MICHAEL, A - GOMEZ#241 04/25/2020 15:29 Undersigned officer responded to a report of a plane accident at the East Hampton Town Airport on the runway. Upon arrival, undersigned observed a plane bearing tail # N33005 on the opposite side of the roadway of the East Hampton Town Airport with airport personnel and EHFD Chief on scene. The plane was right side up and all occupants were outside. The pilot, Eleanor McAuliffe was interviewed and stated that she was attempting to take off from the runway and at approximately 400ft in altitude she attempted to make a right hand turn when the engine malfunctioned and lost power. Ms. McAuliffe further stated that due to the low altitude she would be unable to turn the plane around and decided to land back on to the runway. She was unable to stop the aircraft prior to coming in contact with the security fencing around the perimeter of the airport and stopped just across the roadway of Daniels Hole Rd damaging the fence and plane. East Hampton Town Airport personnel Dana Brancato (Senior airport attendant) contacted the FAA and spoke to a FSDO Inspector with the FAA who stated that the plane could be removed and towed back to EHT Airport property while their investigator responded to interview the pilot. Photos were taken by Detective Sokolowski #925 of the scene. The plane was towed by Sound Aircraft Services at 1455 hours under the direction of Evan Catarelli who is the

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
B use cover sheet ↑
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
85. Page 1 of 2 Pages
82. Status: ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-314-20
6. Incident No.: EHT-EV-3687-20
7. Report Day: Sat
8. Date: 04 25 20
9. Report Time: 1339

Occurred On/From: 10. Day: Sat 11. Date: 04 25 20 12. Time: 1339

Occurred To: 13. Day: Sat 14. Date: 04 25 20 15. Time: [redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 173 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim

26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT5	CATARELLI, EVAN	10/26/1985	200 DANIELS HOLE RD ,EAST HAMPTON, NY 11937	

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. operations manager for that company and would be parked on the tarmac nearest to the Sound Aircraft Services hangar at the EHT Airport for inspection.

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:

B use cover sheet ↑

78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 2 Page of 2 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-1135-16
6. Incident No.: EHT-EV-11792-16

7. Report Day: Thu
8. Date: 08 04 16
9. Report Time: 1307
Occurred On/From: →
10. Day: Thu
11. Date: 08 04 16
12. Time: 1015
Occurred To: →
13. Day: Thu
14. Date: 08 04 16
15. Time: 1300

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

[redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 0
24. No. of Suspects: 0

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	TROTTA, FRANK PO	09/02/1973	131 WAINSCOTT NW RD ,WAINSCOTT, NY 11975	[redacted]
PI1	HARRIS, ANDREW	02/17/1949	23 SCHINDLER WAY ,FAIRFIELD, NJ 07004	[redacted]
OT3	MILLER, BRUCE			[redacted]
OT5	CHARLTON, JEMILLE	01/19/1981	35 HIGHLANDS DR ,SOUTHAMPTON, NY 11968	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Resident ☐ Tourist ☐ Commuter ☐ Military ☐ Temp. Res. ☐ Student ☐ Homeless ☐ Foreign Nat. ☐ Other ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status: 11-TOWED
61. License Plate No.: N47TJ
Full ☐ Partial ☐
62. State:
63. Exp. Yr.: 1
64. Plate Type:
65. Value:
66. Veh. Yr.: 1988
67. Make:
68. Model: BONANZA
69. Style:
70. VIN:
71. Color(s): WHITE
72. Towed By:
To:
73. Vehicle Notes: Under carriage damage from wheels not functiona

NARRATIVE

74. Police Officer TROTTA, FRANK, V - TROTTA#195 08/04/2016 14:04 Po Trotta responded for a report of a plane accident on Runway 28 of the East Hampton Town Airport. ANDREW HARRIS was the pilot of his own aircraft. He departed Caldwell NJ arriving in EHT Airport at around 1010 am when attempted to land and realized the landing gear was not down. He stated there were (Three Green's) meaning the gear was down and he eventually landed on the belly of the plane. The plane then came to a stop on Runway 28. The ground crew was on scene at the time of the incident. JEMILLE CHARLTON (airport manager) escorted Mr. Harris to the terminal were he met with FAA Inspector McDougal for questioning. The aircraft was removed from the runway by Grimes Company and towed to a hanger on property for inspection. Mr Harris and his wife Patricia were not injured during the incident. Tail wing # N47TJ 1988 Beechcraft Bonanza.

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature

B use cover sheet ↑

78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. Page 1 of 2 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-1135-16
6. Incident No.: EHT-EV-11792-16
7. Report Day: Thu
8. Date: 08 04 16
9. Report Time: 1307
Occurred On/From: →
10. Day: Thu
11. Date: 08 04 16
12. Time: 1015
Occurred To: →
13. Day: Thu
14. Date: 08 04 16
15. Time: 1300
16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s): [redacted]
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 0
24. No. of Suspects: 0

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT7	HARRIS, PATRICIA		23 SCHINDLER WAY ,FAIRFIELD, CT 07004	[redacted]
OT9	MCDOUGAL, THOMAS		7150 REPUBLIC AIRPORT ,FARMINGDALE, NY 11735	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No. ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By:
To:
73. Vehicle Notes:

NARRATIVE

74.

ADMINISTRATIVE

B use cover sheet ↑

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 2 Page of 2 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-270-15
6. Incident No.: EHT-EV-2628-15

7. Report Day: Wed
8. Date: 03 18 15
9. Report Time: 1722
Occurred On/From: →
10. Day: Wed
11. Date: 03 18 15
12. Time: 1722
Occurred To: →
13. Day: Wed
14. Date: 03 18 15
15. Time: 1722

[redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name: EH AIRPORT TERMINALS
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 0
24. No. of Suspects: 0

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	BULGIN, EDWARD, D	07/23/1952	163 OLD MILLSTONE RD ,SAG HARBOR, NY 11963	
OT2	CHARLSTON, JAMEL			
OT3	GALLIGAN, JOHN			

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74. ROMAN#427 03/21/2015 08:41 On 03/18/2015 U/s and P.O. Montiel #194 responded to the EH airport for the report of a Plane Accident. Upon arrival U/s pulled onto the main runway of the airport and observed that a twin prop plane had skidded off the runway and came to rest on the grass. The plane had significant damage to the props and undercarriage. Contact was made with BULGIN, David who reported that he was the lone occupant and pilot of said aircraft. BULGIN further reported that he had just arrived from Islip airport and upon landing it appeared that his left side landing gear malfunctioned causing him to loose control and skid off runway. BULGIN was uninjured. North Sea FD chiefs where present at scene to shut off the plane's fuel valves. Det Hopson #917 responded to the scene to initiate the investigation. Airport manager was notified and as short time later the FAA was contacted and informed of the incident.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-1661-12
6. Incident No.: EHT-EV-12228-12

7. Report Day: Sun
8. Date: 08 26 12
9. Report Time: 1724
Occurred On/From: ⟶
10. Day: Sun
11. Date: 08 26 12
12. Time: 1724
Occurred To: ⟶
13. Day: Tue
14. Date: 08 28 12
15. Time: 1155

[redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 2
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
VI1	BOCHTER, STEVEN	05/10/1961	3 CAP'N HARRIS DR ,ASSONET, MA 02702	
VI2	BRILLO, KIM	05/24/1978	3 CAP'N HARRIS DR ,ASSONET, MA 02702	
WI1	[redacted]	11/12/1979	6 RIDGE DR ,SAG HARBOR, NY 11963	
WI2				

VICTIM

27. Date of Birth: 5 10 61
28. Age: 0051
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☒ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☒ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☒ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99	23	1				EXHAUST BAFFLING	0

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN:
71. Color(s):
72. Towed By:
To:
73. Vehicle Notes:

NARRATIVE

74. 20143 8/28/2012 12:51:57 At approx 1730 hrs, the EHTPD received several 911 calls reporting that a small plane had crashed in a wooded area just East of the East Hampton Airport. East Hampton Town Police along with local Fire Depts emergency response teams responded to the area. The plane, a single engine Mooney aircraft model M20C bearing tail number 557M had just taken off from runway 10 with the pilot, BOCHTER, Steven dob 05/10/61 and a passenger BRILLO, Kim dob 05/24/78 both of 3 Captain Harris Drive Assonet MA 02702, on board. Shortly after takeoff the plane encountered what appeared to be a mechanical problem, turned left and crashed in a wooded area approx 300' East of the Airport. The plane then ignited and was engulfed in flames. BOCHTER and BRILLO sustained injuries in the crash, several witnesses rushed to the scene and assisted in removing the victims from the plane. Both victim's sustained injuries and were treated by EMS personal and then flown to Stony Brook medical center via SCPD Medivac. Both Victim's were evaluated and found not to have life threatening injuries. A crime scene was established and Detective Hogan was contacted and responded to the scene to coordinate the local and federal investigation. FAA investigators arrived at approx 2000 hrs to begin their investigation. At this time the cause of the accident is still under investigation.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 1 Page of 3 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-1661-12
6. Incident No.: EHT-EV-12228-12

7. Report Day: Sun
8. Date: 08 26 12
9. Report Time: 1724
Occurred On/From: →
10. Day: Sun
11. Date: 08 26 12
12. Time: 1724
Occurred To: →
13. Day: Tue
14. Date: 08 28 12
15. Time: 1155

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 2
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
WI3	[redacted]	12/29/1994	PO BOX 1378 ,WAINSCOTT, NY 11975	[illegible]
WI4	[redacted]	06/08/1979	95 HALSEY ST ,BROOKLYN, NY 11216	[illegible]
OT1	FERRARA, STEVEN		7150 REPUBLIC AVE ,FARMINGDALE, NY 11735	[redacted]
OT2	ALVI, SHAUKAT		7150 REPUBLIC AVE ,FARMINGDALE, NY 11735	[redacted]

VICTIM

27. Date of Birth: 5 10 61
28. Age: 0051
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☒ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☒ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☒ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By:
To:
73. Vehicle Notes

NARRATIVE

74.

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature

B use cover sheet ↑

78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 2 Page of 3 Pages

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EHT-CR-1661-12
6. Incident No.: EHT-EV-12228-12

7. Report Day: Sun
8. Date: 08 26 12
9. Report Time: 1724

Occurred On/From:
10. Day: Sun
11. Date: 08 26 12
12. Time: 1724

Occurred To:
13. Day: Tue
14. Date: 08 28 12
15. Time: 1155

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

[redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): EAST HAMPTON, NY 11937
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: 2
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT3	VALENTINE, BRUCE		1600 STEWART AVE ,WESTBURY, NY 11590	[redacted]
OT4	BRUNDAGE, JAMES	07/01/1944	200 DANIELS HOLE RD ,EAST HAMPTON, NY 11937	[redacted]
OT5	SMITH, COURTNEY		,, NY	[redacted]

VICTIM

27. Date of Birth: 5 10 61
28. Age: 0051
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☒ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☒ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☒ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By:
To:
73. Vehicle Notes:

NARRATIVE

74.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status: ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 3 Page of 3 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

EAST HAMPTON TOWN POLICE

Record Agency: EAST HAMPTON TOWN POLICE

Event Report

Event Info

Basic Info

Case Folder No.:		Event No.:	**EHT-EV-7728-12**
Event Date:	**07/02/2012 04:09 PM**	Event Disposition:	**Closed Via CAD**
Created By:	**,**	Is Juvenile:	
Desk Officer:	**LAMBERT, THOMAS**	Desk Officer Rank:	**SERGEANT**
Desk Officer Serial No.:	**20161**	Desk Officer Shield No.:	**423**
Received Via:	**EHFD**	Event Type:	**ACCIDENT PLANE**
Priority:	**PRIORITY 1**	Received Date:	**07/02/2012 04:09 PM**
Dispatch Date:	**07/02/2012 04:10 PM**	Completed Date:	**07/02/2012 04:30 PM**
Start Time: **04:21 PM**	End Time: **04:30 PM**	Total Time:	**0:09**

Location

Organization Name:			
Address:	**200 DANIELS HOLE RD WAINSCOTT, NY 11975**		
City/Town/Village:	**TOWN**	Nearest Cross Street:	**INDUSTRIAL RD**
Map:		Grid:	
Latitude:	**40.9622**	Longitude:	**-72.247559**
ISF:		Sector:	**5**
Precinct:	**CENTRAL - HEADQUARTERS**	Post:	**995**
Location Code:		County:	
Premise:		Community:	
Coverage Area:		Jurisdiction:	
Common Place Name:	**EAST HAMPTON AIRPORT**	Between: **INDUSTRIAL RD**	And: **WAINSCOTT NW RD**

1. Officer

Name:	**THOMAS LAMBERT**	Last Rank:	**SERGEANT**
Serial No.:	**20161**	Shield No.:	**423**

2. Officer

Name:	**NATHAN P OSBORN**	Last Rank:	**Police Officer**
Serial No.:	**20215**	Shield No.:	**215**

3. Officer

Name:	**JOSEPH P KEARNEY**	Last Rank:	**SERGEANT**
Serial No.:	**20127**	Shield No.:	**425**

4. Officer

Name:	**DAVID M ORLANDO**	Last Rank:	**Police Officer**
Serial No.:	**20203**	Shield No.:	**159**

1. Unit

Unit Name:	**990**	**Primary**	Description:	**Patrol Sergeant**
Unit Type:			Department/Agency:	**EAST HAMPTON TOWN POLICE**

Unit History

Unit Status:	**Dispatch**	Status Date/Time:	**7/2/2012 4:10:34 PM**
Location:		Post:	**990**
Equipment:		Comment:	

Unit Status:	**Freed**	Status Date/Time:	**7/2/2012 4:10:40 PM**
Location:		Post:	**990**
Equipment:		Comment:	

Unit Status:	**Dispatch**	Status Date/Time:	**7/2/2012 4:10:41 PM**
Location:		Post:	**990**
Equipment:		Comment:	

Unit Status:	**ENROUTE**	Status Date/Time:	**7/2/2012 4:10:47 PM**
Location:		Post:	**990**
Equipment:		Comment:	

Unit Status:	**Freed**	Status Date/Time:	**7/2/2012 4:21:30 PM**
Location:		Post:	**990**
Equipment:		Comment:	

2. Unit

Unit Name:	**995**	**Backup**	Description:	**Patrol**
Unit Type:			Department/Agency:	**EAST HAMPTON TOWN POLICE**

Unit History

Unit Status:	**Dispatch**	Status Date/Time:	**7/2/2012 4:10:42 PM**
Location:		Post:	**995**
Equipment:		Comment:	

Unit Status:	**ENROUTE**	Status Date/Time:	**7/2/2012 4:10:50 PM**
Location:		Post:	**995**
Equipment:		Comment:	

Unit Status:	**Arrive**	Status Date/Time:	**7/2/2012 4:12:36 PM**
Location:	**200 DANIELS HOLE RD**	Post:	**995**
Equipment:		Comment:	

Unit Status:	**Cleared**	Status Date/Time:	**7/2/2012 4:30:28 PM**
Location:		Post:	**995**
Equipment:		Comment:	

3. Unit

Unit Name: **980** **Backup**

Description: **DESK SGT**

Unit Type:

Department/Agency: **EAST HAMPTON TOWN POLICE**

Unit History

Unit Status: **Dispatch**

Status Date/Time: **7/2/2012 4:14:34 PM**

Location:

Post: **980**

Equipment:

Comment:

Unit Status: **Arrive**

Status Date/Time: **7/2/2012 4:21:33 PM**

Location: **200 DANIELS HOLE RD**

Post: **980**

Equipment:

Comment:

Unit Status: **Arrive**

Status Date/Time: **7/2/2012 4:21:34 PM**

Location: **200 DANIELS HOLE RD**

Post: **980**

Equipment:

Comment: **SGT KEARNEY CONFIRMS PLANE LANDED SAFELY AT EAST HAMPTON AIRPORT**

Unit Status: **Cleared**

Status Date/Time: **7/2/2012 4:30:30 PM**

Location:

Post: **980**

Equipment:

Comment:

4. Unit

Unit Name: **981** **Backup**

Description: **Patrol**

Unit Type:

Department/Agency: **EAST HAMPTON TOWN POLICE**

Unit History

Unit Status: **Dispatch**

Status Date/Time: **7/2/2012 4:15:34 PM**

Location:

Post: **981**

Equipment:

Comment:

Unit Status: **ENROUTE**

Status Date/Time: **7/2/2012 4:15:43 PM**

Location:

Post: **981**

Equipment:

Comment:

Unit Status: **Freed**

Status Date/Time: **7/2/2012 4:21:52 PM**

Location:

Post: **981**

Equipment:

Comment:

Event Caller

Basic Info

Name: **EHFD,**

Restrict Print:

Gender: **X NOT APPLICABLE**

Date of Birth:

SSN:

Features

Height:

Eye Color:

Address

Address Type: **HOME**

Description:

Address:

1 CEDAR ST
EAST HAMPTON, NY 11937

☑ **Current:**

Phone

Phone Type: **Emergency**

Description: **FIRE**

Phone Number: **(631) 324-6868**

☑ **Current:**

Licenses

1. Person

Basic Info

Name: **FAULKNER, JAMESON S**

Role:

Gender: **M MALE**

Date of Birth: **4/28/1985**

SSN:

Restrict Print:

Features

Height:

Eye Color:

Address

Address Type: **HOME**

Description:

Address:

168 WESTBROOK RD
ESSEX, CT 06426

☑ **Current:**

Phone

Phone Type: **Cell**

Description:

Phone Number: [redacted]

☑ **Current:**

Licenses

2. Person

Basic Info

Name: **SULLIVAN, RILEY S**

Role:

Gender: **M MALE**

Date of Birth: **5/2/1987**

SSN: [redacted]

Restrict Print:

Features

Height: **6 ft.**

Eye Color: **HAZ**

Address

Address Type: **HOME**

Description:

Address: **17 FREDERICKA LN**

EAST HAMPTON, NY 11937-2633

☑ **Current:**

Phone

Phone Type: **Office** Description:

Phone Number: [redacted]

☑ **Current:**

Licenses

Narrative

20146 7/2/2012 16:12:42
VILLAGE DISPATCH REPORTS PLANE IS ON GROUND SAFELY
****

20146 7/2/2012 16:21:59
- Unit 980 Comment: SGT KEARNEY CONFIRMS PLANE LANDED SAFELY AT EAST HAMPTON AIRPORT
****

20215 7/2/2012 16:29:51
MR. FAULKNER STATES WHILE FLYING A LANCAIR COLUMBIA 350 REGISTRATION #N6501U HE HAD A MECHANICAL PROBLEM AND CALLED EAST HAMPTON AIR PORT WITH A POSSIBLE EMERGENCY. MR. FAULKNER WAS ABLE TO CORRECT THE PROBLEM AND LAND THE PLAIN SAFELY ON THE GROUND.

Approved By: ______________________ Date: ______________

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-1330-11
6. Incident No.: EHT-EV-10836-11

7. Report Day: Fri
8. Date: 08 05 11
9. Report Time: 2030

Occurred On/From: →
10. Day: Fri
11. Date: 08 05 11
12. Time: 2030

Occurred To: →
13. Day: Fri
14. Date: 08 05 11
15. Time: 2030

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON AIRPORT
18. Weapon(s): [redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
CO1	HENSHAW, KEVIN	08/31/1972	2348 BEECHOVE ,WANTAUGH, NY 11793	[redacted]
WI1	[redacted]	12/26/1963	15 W 20TH ST ,NEW YORK, NY 10011-3708	[redacted]
PI1	BRUNDIGE, JIM	07/01/1944	EAST HAMPTON AIRPORT MANAGER 200 DANIELS HOLE ROAD,EAST HAMPTON, NY 11937	[redacted]

VICTIM

27. Date of Birth
28. Age
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Te ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74. 20198 9/13/2011 09:24:41 C/O HENSHAW REPORTS THAT WHILE LANDING AIRPLANE #N34NY THREE DEER RAN IN FRONT OF THE AIRPLANE ON THE RUNWAY, HE LOST CONTROL AFTER COLLIDING WITH THE DEER. W/I DALY AND HIS TWO DAUGHTERS WERE ON BOARD AS WELL, NOBODY WAS INJURED. UNDERSIGNED CONTACTED INSPECTOR DIPINTO AT FAA 631-495-8583 WHO ADVISED TO SECURE COCKPIT AND AIRPLANE COULD BE MOVED OFF RUNWAY ALSO STATE FFA REPRESENTATIVES WOULD BE OUT TOMORROW TO INVESTIGATE. BRUNDIGE, AIRPORT MANAGER CONTACTED KEITH GRIMES CO. TO PICK UP AIRPLANE AND MOVE IT OFF RUNWAY. EHFD ON SCENE DUE TO FUEL LEAK AND ASSIST WITH AIRPLANE RECOVERY. C/O HENSHAW ALSO STATES HE HAD BEEN LANDED FOR APPROXIMATELY 30 FT AND TRAVELING AROUND 70 MPH WHEN ACCIDENT OCCURRED. SGT. VARGAS AND LT. HATCH NOTIFIED.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-589-11
6. Incident No.: EHT-EV-4136-11

7. Report Day: Sat
8. Date: 04 | 30 | 11
9. Report Time: 1847
Occurred On/From: →
10. Day: Sat
11. Date: 04 | 30 | 11
12. Time: 1600
Occurred To: →
13. Day: Sat
14. Date: 04 | 30 | 11
15. Time: 1600

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	CICCONE, JAMES		7150 REPUBLIC AIRPORT ,FARMINGDALE, NY 11735-3999	[redacted]
OT2	OBRIEN, MATTHEW	03/24/1985	3 OAKHURST RD ,HAMPTON BAYS, NY 11946-1554	[redacted]
OT3	MCCARTHY, LISA	06/03/1958	82 BRIDGEFIELD RD ,BRIDGEHAMPTON, NY 11935	[redacted]
OT4	ALANO, TINA	06/18/1963	370 E 69TH ST ,NEW YORK, NY 10021-5711	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk. ☐ Temp. Res.- Foreign Nat.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: N428LB
Full ☐ Partial ☐
62. State: NY
63. Exp. Yr.: 1
64. Plate Type:
65. Value: 0
66. Veh. Yr.:
67. Make: OTHER
68. Model: 182
69. Style:
70. VIN.:
71. Color(s):
72. Towed By:
To:
73. Vehicle Notes: CESSNA PLANE, WHITE/BLACK

NARRATIVE

74. UNDERSIGNED OFFICER AND SGT. SCHMITT RESPONDED TO THE EAST HAMPTON AIRPORT IN REFERENCE TO A PLANE CRASH AND SPOKE WITH FAA SAFETY INSPECTOR JAMES CICCONE AND AIRPORT SUPERVISOR MATTHEW O'BRIEN. APPARENTLY A CESSNA 182 SINGLE ENGINE PLANE, TAIL NUMBER N428LB, WAS LANDING ON RUNWAY 1028 WHEN IT HIT A CROSSWIND AND VEERED OFF THE RUNAWAY. THE PLANE HIT A SMALL EMBANKMENT SUSTAINING DAMAGE TO THE PROPELLER, FRONT LANDING GEAR, LEFT WING TIP, AND LEFT HORIZONTAL STABILIZER. THERE WERE NEGATIVE INJURIES TO THE PILOT LISA MCCARTHY OR PASSENGER TINA ALANO AND MR. CICCONE REMAINED ON SCENE TO FURTHER INVESTIGATE.

ADMINISTRATIVE

B use cover sheet ↑

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-2264-09
6. Incident No.: EHT-EV-15192-09

7. Report Day: Sun
8. Date: 12 27 09
9. Report Time: 1507
Occurred On/From: →
10. Day: Sun
11. Date: 12 27 09
12. Time: 1507
Occurred To: →
13. Day: Sun
14. Date: 12 27 09
15. Time: 1507

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

[redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE RD
20. City, State, Zip (☐ C ☒ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims
24. No. of Suspects

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
CO1	COWELL, JOHN	12/31/1944	12 E 86TH ST ,NEW YORK, NY 10028-0506	
PI1	NORBECK, MICHAEL	11/12/1979	8 BARRACUDA RD ,E QUOGUE, NY 11942	
NI1	BRUNDGE, JIM		200 DANIELS HOLE RD ,EAST HAMPTON, NY 11937-8446	

VICTIM

27. Date of Birth
28. Age
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74. (CO) MR. COWELL WHILE ON APPROACH TO LANDING ON RUNWAY 10/28 AT EAST HAMPTON AIRPORT FORGOT TO PUT DOWN HIS LANDING GEAR CAUSING HIS AIRCRAFT TO SKID SEVERAL HUNDRED YARDS DOWN THE RUNWAY. THERE WERE NO INJURIES IN THE ACCIDENT AND THE PILOT WAS THE ONLY ONE ON BOARD THE AIRCRAFT. THE AIRCRAFT SUSTAINED DAMAGE TO THE BELLY AND THE PROP. THERE WAS MINIMAL DAMAGE TO RUNWAY. AIRPORT MANAGER JIM BRUNDGE AND THE FAA HAS BEEN NOTIFIED, RUNWAY 10/28 HAS BEEN SHUT DOWN UNTIL AIRCRAFT IS REMOVED. MR. BRUNDGE AUTHORIZED RUNWAY 16/34 TO REMAIN OPEN. AIRPORT MECHANIC ARRIVED ON SCENE AT 1548, STATED AIRCRAFT WILL NOT BE ABLE TO BE MOVED UNTIL 0830 12/28/09. EMERGENCY CLOSED RUNWAY LIGHTS WERE PUT UP AT 1720 FOR RUNWAY 10/28, LIGHTS WILL REMAIN UP UNTIL AIRCRAFT IS REMOVED IN THE MORNING.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-927-08
6. Incident No.: EHT-EV-4958-08

7. Report Day: Thu
8. Date: 05 22 08
9. Report Time: 1720

Occurred On/From: →
10. Day: Thu
11. Date: 05 22 08
12. Time: 1720

Occurred To: →
13. Day: Thu
14. Date: 05 22 08
15. Time: 1720

16. Incident Type: INVESTIGATION
17. Business Name:
18. Weapon(s): [redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 90 INDUSTRIAL RD
20. City, State, Zip (☐ C ☒ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims: [redacted]
24. No. of Suspect [redacted]

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ [redacted]

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
CO1	EAST HAMPTON FIRE, DEPARTMENT		1 CEDAR STREET ,EAST HAMPTON, NY 11937	[redacted]
PI1	MEHLING, JIM	06/25/1949	9800 ASHTON RD HORMONT AVIATION,PHILADELPHIA, PA 19114-1018	[redacted]
PI2	BARNES, ERIC	09/02/1970	9800 ASHTON RD ,PHILADELPHIA, PA 19114-1018	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. RESPONDED TO ABOVE LOCATION IN REFERENCE TO A REPORTED INVOLVING A PLANE/JET. UNDERSIGNED SPOKE WITH THE PILOT/ CO-PILOT JIM MEHLING/ ERIC BARNES OF HORTMONT AVIATION (215)969-0311 & MR. MEHLING REPORTS TRAVELING AT A SLOW PACE ON THE TARMAC/RUNWAY & THE PAVEMENT GAVE AWAY. THE PLANE/JET SUFFERED MINOR DAMAGE TO ITS FUEL TANK. IT APPEARS THAT THE TURN MADE THE PILOT MAY HAVE BEEN TAKING TO SHARP & WHERE THE GROUND/PAVEMENT MEET WAS NOT STRONG ENOUGH TO WITHSTAND THE WEIGHT OF THE PLANE/JET. EAST HAMPTON FIRE DEPT. WAS ABLE TO RAISE THE PLANE/JET OUT OF THE HOLE. NO INJURIES REPORTED AT THIS TIME. THE PILOT & CO-PILOT WERE THE ONLY PERSONS ON THE PLANE/JET. THE AIRPORT ITSELF REMAINED OPEN, THE INCIDENT TOOK PLACE ON A SIDE RUNWAY. JET WAS A CITATION 5 TAIL NUMBER 6287CK,

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EHT-CR-976-07
6. Incident No.: EHT-EV-5025-07

7. Report Day: Wed
8. Date: 05 30 07
9. Report Time: 1404
Occurred On/From: →
10. Day: Wed
11. Date: 05 30 07
12. Time: 1404
Occurred To: →
13. Day: Wed
14. Date: 05 30 07
15. Time: [redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name:
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE RD AIRPORT
20. City, State, Zip (☐ C ☐ T ☐ V): WAINSCOTT, NY 11975
21. Location Code: 5252

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
PI1	SALLEE, STEPHEN	05/22/1949	8 CLOVERLEAF FARM N ,SHERMAN, CT 06784-1126	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. ABOVE (PI) STEPHEN SALLEE, PILOT OF A 1982 CESSNA AIRPLANE MODEL #172RG BEARING REGISTRATION #N9758B SERIAL #172RG1015, STATED HE HAD LEFT MATTITUCK AIRPORT FROM SKY ACRES TO PICK UP FRIENDS OF HIS AND WAS GAINING ALTITUDE EN-ROUTE TO BLOCK ISLAND. MR. SALLEE NOTICED HIS FUEL CAPACITY WAS AROUND 1/4 TANK AT MID FLIGHT AND DECIDED TO DIVERT TO EAST HAMPTON AIRPORT. JUST BEFORE LANDING MR. SALLEE NOTICED THE FUEL LEVEL HAD DROPPED TO ZERO AND WAS ON THE RED LINE. MR. SALLEE STATED HE HAD LANDED THE PLANE WITHOUT INCIDENT BUT APPROXIMATELY TWO SECONDS LATER THE LANDING GEAR GAVE WAY AND THE PLANE BEGAN SKIDDING DOWN THE RUNWAY. THE PLANE CAME TO REST IN THE MIDDLE OF THE RUNWAY WITHOUT THE PROP MAKING CONTACT W/PAVEMENT. NEGATIVE INJURIES TO REPORT, FAA NOTIFIED AND RESPONDED TO CONDUCT INVESTIGATION. POLICE NOTIFIED APPROX. THREE HOURS AFTER INCIDENT OCCURRED. GRIMES ESCAVATION CONTACTED AND RESPONDED TO REMOVE PLANE FROM RUNWAY WITH CRANE. PASSENGERS MAUREEN SALLEE, ANNE SMALL, AND MICHAEL CANNISTRACI SUSTAINED NO KNOWN INJURIES AT TIME OF POLICE INTERVIEW. FAA INVESTIGATORS LOUIS MISRANO, MARK BURNETT, MARK ROGERS AND TED BURZYNSKI CONDUCTED INVESTIGATION AS WELL AS DOCUMENTED ACCIDENT SITE WITH PHOTOGRAPHS.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-02098-04
6. Incident No.: EH-012084-04

7. Report Day: Fri
8. Date: 10 29 04
9. Report Time: 1528

Occurred On/From: →
10. Day: Fri
11. Date: 10 29 04
12. Time: 1528

Occurred To: →
13. Day: Fri
14. Date: 10 29 04
15. Time: 1528

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON AIRPORT
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): WAINSCOTT, NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	DUNN, JENNIFER, C	11/27/1978	29 THANET WAY ,EAST HAMPTON, NY	[redacted]
OT2	MELLEY, THOMAS, J	03/11/1944	15 COWHILL LANE ,WAINSCOTT, NY 11975	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No. ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. PR, WHO WORKS AT I/L CONTACTED POLICE REFERENCE TO A PLANE LANDING WITHOUT ITS LANDING GEAR DOWN. PI, WHO OWNS AND OPERATED THE PLANE (MOONEY M-20P) WAS NOT INJURED AND STATED THERE MAY HAVE BEEN A MALFUNCTION WITH THE LANDING GEAR. PI ADVISED THE FAA OF SAME. EHFD RESPONDED TO STAND BY UNTIL THE PLANE WAS MOVED OFF THE RUNWAY. NO FURTHER INCIDENT. SGT. GRENCI RESPONDED TO I/L AND ADVISED CAPT. QUICK OF THE INCIDENT. *PLANE REG #N10194.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

Page 1 of 1 Pages

Local Codes
EH-013453-02

EH-00977-02

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

☐ AMENDED REPORT DMV COPY

19: 3

Accident Date Month	Day	Year	Day of Week	Military Time	No. Of Vehicles	No. Injured	No. Killed	Not Investigated at Scene / Accident Reconstructed	Left Scene	Police Photos
12	11	2002	Wednesday	09:18	2	0	0	☐ / ☐	☐	☐Yes ☒No

1: - 20: -

	1	2
VEHICLE Driver License ID Number	873498024	749599932
State of Lic.	NY	NY
Driver Name -exactly as printed on license	HOLCOMB, JAMES	RAGONE, ANGELO, C
Address (Include Number & Street)	10 KEVIN DRIVE	PO BOX 2440
Apt. No.		
City or Town	ORANGEBURG	EAST HAMPTON
State	NY	NY
Zip Code	10962	11937
Date of Birth Month Day Year		
Sex		
Unlicensed	☐	☐
No. of Occupants	0	1
Public Property Damaged	☐	☐
Name-exactly as printed on registration	PENSKE TRUCK, LEASING	RAGONE, ANGELO, C
Sex		
Date of Birth Month Day Year		
Address (Include Number & Street)	2364 SOUTH CLINTON AVE	PO BOX 2440
Apt. No.		
Haz. Mat Code		
Released	☐	☐
City or Town	SOUTH PLAIN FIELD	EAST HAMPTON
State	NJ	NY
Zip Code	07080	11937
Plate Number		
State of Reg.		
Vehicle Year & Make		
Vehicle Type		
Ins. Code	341	022
Ticket/Arrest Number(s)		
Violation Section(s)		

2: - 3: 7 4: 1 5: 1 6: 1 7: 2
21: - 22: - 23: 5 24: 5 25: 15 26: 1 27: 1

VEHICLE 1
Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

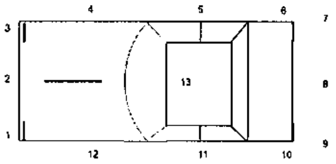
VEHICLE 1 DAMAGE CODES
Box 1 - Point of Impact: 08
Box 2 - Most Damage: 00
Enter up to three more Damage Codes: 3: 00 4: 00 5: 00
Vehicle Towed: By
To

VEHICLE 2
Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

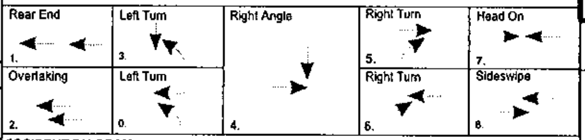
VEHICLE 2 DAMAGE CODES
Box 1 - Point of Impact: 01
Box 2 - Most Damage: 00
Enter up to three more Damage Codes: 3: 01 4: 12 5: 00
Vehicle Towed: By
To

VEHICLE DAMAGE CODING:

1-13. SEE DIAGRAM ON RIGHT
14. UNDERCARRIAGE 17. DEMOLISHED
15. TRAILER 18. NO DAMAGE
16. OVERTURNED 19. OTHER



Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



ACCIDENT DIAGRAM

9.

Cost of repairs to any vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☐Yes ☒No

28: 1

Reference Marker

Coordinates (if available)
Latitude/Northing:
Longitude/Easting:

Place Where Accident Occurred:
County SUFFOLK ☐ City ☐ Village ☒ Town of EAST HAMPTON
Road on which accident occurred STEPHEN HANDS PATH (Route Number or Street Name)
At 1) intersecting street BUCKSKILL ROAD (Route Number or Street Name)
Or 2) ___ Feet Miles ☐N ☐S ☐E ☐W of BUCKSKILL ROAD (Milepost, Nearest intersecting Route Number or Street Name)

29: -

Accident Description/Officer's Notes
OPERATOR ONE STOPPED IN THE TRAFFIC LANE AND STARTED TO BACK UP (DUE TO LOW CLEARANCE) AND STRUCK VEHICLE TWO. OPERATOR TWO ALSO STOPPED AND TRIED TO BACK UP TO AVOID GETTING HIT, BUT WAS UNABLE TO.

30: -

USE COVER SHEET
N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO	18	Names of all Involved	Date of Death Only
A	1	1	4	1	52	M	-	-	-	-		-	HOLCOMB, JAMES	
B	2	1	4	1	69	M	-	-	-	-		-	RAGONE, ANGELO, C	
C														
D														
E														
F														

Officer's Rank and Signature / Print Name in Full	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
JAHODA, G		05152	*5			

EAST HAMPTON TOWN POLICE

Record Agency: EAST HAMPTON TOWN POLICE

Event Report

Event Info

Basic Info

Case Folder No.:		Event No.:	**EH-003625-01**
Event Date:	**05/18/2001 03:32 PM**	Event Disposition:	**Dispatched**
Created By:	**,**	Is Juvenile:	
Desk Officer:		Desk Officer Rank:	
Desk Officer Serial No.:	**20037**	Desk Officer Shield No.:	
Received Via:	*****	Event Type:	**ACCIDENT PLANE**
Priority:		Received Date:	**05/18/2001 03:32 PM**
Dispatch Date:	**05/18/2001 03:32 PM**	Completed Date:	**05/18/2001 04:01 PM**
Start Time: **03:39 PM**	End Time: **04:01 PM**	Total Time:	**0:22**

Location

Organization Name:			
Address:	**DANIELS HOLE ROAD EAST HAMPTON, NY**		
City/Town/Village:		Nearest Cross Street:	
Map:		Grid:	
Latitude:		Longitude:	
ISF:		Sector:	
Precinct:		Post:	***4**
Location Code:		County:	
Premise:		Community:	
Coverage Area:		Jurisdiction:	
Common Place Name:		Between:	And:

1. Officer

Name:		Last Rank:	
Serial No.:	**20127**	Shield No.:	

2. Officer

Name:		Last Rank:	
Serial No.:	**20124**	Shield No.:	

Unit

Unit Name:	**173**	**Primary**	Description:	**173**
Unit Type:			Department/Agency:	**EAST HAMPTON TOWN POLICE**

Unit History

Event Caller

Basic Info

Name:	**EHFD,**	Restrict Print:	
Gender:		Date of Birth:	
SSN:			

Features

Height:		Eye Color:	

Address

Address Type:		Description:	
Address:	**1 CEDAR STREET** **EAST HAMPTON,**		

☑ **Current:**

Phone

Phone Type:	**HOME**	Description:	
Phone Number:	**(631) 324-6868**		

☑ **Current:**

Licenses

Narrative

REPORT OF A PLANE LANDING WITH ONE ENGINE SHUT DOWN AT THE EH AIRPORT. THE PLANE LANDED SAFELY WITHOUT INCIDENT. THE PLANE IS A 1974 BEACH BARON 58. THE PILOT, CURTIS DOUPE, 08/25/66, OF #2 BOW OARSMAN ROAD, EAST HAMPTON STATED HE SHUT DOWN THE RIGHT ENGINE AS A PRECAUTION TAIL NUMBER IS N625M.

EAST HAMPTON TOWN POLICE

Record Agency: EAST HAMPTON TOWN POLICE

Event Report

Event Info

Basic Info

Case Folder No.:
Event No.: **EH-007629-00**
Event Date: **08/15/2000 04:41 PM**
Event Disposition: **Dispatched**
Created By: **,**
Is Juvenile:
Desk Officer:
Desk Officer Rank:
Desk Officer Serial No.: **20016**
Desk Officer Shield No.:
Received Via: ***POLICE OFFICER**
Event Type: **ACCIDENT PLANE**
Priority:
Received Date: **08/15/2000 04:41 PM**
Dispatch Date: **08/15/2000 04:41 PM**
Completed Date: **08/15/2000 05:14 PM**
Start Time: **04:43 PM** End Time: **05:14 PM**
Total Time: **0:31**

Location

Organization Name:
Address: **EAST HAMPTON AIRPORT EAST HAMPTON, NY**
City/Town/Village:
Nearest Cross Street:
Map:
Grid:
Latitude:
Longitude:
ISF:
Sector:
Precinct:
Post: ***5**
Location Code:
County:
Premise:
Community:
Coverage Area:
Jurisdiction:
Common Place Name:
Between: And:

Officer

Name:
Last Rank:
Serial No.: **20064**
Shield No.:

Unit

Unit Name: **166** **Primary**
Description: **166**
Unit Type:
Department/Agency: **EAST HAMPTON TOWN POLICE**

Unit History

Event Caller

Basic Info

Name: **EHFD, PSD LABROZZI**
Restrict Print:
Gender:
Date of Birth:
SSN:

Features

Height:
Eye Color:

Address

Address Type:
Description:

Address:

EAST HAMPTON,

☑ **Current:**

Phone

Phone Type:
Description:

Phone Number:

☑ **Current:**

Licenses

1. Person

Basic Info

Name: **PETER, LARKIN**
Role:

Gender:
Date of Birth: **1/19/1966**

SSN:
Restrict Print:

Features

Height:
Eye Color:

Address

Address Type:
Description:

Address:

☐ **Current:**

Phone

Phone Type: **HOME**
Description:

Phone Number: [redacted]

☑ **Current:**

Licenses

2. Person

Basic Info

Name: **MICHAEL, MANN**
Role:

Gender:
Date of Birth: **9/11/1964**

SSN:
Restrict Print:

Features

Height:
Eye Color:

Address

Address Type: Description:

Address:

☐ **Current:**

Phone

Phone Type: **HOME** Description:

Phone Number: [redacted]

☑ **Current:**

Licenses

Narrative

P.O. MARKOWSKI REPORTS RESPONDING TO EAST HAMPTON AIRPORT WITH E.H.F.D. DUE TO AN AIRPLANE UNABLE TO LOCK LANDING GEAR- PILOT MICHAEL MANN 9-11-64 113 CHIPPY COLE RD MILFORD PA 18357 PH# 570-296-8330 WAS UNABLE TO GET GEAR LOCKED AND LAND SUCCESSFULLY. CO PILOT PETER LARKIN 1-19-66 109 CHIPPY COLE RD MILFORD, PA[redacted]

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-01019-00
6. Incident No.: EH-005039-00
7. Report Day: Wed
8. Date: 06 21 00
9. Report Time: 1059
Occurred On/From: →
10. Day: Wed
11. Date: 06 21 00
12. Time: 1059
Occurred To: →
13. Day: Wed
14. Date: 06 21 00
15. Time: 1059
16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON AIRPORT
18. Weapon(s): [redacted]
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): WAINSCOTT, NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	RYAN, PATRICK, A	08/04/1948	123 MIDDLE HWY ,EAST HAMPTON, NY 11937	[redacted]
OT2	EICHMANN, ERIC, E	09/20/1969	2305 WATERS EDGE BLVD. ,COLUMBUS, OH 43209-	[redacted]
OT3	MILLER, ROCKLAM, C	05/06/1955	503 WASHINGTON AVENUE ,HAMPTON, ND 5824	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No. ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. CO REPORTS WHILE EXECUTIVE JET AVIATIONS PLANE, A CITATION TWIN ENGINE JET MODEL 560 TAIL #N367Q5 WAS LANDING ON RUNWAY 28, APPARENTLY THE NOSE GEAR COLLAPSED CAUSING DAMAGE TO PLANE. WEATHER WAS NO FACTOR. FAA WAS NOTIFIED BY CO.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-01423-99
6. Incident No.: EH-006588-99

7. Report Day: Thu
8. Date: 07 | 29 | 99
9. Report Time: 1600
Occurred On/From: →
10. Day: Thu
11. Date: 07 | 29 | 99
12. Time: 1505
Occurred To: →
13. Day: Thu
14. Date: 07 | 29 | 99
15. Time: [redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON AIRPORT
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): 200 DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): WAINSCOTT, NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	RYAN, PATRICK, A	08/04/1948	200 DANIELS HOLE ROAD ,EAST HAMPTON, NY 11937	[redacted]
OT2	SUDIMICK, GERALD	03/25/1975	268 ROOSEVELT DRIVE ,SEYMOUR, CT 06483	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0		208			0
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74. CO, WHO IS THE MANAGER OF THE EAST HAMPTON AIRPORT REPORTS A MINOR INCIDENT OF AIRPLANE LANDING WITHOUT THE LANDING GEAR DOWN. PI WAS THE PILOT AND ONLY PERSON ABOARD THE CESSNA CARAVAN MODEL 208, REGISTRATION #N208L8. PI REPORTS THAT HE "DID EVERYTHING HE WAS SUPPOSED TO" AND DID NOT KNOW THERE WAS A PROBLEM UNTIL HE LANDED. THE PLANE REMAINED UPRIGHT AND SUSTAINED ONLY MINOR DAMAGE.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1\. Agency: EAST HAMPTON TOWN POLICE
2\. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3\. ORI: NY 0515200
4\. ☒ Orig ☐ Supp
5\. Case No.: EH-00504-99
6\. Incident No.: EH-002169-99

7\. Report Day: Fri
8\. Date: 04 02 99
9\. Report Time: 2318
Occurred On/From: →
10\. Day: Fri
11\. Date: 04 02 99
12\. Time: 2318
Occurred To: →
13\. Day: Fri
14\. Date: 04 02 99
15\. Time: 2318

16\. Incident Type: ACCIDENT PLANE
17\. Business Name: EAST HAMPTON AIRPORT
18\. Weapon(s):

19\. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE ROAD
20\. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY
21\. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23\. No. of Victims:
24\. No. of Suspects:

ASSOCIATED PERSONS

25\. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26\. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	BRANDT, PHILIP, D	04/28/1965	1668 32ND STREET ,NW WASHINGTON, DC 0	[redacted]
OT2	RAUCH, JULIUIS, B	08/20/1962	1668 32ND STREET ,NW WASHINGTON, DC 0	

VICTIM

27\. Date of Birth:
28\. Age:
29\. Sex ☐ M ☐ F ☐ U
30\. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31\. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32\. Handicap ☐ Yes ☐ No
33\. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34\. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35\. Type/No.:
36\. Name (Last, First, Middle):
37\. Alias/Nickname/Maiden Name (Last, First, Middle):
38\. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39\. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40\. Phone No. ☐ Home ☐ Work
41\. Social Security No.:
42\. Date of Birth:
43\. Age:
44\. Sex ☐ M ☐ F ☐ U
45\. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46\. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47\. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48\. Occupation:
49\. Height:
50\. Weight:
51\. Hair:
52\. Eyes:
53\. Glasses ☐ Yes ☐ Contacts ☐ No
54\. Build ☐ Small ☐ Large ☐ Medium
55\. Employer/School:
56\. Address:
57\. Scars/Marks/Tattoos (Describe):
58\. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	00		0				DOES NOT APPL	0

VEHICLE

60\. Vehicle Status:
61\. License Plate No.: Full ☐ Partial ☐
62\. State:
63\. Exp. Yr.:
64\. Plate Type:
65\. Value:
66\. Veh. Yr.:
67\. Make:
68\. Model:
69\. Style:
70\. VIN.:
71\. Color(s):
72\. Towed By:
To:
73\. Vehicle Notes:

NARRATIVE

74\. PI STATED THAT AS HE CAME IN FOR A LANDING AND LANDED "HARD" ON THE FRONT LANDING GEAR. THE FRONT GEAR SNAPPED OFF THE PLANE UPON LANDING, CAUSING THE NOSE PART OF THE PLANE TO DRAG ON THE ROADWAY. THE PROPELLER WAS ALSO BENT. FAA WAS NOTIFIED, BUT DECLINED TO RESPOND. EHFD CHIEFS TONY GANGA AND LESTER BAYLINSON RESPONDED TO INVESTIGATE. NO FUEL SPILLED FROM THE PLANE. BOTH THE PI AND THE OT, WHO WAS IN THE FRONT PASSENGER SEAT WERE UNINJURED. J.B. CLAFLIN-AIRPORT MANAGER ALSO RESPONDED TO THE SCENE. STEVE TUMA OF SOUND AIRCRAFT REMOVED THE PLANE. PLANE WAS A 1980 BEECHCRAFT, TAIL NUMBER- N67056 REGISTERED TO JBR, LLC CORP. CHIEF SCOTT AND SUPERVISOR LESTER WERE NOTIFIED. ASSISTED AT THE SCENE BY PO SARLO.

B use cover sheet ↑

ADMINISTRATIVE

75\. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76\. NYSPIN Message No.:
77\. Complainant Signature:
78\. Reporting Officer Signature (Include Rank):
79\. ID No.:
80\. Supervisor's Signature (Include Rank):
81\. ID No.:
82\. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83\. Status Date:
84\. Notified/TOT:
85\. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-02272-98
6. Incident No.: EH-010273-98

7. Report Day: Sun
8. Date: 11 29 98
9. Report Time: 1430
Occurred On/From: →
10. Day: Sun
11. Date: 11 29 98
12. Time: 1231
Occurred To: →
13. Day: Sun
14. Date: 11 29 98
15. Time: 1430

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON TOWN AIRPORT
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT1	SCHEINBERG, DAVID	08/29/1961	5 HORIZON ROAD APT 1102 ,FORT LEE, NJ 07024	[redacted]
OT2	MEDORA, LISA	02/01/1965	4 HORIZON ROAD APT 1102 ,FORT LEE, NJ 07024	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No. ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By:
To:
73. Vehicle Notes:

NARRATIVE

74. MR. SCHEINBERG OPERATING/FLYING A 1974 BEECHCRAFT AIRPLANE, ID NUMBER-N861DS ATTEMPTED TO LAND PLANE WENT OFF RUNWAY AND LANDED IN THE FIELD. NEGATIVE INJURIES. HIS WIFE LISA MEDORA WAS A PASSENGER IN THE AIRPLANE. (PILOTS CERTIFICATION NO. 146523852) EH FIRE DEPARTMENT ON SCENE. FOAMED DOWN THE AREA. AIRPORT EMPLOYEES REMOVED THE FUEL FROM PLANE TO MAKE AREA SAFE. DEC NOTIFIED AS REQUESTED BY AIRPORT MANAGER- PAT RYAN. FAA NOTIFIED.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-01672-98
6. Incident No.: EH-007596-98

7. Report Day: Mon
8. Date: 08 31 98
9. Report Time: 1005

Occurred On/From: →
10. Day: Sun
11. Date: 08 30 98
12. Time: 1420

Occurred To: →
13. Day: Sun
14. Date: 08 30 98
15. Time: 1420

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON AIRPORT
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): EHAP DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY
21. Location Code: [redacted]

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims: [redacted]
24. No. of Suspects: [redacted]

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	BARON, RICHARD, W	04/04/1923	303 E 57 ST. ,NYC, NY 10022	[redacted]
OT2	RYAN, PATRICK, A	08/04/1948	123 MIDDLE HWY ,EAST HAMPTON, NY 11937	[redacted]
OT3	HUGHES, RONALD		FAA FARMINGDALE ,, NY	

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. Ryan states a Cessna 182RG Skylane, reg# N2656C, being flown by Baron landed on main runway without having landing gear down. Airport employees attempted to notify pilot of problem before plane landed. Baron and his grandaughter got out of airplane and escaped without injury. E.H. Fire Dept. on scene for gas leak and possible fire. F.A.A. notified and Hughes responded. Baron left scvene after accident and did not talk to authorities. Lt. Claflin, Det. Doane, PO's Moss and Hatch assisted at scene. Investigation T.O.T. Detecetive Division.

ADMINISTRATIVE

B use cover sheet ↑

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1\. Agency: EAST HAMPTON TOWN POLICE
2\. Division/Precinct: EHTPD
3\. ORI: NY 0515200
4\. ☒ Orig ☐ Supp
5\. Case No.: EH-02222-98
6\. Incident No.: EH-010193-98

7\. Report Day: Fri
8\. Date: 11 | 27 | 98
9\. Report Time: 0942
Occurred On/From: →
10\. Day: Thu
11\. Date: 11 | 26 | 98
12\. Time: 1136
Occurred To: →
13\. Day: Thu
14\. Date: 11 | 26 | 98
15\. Time: 1500

[redacted]

16\. Incident Type: ACCIDENT PLANE
17\. Business Name: EAST HAMPTON AIRPORT
18\. Weapon(s):
19\. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE ROAD
20\. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY
21\. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23\. No. of Victims:
24\. No. of Suspects:

ASSOCIATED PERSONS

25\. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26\. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT1	WURTZBURGER, RIVA	06/25/1937	19 EAST 72ND STREET ,NEW YORK, NY 10021	[redacted]

VICTIM

27\. Date of Birth:
28\. Age:
29\. Sex ☐ M ☐ F ☐ U
30\. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31\. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32\. Handicap ☐ Yes ☐ No
33\. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34\. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35\. Type/No.
36\. Name (Last, First, Middle)
37\. Alias/Nickname/Maiden Name (Last, First, Middle)
38\. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39\. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40\. Phone No. ☐ Home ☐ Work
41\. Social Security No.
42\. Date of Birth
43\. Age
44\. Sex ☐ M ☐ F ☐ U
45\. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46\. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47\. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48\. Occupation
49\. Height
50\. Weight
51\. Hair
52\. Eyes
53\. Glasses ☐ Yes ☐ Contacts ☐ No
54\. Build ☐ Small ☐ Large ☐ Medium
55\. Employer/School
56\. Address
57\. Scars/Marks/Tattoos (Describe)
58\. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0					0
	99		0	BEECHCRAFT	A36	E-2964	TOT OWNER & FAA	0
	00		0				-DOES NOT APP	0

VEHICLE

60\. Vehicle Status
61\. License Plate No. Full ☐ Partial ☐
62\. State
63\. Exp. Yr.
64\. Plate Type
65\. Value
66\. Veh. Yr.
67\. Make
68\. Model
69\. Style
70\. VIN.
71\. Color(s)
72\. Towed By: ______ To:
73\. Vehicle Notes

NARRATIVE

74\. Responded to East Hampton Airport and contacted pilot, above, who stated while landing his Beechcraft N472JW on runway 22, his landing gear collapsed upon touchdown. No reported injuries. East Hampton Fire Department responded for washdown. Lt Claflin and Sgt Brown at scene. Plane skidded off runway and damaged Airport runway sign. At 1422 hours FAA Inspector Anthony Mauro, [redacted] arrived at scene. Bistrian Crane responded to remove plane from runway.

ADMINISTRATIVE

B use cover sheet ↑

75\. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76\. NYSPIN Message No.
77\. Complainant Signature
78\. Reporting Officer Signature (Include Rank)
79\. ID No.
80\. Supervisor's Signature (Include Rank)
81\. ID No.
82\. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83\. Status Date
84\. Notified/TOT
85\. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency	2. Division/Precinct	3. ORI	4.	5. Case No.	6. Incident No.
EAST HAMPTON TOWN POLICE	EHTPD	NY 0515200	☒ Orig ☐ Supp	EH-02002-97	EH-008533-97

7. Report Day	8. Date	9. Report Time	Occurred On/From:	10. Day	11. Date	12. Time	Occurred To:	13. Day	14. Date	15. Time
Sat	10 11 97	1319	⟶	Sat	10 11 97	1319	⟶	Sat	10 11 97	1319

16. Incident Type: ACCIDENT PLANE

17. Business Name: EAST HAMPTON AIRPORT

18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE ROAD

20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY

21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims

24. No. of Suspects

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim

26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT1	FINN, RICHARD, F	07/14/1954	61 JOHNSON LANE ,BAYSHORE, NY 11706	[redacted]
OT2	CLAFLIN, JOHN, B	02/08/1975	18 CHURCH LANE ,EAST HAMPTON, NY	[redacted]
OT3	MELCER, RAY		F.A.A. ,,	[redacted]
OT4	KONATICH, NICHOLAS, J	08/20/1974	18 PLYMOUTH ROAD ,PT WASHINGTON, NY 11050	[redacted]

VICTIM

27. Date of Birth

28. Age

29. Sex ☐ M ☐ F ☐ U

30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.

31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic

32. Handicap ☐ Yes ☐ No

33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.

34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.

36. Name (Last, First, Middle)

37. Alias/Nickname/Maiden Name (Last, First, Middle)

38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm

39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))

40. Phone No. ☐ Home ☐ Work

41. Social Security No.

42. Date of Birth

43. Age

44. Sex ☐ M ☐ F ☐ U

45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.

46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic

47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other

48. Occupation

49. Height

50. Weight

51. Hair

52. Eyes

53. Glasses ☐ Yes ☐ Contacts ☐ No

54. Build ☐ Small ☐ Large ☐ Medium

55. Employer/School

56. Address

57. Scars/Marks/Tattoos (Describe)

58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0	BEECHCRAFT	C-23			0
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status

61. License Plate No. Full ☐ Partial ☐

62. State

63. Exp. Yr.

64. Plate Type

65. Value

66. Veh. Yr.

67. Make

68. Model

69. Style

70. VIN.

71. Color(s)

72. Towed By: ____ To:

73. Vehicle Notes

NARRATIVE

74. PO VIRGA REPORTS RESPONDING TO EAST HAMPTON AIRPORT REF TO A PLANE THAT HAD CRASH LANDED. BOTH PILOT INSTRUCTOR AND PILOT STUDENT WERE UNINJURED. EH FD WAS ON THE SCENE AND HAD THE PLANE SAFELY BOOSTED UP AND SPRAYED FOAM UNDERNEATH THE AIR CRAFT FOR FIRE PREVENTION. PILOT INSTRUCTOR NICHOLAS J KONATICH STATED THAT IT WAS A LONG LANDING AND HE ATTEMPTED TO ABORT IT, THE PLANE THEN STALLED AND SKIDDED OFF THE RUNWAY TO FINAL REST. THE PLANE HAD A BENT PROP, TWO WHEELS BROKE OFF, THE UNDERCARRIAGE WAS DAMAGED. WITNESS/COMPLAINANT JOHN B CLAFLIN STATED HE CALLED THE INCIDENT INTO THE F.A.A. AND ALSO NOTIFIED THE AIRPORT MANAGER. SGT. FAULHABER SPOKE WITH F.A.A. PERSONNEL RAY MELCER. RAY MELCER STATED TO SGT. FAULHABER, SINCE THERE WAS NO FURTHER NEED FOR POLICE ASSISTANCE, PAT RYAN AIRPORT MANAGER TOOK OVER THE SCENE. DET. DOANE WAS ON THE SCENE AND TOOK STATEMENTS FROM THE INSTRUCTOR AND STUDENT PILOT.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other

76. NYSPIN Message No.

77. Complainant Signature

78. Reporting Officer Signature (Include Rank)

79. ID No.

80. Supervisor's Signature (Include Rank)

81. ID No.

82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.

83. Status Date

84. Notified/TOT

85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-00973-97
6. Incident No.: EH-003906-97

7. Report Day: Sun
8. Date: 06 15 97
9. Report Time: 1213
Occurred On/From: →
10. Day: Sun
11. Date: 06 15 97
12. Time: 1200
Occurred To: →
13. Day: Sun
14. Date: 06 15 97
15. Time: 1213

[redacted]

16. Incident Type: ACCIDENT PLANE
17. Business Name: EAST HAMPTON TOWN AIRPORT
18. Weapon(s):
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE ROAD
20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON, NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT1	LIPTON, JAMES, L	09/19/1926	159 E. 80TH STREET ,NEW YORK, NY 10021	[redacted]
OT2	MONTERROSA, RICHARD, R	02/09/1969	4240 GREEN TREE DRIVE ,SACRAMENTO, CA 95823-1941	
OT3	WIGGINS, BRUCE, M	10/23/1948	1295 SAGG ROAD ,SAG HARBOR, NY 11963	

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0	JEEP	CHEROKEE	1J4FJ68S3SL614231		0
	00		0				DOES NOT APPL	0

VEHICLE

60. Vehicle Status:
61. License Plate No.: H246CR ☐ Full ☐ Partial
62. State: NY
63. Exp. Yr.: 1
64. Plate Type:
65. Value: 0
66. Veh. Yr.: 1995
67. Make: JEEP
68. Model: CHEROKEE
69. Style: 4D
70. VIN.: 1J4FJ68S3SL614231
71. Color(s): GREEN
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. PO HATCH REPORTS CONTACTING P1,P2,P3 AT ABOVE I/L WHERE AN INSTRUCTOR PLANE #N32270 PIPER PA28151 STRUCK THE REAR WINDOW AND REAR DOOR UPRIGHT W/ITS LEFT WING TIP. THE PLANE OPERATED BY THE STUDENT ABOVE PI AND CO-PILOTED BY INSTRUCTOR P2 WAS TAXIING OUT TO THE RUNWAY W/ITS FRONT TIRE ON THE YELLOW TAXI GUIDE LINE WHEN COLLISION OCCURRED. ABOVE VEHICLE WAS PARKED ILLEGALLY ON THE EDGE OF THE TAXI WAY. P1 STATED HE WAS NAVIGATING PAST PARKED PLANES ON RIGHT SIDE NOT EXPECTING VEHICLE TO BE LOCATED AT ITS POSITION SUDDENLY COLLISION OCCURRED. REAR WINDOW OF VEHICLE BROKEN OUT. DAMAGE TO LEFT WING PLACES PLANE OUT OF COMMISSION. TOWN ORDINANCE ISSUED TO P3 WHO PARKED VEHICLE AT ITS LOCATION. P1, PILOT CERT #386142928, P2,PILOT CERT #567250347.

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT

B use cover sheet ↑

85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-02345-95
6. Incident No.: EH-009870-95

7. Report Day: Sat
8. Date: 12 23 95
9. Report Time: 1126
Occurred On/From: →
10. Day
11. Date
12. Time
Occurred To: →
13. Day
14. Date
15. Time

16. Incident Type
17. Business Name: EAST HAMPTON TOWN AIRPORT
18. Weapon(s)

[redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): RUNWAY 10-28 OFF DANIELS HOLE RD
20. City, State, Zip (☐ C ☐ T ☐ V): E. HAMPTON, NY 11937, NY
21. Location Code

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	110	-	X	V		O	LOCAL INVESTIGATION SUSPICIOUS ACTIVITY	1
2									
3									

23. No. of Victims
24. No. of Suspects

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	STUTT, MICHAEL, C	12/09/1967	LAWRENCE HILL RD ,WESTON, VT 05161	[redacted]
OT2	MACKAY, JULIAN, D	10/15/1945	20 EVERGREEN LA ,EAST QUOGUE, NY 11942	[redacted]
OT3	RYAN, PATRICK, A	08/04/1948	123 MIDDLE HWY ,EAST HAMPTON, NY 11937	[redacted]

VICTIM

27. Date of Birth
28. Age
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk. ☐ Temp. Res.- Foreign Nat.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By:
To:
73. Vehicle Notes

NARRATIVE

74. ABOVE PI #1 THE FLIGHT INSTRUCTOR OF A CESSNA 150 #N29- 70J REPORTS WHILE ATTEMPTING A TAKE-OFF ON RUNWAY 10-28 THE AIRCRAFT BEGAN TO SKID DUE TO ICY CONDITIONS AND WHEN STUDENT PI #2 ATTEMPTED TO ABORT TAKE-OFF THE AIRCRAFT LEFT RUNWAY AND FLIPPED OVER IN SNOWY FIELD OFF RUNWAY. NO INJURIES WERE REPORTED. FAA INSPECTOR RON HUGHES RESPONDED AND INVESTIGATED SCENE. DET PAYNE RESPONDED AND PHOTOGRAPHED SCENE. LT CLAFLIN NOTIFIED OF SAME.

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
B use cover sheet
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 1 Page of 1 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EH-01667-95
6. Incident No.: EH-007067-95

7. Report Day: Mon
8. Date: 09 | 04 | 95
9. Report Time: 1601

Occurred On/From: →
10. Day: Mon
11. Date: 09 | 04 | 95
12. Time: 1601

Occurred To: →
13. Day: Mon
14. Date: 09 | 04 | 95
15. Time: 1824

16. Incident Type:
17. Business Name: OCEAN WINGS
18. Weapon(s):

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): EAST HAMPTON AIRPORT
20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON N.Y., NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

[redacted]

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.
OT1	GRENIER, SUZANNE	01/14/1967	57 OLD SOUTH ROAD 40,NANTUCKET, MA 02554	[redacted]
OT2	GRAND-JEAN, RICHARD, L	08/04/1942	32 GROVE STREET ,NEW YORK, NY 10014	[redacted]
OT3	DOUDNA, CHRISTINE	06/29/1944	32 GROVE STREET ,NEW YORK, NY 10014	[redacted]
OT4	GRAND-JEAN, MOLLY	02/14/1987	32 GROVE STREET ,NEW YORK, NY 10014	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0					0

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74. AT APPROXIMATELY 1500 HRS THE PILOT SUZANNE GRENIER PICKED UP A CHARTER AT MARTHA'S VINEYARD AT MASSACHUSETTS. GRENIER WAS FLYING A TWIN ENGINE PIPER AZTEC REG# N1230W WHICH BELONGS TO HER EMPLOYER, OCEAN WINGS CHARTERS, OF NANTUCKET MA. GRENIER WAS TO FLY MR. RICHARD L.GRAND-JEAN AND HIS FAMILY FROM MARTHA'S VINEYARD TO LAGUARDIA AIRPORT IN NEW YORK CITY. ACCORDING TO GRENIER SHE TOOK OFF AFTER DOING ALL ROUTINE CHECKS ON THE AIRCRAFT WHICH WAS FUNCTIONING PROPERLY AT THE TIME. SHE STATES THAT THE AIRCRAFT EXPERIENCED ENGINE PROBLEMS IN THE LEFT ENGINE WHICH EVENTUALLY SHUT DOWN ABOUT EIGHT (8) MILES NORTHWEST OF EAST HAMPTON AIRPORT. SHE DECIDED TO LAND AT EAST HAMPTON BECAUSE IT WAS THE CLOSEST AIRPORT AND SHE KNEW SHE HAD TO LAND THE PLANE. AS SHE APPROACHED THE AIRPORT SHE WAS IN CONSTANT CONTACT BY RADIO WITH THE AIRPORT. GRENIER ALSO STATES THAT THE LANDING GEAR WOULD NOT GO DOWN HYDRAULICALLY AND HAD TO BE PUMPED DOWN MANUALLY. SHE WAS PUMPING THE GEAR DOWN AND TRYING TO KEEP THE AIRCRAFT LINED UP WITH THE RUNWAY (#34) AT THE SAME TIME. SHE STATED THAT THE GEAR LOCKED INDICATOR DID NOT COME ON AND SHE DIDN'T KNOW IF THE GEAR WAS LOCKED OR NOT. GRENIER LANDED THE AIRCRAFT ON THE RUNWAY BUT COULD NOT STOP AND WENT THROUGH THE END OF THE RUNWAY AND A FENCE COMING TO REST ACROSS DANIELS HOLE ROAD IN A FIELD ON THE OTHER SIDE. THE PLANE ENDED UP WITH THE TAIL UP AND NOSE ON THE GROUND AFTER THE NOSE GEAR APPARENTLY COLLAPSED.

B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature
78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT
85. 1 Page of 2 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

New York State INCIDENT REPORT

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD
3. ORI: NY 0515200
4. ☐ Orig ☒ Supp
5. Case No.: EH-01667-95
6. Incident No.: EH-007067-95
7. Report Day: Mon
8. Date: 09 | 04 | 95
9. Report Time: 1601
Occurred On/From: →
10. Day: Mon
11. Date: 09 | 04 | 95
12. Time: 1601
Occurred To: →
13. Day: Mon
14. Date: 09 | 04 | 95
15. Time: 1824
16. Incident Type:
17. Business Name: OCEAN WINGS
18. Weapon(s): [redacted]
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): EAST HAMPTON AIRPORT
20. City, State, Zip (☐ C ☐ T ☐ V): EAST HAMPTON N.Y., NY
21. Location Code:

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1									
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐Y ☒N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT5	GRAND-JEAN, MICHAEL	12/29/1989	32 GROVE STREET ,NEW YORK, NY 10014	[redacted]
OT6	WATTS, JENNIFER	07/01/1969	32 GROVE STREET ,NEW YORK, NY 10014	[redacted]

VICTIM

27. Date of Birth:
28. Age:
29. Sex: ☐ M ☐ F ☐ U
30. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap: ☐ Yes ☐ No
33. Residence Status: ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition: ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No.: ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex: ☐ M ☐ F ☐ U
45. Race: ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic: ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin: ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses: ☐ Yes ☐ Contacts ☐ No
54. Build: ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

TOTAL:

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: To:
73. Vehicle Notes:

NARRATIVE

74. THE PILOT AND ALL PASSENGERS EXITED THE AIRCRAFT SAFELY WITHOUT ANY APPARENT INJURIES. THE FAA. WAS NOTIFIED BY DET. DOANE AND PAT RYAN THE AIRPORT MANAGER. THEY WILL RESPOND TO EAST HAMPTON ON 9/5/95 TO CONTINUE THE INVESTIGATION OF THIS INCIDENT. FOR FURTHER INFO SEE SWORN STATEMENTS OF RICHARD L.GRAND-JEAN AND GRENIER. IT SHOULD BE NOTED THAT GRAND-JEAN'S STATEMENT IS SUBSTANTIALLY THE SAME EXCEPT THAT HE STATES THAT GRENIER WAS PREOCCUPIED WITH THE LANDING GEAR AND WAS NOT ON LINE WITH THE RUNWAY PART OF THE TIME. HE ALSO THINKS THAT SHE WAS LANDING AT TOO HIGH A RATE OF SPEED.

ADMINISTRATIVE

75. Inquiries (Check all that apply): ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
B use cover sheet ↑
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. 2 Page of 2 Pages

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

EAST HAMPTON TOWN POLICE

Record Agency: EAST HAMPTON TOWN POLICE

Event Report

Event Info

Basic Info

Case Folder No.:		Event No.:	**EH-006486-95**
Event Date:	**08/21/1995 02:19 PM**	Event Disposition:	**Unable to locate**
Created By:	,	Is Juvenile:	
Desk Officer:		Desk Officer Rank:	
Desk Officer Serial No.:	**20015**	Desk Officer Shield No.:	
Received Via:	*	Event Type:	**ACCIDENT PLANE**
Priority:		Received Date:	**08/21/1995 02:19 PM**
Dispatch Date:	**08/21/1995 02:19 PM**	Completed Date:	**08/21/1995 02:38 PM**
Start Time: **02:25 PM**	End Time: **02:38 PM**	Total Time:	**0:13**

Location

Organization Name:			
Address:	**DANIELS HOLE RD, WAINSCOTT , NY**		
City/Town/Village:		Nearest Cross Street:	
Map:		Grid:	
Latitude:		Longitude:	
ISF:		Sector:	
Precinct:		Post:	***4**
Location Code:		County:	
Premise:		Community:	
Coverage Area:		Jurisdiction:	
Common Place Name:		Between:	And:

1. Officer

Name:		Last Rank:	
Serial No.:	**20065**	Shield No.:	

2. Officer

Name:		Last Rank:	
Serial No.:	**20076**	Shield No.:	

Unit

Unit Name:	**994**	**Primary**	Description:	**994**
Unit Type:			Department/Agency:	**EAST HAMPTON TOWN POLICE**

Unit History

Event Caller

Basic Info

Name: **EH AIRPORT,**
Restrict Print:
Gender:
Date of Birth:
SSN:

Features

Height:
Eye Color:

Address

Address Type:
Description:
Address: **DANIELS HOLE RD**
WAINSCOTT, NY 11937

☑ **Current:**

Phone

Phone Type:
Description:
Phone Number:

☑ **Current:**

Licenses

Person

Basic Info

Name: **DOMINICK, DERANIERI**
Role:
Gender:
Date of Birth: **5/23/1942**
SSN:
Restrict Print:

Features

Height:
Eye Color:

Address

Address Type:
Description:
Address:

☐ **Current:**

Phone

Phone Type: **HOME**
Description:
Phone Number: [redacted]

☑ **Current:**

Licenses

Narrative

P.O. SCHAEFER RESPONDED TO I/L REFERENCE TO A PLANE THAT DOMINICK DERANIERI WAS FLYING HAD ENGINE TROUBLE AND WENT OFF RUNWAY. NOBODY WAS INJURED NOR WAS THE PLANE DAMAGED. THE PLANE WAS A RENTAL PLANE(CHEROKEE WARRIOR/SINGLE PROPELLER/SERIAL# N81869) AIRPORT PERSONNEL WILL TAKE CARE OF THIS MATTER.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-01990-93
6. Incident No.: EH-008685-93

7. Report Day: Fri
8. Date: 12 03 93
9. Report Time: 0845

Occurred On/From: →
10. Day: Tue
11. Date: 11 23 93
12. Time: 1100

Occurred To: →
13. Day: Tue
14. Date: 11 23 93
15. Time: 1100

16. Incident Type:
17. Business Name: EH AIRPORT
18. Weapon(s): [redacted]

19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIELS HOLE RD
20. City, State, Zip (☐ C ☐ T ☐ V): E. HAMPTON, NY 11937, NY
21. Location Code: [redacted]

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims: [redacted]
24. No. of Suspects: [redacted]

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim

26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY , STATE, ZIP	TELEPHONE NO.
OT1	OTTO, ROBERT JR, E	05/27/1959	657 FIREPLACE RD ,EAST HAMPTON, NY 11937	[redacted]
OT2	DINIZIO, DOUGLAS, J	02/24/1963	16 SQUAW ROAD ,EAST HAMPTON, NY 11937	[redacted]
OT3	ALPERT, SEYMOUR		ONE PARK PLAZA ,FORT LEE, NJ 07024	[redacted]

VICTIM

27. Date of Birth
28. Age
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.
36. Name (Last, First, Middle)
37. Alias/Nickname/Maiden Name (Last, First, Middle)
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip))
40. Phone No. ☐ Home ☐ Work
41. Social Security No.
42. Date of Birth
43. Age
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation
49. Height
50. Weight
51. Hair
52. Eyes
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School
56. Address
57. Scars/Marks/Tattoos (Describe)
58. Misc.

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value
	99		0					2000

VEHICLE

60. Vehicle Status
61. License Plate No. Full ☐ Partial ☐
62. State
63. Exp. Yr.
64. Plate Type
65. Value
66. Veh. Yr.
67. Make
68. Model
69. Style
70. VIN.
71. Color(s)
72. Towed By: To:
73. Vehicle Notes

NARRATIVE

74.

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.
77. Complainant Signature

B use cover sheet ↑

78. Reporting Officer Signature (Include Rank)
79. ID No.
80. Supervisor's Signature (Include Rank)
81. ID No.

85. 1 Page of 1 Pages

82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date
84. Notified/TOT

DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

INCIDENT

1. Agency: EAST HAMPTON TOWN POLICE
2. Division/Precinct: EHTPD

New York State INCIDENT REPORT

3. ORI: NY 0515200
4. ☒ Orig ☐ Supp
5. Case No.: EH-01689-93
6. Incident No.: EH-007470-93

7. Report Day	8. Date	9. Report Time	Occurred On/From:	10. Day	11. Date	12. Time	Occurred To:	13. Day	14. Date	15. Time
Wed	10 06 93	1238	→	Wed	10 06 93	1238	→	Wed	10 06 93	1238

16. Incident Type:
17. Business Name:
18. Weapon(s):
19. Incident Address (Street No., Street Name, Bldg. No., Apt. No.): DANIEL'S HOLE RD
20. City, State, Zip (☐ C ☐ T ☐ V): E. HAMPTON, NY 11937, NY
21. Location Code:

[redacted]

22. OFF. NO.	LAW	SECTION	SUB	CL	CAT	DEG	ATT	NAME OF OFFENSE	CTS
1	LI	160	-	X	V		O	LOCAL INVESTIGATION PLANE CRASH	1
2									
3									

23. No. of Victims:
24. No. of Suspects:

ASSOCIATED PERSONS

25. Person Type: CO = Complainant OT = Other PI = Person Interviewed PR = Person Reporting WI = Witness NI = Not Interviewed VI = Victim
26. Victim also complainant ☐ Y ☒ N

TYPE/NO	NAME (LAST, FIRST, MIDDLE, TITLE)	Date of Birth	STREET NO., STREET NAME, BLDG. NO., APT. NO., CITY, STATE, ZIP	TELEPHONE NO.

VICTIM

27. Date of Birth:
28. Age:
29. Sex ☐ M ☐ F ☐ U
30. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
31. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
32. Handicap ☐ Yes ☐ No
33. Residence Status ☐ Temp. Res.- Foreign Nat. ☐ Resident ☐ Tourist ☐ Student ☐ Other ☐ Commuter ☐ Military ☐ Homeless ☐ Unk.
34. Victim DID receive information on Victim's Rights and Services pursuant to New York State Law ☐ YES ☐ NO

SUSPECT MISSING/ARRESTED PERSON

35. Type/No.:
36. Name (Last, First, Middle):
37. Alias/Nickname/Maiden Name (Last, First, Middle):
38. Apparent Condition ☐ Impaired Drugs ☐ Mental Dis ☐ Unk. ☐ Impaired Alco ☐ Inj / Ill ☐ App Norm
39. Address (Street No., Street Name, Bldg. No., Apt. No., City, State, Zip)):
40. Phone No. ☐ Home ☐ Work
41. Social Security No.:
42. Date of Birth:
43. Age:
44. Sex ☐ M ☐ F ☐ U
45. Race ☐ White ☐ Black ☐ Other ☐ Indian ☐ Asian ☐ Unk.
46. Ethnic ☐ Hispanic ☐ Unk. ☐ Non-Hispanic
47. Skin ☐ Light ☐ Dark ☐ Unk. ☐ Medium ☐ Other
48. Occupation:
49. Height:
50. Weight:
51. Hair:
52. Eyes:
53. Glasses ☐ Yes ☐ Contacts ☐ No
54. Build ☐ Small ☐ Large ☐ Medium
55. Employer/School:
56. Address:
57. Scars/Marks/Tattoos (Describe):
58. Misc.:

PROPERTY

59. Victim or Suspect No.	Property Status	Property Type	Quantity/ Measure	Make or Drug Type	Model	Serial No.	Description	Value

VEHICLE

60. Vehicle Status:
61. License Plate No.: Full ☐ Partial ☐
62. State:
63. Exp. Yr.:
64. Plate Type:
65. Value:
66. Veh. Yr.:
67. Make:
68. Model:
69. Style:
70. VIN.:
71. Color(s):
72. Towed By: ____ To:
73. Vehicle Notes:

NARRATIVE

74.

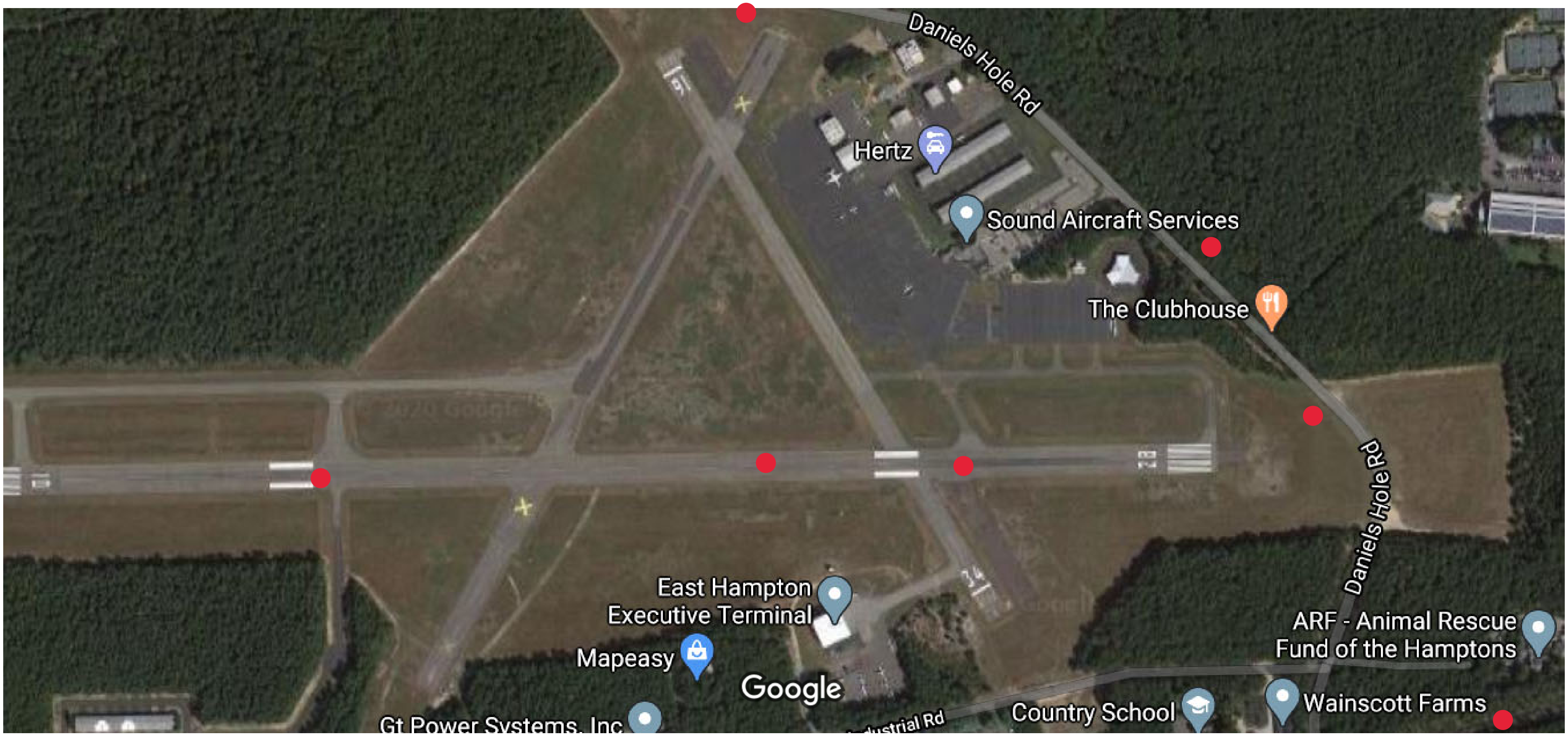
B use cover sheet ↑

ADMINISTRATIVE

75. Inquiries (Check all that apply) ☐ DMV ☐ Want/Warrant ☐ Scofflaw ☐ Crim. History ☐ Stolen Property ☐ Other
76. NYSPIN Message No.:
77. Complainant Signature:
78. Reporting Officer Signature (Include Rank):
79. ID No.:
80. Supervisor's Signature (Include Rank):
81. ID No.:
82. Status ☐ Open ☐ Closed (if Closed, check box below) ☐ Unfounded ☐ Victim Refused to Coop. ☐ Arrest ☐ Pros Declined ☐ Warrant Advised ☐ CBI ☐ Juv. - No Custody ☐ Arrest - Juv ☐ Offender Dead ☐ Extrad. Declin ☐ Unk.
83. Status Date:
84. Notified/TOT:
85. Page 1 of 1 Pages

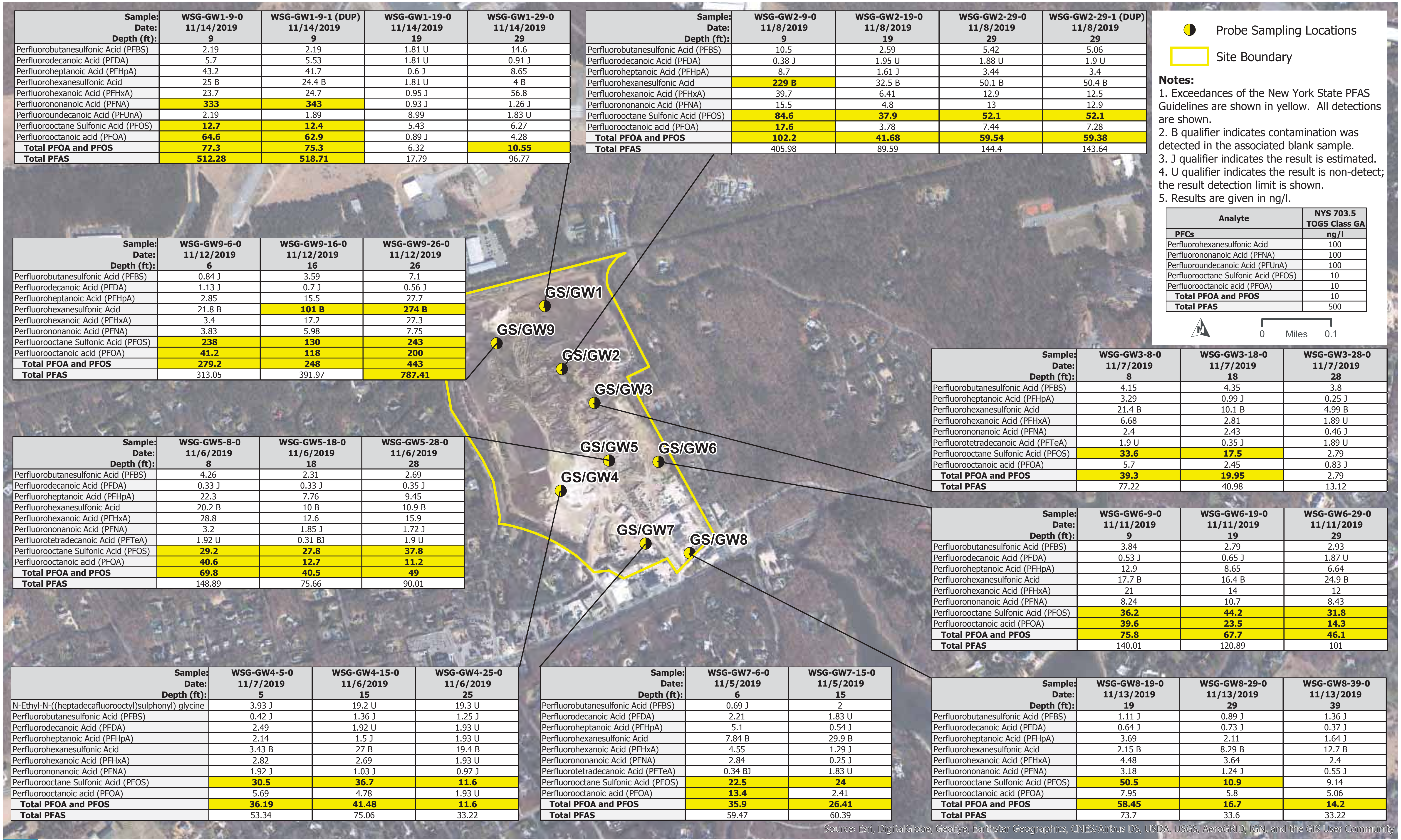
DCJS-3205 (11/06) *FALSE STATEMENTS ARE PUNISHABLE AS A CRIME, PURSUANT TO THE NEW YORK STATE PENAL LAW.

Google Maps Wainscott



Imagery ©2020 Maxar Technologies, New York GIS, USDA Farm Service Agency, Map data ©2020 500 ft

Wainscott Sand and Gravel Site Groundwater Data



Sample: Date: Depth (ft):	WSG-GW1-9-0 11/14/2019 9	WSG-GW1-9-1 (DUP) 11/14/2019 9	WSG-GW1-19-0 11/14/2019 19	WSG-GW1-29-0 11/14/2019 29
Perfluorobutanesulfonic Acid (PFBS)	2.19	2.19	1.81 U	14.6
Perfluorodecanoic Acid (PFDA)	5.7	5.53	1.81 U	0.91 J
Perfluoroheptanoic Acid (PFHpA)	43.2	41.7	0.6 J	8.65
Perfluorohexanesulfonic Acid	25 B	24.4 B	1.81 U	4 B
Perfluorohexanoic Acid (PFHxA)	23.7	24.7	0.95 J	56.8
Perfluorononanoic Acid (PFNA)	**333**	**343**	0.93 J	1.26 J
Perfluoroundecanoic Acid (PFUnA)	2.19	1.89	8.99	1.83 U
Perfluorooctane Sulfonic Acid (PFOS)	**12.7**	**12.4**	5.43	6.27
Perfluorooctanoic acid (PFOA)	**64.6**	**62.9**	0.89 J	4.28
Total PFOA and PFOS	**77.3**	**75.3**	6.32	**10.55**
Total PFAS	**512.28**	**518.71**	17.79	96.77

Sample: Date: Depth (ft):	WSG-GW2-9-0 11/8/2019 9	WSG-GW2-19-0 11/8/2019 19	WSG-GW2-29-0 11/8/2019 29	WSG-GW2-29-1 (DUP) 11/8/2019 29
Perfluorobutanesulfonic Acid (PFBS)	10.5	2.59	5.42	5.06
Perfluorodecanoic Acid (PFDA)	0.38 J	1.95 U	1.88 U	1.9 U
Perfluoroheptanoic Acid (PFHpA)	8.7	1.61 J	3.44	3.4
Perfluorohexanesulfonic Acid	**229 B**	32.5 B	50.1 B	50.4 B
Perfluorohexanoic Acid (PFHxA)	39.7	6.41	12.9	12.5
Perfluorononanoic Acid (PFNA)	15.5	4.8	13	12.9
Perfluorooctane Sulfonic Acid (PFOS)	**84.6**	**37.9**	**52.1**	**52.1**
Perfluorooctanoic acid (PFOA)	**17.6**	3.78	7.44	7.28
Total PFOA and PFOS	**102.2**	**41.68**	**59.54**	**59.38**
Total PFAS	405.98	89.59	144.4	143.64

● Probe Sampling Locations

▭ Site Boundary

Notes:
1. Exceedances of the New York State PFAS Guidelines are shown in yellow. All detections are shown.
2. B qualifier indicates contamination was detected in the associated blank sample.
3. J qualifier indicates the result is estimated.
4. U qualifier indicates the result is non-detect; the result detection limit is shown.
5. Results are given in ng/l.

Analyte	NYS 703.5 TOGS Class GA
PFCs	**ng/l**
Perfluorohexanesulfonic Acid	100
Perfluorononanoic Acid (PFNA)	100
Perfluoroundecanoic Acid (PFUnA)	100
Perfluorooctane Sulfonic Acid (PFOS)	10
Perfluorooctanoic acid (PFOA)	10
Total PFOA and PFOS	10
Total PFAS	500

Sample: Date: Depth (ft):	WSG-GW9-6-0 11/12/2019 6	WSG-GW9-16-0 11/12/2019 16	WSG-GW9-26-0 11/12/2019 26
Perfluorobutanesulfonic Acid (PFBS)	0.84 J	3.59	7.1
Perfluorodecanoic Acid (PFDA)	1.13 J	0.7 J	0.56 J
Perfluoroheptanoic Acid (PFHpA)	2.85	15.5	27.7
Perfluorohexanesulfonic Acid	21.8 B	**101 B**	**274 B**
Perfluorohexanoic Acid (PFHxA)	3.4	17.2	27.3
Perfluorononanoic Acid (PFNA)	3.83	5.98	7.75
Perfluorooctane Sulfonic Acid (PFOS)	**238**	**130**	**243**
Perfluorooctanoic acid (PFOA)	**41.2**	**118**	**200**
Total PFOA and PFOS	**279.2**	**248**	**443**
Total PFAS	313.05	391.97	**787.41**

Sample: Date: Depth (ft):	WSG-GW3-8-0 11/7/2019 8	WSG-GW3-18-0 11/7/2019 18	WSG-GW3-28-0 11/7/2019 28
Perfluorobutanesulfonic Acid (PFBS)	4.15	4.35	3.8
Perfluoroheptanoic Acid (PFHpA)	3.29	0.99 J	0.25 J
Perfluorohexanesulfonic Acid	21.4 B	10.1 B	4.99 B
Perfluorohexanoic Acid (PFHxA)	6.68	2.81	1.89 U
Perfluorononanoic Acid (PFNA)	2.4	2.43	0.46 J
Perfluorotetradecanoic Acid (PFTeA)	1.9 U	0.35 J	1.89 U
Perfluorooctane Sulfonic Acid (PFOS)	**33.6**	**17.5**	2.79
Perfluorooctanoic acid (PFOA)	5.7	2.45	0.83 J
Total PFOA and PFOS	**39.3**	**19.95**	2.79
Total PFAS	77.22	40.98	13.12

Sample: Date: Depth (ft):	WSG-GW5-8-0 11/6/2019 8	WSG-GW5-18-0 11/6/2019 18	WSG-GW5-28-0 11/6/2019 28
Perfluorobutanesulfonic Acid (PFBS)	4.26	2.31	2.69
Perfluorodecanoic Acid (PFDA)	0.33 J	0.33 J	0.35 J
Perfluoroheptanoic Acid (PFHpA)	22.3	7.76	9.45
Perfluorohexanesulfonic Acid	20.2 B	10 B	10.9 B
Perfluorohexanoic Acid (PFHxA)	28.8	12.6	15.9
Perfluorononanoic Acid (PFNA)	3.2	1.85 J	1.72 J
Perfluorotetradecanoic Acid (PFTeA)	1.92 U	0.31 BJ	1.9 U
Perfluorooctane Sulfonic Acid (PFOS)	**29.2**	**27.8**	**37.8**
Perfluorooctanoic acid (PFOA)	**40.6**	**12.7**	**11.2**
Total PFOA and PFOS	**69.8**	**40.5**	**49**
Total PFAS	148.89	75.66	90.01

Sample: Date: Depth (ft):	WSG-GW6-9-0 11/11/2019 9	WSG-GW6-19-0 11/11/2019 19	WSG-GW6-29-0 11/11/2019 29
Perfluorobutanesulfonic Acid (PFBS)	3.84	2.79	2.93
Perfluorodecanoic Acid (PFDA)	0.53 J	0.65 J	1.87 U
Perfluoroheptanoic Acid (PFHpA)	12.9	8.65	6.64
Perfluorohexanesulfonic Acid	17.7 B	16.4 B	24.9 B
Perfluorohexanoic Acid (PFHxA)	21	14	12
Perfluorononanoic Acid (PFNA)	8.24	10.7	8.43
Perfluorooctane Sulfonic Acid (PFOS)	**36.2**	**44.2**	**31.8**
Perfluorooctanoic acid (PFOA)	**39.6**	**23.5**	**14.3**
Total PFOA and PFOS	**75.8**	**67.7**	**46.1**
Total PFAS	140.01	120.89	101

Sample: Date: Depth (ft):	WSG-GW4-5-0 11/7/2019 5	WSG-GW4-15-0 11/6/2019 15	WSG-GW4-25-0 11/6/2019 25
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	3.93 J	19.2 U	19.3 U
Perfluorobutanesulfonic Acid (PFBS)	0.42 J	1.36 J	1.25 J
Perfluorodecanoic Acid (PFDA)	2.49	1.92 U	1.93 U
Perfluoroheptanoic Acid (PFHpA)	2.14	1.5 J	1.93 U
Perfluorohexanesulfonic Acid	3.43 B	27 B	19.4 B
Perfluorohexanoic Acid (PFHxA)	2.82	2.69	1.93 U
Perfluorononanoic Acid (PFNA)	1.92 J	1.03 J	0.97 J
Perfluorooctane Sulfonic Acid (PFOS)	**30.5**	**36.7**	**11.6**
Perfluorooctanoic acid (PFOA)	5.69	4.78	1.93 U
Total PFOA and PFOS	**36.19**	**41.48**	**11.6**
Total PFAS	53.34	75.06	33.22

Sample: Date: Depth (ft):	WSG-GW7-6-0 11/5/2019 6	WSG-GW7-15-0 11/5/2019 15
Perfluorobutanesulfonic Acid (PFBS)	0.69 J	2
Perfluorodecanoic Acid (PFDA)	2.21	1.83 U
Perfluoroheptanoic Acid (PFHpA)	5.1	0.54 J
Perfluorohexanesulfonic Acid	7.84 B	29.9 B
Perfluorohexanoic Acid (PFHxA)	4.55	1.29 J
Perfluorononanoic Acid (PFNA)	2.84	0.25 J
Perfluorotetradecanoic Acid (PFTeA)	0.34 BJ	1.83 U
Perfluorooctane Sulfonic Acid (PFOS)	**22.5**	**24**
Perfluorooctanoic acid (PFOA)	**13.4**	2.41
Total PFOA and PFOS	**35.9**	**26.41**
Total PFAS	59.47	60.39

Sample: Date: Depth (ft):	WSG-GW8-19-0 11/13/2019 19	WSG-GW8-29-0 11/13/2019 29	WSG-GW8-39-0 11/13/2019 39
Perfluorobutanesulfonic Acid (PFBS)	1.11 J	0.89 J	1.36 J
Perfluorodecanoic Acid (PFDA)	0.64 J	0.73 J	0.37 J
Perfluoroheptanoic Acid (PFHpA)	3.69	2.11	1.64 J
Perfluorohexanesulfonic Acid	2.15 B	8.29 B	12.7 B
Perfluorohexanoic Acid (PFHxA)	4.48	3.64	2.4
Perfluorononanoic Acid (PFNA)	3.18	1.24 J	0.55 J
Perfluorooctane Sulfonic Acid (PFOS)	**50.5**	**10.9**	9.14
Perfluorooctanoic acid (PFOA)	7.95	5.8	5.06
Total PFOA and PFOS	**58.45**	**16.7**	**14.2**
Total PFAS	73.7	33.6	33.22

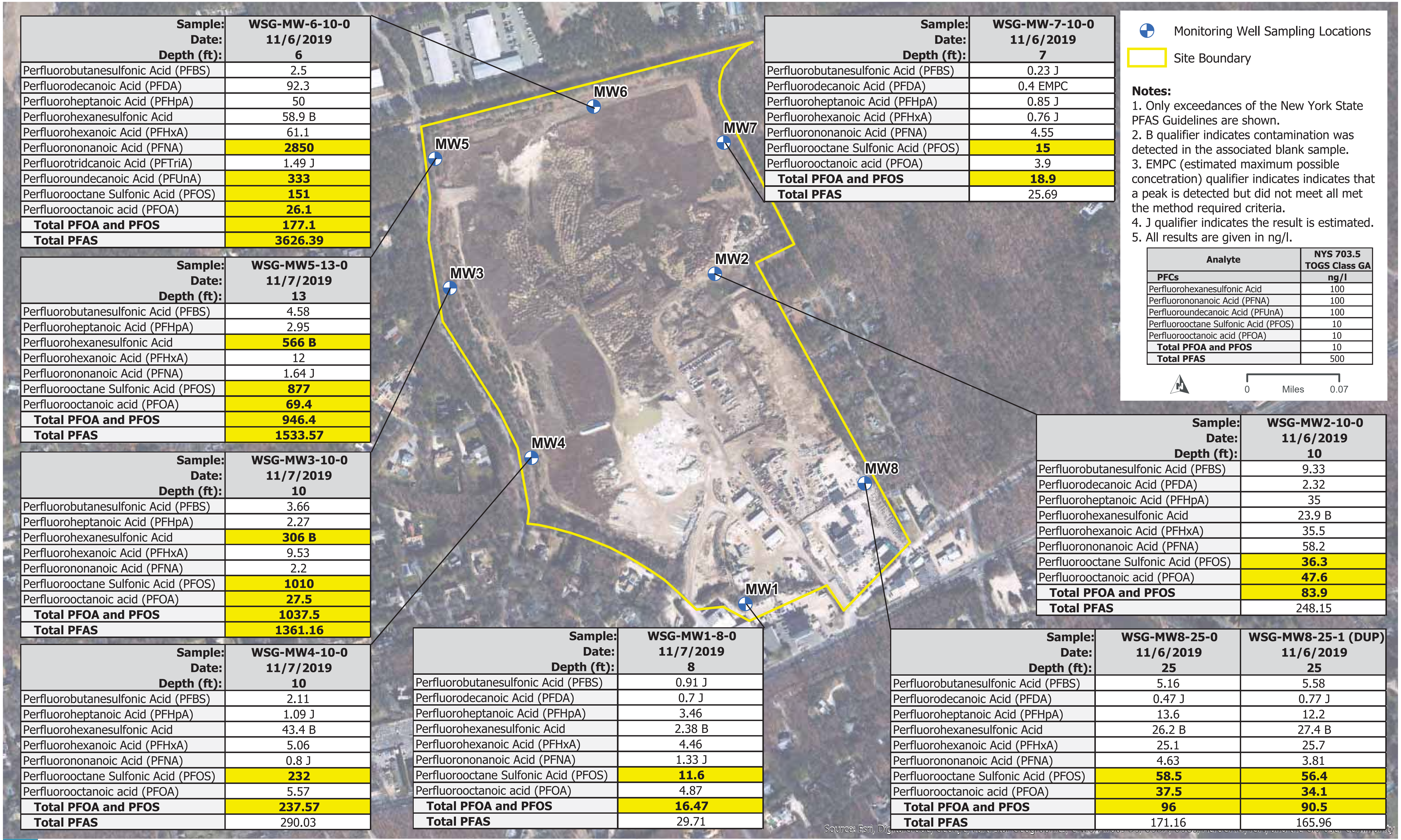
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

GROUNDWATER PROBE PFAS ANALYTICAL RESULTS – DETECTIONS ONLY

WAINSCOTT SAND & GRAVEL

FIGURE 6A

PATH: \\MAHPI-FILE01\OFFICESHARE\SECTIONFOLDERS\WASTE MGMT & INDUSTRIAL\EDMT\EDMT_PROJECTS\WAINSCOTT S&G\GIS\MAP_DOCS\WAINSCOTT_CHEMBOXES\WAINSCOTT_CHEMBOXES.APRX - USER: HROSADO - DATE: 5/19/2020



Sample: Date: Depth (ft):	WSG-MW-6-10-0 11/6/2019 6
Perfluorobutanesulfonic Acid (PFBS)	2.5
Perfluorodecanoic Acid (PFDA)	92.3
Perfluoroheptanoic Acid (PFHpA)	50
Perfluorohexanesulfonic Acid	58.9 B
Perfluorohexanoic Acid (PFHxA)	61.1
Perfluorononanoic Acid (PFNA)	2850
Perfluorotridcanoic Acid (PFTriA)	1.49 J
Perfluoroundecanoic Acid (PFUnA)	333
Perfluorooctane Sulfonic Acid (PFOS)	151
Perfluorooctanoic acid (PFOA)	26.1
Total PFOA and PFOS	**177.1**
Total PFAS	**3626.39**

Sample: Date: Depth (ft):	WSG-MW5-13-0 11/7/2019 13
Perfluorobutanesulfonic Acid (PFBS)	4.58
Perfluoroheptanoic Acid (PFHpA)	2.95
Perfluorohexanesulfonic Acid	566 B
Perfluorohexanoic Acid (PFHxA)	12
Perfluorononanoic Acid (PFNA)	1.64 J
Perfluorooctane Sulfonic Acid (PFOS)	877
Perfluorooctanoic acid (PFOA)	69.4
Total PFOA and PFOS	**946.4**
Total PFAS	**1533.57**

Sample: Date: Depth (ft):	WSG-MW3-10-0 11/7/2019 10
Perfluorobutanesulfonic Acid (PFBS)	3.66
Perfluoroheptanoic Acid (PFHpA)	2.27
Perfluorohexanesulfonic Acid	306 B
Perfluorohexanoic Acid (PFHxA)	9.53
Perfluorononanoic Acid (PFNA)	2.2
Perfluorooctane Sulfonic Acid (PFOS)	1010
Perfluorooctanoic acid (PFOA)	27.5
Total PFOA and PFOS	**1037.5**
Total PFAS	**1361.16**

Sample: Date: Depth (ft):	WSG-MW4-10-0 11/7/2019 10
Perfluorobutanesulfonic Acid (PFBS)	2.11
Perfluoroheptanoic Acid (PFHpA)	1.09 J
Perfluorohexanesulfonic Acid	43.4 B
Perfluorohexanoic Acid (PFHxA)	5.06
Perfluorononanoic Acid (PFNA)	0.8 J
Perfluorooctane Sulfonic Acid (PFOS)	232
Perfluorooctanoic acid (PFOA)	5.57
Total PFOA and PFOS	**237.57**
Total PFAS	290.03

Sample: Date: Depth (ft):	WSG-MW1-8-0 11/7/2019 8
Perfluorobutanesulfonic Acid (PFBS)	0.91 J
Perfluorodecanoic Acid (PFDA)	0.7 J
Perfluoroheptanoic Acid (PFHpA)	3.46
Perfluorohexanesulfonic Acid	2.38 B
Perfluorohexanoic Acid (PFHxA)	4.46
Perfluorononanoic Acid (PFNA)	1.33 J
Perfluorooctane Sulfonic Acid (PFOS)	11.6
Perfluorooctanoic acid (PFOA)	4.87
Total PFOA and PFOS	**16.47**
Total PFAS	29.71

Sample: Date: Depth (ft):	WSG-MW-7-10-0 11/6/2019 7
Perfluorobutanesulfonic Acid (PFBS)	0.23 J
Perfluorodecanoic Acid (PFDA)	0.4 EMPC
Perfluoroheptanoic Acid (PFHpA)	0.85 J
Perfluorohexanoic Acid (PFHxA)	0.76 J
Perfluorononanoic Acid (PFNA)	4.55
Perfluorooctane Sulfonic Acid (PFOS)	15
Perfluorooctanoic acid (PFOA)	3.9
Total PFOA and PFOS	**18.9**
Total PFAS	25.69

Sample: Date: Depth (ft):	WSG-MW2-10-0 11/6/2019 10
Perfluorobutanesulfonic Acid (PFBS)	9.33
Perfluorodecanoic Acid (PFDA)	2.32
Perfluoroheptanoic Acid (PFHpA)	35
Perfluorohexanesulfonic Acid	23.9 B
Perfluorohexanoic Acid (PFHxA)	35.5
Perfluorononanoic Acid (PFNA)	58.2
Perfluorooctane Sulfonic Acid (PFOS)	36.3
Perfluorooctanoic acid (PFOA)	47.6
Total PFOA and PFOS	**83.9**
Total PFAS	248.15

Sample: Date: Depth (ft):	WSG-MW8-25-0 11/6/2019 25	WSG-MW8-25-1 (DUP) 11/6/2019 25
Perfluorobutanesulfonic Acid (PFBS)	5.16	5.58
Perfluorodecanoic Acid (PFDA)	0.47 J	0.77 J
Perfluoroheptanoic Acid (PFHpA)	13.6	12.2
Perfluorohexanesulfonic Acid	26.2 B	27.4 B
Perfluorohexanoic Acid (PFHxA)	25.1	25.7
Perfluorononanoic Acid (PFNA)	4.63	3.81
Perfluorooctane Sulfonic Acid (PFOS)	58.5	56.4
Perfluorooctanoic acid (PFOA)	37.5	34.1
Total PFOA and PFOS	**96**	**90.5**
Total PFAS	171.16	165.96

⊕	Monitoring Well Sampling Locations
▭	Site Boundary

Notes:
1. Only exceedances of the New York State PFAS Guidelines are shown.
2. B qualifier indicates contamination was detected in the associated blank sample.
3. EMPC (estimated maximum possible concetration) qualifier indicates indicates that a peak is detected but did not meet all met the method required criteria.
4. J qualifier indicates the result is estimated.
5. All results are given in ng/l.

Analyte	**NYS 703.5 TOGS Class GA**
PFCs	**ng/l**
Perfluorohexanesulfonic Acid	100
Perfluorononanoic Acid (PFNA)	100
Perfluoroundecanoic Acid (PFUnA)	100
Perfluorooctane Sulfonic Acid (PFOS)	10
Perfluorooctanoic acid (PFOA)	10
Total PFOA and PFOS	10
Total PFAS	500

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

MONITORING WELL ANALYTICAL RESULTS – EXCEEDANCES ONLY

WAINSCOTT SAND & GRAVEL

FIGURE 7A

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

GROUNDWATER CONTOURS

WAINSCOTT SAND & GRAVEL

FIGURE 8

PATH: \\MAHPI-FILE01\OFFICESHARE\SECTIONFOLDERS\WASTE MGMT & INDUSTRIAL\EDMT\EDMT_PROJECTS\WAINSCOTT S&G\GIS\MAP_DOCS\WAINSCOTT_CHEMBOXES\WAINSCOTT_CHEMBOXES.APRX - USER: HROSADO - DATE: 4/8/2020

APPENDIX B

PROJECT PERSONNEL RESUMES

LABORATORY INFORMATION

FPM group
An Olgoonik Company

Stephanie O. Davis, PG, RG, CPG

Engineering and Environmental Science

Ms. Davis has diversified experience in geology and hydrogeology. Her professional technical experience includes groundwater, soil, and soil vapor investigations, design and management of soil and groundwater remediation projects, design and installation of groundwater containment systems, design and evaluation of soil vapor intrusion mitigation systems, groundwater flow modeling, aquifer testing and interpretation, evaluation of site compliance with environmental regulations, and personnel training. Ms. Davis presently manages several large-scale investigation and remedial programs, including program scopes, budgets, staffing, and schedules.

Functional Role	Title	Years of Experience
QA/QC Officer	Corporate Vice President	30+

Personal Data

Education

M.S./1984/Geology/University of Southern California
B.S./1981/Geology/Bucknell University

Registration and Certifications

New York Professional Geologist #000247, 2017
Certified Professional Geologist #9487, (AIPG) 1995
California Registered Geologist #5192, 1991
Pennsylvania Professional Geologist #PG-000529-G,1994
OSHA-approved 40-hour Health and Safety Training Course (1990)
OSHA-approved 8-hour Health and Safety Training Refresher Courses (1991-Present)
OSHA-approved 8-hour Site Safety Supervisor Training Course (2008)
National Ground Water Association
Long Island Association of Professional Geologists
USEPA Triad Training for Practitioners
NYC OER Gold Certified Professional

Employment History

1993-Present	FPM Group
1992-1993	Chevron Research and Technology Co.
1990-1992	Chevron Manufacturing Co.
1984-1990	Chevron Exploration, Land, and Production Company

Continuing Education

- Treatment of Contaminated Soil and Rock
- Groundwater Pollution and Hydrology
- Environmental Law and Regulation
- Remedial Engineering
- Soil and Foundation Engineering
- Environmental Geochemistry
- Project Management Professional (PMP) training

Detailed Experience

Site Investigations

- **Program Manager** for ongoing investigation and remedial projects at several New York State Inactive Hazardous Waste Disposal sites, Voluntary Cleanup Program (VCP) sites, and Brownfield Cleanup Program (BCP) sites, and NYCOER e-designated sites. Investigations have included site characterization, Remedial Investigation/Feasibility Studies (RI/FS), and Resource Conservation and Recovery Act (RCRA) facility investigations and closures. Remedial services have included contaminated soil removal, in-situ chemical treatment, design, installation, and operation of air sparge/soil vapor extraction (AS/SVE) systems and sub-slab depressurization systems (SSDSs), capping, and other remedial measures.
- **Program Manager, NYS Inactive Hazardous Waste Disposal Site, Greenpoint, NY.** Responsible for project scoping, cost estimation, subcontracting, field services, report preparation, and agency negotiations for a former manufacturing facility. Services included an RI, an FS, implementation of an Interim Remedial Measure (IRM), and an underground utility survey. A Remedial Action Work Plan (RAWP) was also prepared for an associated petroleum spill.
- **Program Manager, NYS BCP Site, Far Rockaway, NY.** Managed all aspects of pre-application investigation, BCP application, RI Work Plan development and implementation, and Citizen Participation Plan (CPP) for a chlorinated solvent site. Responsible for scope development, NYSDEC and NYSDOH coordination, budget, schedule, staffing, and report management.
- **Program Manager, Site Characterization (SC) for NYS Inactive Hazardous Waste Disposal Site, Flushing, NY.** Responsible for SC scope development, budget, schedule, SC Work Plan and report review, staffing, and agency negotiations for a chlorinated solvent site undergoing residential redevelopment.
- **Program Manager, Investigation and Remedial Services, NYS BCP Sites, Far Rockaway, NY.** Managed scope, budget, schedule, staffing and quality assurance for pre-application investigations of several associated BCP sites. Prepared the BCP applications and supporting documentation for the environmental issues, including chlorinated

solvents, a petroleum spill, petroleum tanks, and historic fill.

- **Program Manager, Environmental Services for Senior Living Developer, Long Island, NY.** Performs environmental analyses and directs investigation and remedial activities for property acquisition and redevelopment for senior residential facilities. Services included Phase I ESAs, investigation and remediation cost estimation, Phase II investigations, Site Management Plans, and transaction and regulatory agency negotiations.
- **Program Manager, Environmental Services for Commercial Real Estate Developer, Long Island, NY.** Managed all Phase I ESA, Phase II investigations, and remediation projects for a major commercial real estate developer. Projects included environmental services associated with purchase and redevelopment of office buildings, aerospace facilities, former research and development facilities, and large manufacturing plants. Remedial services have included RCRA closures, UIC closures, tank removals, and large excavations.
- **Program Manager, RI/FS, RAWP, and Remedial Services, Levittown, NY.** Managed all aspects of RI/FS for a Class 2 Inactive Hazardous Waste Disposal (Superfund) site involving chlorinated solvents. Responsibilities included RI/FS scope, budget and schedule development, RI/FS work plan, HASP, CAMP, and QAPP, coordination with client, tenants, and regulatory agencies, report review, remedial approach development, conceptual design, and cost estimation. Developed RAWP and negotiated the remedial scope with the NYSDEC. Remedial services included implementation of AS/SVE, SSDS, and site management.
- **Program Manager, Environmental Investigation and Remediation, Communication Facility, Long Island, NY.** Responsible for all aspects of investigation and remediation of a former communications facility during property acquisition and redevelopment for a medical facility use. Services included Phase I ESA, facility investigation scope, budget, staffing, and reporting, and remediation cost estimation. Environmental issues included obsolete communications and facility equipment, USTs, underground injection control systems, asbestos and other hazardous materials, and transaction and regulatory agency negotiations.
- **Project Manager, RCRA Facilities Investigation (RFI), Barksdale AFB, LA.** Responsible for all aspects of field program planning, solicitation and selection of subcontractors, mobilization and establishment of a field office, supervising multiple field crews, installation and sampling of monitoring wells, collection and soil samples, data tracking and management and preparation of an RFI report. The scope of work included characterization of the nature and extent of groundwater and soil contamination at thirteen Solid Waste Management Units (SWMUs), performing a Base-wide evaluation of background contaminant concentrations, and developing a long-term monitoring (LTM) program for the Base.
- **Field Services Manager, UST Investigation, Plattsburgh AFB, NY, AFCEE**. Responsible for field crew training, coordination of sampling crews at multiple sites, sample labeling, handling, tracking, and shipping, field data management and remote field office management. The scope of work included collection of over 450 groundwater samples to characterize groundwater conditions in the vicinity of 150 USTs using a Geoprobe sampling rig, well points, and rapid turnaround-time analysis.
- **Program Manager Environmental Investigation for Supermarket Developer, Long Island, NY**. Conducted site investigations, including soil vapor sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in Suffolk County, New York. The resulting data were utilized by a major supermarket company in the negotiations for the purchase of the properties and in the property remediation prior to development.
- **Project Manager, Site Investigation, Bronx, NY.** Managed field sampling and data analysis activities, including soil vapor analysis, soil sample analysis, and groundwater sampling and analysis at an active commercial bus terminal. Made recommendations for site remediation, including UST removal, soil excavation and disposal, and free-phase product extraction.
- **Project Manager, RCRA Facilities Investigation, City of Richmond, CA**. Prepared RFI work plan, incorporating existing geologic, chemical, and historical data, evaluating newly-acquired site data, and developing recommendations for further investigation and remedial action at a former municipal landfill.
- **Project Manager, Site Investigation, Bay Shore, NY**, **Manufacturing facility.** Managed onsite and offsite soil and groundwater sampling program. Compiled and evaluated data and prepared a comprehensive report of the investigation results for approval by the SCDHS and NYSDEC. Proposed remediation technologies for onsite soil contamination and onsite and offsite groundwater contamination.
- **Project Manager, Site Investigation for FAA, Newark Airport, NJ.** Managed and conducted a soil and groundwater sampling program adjacent to

Runway 29. Analyzed chemical analytical data and developed recommendations.

- **Project Manager, Remedial Investigation, Richmond Refinery, CA.** Supervised and conducted drilling, soil sampling, cone penetrometer testing, and well installation at a refinery process water effluent treatment system and former municipal landfill.
- **Program Manager, major New York Metro area automobile dealer.** Managed all investigation and remedial activities for a major automobile retailer with multiple facilities. Sites included tanks, petroleum spills, underground injection control (UIC) systems, soil vapor intrusion issues, and hazardous waste management. Responsible for work scope and budget preparation, staffing and oversight, client and regulatory agency interactions, addressing insurance issues, reporting and certification, and project closeouts.
- **Program Manager, SWTP groundwater monitoring program, Town of East Hampton.** Managed groundwater monitoring and reporting for the Scavenger Waste Treatment Plant (SWTP). Responsibilities included oversight of well installation, purging and sampling the SWTP groundwater monitoring wells, and providing data to the Town for reporting purposes.
- **Program Manager, Site Assessments for Transportation Hub development, Suffolk County, NY.** Manages Phase I ESAs, Phase II investigations, and remediation required for client acquisition of multiple parcels for redevelopment. Coordinates and oversees each project, interfaces with counsel and regulatory agency representatives, and develops comprehensive cost estimates.
- **Expert Environmental Review Services, Nationwide Sites for Real Estate Developers.** Reviews environmental investigation and remediation reports for several major real estate developers, advises clients regarding environmental concerns for property acquisition and redevelopment, develops comprehensive cost estimates, coordinates with construction contractors, architects, regulators and attorneys regarding environmental concerns.
- **Expert Environmental Consulting Services, Multiple Sites, Town of Brookhaven, NY.** Performed site inspections, investigations, and remedial cost estimation in response to Town Attorney requests. Assisted with Town Code revision and litigation. Coordinated with Town personnel, outside counsel, regulatory agency representatives, and law enforcement officers regarding environmental concerns.
- **Program Manager, Large Agricultural Property, Jamesport, NY.** Responsible for investigation scoping, budget and schedule, remedial cost estimates, staffing, and client interactions for evaluation of a large agricultural property for a property transaction.

Remediation

- **Program Manager, NYSDEC BCP site, NY City, major real estate developer.** In responsible charge of all investigation and remedial activities at a NYSDEC BCP site in New York City. Prepared the RI and Remedial Work Plan; coordinated with the owner, contractors, and NYSDEC; prepared for and conducted citizen participation activities; supervised all waste characterization, profile preparation, and waste management; developed the Final Engineering Report (FER) and Site Management Plan (SMP) for NYSDEC approval; and ensured that all remedial requirements were met such that the Certificate of Completion (COC) was issued. Continuing activities include coordination of the ongoing site management, communications with the NYSDEC and NYSDOH, and preparation of the Periodic Review Reports (PRRs).
- **Program Manager, Major Oil Storage Facility (MOSF) closure, Glen Harbor, NY.** Responsibilities included coordination of the work scope with the NYSDEC and NCDOH, development of work plans for tanks, UIC, and petroleum spill closure, budget and schedule development, staffing and oversight, reporting and certification, and closeout of all environmental issues such that residential redevelopment could proceed.
- **Program Manager, Delineation and Remedial Services, NYS Spill Site, Amityville, NY.** Successfully managed all aspects of investigation remediation, and closure of a #6 fuel oil spill at a hospital site. Work included spill delineation, waste characterization, removal and proper disposal of about 4,000 tons of impacted soil and 6,000 gallons of petroleum, oversight, reporting, and regulatory agency negotiations.
- **Program Manager, Delineation and Remedial Services, NYS Spill Site, St. James, NY.** Responsible for client and agency coordination, budget, schedule, staffing, remedial design and reporting for a petroleum release at a service station property with offsite impacts.
- **Program Manager, RCRA Closure Site, Freeport, NY.** Successfully managed all aspects of RCRA Closure of a former printing facility, including scope, budget and schedule development, Closure Plan, NYSDEC interactions, QAPP, specifications for

contractor services, remediation, and Closure Report.

- **Program Manager, Sub-slab depressurization system (SSDS), Brooklyn, NY.** Managed all aspects of SSDS implementation, including delineation sampling, remedial design, budget and schedule, construction services testing, reporting, and O&M manual development for a former dry cleaner site in an active shopping center.
- **Program Manager, SSDS, Bronx, NY.** Responsible for all aspects of SSDS implementation for a former dry cleaner site in a mixed-use building, including delineation sampling, SSDS design, construction contractor services, testing, reporting, and O&M manual development.
- **Program Manager, Investigation and Remediation for Nassau County, NY Subdivision Approval.** Coordinated investigation and remediation of a former school facility for redevelopment with multi-family housing. Services included Phase I ESA, Phase II investigation, NCDOH Remedial Work Plan development and implementation, and Remedial Action Reports. Issues addressed included soil, USTs, UICs, transformer areas, and water supply well closure.
- **Project Manager, Soil Remediation of metal plating facility, Hauppauge, NY.** Planned remedial project and managed contractor support for soil remediation. Project was completed and approved by SCDHS.
- **Program Manager, Investigation and Remediation of Former Agricultural Properties.** Responsible for all aspects of investigation and remedial plans required for redevelopment of former agricultural properties in Suffolk County, NY. Prepared Soil Management Plans (SMPs) and received regulatory agency approvals.
- **Remedial Design, AS/SVE projects**. Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. These systems were subsequently installed and operated. Provides ongoing review of system operations and remedial monitoring results.
- **Program Manager, Waste soil management, Brooklyn, NY.** In responsible charge of several task orders for waste characterization of a 90,000-cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan (SAP), coordination of staffing, review of lab data, preparation of Field Sampling Summary Reports, coordination with disposal facilities, and preparation of waste profiles.
- **Program Manager, NYS Inactive Hazardous Waste Disposal (Superfund) site, Hicksville, NY.** Responsibilities included developing and implementing pre-demolition investigations, developing and implementing remedial actions (source removal) in conjunction with retail redevelopment, conceptual design and installation of sub-slab depressurization systems (SSDSs), and maintaining the ongoing OM&M program.
- **Project Manager, Remedial project, Patchogue, NY**. Designed and performed indoor underground storage tank abandonment program and leaching pool remediation plan, and managed contractor support for closure activities at a metal tape manufacturing facility. SCDHS provided oversight and approval.
- **Senior Hydrogeologist, Groundwater Containment System, Richmond, CA**. Contributed to the design of a groundwater containment and remediation system for a former municipal landfill, including subsurface groundwater barrier walls and extraction wells. Coordinated technical aspects of groundwater barrier wall construction, including routing, permitting, material selection, and field activities.
- **Project Manager, Soil remediation, Carle Place, NY**. Designed remedial plan and supervised soil remediation activities at an active construction site involving excavation and disposal of 5,000 tons of PCB-, metal-, and petroleum-contaminated soil. NYSDEC oversaw and approved the completed remediation.
- **Project Manager, Multiple UIC investigations and closures, Suffolk and Nassau Counties, NY** Responsible for investigation and remediation of contaminated cesspool and stormwater drain pool systems. Fully conversant with SCDHS SOP 9-95 and USEPA UIC regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.
- **Project Coordinator, UIC Closure, Hempstead, NY.** Coordinated and supervised all aspects of waste management for a UIC closure, including disposal facility review, waste sampling and classification, manifesting, project closeout, and taxation issues.

Hydrogeologic Evaluations

- **Project Manager, Well Permitting, East Hampton, NY.** Prepared Engineer's Report for Long Island Well Permit for a 230-gpm irrigation supply well. Responsible for evaluation of well interference, salt water upconing, impacts from contaminants, and other factors affecting the proposed well. Performed well design (gravel pack size, screen size, etc.). Familiar with sieve analyses, well construction and development methods.

- **Senior Hydrogeologist, groundwater modeling, East Hampton,** NY. Utilized Visual Modflow to evaluate impact from a contaminant plume on a proposed SCWA wellfield. Model development included evaluation of recharge, aquifer properties, subsurface stratigraphy, boundary conditions, plume source and concentration, and wellfield locations and pumping rates.
- **Hydrogeologist, aquifer testing, Manhattan, NY. NYCT.** Participated in a multi-day, multi-well aquifer pumping test for NYCT subway extension. Responsible for operating and maintaining data logging equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.
- **Hydrogeologist, aquifer evaluation, Brooklyn, NY.** Evaluated subsurface geologic conditions for subway site utilizing existing boring logs, topographic, and historic map data.
- **Hydrogeologist, aquifer testing, Queens, NY.** Performed slug tests on monitoring wells at an East Side Access site, and evaluated hydrologic properties using the HYDROLOGIC ISOAQX computer program.
- **Hydrogeologist, Remedial well installation, USEPA Superfund site, Deer Park, NY**. Supervised drilling, installation and development of groundwater extraction, injection, and monitoring wells at a USEPA Superfund site. Interpreted aquifer and well performance from development data and recommended modification of drilling and development procedures.
- **Hydrogeologist, Aquifer testing, Manhattan, NY**. Performed aquifer pumping and slug tests and evaluated hydrologic properties using the AQTESOLV computer program. Results were used to address dewatering and construction concerns for subway tunnels.
- **Hydrogeologist, Aquifer evaluation, Mattituck Airport, Mattituck, NY**. Performed water level and water quality monitoring at a NYSDEC Superfund site. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration.
- **Senior Hydrogeologist, DEIS services, Lazy Point, NY.** Prepared detailed evaluations of groundwater conditions and potential impacts for a water main extension to Lazy Point for a draft Environmental Impact Statement (DEIS). Evaluated current and historic groundwater data and analytical models to determine potential impacts for both Lazy Point and the drinking water source area and prepared associated portions of the DEIS.

Landfills

- **Program Manager, Greenhouse gas monitoring program, Town of Islip, NY**. Responsibilities include scope and budget management, staffing, client and USEPA coordination, reporting review, and troubleshooting.
- **Project Manager, Landfill Closure Investigations, Town of East Hampton, NY**. Prepared Closure Investigation work plans, including Hydrogeologic investigations, methane investigations, surface leachate investigations, and vector investigations. Prepared final Closure Investigation Reports, approved by the NYSDEC.
- **Project Manager, Landfill monitoring networks, Town of East Hampton, NY.** Supervised installation of groundwater and methane monitoring wells at the landfills, including hollow-stem auger and mud-rotary well installations, split-spoon soil sampling and boring log preparation, oversight and interpretation of wireline electric logging, and completion of initial baseline monitoring events.
- **Hydrogeologist, Landfill groundwater monitoring, NJ.** Performed groundwater sampling at a radio tower facility constructed on a landfill. Analyzed results and made recommendations.
- **Program Manager, Landfill monitoring programs, Town of East Hampton, NY.** Supervises ongoing groundwater and methane monitoring programs, including field team coordination, communications with the Town, report scheduling, data review, and report review prior to distribution to the client and NYSDEC. Negotiated with NYSDEC for reduced monitoring frequencies based on historic monitoring results.
- **Senior Hydrogeologist, Landfill plume modeling, Town of East Hampton, NY.** Conducted groundwater flow modeling to evaluate the nature and extent of a landfill plume and its fate. Findings were presented at public meetings and were used to determine the configuration of the landfill's groundwater monitoring network.
- **Hydrogeologist, Septage lagoon Superfund site, Town of East Hampton, NY.** Conducted sampling of former septage lagoons at a landfill. Evaluated the resulting data and prepared a delisting petition for this NYSDEC Superfund site.
- **Hydrogeologist, containment system modeling, Richmond, CA.** Used FLOWPATH modeling program to predict groundwater flow directions and evaluate extraction well locations and pumping rates for a groundwater containment and remediation system at a former municipal landfill.

- **Program Manager, Landfill gas monitoring program, Town of Islip, NY**. Manages monthly methane monitoring for all landfills, including onsite and offsite monitoring wells, methane collection systems, and flare systems. Data is recorded electronically and downloaded to computer for formatting prior to expedited delivery to Town.
- **Program Manager, Landfill monitoring reporting program, Town of Smithtown, NY**. Supervised and reviewed quarterly and annual monitoring reports for all monitoring programs at the landfills for Town compliance with NYSDEC requirements, including tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste composting operations, and landfill leachate collection and disposal data.
- **Program Manager, Landfill remediation, Town of Huntington, NY.** An historic landfill was removed from parkland under the NYSDEC's ERP. Responsibilities included work scope development, schedule and budget management, staffing, client and regulatory agency coordination and reporting, and report review and certification.
- **Program Manager, Landfill Financial Assurance Reporting, Town of Smithtown, NY.** Prepares annual Financial Assurance Reports as per Town landfill closure requirements. Services include summarizing landfill closure and monitoring costs, calculating total costs over a 30-year period, evaluating available Town funds using Comptroller's financial reports, assessing available funds using NYSDEC-required procedures, and preparing annual reports.

Environmental Data Analysis

Ms. Davis has participated in multiple sessions of environmental geochemistry training provided by environmental geochemists, including physical chemistry, thermodynamics, ionic interactions, complexation, biologic effects, and other basic principles. Training also included field sampling procedures and effects on chemical data, chemical analytical methods and equipment, and QA/QC procedures and interpretation. Attended periodic environmental chemistry training sessions hosted by environmental laboratories and participated in hands-on training in data and QA/QC evaluation.

- **Data Evaluation, multiple projects**. Reviewed and evaluated numerous soil, groundwater, product, indoor/ambient air, and soil vapor chemical analytical datasets, including evaluation of batch and site-specific QA/QC samples, laboratory narratives, comparison to regulatory agency criteria, historic data, and background data.
- **Quality Assurance Project Plans (QAPPs), multiple projects**. Developed and implemented numerous QAPPs, including QAPP design, sample delivery group (SDG) evaluations, sampling procedures and sequences, and QA/QC sample preparation/collection.
- **Data Usability Summary Reports (DUSRs), multiple projects**. Prepared DUSRs for numerous chemical analytical datasets for projects overseen by USEPA, NYSDEC and other regulatory agencies, including soil, groundwater, soil vapor, indoor air, and ambient air datasets.
- **DUSR Preparation for Major RCRA Closure, Great Neck, NY.** Prepared DUSRs for over 90 sites during RCRA closure of a major manufacturing facility. Coordinated with sampling personnel, laboratories and regulatory agency chemists to resolve QA/QC issues. Completed work under tight schedules to meet client deadlines.
- **Electronic Data Deliverables (EDDs), multiple projects**. Implemented protocols and procedures for all FPM sites for which NYSDEC EDDs are required. Responsibilities included staff training, data package QA/QC, client interactions, budget and schedule impact assessments, and dissemination of EDD training information.
- **Data Evaluation, multiple sites**. Performed forensic assessments of historic environmental chemical analytical data to resolve apparent discrepancies with modern data and other inconsistencies.
- **Leachate test assessments**. Assessed leachate test protocols and results to determine the most applicable methods to evaluate and develop soil cleanup objectives for non-regulated compounds.
- **Organic parameter breakdown assessments.** Interpreted numerous organic parameter datasets to evaluate breakdown sequences, likely original parameters, and rates of degradation.
- **In-situ remediation assessments, multiple sites**. Formulated chemical treatment plans for in-situ remediation, including assessment of contaminant concentrations and distribution, chemical processes and indicators, natural attenuation indicators, stochiometric demands, and hydrogeologic factors.

Community Impacts

- **Community Monitoring Plans, multiple hazardous waste sites**. Developed Community Air Monitoring Plans (CAMPs) for investigation and remediation projects, including monitoring procedures, action levels, and mitigation measures for odors, traffic, noise, dust, and/or vapors with the potential to affect surrounding communities. Each

CAMP was approved by the NYSDEC and NYSDOH and was implemented under agency oversight. Presented CAMP findings at numerous community meetings. Addressed community and agency questions and issues.

- **Odor Abatement, NYSDEC BCP site, NYC, NY.** Developed and implemented an odor abatement plan for highly-odorous soil discovered during a remedial project. The site was surrounded by three public schools; complaints following discovery of odorous soil resulted in a job shutdown until the nuisance was abated. The odor abatement plan was prepared and implemented within 24 hours and involved immediate covering of the odorous soil followed by spot excavation and removal during non-school hours (night work) and the use of odor-controlling foam. The removal was completed within one week without further incident. The NYSDEC and NYSDOH approved the completed work, allowing the job to recommence.
- **Vector Assessment, transfer station, Town of East Hampton, NY**. Conducted inspections of intense fly infestations at a Town transfer station building to identify the locations and migration pathways of flies inside the building and to develop an abatement plan. This plan was successfully implemented and abated the nuisance flies.
- **Soil Vapor Intrusion Assessments, multiple sites**. Developed and implemented air and soil vapor investigations of residential and commercial properties, as approved by the NYSDEC/NYSDOH, to evaluate potential air quality impacts and determine if mitigation or monitoring was necessary. Monitoring/mitigation designs were developed for NYSDEC/NYSDOH approval.
- **CAMP Monitoring, multiple sites**. Conducted odor, dust, noise, and organic vapor monitoring in communities surrounding environmental sites. Data were collected and interpreted in accordance with NYSDEC and/or NYSDOH guidance and the results were submitted to these agencies together with recommendations for mitigation, if appropriate.
- **Project Manager, Environmental data assessment, Windmill Village, Town of East Hampton, NY.** Evaluated environmental data obtained during due diligence testing for a proposed housing development. Recommended additional sampling and confirmed the absence of impacts.

Expert Witness/Technical Services

- **Expert Witness/Technical Services, residential project, Glen Harbor, NY.** Provided expert witness and technical services regarding environmental conditions and remedial procedures for residential redevelopment of a former oil terminal, including preparing and obtaining NYSDEC and NCDOH approval of remedial work plans, preparing remedial cost estimates and schedules, and providing testimony at a public hearing before the Town Board from which a change of zone was requested. The proposed change of zone, although subject to considerable public opposition, was approved, allowing redevelopment and associated remediation of the property to move forward.
- **Expert Witness/Technical Services, petroleum spill site, Westbury, NY.** Provided expert witness and technical services to a petroleum company defending NYSDEC cost recovery claims for a petroleum spill. The spill site involved two very large petroleum releases at gasoline stations adjoining the defendant's property. Services provided included evaluating tank tests, groundwater, soil and soil vapor chemical analytical data, petroleum fingerprint data, remediation activities and costs. Prepared numerous detailed timelines of activities, large displays of site information and subsurface conditions, and cost allocation calculations. Conducted a detailed subsurface investigation to evaluate stratigraphic conditions.
- **Expert Witness/Technical Services, petroleum spill site, Brooklyn, NY.** Provided expert witness and technical services to a petroleum company for investigation and remediation cost allocation for a petroleum spill. The spill site included two releases: an historic release related to the client's operations and a recent release related to a contractor's faulty spill bucket installation. Services provided included evaluating groundwater and soil chemical analytical data, assessment of free-phase product migration and removal, and a review of remediation activities. Prepared detailed timelines of plume growth and migration, displays of site information and subsurface conditions, and assessments of future remedial scopes and costs. Provided technical support and presentations during mediation.
- **Expert Technical Services, chlorinated solvent site, Far Rockaway, NY.** Provided expert witness services for federal court litigation, including Expert Reports, Affidavits, depositions, and counsel support. Oversaw supporting technical services, including conducting an RI and additional investigations and developing remedial approaches and cost estimates.
- **Expert Technical Services, solvent plume site, Nassau County, NY.** Provided technical support to a property owner subject to a USEPA investigation as the potential source of a large chlorinated solvent plume, including evaluation of a plume-wide RI/FS, detailed review of property historic information, multiple meetings with the USEPA, client and

counsel, and identification of additional potential source areas.

- **Expert Technical Services, solvent plume site, Nassau County, NY.** Provided technical support to a property owner subject to litigation as a potential source of chlorinated solvent impacts to a public supply well, including evaluation of a plume-wide RI/FS and related investigation reports, detailed review of property historic information, meetings with the plaintiff, client and counsel, and identification of more likely chlorinated solvent sources.
- **Expert Technical Services, contaminated fill sites, Town of Brookhaven, NY.** Provided expert technical and witness services for several Town sites where illegal disposal of contaminated fill was suspected. Services provided included site inspections, preparation of investigation scopes and budgets, preparation of technical reports, Expert Reports, and Affidavits, participating in depositions and negotiations, and counsel support. Oversaw supporting technical services, including conducting investigations and developing remedial approaches and cost estimates.
- **Expert Technical Services, development site, Village of Larchmont, NY**. Assisted the Village in successfully opposing the construction of a very large superstore in the adjoining community, including evaluating previous environmental investigations, developing cost estimates and scopes of work for a full environmental site assessment, preparing scoping cost estimates for likely remediation scenarios, preparing technical documents in support of the Village's position, and making a presentation at a public hearing. The proposed project was subsequently withdrawn.
- **Expert Hydrogeologist Services, development site, Town of Carmel, NY**. Provided technical evaluation of a proposed water district. The proposed water district would impact existing residents due to limited available water supplies and likely impact on existing wells. The work included evaluation of aquifer pumping tests, determining impacts on nearby wells, assessment of likely increased water demand, preparation of supporting documents, and presentations at project hearings. The proposed project was subsequently conditionally approved by the NYSDEC with significant modifications to protect the water rights of existing residents.
- **Expert Technical Services, development site, Village of Laurel Hollow, NY**. Provided technical evaluations of potential impacts from a proposed development site, including soil and drainage conditions, loss of protected vegetation, and slope issues.
- **Expert Technical Services, development site, Village of North Haven, NY**. Provided technical evaluations of a proposed development site, including soil and drainage conditions, geomorphic features, and slope issues.
- **Expert Technical Services, road construction projects, Westchester County, NY.** Provided technical services to assess impacts from proposed road construction projects on the Kensico Reservoir and other New York City water supply system facilities. This work included evaluating stormwater pollutant loading calculations, assessing impacts to wetlands, promoting application of more accurate stormwater runoff calculation methods, assessing proposed stormwater management techniques, presenting at public meetings, preparing technical statements for submittal to regulatory agencies, and participating in the NYSDOT SWPPP Guidance committee.
- **Expert Witness Affidavits, multiple projects**. Prepared affidavits regarding environmental conditions at client properties in support of pending legal actions, including landfill issues, wetlands and navigatable waterway issues, and petroleum spills.

Health and Safety

- **Health and safety monitoring, multiple sites**. Implemented HASP monitoring at investigation and remediation sites during intrusive activities, including calibration and operation of photoionization detector (PID) and flame ionization detector (FID) for organic vapors, combustible gas indicator (CGI) for methane, dust meter for particulates, and noise monitor. Compared results to applicable action levels and implemented protective measures as necessary.
- **CAMP monitoring, multiple sites**. Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors. Recorded observations and compared to applicable action levels. Calibrated and operated noise meters, particulate monitors, and PID/FID. Prepared CAMP monitoring reports and presented results to regulatory agencies and the public.
- **Radiation screening, multiple sites**. Performed screening for radiation at select sites, including operating Geiger counter in different radiation modes and obtaining background readings.

Miscellaneous Projects

- **Phase I Environmental Site Assessments (ESAs)**. Performed numerous Phase I ESAs for industrial, commercial, and residential sites in the metropolitan New York area. Presently supervises the Phase I ESA program, including budgets, staffing, quality control and report preparation.

- **Environmental Trainer.** Conducted aquifer pumping and soil vapor extraction test training. Instructed classes for site investigation methods, aquifer pumping test analysis, soil classifications, and risk assessment.
- **Project Management**. Performs a wide range of project management functions, including development and management of project budgets and schedules, coordination of field and office staffing, document preparation, review, editing, and interaction with clients, regulatory, legal, real estate, consultant, and compliance personnel.
- **Field Mapping Studies**. Organized, supervised, and conducted field mapping studies in Alaska.
- **Downhole Logging**. Directed petroleum well site geophysical logging operations and interpreted geophysical well logs.
- **Geophysical Data Interpretation**. Processed and interpreted seismic reflection data and constructed seismic velocity models.
- **Regulatory Evaluations**. Assisted and reviewed regulator's revision of proposed risk assessment-based UST cleanup guidelines. Reviewed proposed USEPA NPDES permits for remediation system effluent.
- **Geologic Mapping**. Constructed and interpreted structural and stratigraphic cross sections, and structure contour, fault surface, isochore, and isopach maps.

Regulatory Compliance

- **RCRA compliance audits.** Conducted inspections and reporting regarding underground and aboveground storage tanks (USTs and ASTs), hazardous waste storage facilities, waste management and reporting requirements, and hazardous waste storage area closures in compliance with RCRA.
- **CERCLA Compliance**. Oversees and coordinates Phase I ESAs for compliance with CERCLA requirements for a wide variety of facilities, including operating and historic industrial sites, manufacturing plants, abandoned facilities, and multi-property Brownfield sites.
- **Superfund Sites**. Managed multiple investigation and remedial projects at state and federal Superfund sites. Is very familiar with all phases of CERCLA projects, including PA/SI, RI, FS, RD and RA. Has supervised and directed activities at many Superfund sites from investigation through closure.
- **Clean Water Act Projects.** Conducted investigation and remediation of Class V underground injection control (UIC) systems, investigation and acquisition of UIC discharge permits, and discharges into surface water bodies.
- **Clean Air Act Compliance Projects**. Conducted facility investigations for emissions sources, including paint booths, fume hoods, process discharges and other point sources. Sampled and evaluated remediation system discharges for CAA compliance, and recommended emissions treatment when required.

Representative DOD Projects

- **Barksdale RFI, Barksdale AFB, LA, $520K-**Lead Geologist for RFI for multiple Base-wide sites at Barksdale AFB, including landfills, petroleum spills, fire training areas, sewage treatment plans, and chemical spills. Managed field crews and sampling of soil, groundwater, and waste, performed sample and waste management, and coordinated with Base representatives. Prepared RFI Report, including analytical data reports, CS, and recommendations.
- **Barksdale LTM Program, Barksdale AFB, LA, $1.7M-**Lead Geologist for LTM Program for Base-wide Barksdale groundwater, including landfills, petroleum spills, fire training areas, sewage treatment plants, and chemical spills. Supervised field crews, managed samples and waste, prepared LTM Reports and made recommendations for LTM optimization.
- **Site Characterization, Plattsburgh AFB, NY, $720K-**Field Team Leader for SC investigation of fuel oil USTs and petroleum spills at Base housing, officers' quarters, and support building prior to transition of these areas to other uses. Working for AFCEE, developed and conducted an SC for over 200 USTs, including soil and groundwater sampling to identify petroleum contamination. Supervised several field crews in an accelerated sampling program to complete the SC prior to winter conditions. Prepared SC Report submitted to and approved by the NYSDEC.

MGP Site Experience

- **Field Sampling Services. Soil Investigation, Brooklyn Union Greenpoint MGP site**. Conducted soil sampling and screening activities during tank removal activities at this former MGP facility. Tasks included visual observations, screening with a calibrated PID, soil sampling, interfacing with the client, subcontractors and NYSDEC personnel, and report preparation.
- **Program Manager. Soil Vapor Intrusion Investigation and Mitigation, Brooklyn MGP site**. Developed and implemented a soil vapor intrusion (SVI) investigation following the discovery of

chlorinated solvents in soil vapor beneath a shopping center constructed on an MGP site. Managed all scheduling, budget and contract issues. Reviewed results and developed an SVI mitigation plan to address the chlorinated solvent vapors. Oversaw design and installation of a sub-slab depressurization system (SSDS) to address SVI. This work was completed on time and within budget.

- **Field Team Supervisor. Soil Remediation, Brooklyn Union Coney Island MGP site**. Responsible for coordinating all field activities associated with segregation and removal of lead-paint impacted soil from MGP waste at this NYSDEC-listed MGP site. Conducted pre-excavation waste characterization, implemented HASP, oversaw subcontractor and FPM staff, coordinated with client and NYSDEC, managed waste manifesting, conducted community air monitoring, and prepared remediation report.

Ben T. Cancemi, PG, CPG

Mr. Cancemi has diversified experience in geology and hydrogeology. His professional experience includes groundwater and soil investigations, design and management of soil remediation projects, installation and maintenance of groundwater containment and remediation systems, aquifer testing and interpretation, geotechnical studies, evaluation of site compliance with environmental regulations and environmental permitting.

Functional Role	Title	Years of Experience
Project Manager	**Department Manager - Hydrogeology**	**24**

Personal Data

Education
M.S./2001/Hydrogeology/SUNY Stony Brook
B.S./1995/Geology/SUNY Stony Brook

Registration and Certifications
New York State Professional Geologist, #7051
Certified Professional Geologist – American Institute of Professional Geologists
NYC Office of Environmental Remediation – Gold Certified Professional
OSHA 40-hour HAZWOPER and Current 8-hour Health and Safety Training and Current Annual Physical
OSHA 8-hour HAZWOPER Supervisor
OSHA 10-hour Construction Safety and Health
OSHA Permit-Required Confined Space Training
Long Island Geologists
National Groundwater Association

Employment History

2001-Present	FPM Group
1998-2001	Burns & McDonnell Engineering Company
1997-1998	Groundwater and Environmental Services
1996-1997	Advanced Cleanup Technologies

Detailed Experience

Hydrogeologic Evaluations

- **Project Manager, Lower Manhattan, NY. NYCT.** Coordinated and performed constant head hydraulic conductivity (packer) testing in boreholes located in fractured bedrock in lower Manhattan, NY to evaluate fracture connectivity with the nearby Hudson and East Rivers and determine hydraulic conductivity and related parameters such that water management procedures could be implemented for redevelopment of the New South Ferry Subway Station.
- **Project Manager, Manhattan, NY. NYCT** Coordinated and performed a hydrogeologic investigation, including utility clearing, soil borings, rock coring, packer testing, aquifer pumping testing, data collection, and interpretation, to evaluate subsurface conditions and determine geologic parameters for a proposed subway extension of the NYC Transit No.7 Subway Line.
- **Project Manager, Various Sites Long Island, NYC, and Westchester County, NY** Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer program AQTESOLV.

Site Investigations

- **Program Manager** for ongoing investigation and remedial projects at several New York State Inactive Hazardous Waste Disposal sites, Voluntary Cleanup Program (VCP) sites, and NYC OER e-designated sites. Investigations have included site characterization, Remedial Investigations/Feasibility Studies (RI/FS), and Resource Conservation and Recovery Act (RCRA) facility investigations and closures. Remedial services have included contaminated soil removal; design, installation, and operation of air sparge/soil vapor extraction (AS/SVE) systems and sub-slab depressurization systems (SSDS), capping, and other remedial services.
- **Program Manager NYSDEC BCP Site, Brooklyn, NY** Coordinated and performed an investigation, implemented remedial measures and regulatory reporting at a former dry-cleaning facility in Brooklyn, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts. Remedial actions included conducting pilot testing for installation of a sub-slab depressurization system (SSDS), coordinating the installation of vapor barrier and SSDS. Prepared a Final Engineering Report documenting remedial activities and a Site Management Plan for continued site monitoring. Site monitoring is currently being performed and includes SSDS operation and maintenance (O & M), annual air monitoring and periodic reporting.

- **Program Manager NYSDEC Inactive Hazardous Waste Site, Garden City, NY** Coordinated and performed an investigation, implemented remedial measures and regulatory reporting for a former printing facility in Garden City, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts. Remedial actions included pilot testing and installation of an air sparge/soil vapor extraction (AS/SVE) system and SSDS, coordinating the installation of an SSDS, removal of contaminated soils from two areas and removal of impacted sediments from twelve leaching structures. Prepared a Final Engineering Report documenting remedial activities. Site monitoring included AS/SVE O & M, and periodic reporting. The AS/SVE has completed remediation and SVI testing has been performed to ensure remediation is complete. Prepared work plan to evaluate potential emerging contaminates including PFAS compounds. Sampling and subsequent analysis and reporting was performed.
- **Program Manager, NYC Redevelopment Site, Queens NY.** Program Manager for environmental activities at a NYC Voluntary Cleanup Program Site. Environmental activities included preparation of a Phase I report, completion of a remedial investigation, preparation of associated work plans, implementation of a community air monitoring program for site activities, excavation and disposal of impacted soils, management and disposal of clean soils, and regulatory reporting.
- **Project Manager Remedial Investigation NYSDEC BCP Site, Queens, NY** Coordinated and performed an investigation at a vacant commercial property Far Rockaway, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts from an adjoining offsite source. Prepared Remedial Work Plan and Report and provided monthly updates.
- **Project Manager, Site Investigation, Former Aerospace Facilities, Long Island, NY** Coordinated and performed soil and groundwater sampling and soil vapor studies at several aerospace manufacturing facilities on Long Island, NY. Assessments included an evaluation of past manufacturing and facility operations, storage and use of solvents, petroleum and manufacturing-derived wastes, and impacts to soils, soil vapor, and groundwater. Areas of concern were identified for further evaluation and/or corrective action.
- **Project Manager, Municipal Landfill Monitoring, Town of East Hampton, NY** Coordinated and performed long term groundwater monitoring at two closed Town of East Hampton, NY municipal landfills, including the sampling a multi-depth monitoring well network, analysis and interpretation of analytical and hydrogeologic data, and regulatory reporting in accordance with NYSDEC Part 363 (formerly Part 360) requirements.
- **Project Manager, Site Investigation, Former agricultural facilities, Long Island, NY** Coordinated and performed soil and groundwater investigations at various agricultural and horticultural properties to evaluate impacts of past herbicide and pesticide usage on the underlying soil and groundwater.
- **Program Manager, Municipal Landfill Gas Monitoring, Town of East Hampton, NY** Managed and performed routine methane monitoring at two Town of East Hampton landfills for compliance with NYSDEC requirements and to evaluate potential offsite migration to the surrounding community. Monitored indoor air with a flame ionization detector (FID) to evaluate impacts to buildings.
- **Hydrogeologist, Groundwater Modeling, Town of East Hampton, NY** Assisted with groundwater flow modeling for the Springs-Fireplace Road Landfill to evaluate the nature and extent of the landfill plume, its likely downgradient extent, and its fate.
- **Program Manager, Petroleum Release Sites, Various NYC, Long Island and Westchester County** Coordinated and performed onsite and offsite monitoring at petroleum release sites on Long Island, the New York metropolitan area, and in Westchester County in accordance with NYSDEC Spill program requirements. The monitoring programs generally included sampling multi-depth monitoring well networks utilizing low-flow sampling techniques, analysis/interpretation of analytical and hydrogeologic data, and regulatory reporting.
- **Project Manager, Site Investigation, Logan International Airport, Boston, MA.** Coordinated a soil and groundwater sampling program to evaluate environmental conditions at Terminal A, Logan International Airport, East Boston, Massachusetts. The program included an assessment of the current fuel hydrant system and other locations of potential environmental concern using non-destructive air vacuum

extraction-clearing techniques combined with direct-push sampling.

- **Project Manager, Site Investigation, Pyrotechnics Facility, Suffolk County, NY.** Managed and performed a soil and groundwater investigation, a remedial soil excavation, and groundwater monitoring at a pyrotechnics manufacturing facility in Suffolk County, NY. The work was performed under the direction of the Suffolk County Department of Health Services (SCDHS) to investigate and remediate contamination from historic use of perchlorate-containing materials at the facility.
- **Project Manager, Site Investigation, Automobile Franchise, Westchester County, NY.** Coordinated and performed soil, groundwater and soil vapor investigations at several automobile dealerships in Westchester County, NY to evaluate potential impacts from petroleum and chemical solvent storage and usage and onsite waste water disposal systems.
- **Project Manager, Site, Investigation, Former Mercury Thermometer Manufacturing Facility, Queens, NY.** Coordinated and performed soil and soil vapor intrusion study at a former mercury thermometer manufacturing facility situated in a mixed industrial and residential area. Assessments included an evaluation of past manufacturing and facility operations, storage and use of mercury, manufacturing-derived wastes, and impacts to soils and soil vapor Areas of concern were identified for further evaluation and remedial action.

Phase I Environmental Site Assessments

- **Project Manager, Various Northeastern and Mid-Atlantic States.** Performed numerous Phase I Environmental Site Assessments (ESAs) for commercial and industrial properties throughout the Northeastern and Mid-Atlantic States for various clients including trucking companies, major airlines, telecommunication companies, chemical/ petroleum storage facilities, aerospace manufacturing facilities, machine shops, retail shopping centers, auto dealerships and service stations.

Remediation

- **Project Manager, Remediation, Former Landfill, Suffolk County, NY.** Managed remedial activities at a NY State Environmental Restoration Program (ERP) Site situated at a former hospital landfill in Northport, NY. Responsibilities contractor management and oversight, soil disposal management, confirmatory testing, data review, and preparation of remedial work plan and final engineering report for remedial activities.
- **Project Manager, Remediation - AS/SVE, Various Sites, NYC and Long Island.** Performed pilot testing, design, installation and procurement of numerous multi-depth soil vapor extraction (SVE) and air sparge (AS) remediation systems on Long Island and in the NYC metropolitan area to remediate chlorinated solvents and petroleum. Conducted remediation system operation and maintenance, and evaluations of system performance.
- **Project Manager, Remediation – UIC Structures, Nassau and Suffolk County, NY.** Performed numerous storm water and sanitary leaching structure (UIC) cleanouts utilizing excavation and/or vacuum assisted equipment to remove contaminated sediments and liquids. Conducted waste characterization and profiling, pipe camera surveys, and structure locating utilizing water-soluble dyes and electronic locating equipment.
- **Project Manager, Remediation Sub-Slab Depressurization Systems, NYC, Nassau and Suffolk Counties, NY.** Conceptually designed and oversaw the installation of a sub- slab depressurization system (SSDS) at several commercial properties in the NYC and Long Island to mitigate chlorinated solvent impacts. SSDS monitoring was conducted to ensure proper operation and emissions compliance of with NYSDEC air discharge guidelines.
- **Project Manager, Remediation System O & M, NYC and Long Island.** Operated and maintained remediation systems, including SVE, groundwater pump and treat, AS, dual-phase extraction, SSDS and free-phase petroleum recovery systems.
- **Project Manager, Remediation. White Plains, NY.** Managed and coordinated a petroleum spill investigation to evaluate the nature and extent of a fuel oil release at an office building in White Plains, NY. The investigation included excavation and removal of a 5,000-gallon UST situated over 20 feet below grade, tightness testing of the UST and associated piping, a soil and groundwater investigation, free product recovery utilizing vacuum-enhanced fluid recovery techniques, and coordination and reporting to the NYSDEC and Westchester County Department of Health.

Health and Safety

- **HASP and CAMP Plan Preparation, Various Sites.** Prepared community air monitoring and health and safety plans for several NYSDEC inactive hazardous waste, brownfield cleanup program, volunteer cleanup program, petroleum spill, and NYC e-designation program sites
- **HASP Monitoring, Various Sites.** Performed health and safety monitoring at investigation and remediation sites during intrusive activities. Calibrated and operated photoionization detectors (PID) and flame-ionization detectors (FID) for organic vapors and combustible gas indicators (CGI) for methane. Compared results to applicable action levels and took preventative/protective measures as necessary.
- **CAMP Monitoring, Various Sites.** Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors. Recorded observations and compared to applicable action levels. Calibrated and operated noise meters, particulate monitors, and PID/FID.
- **Radiation Screening, Various Sites.** Performed screening for radiation at select sites. Operated Geiger counter in different radiation modes and obtained and evaluated background readings.
- **Mercury Screening.** Performed screening of mercury vapor for several projects. Operated and experienced with Jerome and Lumex Mercury Vapor Analyzers.

Expert Witness/Technical Services

- **Expert Witness Services, Glen Cove Waterfront Redevelopment.** Provided expert witness services regarding environmental conditions and remedial procedures for redevelopment of a former industrial and commercial area in Glen Cove, NY.
- **Technical Services, multiple sites, Town of Brookhaven.** Provided technical services regarding environmental conditions at various commercial and residential sites within the municipality to evaluate potential compliance issues with Town code. Services included coordinating subsurface investigations, sampling of various media, methane surveys, tidal surveys, technical oversight of investigation activities.
- **Technical Services, multiple sites, Town of Huntington.** Provide technical review of environmental investigations and soil management plans prepared for proposed development for the Planning Division to asses if the proposed development has been properly evaluated in accordance with Town requirements.

PFAS Experience

- **Project Manager, Multiple NYSDEC and NYC VCP Sites**. Provides oversight and management of several Site Management and Investigations regulatory sampling programs for which PFAS sampling has been required. Responsible for, data acquisition and interpretation, reporting, and negotiations with NYSDEC.
- **Project Manager, Legal Support Services.** Provide support to counsel for providing consulting services regarding PFAS contamination at a municipal airport. Services include review and assessment of analytical data, technical support and preparation of anticipated future investigative and remedial costs.

MGP Site Experience

- **Field Team Leader, Property Transfer of MGP sites**. Conducted soil and groundwater sampling at several Nicor MGP sites in Illinois prior to property transfer to Con Edison. Coordinated sampling crews, oversaw sampling and sample management, and implemented HASP monitoring.

- **Project Manager, Geophysical Investigation at Brooklyn Union Greenpoint MGP site.** Developed and implemented a geophysical investigation at an MGP site that was subject to differential settlement. Coordinated with client and subcontractors, oversaw survey activities, implemented HASP, interpreted results, and prepared a report to document the completed work.

Other

- **Proposal Development.** Prepare and provide detailed work scopes and cost estimates for Phase II investigations, remedial investigations, SVI Investigations, remedial system and SSDS installations, contaminated soil removal, and continued site monitoring for project planning and legal support.
- **Project Manager, RCRA Closure, Nassau County, NY** Coordinated RCRA closure activities and performed confirmatory sampling at a former package manufacturing and printing facility in Nassau County, NY. Project duties included preparation of a closure work plan, contractor procurement, a subsurface site investigation, rinseate sampling, and regulatory agency

reporting and coordination, and preparation of a closure report.

- **Project Manager, Former Landfill, Suffolk County, NY.** Prepared a remedial design (RD) work plan for a former hospital landfill on Long Island. The RD work plan included a summary of past investigations, a materials management plan for the excavation and disposal of contaminated soils and debris, a post-excavation sampling plan, a site restoration plan, community air monitoring plan (CAMP), health and safety plan (HASP) and a quality assurance and quality control (QA/QC) plan.
- **Project Manager, Air Monitoring, Nassau County, NY.** Managed and performed monthly soil gas sampling and quarterly indoor air quality sampling at an elementary school in southwestern Nassau County, NY. The monitoring and associated NYSDEC reporting were performed to ensure that a gasoline groundwater plume migrating through the school property was not impacting indoor air at the school.
- **Project Manager, Environmental Compliance, Multiple Sites.** Performed compliance inspections to assess issues of potential environmental concern at manufacturing, aviation, trucking, retail, and not-for-profit facilities.

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John S. Bukoski, PG

Engineering and Environmental Science

Mr. Bukoski is an Environmental Scientist with diversified experience in both the Federal and private sector, including groundwater and soil investigations and evaluation, soil remediation projects, soil vapor intrusion evaluation, aquifer testing and interpretation, design and management of soil and groundwater remediation projects, groundwater flow modeling, evaluation of site compliance with environmental regulations, air quality evaluations, and environmental permitting.

Functional Role	Title	Years of Experience
Field Services Manager	**Environmental Scientist**	**21**

Personal Data

Education

B.S./1998/Environmental Science/SUNY Buffalo

Registration and Certifications

Professional Geologist, NY #438
OSHA 40-hr and current 8-hr Health and Safety Training Course (1999-present)
OSHA-Approved 8-hr Health and Safety Training Refresher Courses (2000-Present)
OSHA-Approved 8-hr Site Safety Supervisor Training Course (2008)
MTA NYC Transit Track Safety Certification
National Groundwater Association
Long Island Association of Professional Geologists
Advanced Technologies for Natural Attenuation Certification

Employment History

1999-present	FPM Group
1991-1998	Sutherland's Office Centre
1985-1991	United States Marine Corps

Detailed Experience

PFAS/1,4 – Dioxane Evaluations

- PFAS/1,4-Dioxane Evaluations Assessed PFAS and 1,4-dioxane impacts for various sites including disposal sites, manufacturing facilities, commercial businesses, and municipalities to determine human health and ecological risks and impacts. Provided consultation on the complexities and analytical challenges associated with identifying and quantifying PFAS in different matrices and materials. Evaluated impacts within various media including groundwater, sediment, and soil. Determined selection of the appropriate matrices and analytical methods for quantifying individual PFAS compounds, and laboratories capable of these assessments. Performed numerous investigations involving testing of various media to determine the presence of contaminants and fate and transport of contaminants in groundwater. Performed sampling and analytical methods for low-level detection, source zone characterization, and analysis of contaminant plumes. Assessed site specific groundwater hydrogeology and developed models to characterize the movement and behavior of contaminant plumes and evaluate PFAS transport under various potential environmental conditions. Performed data management solutions to trend PFAS data and represent findings. Reviewed and validated monitoring data. Evaluated the potential impact of PFAS on sources of municipal drinking water. Evaluated the selection, implementation, and outcome of proposed and existing PFAS remediation activities. Developed and implemented quality assurance project plans and sample analysis plans for collection of environmental samples for evaluation of PFAS compounds, including steps during sampling and analysis to prevent cross-contamination and ensure accurate quantification. Assessed the capabilities and methods of commercial laboratories for analyzing PFAS in environmental samples. Managed projects in accordance with appropriate PFAS regulations, guidelines, and advisories. Performed feasibility studies to evaluate the cost and effectiveness of different remediation options based on site characteristics, contaminant levels, and goals. Determined remedy options and designs. Designed and implemented optimized long-term monitoring strategies.

Site Investigations

- Performed Phase I Environmental Site Assessments and Phase II Investigations for numerous sites in New York State, including commercial buildings, aerospace facilities, former research and development facilities, and large manufacturing plants.
- Provided oversight and coordination for ongoing investigation and remedial projects at numerous New York State Inactive Hazardous Waste Disposal

(Superfund) Sites, Voluntary Cleanup Program (VCP) Sites, and Brownfield Cleanup Program (BCP) Sites. Investigations included Site Characterization (SC), Remedial Investigation/ Feasibility Studies (RI/FS), and RCRA Facility Investigations. Remedial services have included contaminated soil removals; UIC closures, ORC and HRC injections; design, installation and operation of air sparge/soil vapor extraction (AS/SVE) systems; sub-slab depressurization systems (SSDS) and, capping.

- Managed site investigation activities, including soil vapor and air sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in New York State in support of negotiations for property purchases and redevelopment.
- Investigated several petroleum-contaminated spill sites at Griffiss AFB, Rome, NY. Performed soil and groundwater sampling via Geoprobe, installed groundwater wells for monitoring and assessment of attenuation. Proposed remediation technologies for soil and groundwater contamination. Analyzed chemical data and prepared Site Investigation (SI) Reports and closure reports.
- Investigated several chlorinated solvent-contaminated sites at Griffiss AFB, Rome, NY. Performed aquifer testing to establish direction of groundwater flow. Collected groundwater samples and analyzed the chemical data to identify the constituents of concern. Proposed remediation technologies for groundwater contamination.
- Supervised drilling installation, development, and sampling of monitoring wells at numerous sites throughout New York State. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared investigation reports identifying site history, contaminant characteristics, sampling methods, and site-specific lithology.
- Managed landfill monitoring projects at several landfills in Suffolk County. Collected and evaluated methane and groundwater monitoring data. Prepared reports documenting monitoring results and provided recommendations regarding methane collection, stormwater runoff, capping, and other landfill management strategies.
- Performed long-term monitoring projects at several landfills at Griffiss AFB. Collected groundwater, leachate, and surface water samples. Evaluated resulting data and prepared monitoring reports for state and federal agency review.

Remediation

- Performed investigation and remedial activities at several NYSDEC BCP sites in New York City. Prepared Remedial Investigation and Remedial Work Plans; coordinated with the owner, contractors, and the NYSDEC; conducted citizen participation activities; performed waste characterization, waste profiles, and waste management; developed Site Management Plans for NYSDEC approval.
- Performed waste characterization of a 90,000-cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan (SAP), evaluation of lab data, preparation of Field Sampling Summary Reports (FSSR), coordination with disposal facilities, and preparation of waste profiles.
- Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. Provided construction oversight for system installation. Performed routine system operation monitoring and evaluated system performance. Prepared system installation and monitoring reports.
- Assisted in the design of a soil remediation plan and performed construction and soil remediation oversight for a metal parts plating and manufacturing facility in Suffolk County, New York. Remediated numerous leaching pools impacted with petroleum compounds and metals. Prepared a UIC Closure Report for USEPA approval.
- Assisted in the design and oversight of indoor underground storage tank abandonment program, leaching pool remediation plan, and managed contractor support for several manufacturing facilities in Suffolk County, New York.

Hydrogeologic Evaluations

- Performed well design (gravel pack size, screen size, etc.) for numerous groundwater wells and variable depths on Long Island. Experience includes sieve analyses, well construction and development methods.
- Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer program AQTESOLV for several sites in New York City and Long Island.
- Participated in multi-day, multi-well aquifer pumping test for New York City Transit (NYCT). Responsible for operating and maintaining data logging equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.

- Performed water level and water quality monitoring at several sites in Nassau and Suffolk Counties. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration.
- Supervised drilling, installation and development of groundwater monitoring wells at three sites within Griffiss AFB, NY and numerous sites in New York City and Long Island. Performed aquifer testing and constructed groundwater elevation contour maps to delineate plumes and predict contaminant plume migration.

Landfills

- Managed ongoing groundwater and methane monitoring programs for Town of East Hampton landfills. Responsibilities included field team coordination, communications with the Town, report scheduling, data package review, and report preparation for distribution to the client and NYSDEC.
- Managed and conducted quarterly methane monitoring at Springs-Fireplace Road and Montauk Landfills for the Town of East Hampton. Tabulated resulting data, evaluated historic methane monitoring results, and recommended appropriate actions including methane monitoring well installations and a methane extraction system. Performed off-site methane monitoring on private property confirm methane containment. Prepared quarterly monitoring reports for submittal to the Town and NYSDEC.
- Performed monthly methane monitoring and prepared monitoring reports for all Town of Islip Landfills. Monitoring program included onsite and offsite methane wells, methane collection systems, and flare systems. Data was recorded electronically and downloaded to computer for formatting prior to delivery to Town. Prepared monthly monitoring reports for submittal to the Town and NYSDEC.
- Produced quarterly and annual monitoring reports for all monitoring programs at Town of Smithtown landfill. Project included tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste composting operations, and landfill leachate collection and disposal data.

Water Quality Monitoring

- Conducted groundwater monitoring for the Town of Riverhead, including sampling a multi-depth monitoring well network, analysis and interpretation of analytical and hydrogeologic data, and monitoring reporting in accordance with NYSDEC requirements. Responsibilities including sampling, communications with the Town, laboratory data package review, and report preparation for distribution to the client and NYSDEC.
- Conducted investigation and remedial projects at several New York State BCP Sites. Tasks included contaminated soil removal, groundwater remediation and long-term monitoring, groundwater plume evaluation, and preparation and submittal of annual reports to the NYSDEC.
- Coordinated and performed onsite and offsite groundwater monitoring at various petroleum release sites on Long Island, the New York metropolitan area and in Westchester County in accordance with NYSDEC requirements. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared work plans identifying site history, contaminant characteristics, sampling methods, and site-specific lithology. Monitoring programs generally included installation and sampling of a multi-depth monitoring well network utilizing standard or low flow sampling techniques, analysis and interpretation of analytical and hydrogeologic data, and reporting.
- Performed water level and water quality monitoring at an industrial site in Mattituck, NY. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration. Prepared reports, coordinated with the property owner and NYSDEC, and developed a closure plan.
- Conducted numerous investigations and remediation of contaminated cesspool and stormwater drain pool systems in Nassau and Suffolk County. Fully conversant with County regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.

Griffiss Air Force Base

- Conducted several Site Investigations for AFCEE. Performed soil and groundwater sampling, aquifer testing, and recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

Roslyn Air National Guard Station

- Conducted several Site Investigations for Roslyn ANGS base closure work. Performed soil and groundwater sampling, aquifer testing, and mold evaluations. Prepared reports documenting recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

Health and Safety

- Prepared numerous health and safety plans for remediation and construction sites and served as health and safety officer at a variety of work sites.
- Performed health and safety monitoring at investigation and remediation sites during intrusive activities. Monitoring included calibration and operation of photoionization detectors (PIDs), flame-ionization detectors (FIDs), dust monitors, and combustible gas indicators (CGI). Compared results to applicable action levels and undertook preventative/protective measures as necessary.
- Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors at several sites throughout New York State. Recorded observations and compared to applicable action levels. Implemented calibration and operation programs and training for noise meters, particulate monitors, PIDs, and FIDs.
- Performed screening for radiation at several sites. Operated Geiger counters in different radiation modes and compared data to background readings.

Miscellaneous Projects

- Performed unexploded ordnance evaluations and mapping for the United States Marine Corps at several munitions ranges in 29 Palms, California, and Camp Lejeune, North Carolina.
- Conducted land survey and mapping for the United States Marine Corps at several artillery ranges in 29 Palms, California and Camp LeJeune, North Carolina.

Per and Polyfluoroalkyl Substances (PFAS) Analysis

Background

PFAS compounds are a class of emerging contaminants that are generating high levels of interest and concern in the environmental community and the public at large. These compounds have a wide range of industrial uses and commercial product applications and they are present in many consumer products as well. A short list of general product categories would include industrial polymers, stain repellents, waterproofing products, surfactants, and packaging as well as aqueous film forming foams (AFFF) used for firefighting. The primary sources of PFAS releases into the environment are industrial facilities where they were used or were contained in raw material feedstocks and sites where AFFF was used for training purposes or actual firefighting. Another potentially significant source are landfills and wastewater treatment plants. PFAS compounds are highly soluble in water, chemically stable and persistent.

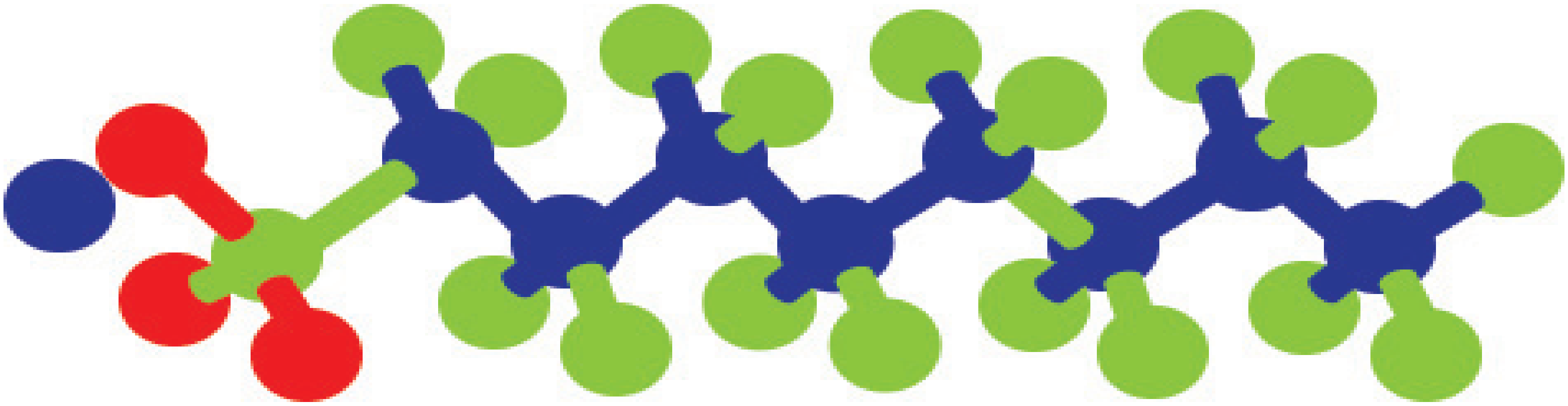
Regulatory Status

In May of 2016, the United States Environmental Protection Agency (USEPA) issued a drinking water health advisory limit (HAL) of 70ng/L (ppt) for two PFAS compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), individually or in combination. To date, the USEPA has not established a Maximum Contaminant Level (MCL) under the Safe Drinking Water Act for PFOA, PFOS, or other PFAS compounds. Some states have issued state guidelines for specific PFAS compounds.

Analytical Approach

Alpha Analytical utilizes solid phase extraction (SPE) with liquid chromatography and tandem mass spectrometry (LC/MS/MS) protocols for PFAS analysis of aqueous samples. Depending on your project application, PFAS target compound list and regulatory requirements, Alpha will either run EPA Method 537 Rev 1.1 (incorporating the EPA Technical Advisory 815-B-16-021) or a proprietary LC/MS/MS isotope dilution technique. Isotope dilution technique incorporate a deuterated form of most of the target analytes which is spiked into every sample to act as a target-specific internal standard to normalize recoveries and assist with quantitation. Incorporation of the isotope dilution technique does somewhat attenuate for the loss of analytical certainty associated with the target compound recoveries by allowing for more accurate quantitation and increasing reproducibility.

In either case, both branched and linear PFAS isomers are properly quantified during analysis. Up to 24 PFAS compounds can be reported with a reporting limit of 2 ng/L (ppt).



Alpha Analytical has been supporting emerging contaminants monitoring programs for a long time, beginning with the IC/MS/MS analysis of perchlorate back in 2004. Later on we developed an isotope dilution procedure for the low level analysis of 1,4-dioxane and we now have LC/MS/MS capability for PFAS analysis. Alpha Analytical can analyze up to 24 PFAS compounds utilizing either EPA Method 537 or a proprietary isotope dilution procedure.

ALPHA ANALYTICAL'S LIST of 24 COMPOUNDS: Reporting Limits for all Compounds 2 ng/L (ppt)

ANALYTE Perfluoroalkylcarboxylic Acids (PFCAS)	ACRONYM	CAS	EPA537	Isotope Dilution
Perfluorobutanoic acid	PFBA	375-22-4		X
Perfluoropentanoic acid	PFPeA	2706-90-3		X
Perfluorohexanoic acid	PFHxA	307-24-4	X	X
Perfluoroheptanoic acid	PFHpA	375-85-9	X	X
Perfluorooctanoic acid	PFOA	335-67-1	X	X
Perfluorononanoic acid	PFNA	375-95-1	X	X
Perfluorodecanoic acid	PFDA	335-76-2	X	X
Perfluoroundecanoic acid	PFUnA	2058-94-8	X	X
Perfluorododecanoic acid	PFDoA	307-55-1	X	X
Perfluorotridecanoic acid	PFTrDA	72629-94-8	X	X
Perfluorotetradecanoic acid	PFTA	376-06-7	X	X
Perfluoroalkylsulfonic Acids (PFASs)				
Perfluorobutanesulfonic acid	PFBS	375-73-5	X	X
Perfluoropentanesulfonic acid	PFPeS	2706-91-4		X
Perfluorohexanesulfonic acid	PFHxS	355-46-4	X	X
Perfluoroheptanesulfonic acid	PFHpS	375-92-8		X
Perfluorooctanesulfonic acid	PFOS	1763-23-1	X	X
Perfluorononanesulfonic acid	PFNS	68259-12-1		X
Perfluorodecanesulfonic acid	PFDS	335-77-3		X
Telomer Sulfonates				
1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	4:2FTS	n/a		X
1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	6:2FTS	27619-97-2		X
1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	8:2FTS	39108-34-4		X
Perfluorooctanesulfonamidoacetic Acids and Sulfonamides				
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	X	X
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	X	X
Perfluorooctanesulfonamide	FOSA	754-91-6		X

For more information on this topic, please contact us at info@alphalab.com or 800-624-9220 or reach out to your Alpha Analytical Project Manager or Account Service Representative.

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NY PFAAs via LCMSMS-Isotope Dilution (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - Plastic 8oz unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Perfluorobutanoic Acid (PFBA)	375-22-4	0.5	0.0227	ug/kg	71-135	30	71-135	30	30			
Perfluoropentanoic Acid (PFPeA)	2706-90-3	0.5	0.046	ug/kg	69-132	30	69-132	30	30			
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	0.5	0.039	ug/kg	72-128	30	72-128	30	30			
Perfluorohexanoic Acid (PFHxA)	307-24-4	0.5	0.0525	ug/kg	70-132	30	70-132	30	30			
Perfluoroheptanoic Acid (PFHpA)	375-85-9	0.5	0.0451	ug/kg	71-131	30	71-131	30	30			
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	0.5	0.0605	ug/kg	67-130	30	67-130	30	30			
Perfluorooctanoic Acid (PFOA)	335-67-1	0.5	0.0419	ug/kg	69-133	30	69-133	30	30			
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	0.5	0.1795	ug/kg	64-140	30	64-140	30	30			
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	0.5	0.1365	ug/kg	70-132	30	70-132	30	30			
Perfluorononanoic Acid (PFNA)	375-95-1	0.5	0.075	ug/kg	72-129	30	72-129	30	30			
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.5	0.13	ug/kg	68-136	30	68-136	30	30			
Perfluorodecanoic Acid (PFDA)	335-76-2	0.5	0.067	ug/kg	69-133	30	69-133	30	30			
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	0.5	0.287	ug/kg	65-137	30	65-137	30	30			
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSA	2355-31-9	0.5	0.2015	ug/kg	63-144	30	63-144	30	30			
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	0.5	0.0468	ug/kg	64-136	30	64-136	30	30			
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	0.5	0.153	ug/kg	59-134	30	59-134	30	30			
Perfluorooctanesulfonamide (FOSA)	754-91-6	0.5	0.098	ug/kg	67-137	30	67-137	30	30			
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	0.5	0.0845	ug/kg	61-139	30	61-139	30	30			
Perfluorododecanoic Acid (PFDoA)	307-55-1	0.5	0.07	ug/kg	69-135	30	69-135	30	30			
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8	0.5	0.2045	ug/kg	66-139	30	66-139	30	30			
Perfluorotetradecanoic Acid (PFTA)	376-06-7	0.5	0.054	ug/kg	69-133	30	69-133	30	30			
PFOA/PFOS, Total		0.5	0.0419	ug/kg				30	30			
Perfluoro[13C4]Butanoic Acid (MPFBA)	*NONE*									*60-153*		
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	*NONE*									*65-182*		
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	*NONE*									*70-151*		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	*NONE*									*61-147*		
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	*NONE*									*62-149*		
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	*NONE*									*63-166*		
Perfluoro[13C8]Octanoic Acid (M8PFOA)	*NONE*									*62-152*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6	*NONE*									*32-182*		
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	*NONE*									*61-154*		
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	*NONE*									*65-151*		
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	*NONE*									*65-150*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8	*NONE*									*25-186*		
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid	*NONE*									*45-137*		
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	*NONE*									*64-158*		
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	*NONE*									*1-125*		
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d	*NONE*									*42-136*		
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	*NONE*									*56-148*		
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	*NONE*									*26-160*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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NY PFAAs via LCMSMS-Isotope Dilution (WATER)

Holding Time: 14 days
Container/Sample Preservation: 1 - 2 Plastic/1 Plastic/1 H20 Plastic

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Perfluorobutanoic Acid (PFBA)	375-22-4	2	0.408	ng/l	67-148	30	67-148	30	30			
Perfluoropentanoic Acid (PFPeA)	2706-90-3	2	0.396	ng/l	63-161	30	63-161	30	30			
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	2	0.238	ng/l	65-157	30	65-157	30	30			
Perfluorohexanoic Acid (PFHxA)	307-24-4	2	0.328	ng/l	69-168	30	69-168	30	30			
Perfluoroheptanoic Acid (PFHpA)	375-85-9	2	0.2252	ng/l	58-159	30	58-159	30	30			
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	2	0.376	ng/l	69-177	30	69-177	30	30			
Perfluorooctanoic Acid (PFOA)	335-67-1	2	0.236	ng/l	63-159	30	63-159	30	30			
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	2	1.332	ng/l	49-187	30	49-187	30	30			
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	2	0.688	ng/l	61-179	30	61-179	30	30			
Perfluorononanoic Acid (PFNA)	375-95-1	2	0.312	ng/l	68-171	30	68-171	30	30			
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	2	0.504	ng/l	52-151	30	52-151	30	30			
Perfluorodecanoic Acid (PFDA)	335-76-2	2	0.304	ng/l	63-171	30	63-171	30	30			
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	2	1.212	ng/l	56-173	30	56-173	30	30			
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSA	2355-31-9	2	0.648	ng/l	60-166	30	60-166	30	30			
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	2	0.26	ng/l	60-153	30	60-153	30	30			
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	2	0.98	ng/l	38-156	30	38-156	30	30			
Perfluorooctanesulfonamide (FOSA)	754-91-6	2	0.58	ng/l	46-170	30	46-170	30	30			
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	2	0.804	ng/l	45-170	30	45-170	30	30			
Perfluorododecanoic Acid (PFDoA)	307-55-1	2	0.372	ng/l	67-153	30	67-153	30	30			
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8	2	0.3272	ng/l	48-158	30	48-158	30	30			
Perfluorotetradecanoic Acid (PFTA)	376-06-7	2	0.248	ng/l	59-182	30	59-182	30	30			
PFOA/PFOS, Total		2	0.236	ng/l				30	30			
Perfluoro[13C4]Butanoic Acid (MPFBA)	*NONE*									*2-156*		
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	*NONE*									*16-173*		
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	*NONE*									*31-159*		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	*NONE*									*21-145*		
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	*NONE*									*30-139*		
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	*NONE*									*47-153*		
Perfluoro[13C8]Octanoic Acid (M8PFOA)	*NONE*									*36-149*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6	*NONE*									*1-244*		
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	*NONE*									*34-146*		
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	*NONE*									*42-146*		
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	*NONE*									*38-144*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8	*NONE*									*7-170*		
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid	*NONE*									*1-181*		
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	*NONE*									*40-144*		
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	*NONE*									*1-87*		
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d	*NONE*									*23-146*		
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	*NONE*									*24-161*		
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	*NONE*									*33-143*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)

Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (LC/MS/MS)

References: EPA Method 537.1, Version 2, March 2020, EPA Document #: EPA/600/R-20/006

EPA Method 533, November 2019, EPA Document #: 815-B-19-020

ISO 25101, First Edition, March 2009, Reference #: ISO 25101:2009(E)

Department of Defense, Quality Systems Manual for Environmental Laboratories, Version 5.3, 2019

1. Scope and Application

Matrices: Drinking water, Non-potable Water, Tissues, Biosolids and Soil Matrices (Drinking water is applicable for specific state regulatory requirements for this method)

Definitions: Refer to Alpha Analytical Quality Manual.

1.1 This is a liquid chromatography/tandem mass spectrometry (LC/MS/MS) method for the determination of selected perfluorinated alkyl substances (PFAS) in Non-Drinking Water and soil Matrices. Accuracy and precision data have been generated in reagent water, and finished ground and surface waters and soils for the compounds listed in Table 1.

1.2 The data report packages present the documentation of any method modification related to the samples tested. Depending upon the nature of the modification and the extent of intended use, the laboratory may be required to demonstrate that the modifications will produce equivalent results for the matrix. Approval of all method modifications is by one or more of the following laboratory personnel before performing the modification: Area Supervisor, Department Supervisor, Laboratory Director, or Quality Assurance Officer.

1.3 This method is restricted to use by or under the supervision of analysts experienced in the operation of the LC/MS/MS and in the interpretation of LC/MS/MS data. Each analyst must demonstrate the ability to generate acceptable results with this method by performing an initial demonstration of capability.

2. Summary of Method

2.1 A 250-mL water sample is fortified with extracted internal standards (EIS) and passed through a solid phase extraction (WAX) cartridge containing a mixed mode, Weak Anion Exchange, reversed phase, water-wettable polymer to extract the method analytes and isotopically-labeled compounds. The compounds are eluted from the solid phase in two fractions with methanol followed by a small amount of 2% ammonium hydroxide in methanol solution. The extract is concentrated with nitrogen in a heated water bath, and then adjusted to a 1-mL volume with 80:20% (vol/vol) methanol:water.

A 2-4 gram soil, solid, tissue or biosolid sample is fortified with extracted internal standards (EIS), diluted in methanol and agitated rigorously. An aliquot of the methanol is passed across an SPE based clean-up cartridge and the eluate collected. The extract is concentrated with nitrogen in a heated water bath, and then adjusted to a 1-mL volume with 80:20% (vol/vol) methanol:water.

2.2 A sample extract is injected into an LC equipped with a C18 column that is interfaced to an MS/MS). The analytes are separated and identified by comparing the acquired mass spectra and retention times to reference spectra and retention times for calibration standards acquired under identical LC/MS/MS conditions. The concentration of each analyte is determined by using the isotope dilution technique. Extracted Internal Standards (EIS) analytes are used to monitor the extraction efficiency of the method analytes.

2.3 Method Modifications from Reference

None.

Table 1

Parameter	Acronym	CAS
PERFLUOROALKYL ETHER CARBOXYLIC ACIDS (PFECAs)		
Tetrafluoro-2-(heptafluoropropoxy)propanoic acid	HFPO-DA	13252-13-6
4,8-dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4
PERFLUOROALKYLCARBOXILIC ACIDS (PFCAs)		
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTA	376-06-7
Perfluorohexadecanoic acid	PFHxDA	67905-19-5
Perfluorooctadecanoic acid	PFODA	16517-11-6
PERFLUOROALKYL SULFONIC ACIDS (PFASs)		
Perfluoropropanesulfonic acid	PFPrS	423-41-6
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluoropentanesulfonic acid	PFPeS	2706-91-4
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorononanesulfonic acid	PFNS	68259-12-1
Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluorododecanesulfonic acid	PFDoS	79780-39-5

Table 1 Cont.

Parameter	Acronym	CAS
CHLORO-PERFLUOROALKYLSULFONATE		
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
PERFLUOROOCTANESULFONAMIDES (FOSAs)		
Perfluorooctanesulfonamide	PFOSA	754-91-6
N-methylperfluoro-1-octanesulfonamide	NMeFOSA	31506-32-8
N-ethylperfluoro-1-octanesulfonamide	NEtFOSA	4151-50-2
TELOMER SULFONIC ACIDS		
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	4:2FTS	757124-72-4
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6:2FTS	27619-97-2
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8:2FTS	39108-34-4
1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	10:2FTS	120226-60-0
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS		
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
NATIVE PERFLUOROOCTANESULFONAMIDOETHANOLS (FOSEs)		
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NMeFOSE	24448-09-7
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NEtFOSE	1691-99-2
PERFLUOROETHER AND POLYETHER CARBOXYLIC ACIDS		
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6

3. Reporting Limits

The reporting limit for PFAS's is 2 ng/L for aqueous samples (20 ng/L for HFPO-DA) and 1 ng/g (10 ng/g for HFPO-DA) for soil samples.

4. Interferences

4.1 PFAS standards, extracts and samples should not come in contact with any glass containers or pipettes as these analytes can potentially adsorb to glass surfaces. PFAS analyte and EIS standards commercially purchased in glass ampoules are acceptable; however, all subsequent transfers or dilutions performed by the analyst must be prepared and stored in polypropylene containers.

4.2 Method interferences may be caused by contaminants in solvents, reagents (including reagent water), sample bottles and caps, and other sample processing hardware that lead to discrete artifacts and/or elevated baselines in the chromatograms. The method analytes in this method can also be found in many common laboratory supplies and equipment, such as PTFE (polytetrafluoroethylene) products, LC solvent lines, methanol, aluminum foil, SPE sample transfer lines, etc. All items such as these must be routinely demonstrated to be free from interferences (less than 1/3 the RL for each method analyte) under the conditions of the analysis by analyzing laboratory reagent blanks as described in Section 9.1. **Subtracting blank values from sample results is not permitted.**

4.3 Matrix interferences may be caused by contaminants that are co-extracted from the sample. The extent of matrix interferences will vary considerably from source to source, depending upon the nature of the water. Humic and/or fulvic material can be co-extracted during SPE and high levels can cause enhancement and/or suppression in the electrospray ionization source or low recoveries on the SPE sorbent. Total organic carbon (TOC) is a good indicator of humic content of the sample.

4.4 SPE cartridges can be a source of interferences. The analysis of field and laboratory reagent blanks can provide important information regarding the presence or absence of such interferences. Brands and lots of SPE devices should be tested to ensure that contamination does not preclude analyte identification and quantitation.

5. Health and Safety

5.1 The toxicity or carcinogenicity of each reagent and standard used in this method is not fully established; however, each chemical compound should be treated as a potential health hazard. From this viewpoint, exposure to these chemicals must be reduced to the lowest possible level by whatever means available. A reference file of material safety data sheets is available to all personnel involved in the chemical analysis. Additional references to laboratory safety are available in the Chemical Hygiene Plan.

5.2 All personnel handling environmental samples known to contain or to have been in contact with municipal waste must follow safety practices for handling known disease causative agents.

5.3 PFOA has been described as “likely to be carcinogenic to humans.” Pure standard materials and stock standard solutions of these method analytes should be handled with suitable protection to skin and eyes, and care should be taken not to breathe the vapors or ingest the materials.

6. Sample Collection, Preservation, Shipping and Handling

6.1 Sample Collection for Aqueous Samples

6.1.1 Samples must be collected in two (2) 250-mL high density polyethylene (HDPE) container with an unlined plastic screw cap.

6.1.2 The sample handler must wash their hands before sampling and wear nitrile gloves while filling and sealing the sample bottles. PFAS contamination during sampling can occur from a number of common sources, such as food packaging and certain foods and beverages. Proper hand washing and wearing nitrile gloves will aid in minimizing this type of accidental contamination of the samples.

6.1.3 Open the tap and allow the system to flush until the water temperature has stabilized (approximately 3 to 5 min). Collect samples from the flowing system.

6.1.4 Fill sample bottles. Samples do not need to be collected headspace free.

6.1.5 After collecting the sample and cap the bottle. Keep the sample sealed from time of collection until extraction.

6.1.6 Field Reagent Blank (FRB)

6.1.6.1 A FRB must be handled along with each sample set. The sample set is composed of samples collected from the same sample site and at the same time. At the laboratory, fill the field blank sample bottle with reagent water and preservatives, seal, and ship to the sampling site along with the sample bottles. For each FRB shipped, an empty sample bottle (no preservatives) must also be shipped. At the sampling site, the sampler must open the shipped FRB and pour the reagent water into the empty shipped sample bottle, seal and label this bottle as the FRB. The FRB is shipped back to the laboratory along with the samples and analyzed to ensure that PFAS's were not introduced into the sample during sample collection/handling.

The reagent water used for the FRBs must be initially analyzed for method analytes as a MB and must meet the MB criteria in Section 9.1.1 prior to use. This requirement will ensure samples are not being discarded due to contaminated reagent water rather than contamination during sampling.

6.2 Sample Collection for Soil and Sediment samples.

Grab samples are collected in polypropylene containers. Sample containers and contact surfaces containing PTFE shall be avoided.

6.3 Sample Preservation

Not applicable.

6.4 Sample Shipping

Samples must be chilled during shipment and must not exceed 10 °C during the first 48 hours after collection. Sample temperature must be confirmed to be at or below 10 °C when the samples are received at the laboratory. Samples stored in the lab must be held at or below 6 °C until extraction, but should not be frozen.

NOTE: Samples that are significantly above 10° C, at the time of collection, may need to be iced or refrigerated for a period of time, in order to chill them prior to shipping. This will allow them to be shipped with sufficient ice to meet the above requirements.

6.5 Sample Handling

6.5.1 Holding Times

6.5.1.1 Water samples should be extracted as soon as possible but must be extracted within 14 days. Soil samples should be extracted within 14 days. Extracts are stored at < 10 ° C and analyzed within 28 days after extraction.

7. Equipment and Supplies

7.1 SAMPLE CONTAINERS – 250-mL high density polyethylene (HDPE) bottles fitted with unlined screw caps. Sample bottles must be discarded after use.

7.2 SAMPLE JARS – 8-ounce wide mouth high density polyethylene (HDPE) bottles fitted with unlined screw caps. Sample bottles must be discarded after use.

7.3 POLYPROPYLENE BOTTLES – 4-mL narrow-mouth polypropylene bottles.

7.4 CENTRIFUGE TUBES – 50-mL conical polypropylene tubes with polypropylene screw caps for storing standard solutions and for collection of the extracts.

7.5 AUTOSAMPLER VIALS – Polypropylene 0.7-mL autosampler vials with polypropylene caps.

7.5.1 NOTE: Polypropylene vials and caps are necessary to prevent contamination of the sample from PTFE coated septa. However, polypropylene caps do not reseal, so evaporation occurs after injection. Thus, multiple injections from the same vial are not possible.

7.6 POLYPROPYLENE GRADUATED CYLINDERS – Suggested sizes include 25, 50, 100 and 1000-mL cylinders.

7.7 Auto Pipets – Suggested sizes include 5, 10, 25, 50, 100, 250, 500, 1000, 5000 and 10,000-µls.

7.8 PLASTIC PIPETS – Polypropylene or polyethylene disposable pipets.

7.9 ANALYTICAL BALANCE – Capable of weighing to the nearest 0.0001 g.

7.10 ANALYTICAL BALANCE – Capable of weighing to the nearest 0.1 g.

7.11 SOLID PHASE EXTRACTION (SPE) APPARATUS FOR USING CARTRIDGES

7.11.1 SPE CARTRIDGES – 0.5 g SPE cartridges containing a reverse phase copolymer characterized by a weak anion exchanger (WAX) sorbent phase.

7.11.2 VACUUM EXTRACTION MANIFOLD – A manual vacuum manifold with large volume sampler for cartridge extractions, or an automatic/robotic sample preparation system designed for use with SPE cartridges, may be used if all QC requirements discussed in Section 9 are met. Extraction and/or elution steps may not be changed or omitted to accommodate the use of an automated system. Care must be taken with automated SPE systems to ensure the PTFE commonly used in these systems does not contribute to unacceptable analyte concentrations in the MB (Sect. 9.1.1).

7.11.3 SAMPLE DELIVERY SYSTEM – Use of a polypropylene transfer tube system, which transfers the sample directly from the sample container to the SPE cartridge, is recommended, but not mandatory. Standard extraction manifolds come equipped with PTFE transfer tube systems. These can be replaced with 1/8” O.D. x 1/16” I.D. polypropylene or polyethylene tubing cut to an appropriate length to ensure no sample contamination from the sample transfer lines. Other types of non-PTFE tubing may be used provided it meets the MB (Sect. 9.1.1) and LCS (Sect. 9.2) QC requirements.

7.12 Extract Clean-up Cartridge – 250 mg 6ml SPE Cartridge containing graphitized polymer carbon.

7.13 EXTRACT CONCENTRATION SYSTEM – Extracts are concentrated by evaporation with nitrogen using a water bath set no higher than 65 °C.

7.14 LABORATORY OR ASPIRATOR VACUUM SYSTEM – Sufficient capacity to maintain a vacuum of approximately 10 to 15 inches of mercury for extraction cartridges.

7.15 LIQUID CHROMATOGRAPHY (LC)/TANDEM MASS SPECTROMETER (MS/MS) WITH DATA SYSTEM

7.15.1 LC SYSTEM – Instrument capable of reproducibly injecting up to 10-µL aliquots, and performing binary linear gradients at a constant flow rate near the flow rate used for development of this method (0.4 mL/min). The LC must be capable of pumping the water/methanol mobile phase without the use of a degasser which pulls vacuum on the mobile phase bottle (other types of degassers are acceptable). Degassers which pull vacuum on the mobile phase bottle will volatilize the ammonium acetate mobile phase causing the analyte peaks to shift to earlier retention times over the course of the analysis batch. The usage of a column heater is optional.

7.15.2 LC/TANDEM MASS SPECTROMETER – The LC/MS/MS must be capable of negative ion electrospray ionization (ESI) near the suggested LC flow rate of 0.4 mL/min. The system must be capable of performing MS/MS to produce unique product ions for the method analytes within specified retention time segments. A minimum of 10 scans across the chromatographic peak is required to ensure adequate precision.

7.15.3 DATA SYSTEM – An interfaced data system is required to acquire, store, reduce, and output mass spectral data. The computer software should have the capability of processing stored LC/MS/MS data by recognizing an LC peak within any given retention time window. The software must allow integration of the ion abundance of any specific ion within specified time or scan number limits. The software must be able to calculate relative response factors, construct linear regressions or quadratic calibration curves, and calculate analyte concentrations.

7.15.4 ANALYTICAL COLUMN – An LC BEH C_{18} column (2.1 x 50 mm) packed with 1.7 µm d_p C_{18} solid phase particles was used. Any column that provides adequate resolution, peak shape, capacity, accuracy, and precision (Sect. 9) may be used.

8. Reagents and Standards

8.1 GASES, REAGENTS, AND SOLVENTS – Reagent grade or better chemicals must be used.

8.1.1 REAGENT WATER – Purified water which does not contain any measurable quantities of any method analytes or interfering compounds greater than 1/3 the RL for each method analyte of interest. Prior to daily use, at least 3 L of reagent water should be flushed from the purification system to rinse out any build-up of analytes in the system's tubing.

8.1.2 METHANOL (CH_3OH, CAS#: 67-56-1) – High purity, demonstrated to be free of analytes and interferences.

8.1.3 AMMONIUM ACETATE ($NH_4C_2H_3O_2$, CAS#: 631-61-8) – High purity, demonstrated to be free of analytes and interferences.

8.1.4 ACETIC ACID (H_3CCOOH, CAS#: 64-19-7) - High purity, demonstrated to be free of analytes and interferences.

8.1.5 1M AMMONIUM ACETATE/REAGENT WATER – High purity, demonstrated to be free of analytes and interferences.

8.1.6 2mM AMMONIUM ACETATE/METHANOL:WATER (5:95) – To prepare, mix 2 ml of 1M AMMONIUM ACETATE,1 ml ACETIC ACID and 50 ml METHANOL into I Liter of REAGENT WATER.

8.1.7 Methanol/Water (80:20) – To prepare a 1 Liter bottle, mix 200 ml of REAGENT WATER with 800 ml of METHANOL.

8.1.8 AMMONIUM HYDROXIDE (NH_3, CAS#: 1336-21-6) – High purity, demonstrated to be free of analytes and interferences.

8.1.9 Sodium Acetate ($NaOOCCH_3$, CAS#: 127-09-3) – High purity, demonstrated to be free of analytes and interferences.

8.1.10 25 mM Sodium Acetate Buffer – To prepare 250mls, dissolve .625 grams of sodium acetate into 100 mls of reagent water. Add 4 mls Acetic Acid and adjust the final volume to 250 mls with reagent water.

8.1.11 NITROGEN – Used for the following purposes: Nitrogen aids in aerosol generation of the ESI liquid spray and is used as collision gas in some MS/MS instruments. The nitrogen used should meet or exceed instrument manufacturer's specifications. In addition, Nitrogen is used to concentrate sample extracts (Ultra High Purity or equivalent).

8.1.12 ARGON – Used as collision gas in MS/MS instruments. Argon should meet or exceed instrument manufacturer's specifications. Nitrogen gas may be used as the collision gas provided sufficient sensitivity (product ion formation) is achieved.

8.2 STANDARD SOLUTIONS – When a compound purity is assayed to be 96% or greater, the weight can be used without correction to calculate the concentration of the stock standard. PFAS analyte and IS standards commercially purchased in glass ampoules are acceptable; however, all subsequent transfers or dilutions performed by the analyst must be prepared and stored in polypropylene containers. Standards for sample fortification generally should be prepared in the smallest volume that can be accurately measured to minimize the addition of excess organic solvent to aqueous samples.

NOTE: Stock standards and diluted stock standards are stored at ≤4 °C.

8.2.1 ISOTOPE DILUTION Extracted Internal Standard (ID EIS) STOCK SOLUTIONS - ID EIS stock standard solutions are stable for at least 6 months when stored at 4 °C. The stock solution is purchased at a concentration of 1000 ng/mL.

8.2.2 ISOTOPE DILUTION Extracted Internal Standard PRIMARY DILUTION STANDARD (ID EIS PDS) – Prepare the ID EIS PDS at a concentration of 500 ng/mL. The ID PDS is prepared in methanol. The ID PDS is stable for 1 year when stored at ≤4 °C (table 2a).

Table 2a

Isotope Labeled Standard	Conc. of EIS Stock (ng/mL)	Vol. of EIS Stock (mL)	Final Vol. of EIS PDS (mL)	Final Conc. of EIS PDS (ng/mL)
M4PFBA	1000	1.0	2.0	500
M5PFPeA	1000	1.0	2.0	500
M5PFHxA	1000	1.0	2.0	500
M4PFHpA	1000	1.0	2.0	500
M8PFOA	1000	1.0	2.0	500
M9PFNA	1000	1.0	2.0	500
M6PFDA	1000	1.0	2.0	500
M7PFUdA	1000	1.0	2.0	500
MPFDoA	1000	1.0	2.0	500
M2PFTeDA	1000	1.0	2.0	500
M2PFHxDA	50,000	.02	2.0	500
M8FOSA	1000	1.0	2.0	500
d3-N-MeFOSAA	1000	1.0	2.0	500
d5-N-EtFOSAA	1000	1.0	2.0	500
M3PFBS	929	1.0	2.0	464.5
M3PFHxS	946	1.0	2.0	473
M8PFOS	957	1.0	2.0	478.5
M2-4:2FTS	935	1.0	2.0	467.5
M2-6:2FTS	949	1.0	2.0	474.5
M2-8:2FTS	958	1.0	2.0	479
M2,D4-10:2FTS	50,000	.04	2.0	1000
M3HFPO-DA	50,000	.4	2.0	10,000

Table 2b

Isotope Labeled Standard	Conc. of EIS Stock (ng/mL)	Vol. of EIS Stock (mL)	Final Vol. of EIS PDS (mL)	Final Conc. of EIS PDS (ng/mL)
d3-N-MeFOSA	50,000	.2	2.0	5000
d5-N-EtFOSA	50,000	.2	2.0	5000
d7-N-MeFOSE	50,000	.2	2.0	5000
d9-N-EtFOSE	50,000	.2	2.0	5000

8.2.3 ANALYTE STOCK STANDARD SOLUTION – Analyte stock standards are stable for at 1 year when stored at 4 °C. When using these stock standards to prepare a PDS, care must be taken to ensure that these standards are at room temperature and adequately vortexed.

8.2.4 Analyte Secondary Spiking Standard Prepare the spiking solution of additional add on components for project specific requirements only. ANALYTE PRIMARY SPIKING STANDARD – Prepare the spiking standard at a concentration of 500 ng/mL in methanol. The spiking standard is stable for at least two months when stored in polypropylene centrifuge tubes at room temperature.

Table 3

Analyte	Conc. of Stock (ng/mL)	Vol. of Stock (mL)	Final Vol. of PDS (mL)	Final Conc. of PDS (ng/mL)
PFBA	1000	1	2	500
PFPeA	1000	1	2	500
PFHxA	1000	1	2	500
PFHpA	1000	1	2	500
PFOA	1000	1	2	500
PFNA	1000	1	2	500
PFDA	1000	1	2	500
PFUnA	1000	1	2	500
PFDoA	1000	1	2	500
PFTrDA	1000	1	2	500
PFTA	1000	1	2	500
FOSA	1000	1	2	500
Br-NMeFOSAA	240	1	2	500
L-NMeFOSAA	760	1	2	500
Br-NEtFOSAA	225	1	2	500
L-NEtFOSAA	775	1	2	500
L-PFBS	887	1	2	443.5
L-PFPeS	941	1	2	470.5
L-PFHxSK	741	1	2	370.5
Br-PFHxSK	173	1	2	86.5
L-PFHpS	953	1	2	476.5
L-PFOSK	732	1	2	366
Br-PFOSK	196	1	2	98
L-PFNS	962	1	2	481
L-PFDS	965	1	2	482.5
4:2FTS	937	1	2	468.5
6:2FTS	951	1	2	475.5
8:2FTS	960	1	2	480
9ClPF3ONS	933	1	2	466.5
11ClPF3OUdS	943	1	2	471.5
ADONA	945	1	2	472.5
HFPO-DA	1000	1	2	500

8.2.5 Analyte Secondary Spiking Standard Prepare the spiking solution of additional add on components for project specific requirements only.

Table 4

Analyte	Conc. of IS Stock (ng/mL)	Vol. of IS Stock (mL)	Final Vol. of IS PDS (mL)	Final Conc. of IS PDS (ng/mL)
PFHxDA	50,000	0.04	4	500
PFODA	50,000	0.04	4	500
HFPO-DA	100,000	0.04	4	9500
10:2-FTS	48,300	0.04	4	482.3
PFDoS	48,400	0.04	4	484.1
PFPrS	45,800	0.04	4	457.8
PFMPA	50,000	0.04	4	500
PFMBA	50,000	0.04	4	500
PFEESA	44,500	0.04	4	444.8
NFDHA	50,000	0.04	4	500
NMeFOSA	50,000	0.4	4	5000
NMeFOSE	50,000	0.4	4	5000
NEtFOSA	50,000	0.4	4	5000
NEtFOSE	50,000	0.4	4	5000

8.2.6 LOW, MEDIUM AND HIGH LEVEL LCS – The LCS's will be prepared at the following concentrations and rotated per batch; 2 ng/L, 40 ng/L, 500 ng/l for drinking waters. The analyte PDS contains all the method analytes of interest at various concentrations in methanol. The analyte PDS has been shown to be stable for six months when stored at ≤4 °C.

8.2.7 Isotope Dilution Labeled Recovery Stock Solutions (ID REC) – ID REC Stock solutions are stable for at least 1 year when stored at 4 °C. The stock solution is purchased at a concentration of 2000 ng/mL.

8.2.8 Isotope Dilution Labeled Recovery Primary Dilution Standard (ID REC PDS) - Prepare the ID REC PDS at a concentration of 500 ng/mL. The ID REC PDS is prepared in methanol. The ID REC PDS is stable for at least 1 year when stored in polypropylene centrifuge tubes at ≤4 °C.

Table 5

Analyte	Conc. of REC Stock (ng/mL)	Vol. of REC Stock (mL)	Final Vol. of REC PDS (mL)	Final Conc. of REC PDS (ng/mL)
M2PFOA	2000	1	4	500
M2PFDA	2000	1	4	500
M3PFBA	2000	1	4	500
M4PFOS	2000	1	4	500

8.2.9 CALIBRATION STANDARDS (CAL) –

Current Concentrations (ng/mL): 0.5, 1.0, 5.0, 10.0, 50.0, 125, 150, 250, 500

Prepare the CAL standards over the concentration range of interest from dilutions of the analyte PDS in methanol containing 20% reagent water. 20 µl of the EIS PDS and REC PDS are added to the CAL standards to give a constant concentration of 10 ng/ml. The lowest concentration CAL standard must be at or below the RL (2 ng/L), which may depend on system sensitivity. The CAL standards may also be used as CCVs (Sect. 9.8). To make calibration stock standards:

Table 6

Calibration Standard Concentration	**Final Aqueous Cal STD Level Concentration**	**Final Soil Cal STD Level Concentration**	**30 compound stock added (ul)**	**Individual analyte Stocks added (ul)**	**500 ng/ml dilution added (ul)**	**Final Volume in MeOH/H_2O (82:20)**
.5 ng/ml	2 ng/L	.25 ng/g	6.25		25	25 mls
1 ng/ml	4 ng/L	.5 ng/g	5		20	10 mls
5 ng/ml	20 ng/L	1 ng/g	25		100	10 mls
10 ng/ml	40 ng/L	5 ng/g	125	5		25 mls
50 ng/ml	200 ng/L	25 ng/g	250	10		10 mls
125 ng/ml	500 ng/L	62.5 ng/g	625	25		10 mls
150 ng/ml	600 ng/L	75 ng/g	750	30		10 mls
250 ng/ml	1000 ng/L	125 ng/g	625			5 mls
500 ng/ml	2000 ng/L	250 ng/g	1250			5 mls

9. Quality Control

The laboratory must maintain records to document the quality of data that is generated. Ongoing data quality checks are compared with established performance criteria to determine if the results of analyses meet the performance characteristics of the method.

9.1 Blank(s)

9.1.1 METHOD BLANK (MB) - A Method Blank (MB) is required with each extraction batch to confirm that potential background contaminants are not interfering with the identification or quantitation of method analytes. Prep and analyze a MB for every 20 samples. If the MB produces a peak within the retention time window of any analyte that would prevent the determination of that analyte, determine the source of contamination, and eliminate the interference before processing samples. Background contamination must be reduced to an acceptable level before proceeding. Background from method analytes or other contaminants that interfere with the measurement of method analytes must be below the RL. If the method analytes are detected in the MB at concentrations equal to or greater than this level, then all data for the problem analyte(s) must be considered invalid for all samples in the extraction batch. Because background contamination is a significant problem for several method analytes, it is highly recommended that the analyst maintains a historical record of MB data.

9.1.2 FIELD REAGENT BLANK (FRB) - The purpose of the FRB is to ensure that PFAS's measured in the Field Samples were not inadvertently introduced into the sample during sample collection/handling. Analysis of the FRB is required only if a Field Sample contains a method analyte or analytes at or above the RL. The FRB is processed, extracted and analyzed in exactly the same manner as a Field Sample.

9.2 Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicates (LCSD)

9.2.1 An LCS is required with each extraction batch. The fortified concentration of the LCS may be rotated between low, medium, and high concentrations from batch to batch. Default limits of 50-150% of the true value may be used for analytes until sufficient replicates have been analyzed to generate proper control limits. Calculate the percent recovery (%*R*) for each analyte using the equation:

$$\%R = \frac{A \times 100}{B}$$

Where:

A = measured concentration in the fortified sample
B =fortification concentration.

9.2.2 Where applicable, in the absence of additional sample volume required to perform matrix specific QC, LCSD's are to be extracted and analyzed. The concentration and analyte recovery criteria for the LCSD must be the same as the batch LCS The RSD's must fall within ≤30% of the true value for medium and high level replicates, and ≤50% for low level replicates. Calculate the relative percent difference (RPD) for duplicate MSs (MS and MSD) using the equation:

$$RPD = \frac{|LCS - LCSD|}{(LCS + LCSD) / 2} \times 100$$

9.2.3 If the LCS and or LCSD results do not meet these criteria for method analytes, then all data for the problem analyte(s) must be considered invalid for all samples in the extraction batch.

9.3 Labeled Recovery Standards (REC)

The analyst must monitor the peak areas of the REC(s) in all injections during each analysis day.

9.4 Extracted Internal Standards (EIS)

9.4.1 The EIS standard is fortified into all samples, CCVs, MBs, LCSs, MSs, MSDs, FD, and FRB prior to extraction. It is also added to the CAL standards. The EIS is a means of assessing method performance from extraction to final chromatographic measurement. Calculate the recovery (%R) for the EIS using the following equation:

$$\%R = (A / B) \times 100$$

Where:

A = calculated EIS concentration for the QC or Field Sample
B = fortified concentration of the EIS.

9.4.2 Default limits of 50-150% may be used for analytes until sufficient replicates have been analyzed to generate proper control limits. A low or high percent recovery for a sample, blank, or CCV does not require discarding the analytical data but it may indicate a potential problem with future analytical data. When EIS recovery from a sample, blank, or CCV are outside control limits, check 1) calculations to locate possible errors, 2) standard solutions for degradation, 3) contamination, and 4) instrument performance. For CCVs and QC elements spiked with all target analytes, if the recovery of the corresponding target analytes meet the acceptance criteria for the EIS in question, the data can be used but all potential biases in the recovery of the EIS must be documented in the sample report. If the associated target analytes do not meet the acceptance criteria, the data must be reanalyzed.

9.5 Matrix Spike (MS)

9.5.1 Analysis of an MS is required in each extraction batch and is used to determine that the sample matrix does not adversely affect method accuracy. Assessment of method precision is accomplished by analysis of a Field Duplicate (FD) (Sect. 9.6); however, infrequent occurrence of method analytes would hinder this assessment. If the occurrence of method analytes in the samples is infrequent, or if historical trends are unavailable, a second MS, or MSD, must be prepared, extracted, and analyzed from a duplicate of the Field Sample. Extraction batches that contain MSDs will not require the extraction of a field sample duplicate. If a variety of different sample matrices are analyzed regularly, for example, drinking water from groundwater and surface water sources, method performance should be established for each. Over time, MS data should be documented by the laboratory for all routine sample sources.

9.5.2 Within each extraction batch, a minimum of one Field Sample is fortified as an MS for every 20 Field Samples analyzed. The MS is prepared by spiking a sample with an appropriate amount of the Analyte Stock Standard (Sect. 8.2.3). Use historical data and rotate through the low, mid and high concentrations when selecting a fortifying concentration. Calculate the percent recovery (%*R*) for each analyte using the equation:

$$\%R = \frac{(A - B)}{C} \times 100$$

Where:

A = measured concentration in the fortified sample
B = measured concentration in the unfortified sample
C = fortification concentration.

9.5.3 Analyte recoveries may exhibit matrix bias. For samples fortified at or above their native concentration, recoveries should range between 50-150%. If the accuracy of any analyte falls outside the designated range, and the laboratory performance for that analyte is shown to be in control in the LCS, the recovery is judged to be matrix biased. The result for that analyte in the unfortified sample is labeled suspect/matrix to inform the data user that the results are suspect due to matrix effects.

9.6 Laboratory Duplicate

9.6.1 FIELD DUPLICATE OR LABORATORY FORTIFIED SAMPLE MATRIX DUPLICATE (FD or MSD) – Within each extraction batch (not to exceed 20 Field Samples), a minimum of one FD or MSD must be analyzed. Duplicates check the precision associated with sample collection, preservation, storage, and laboratory procedures. If method analytes are not routinely observed in Field Samples, an MSD should be analyzed rather than an FD.

9.6.2 Calculate the relative percent difference (*RPD*) for duplicate measurements (*FD1* and *FD2*) using the equation:

$$\text{RPD} = \frac{|\text{FD1} - \text{FD2}|}{(\text{FD1} + \text{FD2})/2} \times 100$$

9.6.3 RPDs for FDs should be ≤30%. Greater variability may be observed when FDs have analyte concentrations that are within a factor of 2 of the RL. At these concentrations, FDs should have RPDs that are ≤50%. If the RPD of any analyte falls outside the designated range, and the laboratory performance for that analyte is shown to be in control in the CCV, the recovery is judged to be matrix biased. The result for that analyte in the unfortified sample is labeled suspect/matrix to inform the data user that the results are suspect due to matrix effects.

9.6.4 If an MSD is analyzed instead of a FD, calculate the relative percent difference (RPD) for duplicate MSs (MS and MSD) using the equation:

$$\text{RPD} = \frac{|\text{MS} - \text{MSD}|}{(\text{MS} + \text{MSD})/2} \times 100$$

9.6.5 RPDs for duplicate MSs should be ≤30% for samples fortified at or above their native concentration. Greater variability may be observed when MSs are fortified at analyte concentrations that are within a factor of 2 of the RL. MSs fortified at these concentrations should have RPDs that are ≤50% for samples fortified at or above their native concentration. If the RPD of any analyte falls outside the designated range, and the laboratory performance for that analyte is shown to be in control in the LCSD where applicable, the result is judged to be matrix biased. If no LCSD is present, the associated MS and MSD are to be re-analyzed to determine if any analytical has occurred. If the resulting RPDs are still outside control limits, the result for that analyte in the unfortified sample is labeled suspect/matrix to inform the data user that the results are suspect due to matrix effects.

9.7 Initial Calibration Verification (ICV)

9.7.1 After each ICAL, analyze a QCS sample from a source different from the source of the CAL standards. If a second vendor is not available, then a different lot of the standard should be used. The QCS should be prepared and analyzed just like a CCV. Acceptance criteria for the QCS are identical to the CCVs; the calculated amount for each analyte must be ± 30% of the expected value. If measured analyte concentrations are not of acceptable accuracy, check the entire analytical procedure to locate and correct the problem.

9.8 Continuing Calibration Verification (CCV)

9.8.1 CCV Standards are analyzed at the beginning of each analysis batch, after every 10 Field Samples, and at the end of the analysis batch. See Section 10.11 for concentration requirements and acceptance criteria.

9.9 Method-specific Quality Control Samples

None

9.10 Method Sequence

- CCV-LOW
- MB
- LCS
- LCSD (where applicable)
- MS
- Duplicate or MSD
- Field Samples (1-10)
- CCV-MID
- Field Samples (11-20)
- CCV-LOW

10. Procedure

10.1 Equipment Set-up

10.1.1 This procedure may be performed manually or in an automated mode using a robotic or automatic sample preparation device. If an automated system is used to prepare samples, follow the manufacturer's operating instructions, but all extraction and elution steps must be the same as in the manual procedure. Extraction and/or elution steps may not be changed or omitted to accommodate the use of an automated system. If an automated system is used, the MBs should be rotated among the ports to ensure that all the valves and tubing meet the MB requirements (Sect. 9.1).

10.1.2 Some of the PFAS's adsorb to surfaces, including polypropylene. Therefore, the aqueous sample bottles must be rinsed with the elution solvent (Sect 10.3.4) whether extractions are performed manually or by automation. The bottle rinse is passed through the cartridge to elute the method analytes and is then collected (Sect. 10.3.4).

10.1.3 **NOTE:** The SPE cartridges and sample bottles described in this section are designed as single use items and should be discarded after use. They may not be refurbished for reuse in subsequent analyses.

10.2 Sample Preparation and Extraction of Aqueous Samples

10.2.1 Samples are preserved, collected, and stored as presented in Section 6.

The entire sample that is received must be sent through the SPE cartridge. In addition, the bottle must be solvent rinsed and this rinse must be sent through the SPE cartridge as well. The method blank (MB) and laboratory control sample (LCS) must be extracted in the same manner (i.e., must include the bottle solvent rinse). It should be noted that a water rinse alone is not sufficient. This does not apply to samples with high concentrations of PFAS that are prepared using serial dilution and not SPE.

10.2.2 Determine sample volume. Weigh all samples to the nearest 1g. If visible sediment is present, centrifuge and decant into a new 250mL HDPE bottle and record the weight of the new container.

NOTE: Some of the PFAS's adsorb to surfaces, thus the sample volume may NOT be transferred to a graduated cylinder for volume measurement.

10.2.3 The MB, LCS and FRB may be prepared by measuring 250 mL of reagent water with a polypropylene graduated cylinder or filling a 250-mL sample bottle to near the top.

10.2.4 Adjust the QC and sample pH to 3 by adding acetic acid in water dropwise.

10.2.5 Add 20 µL of the EIS PDS (Sect. 8.2.2) to each sample and QC, cap and invert to mix.

10.2.6 If the sample is an LCS, LCSD, MS, or MSD, add the necessary amount of analyte PDS (Sect. 8.2.4). Cap and invert each sample to mix.

10.3 Cartridge SPE Procedure

10.3.1 CARTRIDGE CLEAN-UP AND CONDITIONING – DO NOT allow cartridge packing material to go dry during any of the conditioning steps. Rinse each cartridge with 3 X 5 mL of 2% ammonium hydroxide in methanol, followed by 5mls of methanol. Next, rinse each cartridge with 5 mls of the 25 mM acetate buffer, followed by 15 mL of reagent water, without allowing the water to drop below the top edge of the packing. If the cartridge goes dry during the conditioning phase, the conditioning must be started over. Add 4-5 mL of reagent water to each cartridge, attach the sample transfer tubes (Sect. 7.11.3), turn on the vacuum, and begin adding sample to the cartridge.

10.3.2 SAMPLE EXTRACTON – Adjust the vacuum so that the approximate flow rate is approximately 4 mL/min. Do not allow the cartridge to go dry before all the sample has passed through.

10.3.3 SAMPLE BOTTLE AND CARTRIDGE RINSE – After the entire sample has passed through the cartridge, rinse the sample bottles with 4 ml reagent water followed by 4 ml 25 mM acetate buffer at pH 4 and draw the aliquot through the sample transfer tubes and the cartridges. Draw air or nitrogen through the cartridge for 5-10 min at high vacuum (10-15 in. Hg). NOTE: If empty plastic reservoirs are used in place of the sample transfer tubes to pass the samples through the cartridges, these reservoirs must be treated like the transfer tubes. After the entire sample has passed through the cartridge, the reservoirs must be rinsed to waste with reagent water.

10.3.4 SAMPLE BOTTLE AND CARTRIDGE ELUTION, Fraction 1 – Turn off and release the vacuum. Lift the extraction manifold top and insert a rack with collection tubes into the extraction tank to collect the extracts as they are eluted from the cartridges. Rinse the sample bottles with 12 mls of methanol and draw the aliquot through the sample transfer tubes and cartridges. Use a low vacuum such that the solvent exits the cartridge in a dropwise fashion.

NOTE: Due to the possible volatility and suspect degradation of sulfonamides and sulfonamide ethanols when exposed to heat, a portion of the methanol fraction may be retained and analyzed independently with no evaporation for these analytes.

SAMPLE BOTTLE AND CARTRIDGE ELUTION, Fraction 2 In a separate collection vial, rinse the sample bottles with 12 mL of 2% ammonium hydroxide in methanol and elute the analytes from the cartridges by pulling the 4 mL of methanol through the sample transfer tubes and the cartridges. Use a low vacuum such that the solvent exits the cartridge in a dropwise fashion.

NOTE: If empty plastic reservoirs are used in place of the sample transfer tubes to pass the samples through the cartridges, these reservoirs must be treated like the transfer tubes. After the reservoirs have been rinsed in Section 10.3.3, the elution solvent used to rinse the sample bottles must be swirled down the sides of the reservoirs while eluting the cartridge to ensure that any method analytes on the surface of the reservoirs are transferred to the extract.

CLEAN-UP CARTRIDGE ELUTION, Elute the clean-up cartridge with 8 additional mls of methanol and draw the aliquot through the cartridge. Use a low vacuum such that the solvent exits the cartridge in a dropwise fashion.

10.3.5 Fractions 1 and 2 are to be combined during the concentration stage (section10.8).

10.4 Sample Prep and Extraction Protocol for Soils, Solids and Sediments.

10.4.1 Homogenize and weigh 4 grams of sample (measured to the nearest hundredth of a gram) into a 50 ml polypropylene centrifuge tube. For laboratory control blanks and spikes, 4 grams of clean sand is used.

10.4.2 Add 40 µL of the EIS PDS (Sect. 8.2.2) to each sample and QC.

10.4.3 If the sample is an LCS, LCSD, MS, or MSD, add the necessary amount of analyte PDS (Sect. 8.2.6). Cap and invert each sample to mix.

10.4.4 To all samples, add 10 mls of methanol, cap, vortex for 25 seconds at 2500 RPM.

10.4.5 Following mixing, sonicate each sample for 30 minutes and let samples sit overnight (at least 2 hours is required for RUSH samples).

10.4.6 Centrifuge each sample at 3500RPM for 10 minutes.

10.4.7 Remove 5ml of supernatant, and reserve for clean-up.

10.5 Sample Prep and Extraction Protocol for Tissues, Oils and Biosolids.

10.5.1 Homogenize and weigh 2-8 grams of sample (measured to the nearest hundredth of a gram) into a 50 ml polypropylene centrifuge tube. For laboratory control blanks and spikes, 4 grams of clean sand is used.

10.5.2 Add 40 µL of the EIS PDS (Sect. 8.2.2) to each sample and QC.

10.5.3 If the sample is an LCS, LCSD, MS, or MSD, add the necessary amount of analyte PDS (Sect. 8.2.6). Cap and invert each sample to mix.

10.5.4 Add 100 ul of Ammonium Hydroxide.

10.5.5 To all samples, add 10 mls of methanol, cap, vortex for 25-30 seconds at 2500 RPM.

10.5.6 Following mixing, sonicate each sample for 30 minutes and let samples sit for 2 hours.

10.5.7 Centrifuge each sample at 3500RPM for 10 minutes.

10.5.8 Remove 5 mls of the supernatant, and reserve for clean-up.

10.6 Extract Clean-up: Soils, Solids and Sediment Matrices

10.6.1 CARTRIDGE CLEAN-UP AND CONDITIONING –. Rinse each cartridge with 15 mL of methanol and discard. If the cartridge goes dry during the conditioning phase, the conditioning must be started over. Attach the sample transfer tubes (Sect. 7.11.3), turn on the vacuum, and begin adding sample to the cartridge. For Soils extracts, transfer 5 mls of the MeOH eluate to the cartridge. Samples should be allowed to pass through the cartridge by gravity feed at a dropwise rate to ensure adequate contact time with the cartridge sorbent. Vacuum is only to applied if the flow of solvent through the cartridge stops.

10.6.2 Adjust the vacuum so that the approximate flow rate is 1-2 mL/min. Do not allow the cartridge to go dry before all the sample has passed through.

10.6.3 SAMPLE BOTTLE AND CARTRIDGE RINSE – After the entire sample has passed through the cartridge, rinse the sample collection vial with two 4-mL aliquots of methanol and draw each aliquot through the cartridges. Draw air or nitrogen through the cartridge for 5 min at high vacuum (10-15 in. Hg).

10.6.4 If extracts are not to be immediately evaporated, cover collection tubes and store at ambient temperature till concentration.

NOTE: Due to the possible volatility and suspect degradation of sulfonamides and sulfonamide ethanols when exposed to heat, a portion of the eluate may be retained and analyzed independently with no evaporation for these analytes.

10.7 Extract Clean-up: Tissues, Oils and Biosolids

10.7.1 CARTRIDGE CLEAN-UP AND CONDITIONING –. Stack a 500 mg WAX cartridge onto a 250 mg GCB cartridge. Rinse each cartridge set with 10 mL of 2% NH_4OH and discard. Immediately rinse each cartridge stack with 15 mls MeOH and discard, If the cartridge goes dry during the conditioning phase, the conditioning must be started over. Attach the sample transfer tubes (Sect. 7.11.3), turn on the vacuum.

10.7.2 Adjust the vacuum so that the approximate flow rate is 1-2 mL/min. Do not allow the cartridge to go dry before all the sample has passed through.

10.7.3 SAMPLE elution AND CARTRIDGE RINSE – Load 5 mls of the MeOH sample extract to the cartridge. After the entire sample has passed through the cartridge, rinse the cartridges with 5-mLs of methanol and draw through the cartridges. Immediately add and elute 2 5ml aliquots of 2% NH_4OH to the cartridges, collecting the eluate with the MeOH eluate.

If extracts are not to be immediately evaporated, cover collection tubes and store at ambient temperature till concentration.

NOTE: Due to the possible volatility and suspect degradation of sulfonamides and sulfonamide ethanols when exposed to heat, a portion of the eluate may be retained and analyzed independently with no evaporation for these analytes.

10.8 Extract Concentration

10.8.1 Concentrate the extract to dryness under a gentle stream of nitrogen in a heated water bath (60-65 °C) to remove all the water/methanol mix. Add the appropriate amount of 80:20% (vol/vol) methanol:water solution and 20 µl of the ID REC PDS (Sect. 8.2.8) to the collection vial to bring the volume to 1 mL and vortex. Transfer two aliquots with a plastic pipet (Sect. 7.8) into 2 polypropylene autosampler vials.

NOTE: It is recommended that the entire 1-mL aliquot not be transferred to the autosampler vial because the polypropylene autosampler caps do not reseal after injection. Therefore, do not store the extracts in the autosampler vials as evaporation losses can occur occasionally in these autosampler vials. Extracts can be split between 2 X 700 µl vials (Sect. 7.5).

10.9 Sample Volume Determination

10.9.1 If the level of the sample was marked on the sample bottle, use a graduated cylinder to measure the volume of water required to fill the original sample bottle to the mark made prior to extraction. Determine to the nearest 10 mL.

10.9.2 If using weight to determine volume, weigh the empty bottle to the nearest 10 g and determine the sample weight by subtraction of the empty bottle weight from the original sample weight (Sect. 10.2.2). Assume a sample density of 1.0 g/mL. In either case, the sample volume will be used in the final calculations of the analyte concentration (Sect. 11.2).

10.10 Initial Calibration - Demonstration and documentation of acceptable initial calibration is required before any samples are analyzed. After the initial calibration is successful, a CCV is required at the beginning and end of each period in which analyses are performed, and after every tenth Field Sample.

10.10.1 ESI-MS/MS TUNE

10.10.1.1 Calibrate the mass scale of the MS with the calibration compounds and procedures prescribed by the manufacturer.

10.10.1.2 Optimize the [M-H]- for each method analyte by infusing approximately 0.5-1.0 µg/mL of each analyte (prepared in the initial mobile phase conditions) directly into the MS at the chosen LC mobile phase flow rate (approximately 0.4 mL/min). This tune can be done on a mix of the method analytes. The MS parameters (voltages, temperatures, gas flows, etc.) are varied until optimal analyte responses are determined. The method analytes may have different optima requiring some compromise between the optima.

10.10.1.3 Optimize the product ion for each analyte by infusing approximately 0.5-1.0 µg/mL of each analyte (prepared in the initial mobile phase conditions) directly into the MS at the chosen LC mobile phase flow rate (approximately 0.4 mL/min). This tune can be done on a mix of the method analytes. The MS/MS parameters (collision gas pressure, collision energy, etc.) are varied until optimal analyte responses are determined. Typically, the carboxylic acids have very similar MS/MS conditions and the sulfonic acids have similar MS/MS conditions.

10.10.2 Establish LC operating parameters that optimize resolution and peak shape. Modifying the standard or extract composition to more aqueous content to prevent poor shape is not permitted.

Cautions: LC system components, as well as the mobile phase constituents, contain many of the method analytes in this method. Thus, these PFAS's will build up on the head of the LC column during mobile phase equilibration. To minimize the background PFAS peaks and to keep background levels constant, the time the LC column sits at initial conditions must be kept constant and as short as possible (while ensuring reproducible retention times). In addition, prior to daily use, flush the column with 100% methanol for at least 20 min before initiating a sequence. It may be necessary on some systems to flush other LC components such as wash syringes, sample needles or any other system components before daily use.

10.10.3 Inject (2µl for Sciex systems, 3µl for Waters systems, 20µl for MeOH fractions) a mid-level CAL standard under LC/MS conditions to obtain the retention times of each method analyte. If analyzing for PFTA, ensure that the LC conditions are adequate to prevent co-elution of PFTA and the mobile phase interferants. These interferants have the same precursor and products ions as PFTA, and under faster LC conditions may co-elute with PFTA. Divide the chromatogram into retention time windows each of which contains one or more chromatographic peaks. During MS/MS analysis, fragment a small number of selected precursor ions ([M-H]-) for the analytes in each window and choose the most abundant product ion. For maximum sensitivity, small mass windows of ±0.5 daltons around the product ion mass were used for quantitation.

10.10.4 Inject a mid-level CAL standard under optimized LC/MS/MS conditions to ensure that each method analyte is observed in its MS/MS window and that there are at least 10 scans across the peak for optimum precision.

NOTE: PFHxS, PFOS, NMeFOSAA, and NEtFOSAA have multiple chromatographic peaks using the LC conditions in Table 7 due to chromatographic resolution of the linear and branched isomers of these compounds. Most PFAS's are produced by two different processes. One process gives rise to linear PFAS's only while the other process produces both linear and branched isomers. Thus, both branched and linear PFAS's can potentially be found in the environment. For the aforementioned compounds that give rise to more than one peak, all the chromatographic peaks observed in the standard must be integrated and the areas totaled. Chromatographic peaks in a sample must be integrated in the same way as the CAL standard.

10.10.5 Prepare a set of CAL standards as described in Section 8.2.9. The lowest concentration CAL standard must be at or below the RL (2 ng/L), which may depend on system sensitivity.

10.10.6 The LC/MS/MS system is calibrated using the isotope dilution technique. Target analytes are quantitated against their isotopically labeled analog (Extracted Internal Standard) where commercially available. If a labeled analog is not commercially available, the extracted internal standard with the closest retention time and /or closest chemical similarity is to be used. Use the LC/MS/MS data system software to generate a linear regression or quadratic calibration curve for each of the analytes. This curve must always be forced through zero and may be concentration weighted, if necessary. Forcing zero allows for a better estimate of the background levels of method analytes. A minimum of 5 levels are required for a linear calibration model and a minimum of 6 levels are required for a quadratic calibration model.

10.10.7 CALIBRATION ACCEPTANCE CRITERIA – A linear fit is acceptable if the coefficient of determination (r^2) is greater than 0.99. When quantitated using the initial calibration curve, each calibration point, except the lowest point, for each analyte must calculate to be within 70-130% of its true value. The lowest CAL point must calculate to be within 50-150% of its true value. If these criteria cannot be met, the analyst will have difficulty meeting ongoing QC criteria. It is recommended that corrective action is taken to reanalyze the CAL standards, restrict the range of calibration, or select an alternate method of calibration (forcing the curve through zero is still required).

10.10.7.1 CAUTION: When acquiring MS/MS data, LC operating conditions must be carefully reproduced for each analysis to provide reproducible retention times. If this is not done, the correct ions will not be monitored at the appropriate times. As a precautionary measure, the chromatographic peaks in each window must not elute too close to the edge of the segment time window.

10.11 CONTINUING CALIBRATION CHECK (CCV) – Minimum daily calibration verification is as follows. Verify the initial calibration at the beginning and end of each group of analyses, and after every tenth sample during analyses. In this context, a “sample” is considered to be a Field Sample. MBs, CCVs, LCSs, MSs, FDs FRBs and MSDs are not counted as samples. The beginning CCV of each analysis batch must be at or below the RL in order to verify instrument sensitivity prior to any analyses. If standards have been prepared such that all low CAL points are not in the same CAL solution, it may be necessary to analyze two CAL standards to meet this requirement. Alternatively, the analyte concentrations in the analyte PDS may be customized to meet these criteria. Subsequent CCVs should alternate between a medium and Low concentration CAL standard.

10.11.1 Inject an aliquot of the appropriate concentration CAL standard and analyze with the same conditions used during the initial calibration.

10.11.2 Calculate the concentration of each analyte and EIS in the CCV. The calculated amount for each analyte for medium level CCVs must be within ± 30% of the true value with an allowance of 10% of the reported analytes to be greater than 30%. The calculated amount for each EIS must be within ± 50% of the true value. The calculated amount for the lowest calibration point for each analyte must be within ± 50%. If these conditions do not exist, then all data for the problem analyte must be considered invalid, and remedial action should be taken which may require recalibration. Any Field or QC Samples that have been analyzed since the last acceptable calibration verification should be reanalyzed after adequate calibration has been restored, with the following exception. If the CCV fails because the calculated concentration is greater than 130% (150% for the low-level CCV) for a particular method analyte, and Field Sample extracts show no detection for that method analyte, non-detects may be reported without re-analysis.

10.11.3 REMEDIAL ACTION – Failure to meet CCV QC performance criteria may require remedial action. Major maintenance, such as cleaning the electrospray probe, atmospheric pressure ionization source, cleaning the mass analyzer, replacing the LC column, etc., requires recalibration (Sect 10.10) and verification of sensitivity by analyzing a CCV at or below the RL (Sect 10.11).

10.12 EXTRACT ANALYSIS

10.12.1 Establish operating conditions equivalent to those summarized in Tables 7-9 of Section 16.

10.12.2 Establish an appropriate retention time window for each analyte. This should be based on measurements of actual retention time variation for each method analyte in CAL standard solutions analyzed on the LC over the course of time. A value of plus or minus three times the standard deviation of the retention time obtained for each method analyte while establishing the initial calibration can be used to calculate a suggested window size. However, the experience of the analyst should weigh heavily on the determination of the appropriate retention window size.

10.12.3 Calibrate the system by either the analysis of a calibration curve (Sect. 10.10) or by confirming the initial calibration is still valid by analyzing a CCV as described in Section 10.11.

10.12.4 Begin analyzing Field Samples, including QC samples, at their appropriate frequency by injecting the same size aliquots under the same conditions used to analyze the CAL standards.

10.12.5 At the conclusion of data acquisition, use the same software that was used in the calibration procedure to identify peaks of interest in predetermined retention time windows. Use the data system software to examine the ion abundances of the peaks in the chromatogram. Identify an analyte by comparison of its retention time with that of the corresponding method analyte peak in a reference standard.

10.12.6 The analyst must not extrapolate beyond the established calibration range. If an analyte peak area exceeds the range of the initial calibration curve, the sample should be re-extracted with a reduced sample volume in order to bring the out of range target analytes into the calibration range. If a smaller sample size would not be representative of the entire sample, the following options are recommended. Re-extract an additional aliquot of sufficient size to insure that it is representative of the entire sample. Spike it with a higher concentration of internal standard. Prior to LC/MS analysis, dilute the sample so that it has a concentration of internal standard equivalent to that present in the calibration standard. Then, analyze the diluted extract.

11. Data Evaluation, Calculations and Reporting

11.1 Complete chromatographic resolution is not necessary for accurate and precise measurements of analyte concentrations using MS/MS. In validating this method, concentrations were calculated by measuring the product ions listed in Table 9.

11.2 Calculate analyte concentrations using the multipoint calibration established in Section 10.9. Do not use daily calibration verification data to quantitate analytes in samples. Adjust final analyte concentrations to reflect the actual sample volume determined in Section 10.8

C_{ex} = (Area of target analyte * Concentration of Labeled analog) / (area of labeled analog * CF)

C_s = (C_{ex} / sample volume in ml) * 1000

C_{ex} = The concentration of the analyte in the extract
CF = calibration factor from calibration.

11.3 Prior to reporting the data, the chromatogram should be reviewed for any incorrect peak identification or poor integration.

11.4 PFHxS, PFOS, PFOA, NMeFOSAA, and NEtFOSAA have multiple chromatographic peaks using the LC conditions in Table 7 due to the linear and branch isomers of these compounds (Sect. 10.10.4.). The areas of all the linear and branched isomer peaks observed in the CAL standards for each of these analytes must be summed and the concentrations reported as a total for each of these analytes.

11.5 Calculations must utilize all available digits of precision, but final reported concentrations should be rounded to an appropriate number of significant figures (one digit of uncertainty), typically two, and not more than three significant figures.

12. Contingencies for Handling Out-of-Control Data or Unacceptable Data

12.1 Section 9.0 outlines sample batch QC acceptance criteria. If non-compliant organic compound results are to be reported, the Organic Section Head and/or the Laboratory Director, and the Operations Manager must approve the reporting of these results. The laboratory Project Manager shall be notified and may choose to relay the non-compliance to the client, for approval, or other corrective action, such as re-sampling and re-analysis. The analyst, Data Reviewer, or Department Supervisor performing the secondary review initiates the project narrative, and the narrative must clearly document the non-compliance and provide a reason for acceptance of these results.

12.2 All results for the organic compounds of interest are reportable without qualification if extraction and analytical holding times are met, preservation requirements (including cooler temperatures) are met, all QC criteria are met, and matrix interference is not suspected during extraction or analysis of the samples. If any of the below QC parameters are not met, all associated samples must be evaluated for re-extraction and/or re-analysis.

13. Method Performance

13.1 Detection Limit Study (DL) / Limit of Detection Study (LOD) / Limit of Quantitation (LOQ)

13.1.1 The laboratory follows the procedure to determine the DL, LOD, and/or LOQ as outlined in Alpha SOP ID 1732. These studies performed by the laboratory are maintained on file for review.

13.2 Demonstration of Capability Studies

13.2.1 Refer to Alpha SOP ID 1739 for further information regarding IDC/DOC Generation.

13.2.2 The analyst must make a continuing, annual, demonstration of the ability to generate acceptable accuracy and precision with this method.

14. Pollution Prevention and Waste Management

14.1 Refer to Alpha's Chemical Hygiene Plan and Hazardous Waste Management and Disposal SOP for further pollution prevention and waste management information.

14.2 This method utilizes SPE to extract analytes from water. It requires the use of very small volumes of organic solvent and very small quantities of pure analytes, thereby minimizing the potential hazards to both the analyst and the environment as compared to the use of large volumes of organic solvents in conventional liquid-liquid extractions.

14.3 The analytical procedures described in this method generate relatively small amounts of waste since only small amounts of reagents and solvents are used. The matrices of concern are finished drinking water or source water. However, laboratory waste management practices must be conducted consistent with all applicable rules and regulations, and that laboratories protect the air, water, and land by minimizing and controlling all releases from fume hoods and bench operations. Also, compliance is required with any sewage discharge permits and regulations, particularly the hazardous waste identification rules and land disposal restrictions.

15. Referenced Documents

Chemical Hygiene Plan – ID 2124

SOP ID 1732 Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) SOP

SOP ID 1739 Demonstration of Capability (DOC) Generation SOP

SOP ID 1728 Hazardous Waste Management and Disposal SOP

16. Attachments

Table 7a: LC Method Conditions

Time (min)	2 mM Ammonium Acetate (5:95 MeOH/H_2O)	100% Methanol
Initial	100.0	0.0
1.0	100.0	0.0
2.2	85.0	15.0
11	20.0	80.0
11.4	0.0	100.0
12.4	100.0	00.0
15.5	100.0	0.0
Waters Aquity UPLC ® BEHC$_{18}$ 2.1 x 50 mm packed with 1.7 µm BEH C$_{18}$ stationary phase Flow rate of 0.4 mL/min 3 µL injection		

Table 7b: LC Method Conditions (MeOH Fraction)

Time (min)	2 mM Ammonium Acetate (5:95 MeOH/H_2O)	100% Methanol
Initial	100.0	0.0
1.0	50.0	50.0
4.5	1.0	99.0
4.95	1.0	99.0
5.0	100.0	0.0
5.5	100.0	0.0
Waters Aquity UPLC ® BEHC_{18} 2.1 x 50 mm packed with 1.7 µm BEH C_{18} stationary phase Flow rate of 0.6 mL/min 20 µL injection		

Table 8: ESI-MS Method Conditions

ESI Conditions	
Polarity	Negative ion
Capillary needle voltage	.5 kV
Cone Gas Flow	25 L/hr
Nitrogen desolvation gas	1000 L/hr
Desolvation gas temp.	500 ºC

Table 9a: Method Analyte Source, Retention Times (RTs), and EIS References

#	Analyte	Transition	RT	IS	Type
1	M3PBA	216>171	2.65		REC
2	PFBA	213 > 169	2.65	3: M4PFBA	
3	M4PFBA	217 > 172	2.65	1: M3PBA	EIS
4	PFPeA	263 > 219	5.67	5: M5PFPEA	
5	M5PFPEA	268 > 223	5.66	1: M3PBA	EIS
6	PFBS	299 > 80	6.35	7: M3PFBS	
7	M3PFBS	302 > 80	6.35	29:M4PFOS	EIS
8	FTS 4:2	327 > 307	7.47	9: M2-4:2FTS	
9	M2-4:2FTS	329 > 81	7.47	29:M4PFOS	EIS
10	PFHxA	303 > 269	7.57	11: M5PFHxA	
11	M5PFHxA	318 > 273	7.57	19:M2PFOA	EIS
12	PFPeS	349 > 80	7.88	18: M3PFHxS	
13	PFHpA	363 > 319	8.80	14: M4PFHpA	
14	M4PFHpA	367 > 322	8.80	19:M2PFOA	EIS
15	L-PFHxS	399 > 80	8.94	18: M3PFHxS	
16	br-PFHxS	399 > 80	8.72	18: M3PFHxS	
17	PFHxS Total	399 > 80	8.94	18: M3PFHxS	
18	M3PFHxS	402 > 80	8.94	29:M4PFOS	EIS
19	M2PFOA	415 > 370	9.7		REC
20	PFOA	413 > 369	9.7	23: M8PFOA	
21	br-PFOA	413 > 369	9.48	23: M8PFOA	
22	PFOA Total	413 > 369	9.7	23: M8PFOA	
23	M8PFOA	421 > 376	9.7	19: M2PFOA	EIS
24	FTS 6:2	427 > 407	9.66	25: M2-6:2FTS	
25	M2-6:2FTS	429 > 409	9.66	29:M4PFOS	EIS
26	PFHpS	449 > 80	9.78	33: M8PFOS	
27	PFNA	463 > 419	10.41	33: M9PFNA	
28	M9PFNA	472 > 427	10.41	19: M2PFOA	EIS
29	M4PFOS	501 > 80	10.45		REC
30	PFOS	499 > 80	10.45	33: M8PFOS	
31	br-PFOS	499 > 80	10.27	33: M8PFOS	
32	PFOS Total	499 > 80	10.45	33: M8PFOS	
33	M8PFOS	507 > 80	10.45	29: M4PFOS	EIS
34	FTS 8:2	527 > 507	10.99	35: M2-8:2FTS	
35	M2-8:2FTS	529 > 509	10.99	29:M4PFOS	EIS
36	M2PFDA	515 > 470	11.00		REC
37	PFDA	513 > 469	11.00	38: M6PFDA	

#	Analyte	Transition	RT	IS	Type
38	M6PFDA	519 > 474	11.00	36: M2PFDA	EIS
39	PFNS	549 > 80	11.02	33:M8PFOS	
40	br-NMeFOSAA	570 > 419	11.41	41: D3-NMeFOSAA	
41	L-NMeFOSAA	570 > 419	11.41	41: D3-NMeFOSAA	
42	NMeFOSAA total	570 > 419	11.41	41: D3-NMeFOSAA	
43	d3-NMeFOSAA	573 > 419	11.41	36: M2PFOA	EIS
44	PFOSA	498 > 78	11.48	29: M8FOSA	
45	M8FOSA	506 > 78	11.48	19: M2PFOA	EIS
46	PFUnDA	563 > 519	11.51	41: M7-PFUDA	
47	M7-PFUDA	570 > 525	11.51	36: M2PFDA	EIS
48	PFDS	599 > 80	11.51	33:M8PFOS	
49	br-NEtFOSAA	584 > 419	11.68	48: d5-NEtFOSAA	
50	L-NEtFOSAA	584 > 419	11.68	48: d5-NEtFOSAA	
51	NEtFOSAA total	584 > 419	11.68	48: d5-NEtFOSAA	
52	d5-NEtFOSAA	589 > 419	11.68	36: M2PFOA	EIS
53	PFDoA	613 > 569	11.96	50: MPFDOA	
54	MPFDOA	615 > 570	11.96	36: M2PFDA	EIS
55	PFTriA	663 > 619	12.34	53: M2PFTEDA	
56	PFTeA	713 > 669	12.6	53: M2PFTEDA	
57	M2PFTEDA	715 > 670	12.6	36: M2PFDA	EIS
58	M3HFPO-DA	329>285	7.97	19: M2PFOA	EIS
59	HFPO-DA	332>287	7.97	54: M3HFPO-DA	
60	ADONA	377>251	8.00	23: M8PFOA	
61	PFHxDA	813>769	13.20	59: M2PFHxDA	
62	PFODA	913>869	13.50	59: M2PFHxDA	
63	M2PFHxDA	815>770	13.20	36:M2PFDA	EIS
64	NEtFOSA	526>169	11.00	61: d5-NEtFOSA	
65	NMeFOSA	512>169	10.50	63: d3-NMeFOSA	
66	d3-NMeFOSA	515>169	10.50	19: M2PFOA	EIS
67	d5-NEtFOSA	531>169	11.00	19: M2PFOA	EIS
68	NMeFOSE	556>122	11.25	66: d7-NMeFOSE	
69	NEtFOSE	570>136	10.75	67: d9-NEtFOSE	
70	d7-NMeFOSE	563>126	11.25	19: M2PFOA	EIS
71	d9-NEtFOSE	579>142	10.75	19: M2PFOA	EIS
72	FTS 10:2	627>607	11.50	25: M2-8:2FTS	
73	PFDoS	699>99	12.50	33: M8PFOS	
74	9ClPF3ONS	531>351	10.23	33: M8PFOS	
75	11ClPF3OUdS	631>451	11.27	33: M8PFOS	
76	PFPrS	249>80	3.40	7: M3PFBS	

#	Analyte	Transition	RT	IS	Type
77	PFMPA	229>85	3.39	1: M3PBA	
78	PFMBA	279 .85	5.75	1: M3PBA	
79	PFEESA	315>135	6.45	18: M3PFHxS	
80	NFDHA	295>210	6.79	11: M5PFHxA	

Table 9b: Methanol Analyte Source, Retention Times (RTs), and EIS References

#	Analyte	Transition	RT	IS	Type
1	M2PFNA	472 > 427	2.55		IS
2	M2PFUdA	213 > 169	2.87		IS
3	M8FOSA	217 > 172	2.86	1: M2PFNA	EIS
4 5	FOSA	263 > 219	2.86	3: M8FOSA	
6	D3-NMeFOSA	515>169	3.22	1: M2PFNA	EIS
7	NMeFOSA	512>169	3.22	6: d3-NMeFOSA	
8	D5-NEtFOSAA	531>169	3.41	1: M2PFNA	EIS
9	NEtFOSAA	526>169	3.41	8: d5-NEtFOSA	
10	D7-NMeFOSE	563>126	3.23	1: M2PFNA	EIS
11	NMeFOSE	556>122	3.23	10: d7-NMeFOSE	
12	D9-NEtFOSE	579>142	3.40	11: M2PFNA	EIS
13	NEtFOSE	570>136	3.40	67: d9-NEtFOSE	

APPENDIX C

HEALTH AND SAFETY PLAN INCLUDING COMMUNITY AIR MONITORING PLAN

APPENDIX C
HEALTH AND SAFETY PLAN

This worker Health and Safety Plan (HASP) has been prepared by FPM Group (FPM) for New York State Department of Environmental Conservation (NYSDEC) Site #152250, identified as the East Hampton Airport Site, Wainscott, Suffolk County, New York (Site). This HASP is part of the Remedial Investigation/Feasibility Study (RI/FS) Work Plan and includes measures for the protection of worker health and safety during RI activities. A Community Air Monitoring Plan (CAMP) is also included to address potential issues that may affect the Site community during RI activities.

C.1 Worker Health and Safety Plan

C.1.1 Introduction

This HASP has been written for compliance with "OSHA Hazardous Waste Operations Standards (29 CFR 1910.120)", the guidance documents, "Standard Operating Safety Guidelines (Office of Solid Waste and Emergency Response, 1992)" and the "Occupational Safety and Health Guidance Manual for Hazardous Waste Activities" (U.S. Department of Health and Human Services, 1985).

C.1.2 Scope and Applicability of the HASP

This HASP is designed to be applicable to locations where soil borings, soil vapor implant installation and sampling, groundwater vertical profiling, and groundwater monitoring well installation and sampling are performed at the Site by all parties that either perform or witness the activities. This HASP may also be modified or amended to meet specific needs of the proposed work.

This HASP will detail the Site safety procedures, Site background, and safety monitoring. Contractors will be required to adopt this HASP in full or to follow an FPM-approved HASP. The Health and Safety Officer (HSO) will be present at the Site to inspect the implementation of the HASP; however, it is the sole responsibility of the contractor(s) to comply with the HASP.

The HASP has been formulated as a guide to complement professional judgment and experience. The appropriateness of the information presented should always be evaluated with respect to unforeseen Site conditions that may arise.

C.1.3 Site Work Zone and Visitors

The Site work zone (a.k.a. exclusion zone) during the performance of the soil boring, vertical profiling, well installation, vapor implant installation, and sampling activities will be a 30-foot radius about the work location. This work zone may be extended if, in the judgment of the HSO, Site conditions warrant a larger work zone.

Any Site work zones that are located in public areas or areas where members of the public might reasonably be present will have the boundary denoted by highly-visible “caution tape” prior to the start of any work activities. The HSO will visually monitor the work zone boundary as the work commences to ensure that no unauthorized personnel enter the work zone.

No visitors will be permitted within the work zone without the consent of the HSO. All visitors will be required to be familiar with, and comply with, the HASP. The HSO will deny access to those whose presence within the work zone is unnecessary or those who are deemed by the HSO to be in non-compliance with the HASP.

All Site workers, including the contractors, will be required to have OSHA 40-hour hazardous material training (eight-hour refresher courses annually), respirator fit test certification, and current medical surveillance as stated in 29 CFR 1910.120.

The HSO will also give an on-Site health and safety discussion to all Site personnel, including the contractors, prior to initiating the Site work. Workers not in attendance during the health and safety talk will be required to have the discussion with the HSO prior to entering the work zone.

Emergency telephone numbers and directions to the nearest urgent care center are shown in Table C.1.3.1. This table will be kept at the Site in the possession of the HSO and will be available to all Site workers and visitors.

C.1.4 Key Personnel/Alternates

The Project Manager for this project is Ben Cancemi, PG. The Senior Manager (project coordinator) for this project is Stephanie Davis, PG, who will also serve as the Quality Assurance Officer (QAO). The Field Services Manager will be John Bukoski, PG, who will also act as the HSO. An Assistant Project Manager and Assistant HSO may be designated for the field activities.

C.1.5 Site Background

Based on the Site history and previous analyses of samples, the known chemicals present at the Site include per- and polyfluoroalkyl substances (PFAS), which are present in soil and groundwater at the Site and in offsite groundwater. Subsurface investigation activities will include collection of soil, groundwater, and soil vapor samples.

C.1.6 Task/Operation Health and Safety Analysis

This section presents health and safety analyses for the soil boring, vertical profiling, well installation, vapor implant installation, and sampling tasks. In general, FPM will employ one to two persons at the Site. No soil borings or other intrusive Site operations will be conducted by contractors without the presence of an FPM representative onsite. In the event that the HSO is not present on the Site, the Assistant HSO will implement the HASP. Levels of personal protection mentioned in this section are defined in Section C.1.9.

Intrusive Sampling Safety Analysis

Intrusive activities, including performing soil borings and vertical profiling, and installing wells and soil vapor implants, will be performed by a direct-push contractor, a well drilling contractor, and/or FPM personnel. The soil borings, vertical profiles, and well installations will be performed by a direct-push and/or well drilling contractor advancing tooling into unconsolidated deposits consisting primarily of sand. Soil vapor implant installation will be performed by FPM personnel. The depth to groundwater is anticipated to range from approximately 15 to 30 feet below grade at the Site and will not be contacted during intrusive activities except during vertical profiling, well installation, and groundwater sampling. FPM personnel will be present to coordinate, oversee, and monitor intrusive activities.

TABLE C.1.3.1
EMERGENCY TELEPHONE NUMBERS AND DIRECTIONS TO NORTHWELL HEALTH URGENT CARE CLINIC

Police	911
Ambulance	911
Poison Control Center	800-222-1222
Northwell Health Urgent Care Clinic - Bridgehampton	631-315-6755

<u>FPM Contact Personnel (631-737-6200)</u>

Ben Cancemi, PG, Project Manager	Cell # 516-383-7106
Stephanie Davis, PG Senior Project Manager, QAO	Cell # 516-381-3400
John Bukoski, PG, Field Services Manager, HSO	Cell #516-381-3535

<u>Directions to the Northwell Health Urgent Care Clinic in Bridgehampton</u>

2044 Montauk Highway
Bridgehampton, NY 11932
Tel: 631-315-6755

Exit the Site onto Daniels Hole Road and turn right, heading south towards Montauk Highway. Travel south on Daniels Hole Road for about one mile to Montauk Highway. Turn right onto Montauk Highway and drive west towards Bridgehampton. Travel about 4.5 miles on Montauk Highway through Wainscott and the center of Bridgehampton. The Urgent Care Clinic is next to the King Kullen Supermarket in the Bridgehampton Commons Shopping Center on the west side of Bridgehampton. Turn right into the shopping center and then left towards the supermarket. An URGENT CARE sign marks the clinic location.

To minimize the potential for dust inhalation during intrusive activities, the HSO will assess wind and soil moisture conditions and, if it is deemed necessary by the HSO, the affected area will be wetted with potable water. If this measure is determined to be ineffective, the HSO may decide to upgrade personal protection to Level C respiratory protection to include respirators with dust cartridges. If extremely dusty conditions exist that cannot be successfully controlled by dust suppression with potable water, then the HSO may choose to postpone intrusive activities until such time as conditions improve.

Organic vapor concentrations will be monitored in the work zone by utilizing a Photovac MicroTIP PID or equivalent. The PID will be "zeroed" by exposing the PID to ambient (outdoor) air prior to intrusive activities and the upper range of calibration will be established by calibrating at 98 to 100 parts per million (ppm) of isobutylene. Background organic vapor concentrations will then be established in the work zone prior to intrusive activities and recorded in the HSO field book. Upon commencement of intrusive activities, PID readings will be obtained in the workers' breathing zone. Readings will be obtained following the initial advance into the ground and every five feet thereafter. At the discretion of the HSO, PID readings may be obtained more frequently. All readings and observations will be recorded in the HSO field book. PID air monitoring will be conducted by FPM personnel. Steady-state PID readings greater than five ppm in the worker's breathing zone will require upgrading to Level C personal protective equipment. Steady-state readings, for this purpose, will be defined as readings exceeding five ppm above background for a minimum of ten seconds at points approximately one foot above and then around the borehole opening. These points will define the worker's breathing zone. Level C personal protection will be implemented including full-face air-purifying respirators with dust and organic vapor cartridges (personal protective equipment will be described in greater detail in Section C.1.9). All FPM personnel and contractors must be properly trained and fit tested prior to donning respirators.

If PID readings exceed steady-state levels greater than 50 ppm above background or any conditions exist for which the HSO determines require Level B personal protective equipment, all work at the Site will cease immediately and all personnel will evacuate the work zone. Evacuation will occur in the upwind direction if discernible. Specific evacuation routes will be discussed prior to commencement of work at each location based on work location and wind direction and an evacuation meeting place will be determined. Level B conditions are not anticipated to be encountered; however, if level B conditions arise, no Site work will be performed by FPM or contractors and a complete evaluation of the operation will be performed and this HASP will be modified.

All personnel will be required to wear chemical-resistant nitrile gloves when the potential for dermal contact with the soil or groundwater is possible. This will include handling equipment retrieved from boreholes or wells. Dermal contact with soil or groundwater and equipment that has been in contact with soil or groundwater will be avoided.

Other Safety Considerations

- COVID-19

If the COVOD-19 pandemic is continuing at the time that field wok is performed, then appropriate health and safety protocols will be implemented to prevent the spread of the virus. Based on information aviable at this time, these protocols will include social distancing, wearing of face coverings when working in indoor situations or when social distancing cannot be assured, frequent hand washing, and sanitizing of frequently-touched surfaces. Such protocols are already in place in FPM offices and which travelling for business purposes and, therefore, this HASP provides specific protocols for field work only. These protocols will be applicable to all FPM personnel and to subcontractor personnel while they are at the work site.

Social distancing will be accomplished by ensuring that workers remain at least six feet apart, as feasible, during field activities, including travel to and from field sites and while working in the field. This may be accomplished by having workers travel in separate vehicles, establishing separate work stations while onsite, and coordinating closely so that social distancing can be maintained.

Face coverings that fully cover the nose and mouth will be worn at all times while indoor work is performed or when social distancing cannot be assured, such as when travel in separate vehicles is not possible and when working cooperatively in the field with other personnel. Face coverings may be disposable single-use coverings that will be discarded each day or when they become soiled or damaged. FPM will provide disposable single-use coverings for all field personnel as needed. Field personnel may also choose to use cloth face coverings, provided they are maintained by the personnel in a clean and functional condition. If field personnel are working outdoors and alone, where there is no reasonable potential for compromised social distancing, then they do not need to wear a face covering at that time.

Field personnel will be encouraged to wash their hands frequently and potable water and hand soap will be maintained onsite for this purpose. Hand sanitizer may also be used, but only when the potential for sample cross-contamination is not present.

Frequently-touched surfaces, such as door handles, shared hand equipment, and similar items, will be sanitized on a daily basis prior to the start of work and if the affected surfaces become soiled. Commercial sanitizing products will be used for this purpose. Sanitizing will be performed on a limited basis if the potential for sample cross-contamination is present. Steps will be taken to reduce the need for sanitizing by assigning designated personnel to specific hand-held field equipment and wearing disposable gloves when handling shared equipment or frequently-touched surfaces.

These procedures will be reviewed at the time that field work is initiated and modified as needed in accordance with then-current NYSDOH and federal Center for Disease Control (CDC) recommendations and requirements.

- <u>Noise</u>

During operations that may generate potentially harmful levels of noise, the HSO will monitor noise levels with a Realistic^{tm} hand-held sound level meter. Noise levels will be monitored in decibels (dBs) in the A-weighted, slow-response mode. Noise level readings which exceed the 29 CFR 1910.95 permissible noise exposure limits will require hearing protection (see Table C.1.6.1 for Permissible Noise Exposures).

Hearing protection will be available to all Site workers and will be required for exceedances of noise exposure limits. The hearing protection will consist of foam, expansion-fit earplugs (or other approved hearing protection) with a noise reduction rating of at least 29 dB. Hearing protection must alleviate worker exposure to noise to an eight-hour time-weighted average of 85 dB or below. In the event that the hearing protection is inadequate, work will cease until a higher level of hearing protection can be incorporated.

TABLE C.1.6.1
PERMISSIBLE NOISE EXPOSURES*

Duration Per Day Hours	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
½	110

Notes:

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions: $C_1/T_1+C_2/T_2+.....C_n/T_n$ exceeds unity, then, the mixed exposure should be considered to exceed the limit value. C_n indicates the total time of exposure at a specified noise level, and T_n indicates the total time of exposure permitted at that level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

*Standards derived from 29 CFR 1910.95

- Heavy Equipment Operations

Intrusive investigation activities may involve the use of heavy equipment. Heavy equipment operations for investigation activities will be performed by a qualified contractor with oversight by FPM.

Safety concerns during heavy equipment operations include risk of injury due to being struck by equipment, being trapped between moving equipment parts, being struck by dropped materials, and hearing damage due to equipment noise. All investigation personnel will take precautions against these risks when working in the vicinity of heavy equipment by being aware of equipment locations and movement, by wearing steel-toed boots and hard hats, and by using hearing protection, if necessary. Investigation personnel who have not previously worked in the vicinity of heavy equipment will be paired with an experienced person for at least one day to familiarize themselves with heavy equipment operations and safety procedures. All mobile equipment will be equipped with audible alarms to indicate when the equipment is being operated in reverse. All investigation personnel will be advised to stay away from demolition or construction areas if these activities are ongoing.

- Slip/Trip/Fall Preventative Measures

To reduce the potential for slipping, tripping, or falling, the work zone will be kept clear of unnecessary equipment. In addition, all investigation workers will be required to wear work boots with adequate tread to reduce the potential for slipping (work boots must be leather or chemical-resistant and contain steel toes and steel shanks).

- <u>Insects</u>

Potential insect problems include, but are not limited to stinging insects such as bees, wasps, and hornets, and ticks. Prior to commencement of work, each work area will be surveyed for nests and hives to reduce the possibility of disturbing stinging insects. In addition, each Site worker will be asked to disclose any allergies related to insect stings or bites. The worker will be requested to keep his or her anti-allergy medicine onsite.

Tick species present on Long Island consist of the pinhead-sized deer tick, the Lone Star tick, and the much-larger dog tick. Ticks are likely to exist at the Site, particularly in vegetated areas. All Site workers will be advised to avoid walking through vegetated areas, if feasible, and will be advised to check for ticks on clothing periodically.

- <u>Potential Electrical and Other Utility Hazards</u>

Potential electric hazards consist mainly of overhead and underground power lines. Other utilities that may present hazards include telephone lines, gas lines, sewer lines, water lines, and other overhead or underground utilities. Prior to commencement of work at the Site, all locations will be inspected with respect to overhead lines. Intrusive work involving heavy equipment will not be performed when the horizontal distance between the equipment and overhead wires is less than 30 feet.

Underground potential utility hazards will be minimized by contacting the One-Call service to provide markouts of the utilities beneath adjoining public streets. A geophysical survey will also be performed in each work area to identify utilities that may be present.

- <u>Heat/Cold Stress</u>

Heat stress may become a concern especially if protective clothing is donned that will decrease natural ventilation. To assist in reducing heat stress, an adequate supply of water or other liquids will be staged on the Site and personnel will be encouraged to rehydrate at least every two hours even if not thirsty. In addition, a shady rest area will be designated to provide shelter during sunny or warm days and Site workers will break for at least 10 minutes every two hours in the rest area, and, in very hot weather, workers wearing protective clothing may be rotated.

Indications of heat stress range from mild (fatigue, irritability, anxiety, decreased concentration, dexterity or movement) to fatal. Medical help will be obtained for serious conditions.

Heat-related problems are:

- <u>Heat rash</u>: caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat.

- <u>Heat cramps</u>: caused by profuse perspiration with inadequate fluid intake and chemical replacement (especially salts). Signs: muscle spasm and pain in the extremities and abdomen.

- <u>Heat exhaustion</u>: caused by increased stress on various organs to meet increased demands to cool the body. Signs: shallow breathing; pale, cool, moist skin; profuse sweating; dizziness and lassitude.

- Heat stroke: the most severe form of heat stress. Can be fatal. Medical help must be obtained immediately. Body must be cooled immediately to prevent severe injury and/or death. Signs: red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

Cold exposure is a concern if work is conducted during cold weather, marginally cold weather during precipitation periods, or moderate to high wind periods. To assist in reducing cold exposure the following measures will be taken when cold exposure concerns are present:

- All personnel will be required to wear adequate and appropriate clothing. This will include head gear to prevent the high percentage loss of heat that occurs in this area (thermal liners for hard hats if hard hats are required).

- A readily-available warm shelter will be identified near the work zone.

- Work and rest periods will be scheduled to account for the current temperature and wind velocity conditions.

- Work patterns and the physical condition of workers will be monitored and personnel will be rotated, as necessary.

- Indications of cold exposure include shivering, dizziness, numbness, confusion, weakness, impaired judgment, impaired vision, and drowsiness. Medical help will be obtained for serious conditions if they occur.

Cold exposure-related problems are:

- Frost bite: Ice crystal formation in body tissues. The restricted blood flow to the injured part results in local tissue destruction.

- Hypothermia: Severe exposure to cold temperature resulting in the body losing heat at a rate faster than the body can generate heat. The stages of hypothermia are shivering, apathy, loss of consciousness, decreasing pulse and breathing rate, and death.

The Buddy System

All activities in contaminated or potentially contaminated areas will be conducted by pairing off the Site workers in groups of two (or three if necessary). Each person (buddy) will be able to provide his or her partner with assistance, observe his or her partner for signs of chemical, cold, or heat exposure, periodically check the integrity of his or her partner's protective clothing, and notify the HSO or others if emergency help is needed. The buddy system will be instituted at the beginning of each work day. If new workers arrive on Site, a buddy will be chosen prior to the new worker entering the work zone.

Site Communications

Two sets of communication systems will be established at the Site: internal communication among personnel onsite, and external communication between onsite and offsite personnel. Internal communication will be used to alert team members to emergencies, pass along safety information such as heat stress and protective clothing checks, communicate changes in the work to be accomplished, and maintain Site control. Due to ambient noise, verbal communications may be difficult at times. The HSO will carry a whistle (and compressed air horn if respirators are donned) to signal Site workers. A single whistle blast will be the signal to immediately evacuate the work zone through the access control point. This signal will be discussed with all Site workers prior to commencement of work.

An external communication system between onsite and offsite personnel will be established to coordinate emergency response, report to the Project Manager, and maintain contact with essential off-Site personnel. A field cellphone will be available at all times to the HSO. In addition, onsite workers' cellphones will be identified prior to the commencement of onsite operations.

General Safe Work Practices

Standing orders applicable during Site operations are as follows:

- No smoking, eating, drinking, or application of cosmetics in the work zone.
- No matches or lighters in the work zone.
- All Site workers will enter/exit work zone through the Site access point.
- Any signs of contamination, radioactivity, explosivity, or unusual conditions will require evacuating the Site immediately and reporting the information to the HSO.
- Loose-fitting clothing and loose long hair will be prohibited in the work zone during heavy equipment operations.
- A signal person will direct the backing of work vehicles.
- Equipment operators will be instructed to check equipment for abnormalities such as oozing liquids, frayed cables, unusual odors, etc.

C.1.7 Personnel Training Requirements

All FPM personnel and contractor personnel will receive adequate training prior to entering the Site. FPM and contractor personnel will, at a minimum, have completed OSHA-approved, 40-hour hazardous materials Site safety training and OSHA-approved, eight-hour safety refresher course within one year prior to commencing field work. In addition, each worker must have a minimum of three days field experience under the direct supervision of a trained, experienced supervisor.

Prior to Site field work, the HSO will conduct an in-house review of the project with respect to health and safety with all FPM personnel who will be involved with field work at the Site. The review will include discussions of signs and symptoms of chemical exposure and heat/cold stress that indicate potential medical emergencies. In addition, review of PPE will be conducted to include the proper use of air-purifying respirators.

C.1.8 Medical Surveillance Program

All workers at the Site must participate in a medical surveillance program in accordance with 29 CFR 1910.120. A medical examination and consultation must have been performed within the last twelve months to be eligible for field work.

The content of the examination and consultation will include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances, health hazards, and fitness for duty including the ability to wear required personal protective equipment under conditions (i.e., temperature extremes) that may be expected at the work Site.

All medical examinations and procedures shall be performed by, or under the supervision of, a licensed physician. The Physician shall furnish a written opinion containing:

- The results of the medical examination and tests;

- The physician’s opinion as to whether the employee has any detected medical conditions which would place the worker at increased risk of material impairment of the employee's health from work in hazardous waste operations;

- The physician's recommended limitations upon the worker assigned to the work; and

- A statement that the worker has been informed by the physician of the results of the medical examination and any further examination or treatment.

- An accurate record of the medical surveillance will be retained. The record will consist of at least the following information:

- The name and social security number of the employee;

- The physician’s written opinions, recommended limitations, and results of examinations and tests; and

- Any worker medical complaints related to exposure to hazardous substances.

C.1.9 Personal Protective Equipment

General Considerations

The two basic objectives of the personal protective equipment (PPE) are to protect the wearer from safety and health hazards, and to prevent the wearer from incorrect use and/or malfunction of the PPE.

Potential Site hazards have been discussed previously in Section C.1.6. The duration of Site activities is estimated to be periods of several days. All work is expected to be performed during daylight hours and workdays, in general, are expected to be eight to ten hours in duration. Any work performed beyond daylight hours will require the permission of the HSO. This decision will be based on the adequacy of artificial illumination and the type and necessity of the task being performed.

Personal protection levels for the Site activities, based on past investigations at the Site, are anticipated to be Level D with the possibility of upgrading to Level C. The equipment included for each level of protection is provided as follows:

Level C Protection

Level C personnel protective equipment includes:

- Air-purifying respirator, full-face
- Chemical-resistant clothing includes: Tyvek^{tm} (spunbonded olefin fibers) for particulate and limited splash protection or Saranex^{tm} (plastic film-laminated Tyvek) for permeation resistance to solvents.
- Coveralls*, or
- Long cotton underwear*
- Gloves (outer), chemical-resistant
- Gloves (inner), chemical-resistant
- Boots (outer), leather or chemical-resistant, steel toe and

  shank
- Boot covers (outer), chemical-resistant (disposable)*
- Hard hat (face shield)*
- Escape mask*
- 2-way radio communications (inherently safe)*

(*) optional

Meeting all of these criteria permits use of Level C protection:

- Oxygen concentrations are not less than 19.5% by volume.
- Measured air concentrations of identified substances will be reduced by the respirator below the substance's threshold limit value (TLV).
- Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect any body area left unprotected by chemical-resistant clothing.
- Job functions do not require self-contained breathing apparatus.
- Direct readings are below 50 ppm on the PID.

Level D Protection

Personnel protective equipment:

- Coveralls
- Gloves*
- Boots/shoes, leather or chemical-resistant, steel toe and shank
- Safety glasses or chemical splash goggles*
- Hard hat (face shield*)
- Escape mask*

(*) optional

Meeting any of these criteria allows use of Level D protection:

- No contaminant levels above 5 ppm organic vapors or dusty conditions are present.
- Work functions preclude splashes, immersion, or the reasonable potential for unexpected inhalation of any chemicals above the TLV.

Additional Considerations for Selecting Levels of Protection

Other factors that will be considered in selecting the appropriate level of protection are heat and physical stress. The use of protective clothing and respirators increases physical stress, in particular, heat stress on the wearer. Chemical protective clothing greatly reduces natural ventilation and diminishes the body's ability to regulate its temperature. Even in moderate ambient temperatures, the diminished capacity of the body to dissipate heat can result in one or more heat-related problems.

All chemical protective garments can be a contributing factor to heat stress. Greater susceptibility to heat stress occurs when protective clothing requires the use of a tightly-fitted hood against the respirator face piece, or when gloves or boots are taped to the suit. As more body area is covered, less cooling takes place, increasing the probability of heat stress.

Wearing protective equipment also increases the risk of accidents. It is heavy, cumbersome, decreases dexterity, agility, interferes with vision, and is fatiguing to wear. These factors all increase physical stress and the potential for accidents. In particular, the necessity of selecting a level of protection will be balanced against the increased probability of heat stress and accidents.

Donning and Doffing Ensembles

- ### Donning an Ensemble

A routine will be established and practiced periodically for donning a Level C ensemble. Assistance may be provided for donning and doffing since these operations are difficult to perform alone. Table C.1.9.1 lists sample procedures for donning a Level C ensemble. These procedures should be modified depending on the particular type of suit and/or when extra gloves and/or boots are used.

TABLE C.1.9.1
SAMPLE LEVEL C DONNING PROCEDURES

1. Inspect the clothing and respiratory equipment before donning (see Inspection in subsection C.1.7).

2. Adjust hard hat or headpiece if worn, to fit user's head.

3. Standing or sitting, step into the legs of the suit; ensure proper placement of the feet within the suit; then gather the suit around the waist.

4. Put on chemical-resistant safety boots over the feet of the suit. Tape the leg cuff over the tops of the boots.

5. Don the respirator and adjust it to be secure, but comfortable.

6. Perform negative and positive respirator facepiece seal test procedures.

   – To conduct a negative pressure test, close the inlet part with the palm of the hand or squeeze the breathing tube so it does not pass air, and gently inhale for about 10 seconds. Any inward rushing of air indicates a poor fit. Note that a leaking facepiece may be drawn tightly to the face to form a good seal, giving a false indication of adequate fit.

   – To conduct a positive pressure test, gently exhale while covering the exhalation valve to ensure that a positive pressure can be built up. Failure to build a positive pressure indicates a poor fit.

7. Depending on type of suit:

   – Put on inner gloves (surgical gloves).

   – Additional overgloves, worn over attached suit gloves, may be donned later.

8. Put on hard hat

9. Have assistant observe the wearer for a period of time to ensure that the wearer is comfortable, psychologically stable, and that the equipment is functioning properly.

- <u>Doffing an Ensemble</u>

Exact procedures for removing Level C ensembles must be established and followed to prevent contaminant migration from the work area and transfer of contaminants to the wearer's body, the doffing assistant, and others. Doffing procedures are provided in Table C.1.9.2. These procedures should be performed only after decontamination of the suited worker. They require a suitably attired assistant. Throughout the procedures, both worker and assistant should avoid any direct contact with the outside surface of the suit.

TABLE C.1.9.2
DOFFING PROCEDURES

1. Remove any extraneous or disposable clothing, boot covers, outer gloves, and tape.

2. Remove respirator by loosening straps and pulling straps over the top of the head and move mask away from head. Do not pull mask over the top of the head.

3. Remove arms, one at a time, from suit, avoiding any contact between the outside surface of the suit and wearer's body and lay the suit out flat behind the wearer. Leave internal gloves on, if any.

4. Sitting, if possible, remove both legs from the suit.

5. After suit is removed, remove internal gloves by rolling them off the hand, inside out.

Respirator Fit Testing

The fit or integrity of the facepiece-to-face seal of a respirator affects its performance. Most facepieces fit only a certain percentage of the population; thus, each facepiece must be tested on the potential wearer in order to ensure a tight seal. Facial features such as scars, hollow temples, very prominent cheekbones, deep skin creases, dentures or missing teeth, and the chewing of gum and tobacco may interfere with the respirator-to-face seal. A respirator shall not be worn when such conditions prevent a good seal. The worker's diligence in observing these factors shall be evaluated by periodic checks. Fit testing will comply with 29 CFR 1910.1025 regulations.

Inspection

The PPE inspection program will entail five different inspections:

- Inspection and operational testing of equipment received from the factory or distributor;

- Inspection of equipment as it is issued to workers;

- Inspection after use;

- Periodic inspection of stored equipment; and

- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.

The inspection checklist is provided in Table C.1.9.3. Records will be kept of all inspection procedures. Individual identification numbers will be assigned to all reusable pieces of equipment and records should be maintained by that number. At a minimum, each inspection should record the ID number, date, inspector, and any unusual conditions or findings. Periodic review of these records may indicate an item or type of item with excessive maintenance costs or a particularly high level of down-time.

TABLE C.1.9.3
PPE INSPECTION CHECKLIST

CLOTHING

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for imperfect seams, non-uniform coatings, tears, and/or malfunctioning closures.
- Hold up to light and check for pinholes.
- Flex product and observe for cracks or other signs of deterioration.
- If the product has been used previously, inspect inside and out for signs of chemical attack, including discoloration, swelling, and/or stiffness.

During the work task, periodically inspect for:

- Evidence of chemical attack such as discoloration, swelling, stiffening, and softening. Keep in mind, however, that chemical permeation can occur without any visible effects.
- Indication of physical damage, including closure failure, tears, punctures, and/or seam discontinuities.

GLOVES

Before use:

- Pressurize glove to check for pinholes. Either blow into glove, then roll gauntlet toward fingers, or inflate glove and hold under water. In either case, no air should escape.

AIR-PURIFYING RESPIRATORS

- Inspect air-purifying respirators before each use to be sure they have been adequately cleaned.
- Check material conditions for signs of pliability, deterioration, and/or distortion.
- Examine cartridges to ensure that they are the proper type for the intended use, the expiration date has not been passed, and they have not been opened or used previously.
- Check faceshields and lenses for cracks, crazing, and/or fogginess.
- Air-purifying respirators will be stored individually in resealable plastic bags.

Storage

Clothing and respirators will be stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. Storage procedures are as follows:

- Clothing: Potentially-contaminated clothing will be stored in a well-ventilated area separate from street clothing, with good air flow around each item, if possible. Different types and materials of clothing and gloves will be stored separately to prevent issuing the wrong materials by mistake, and protective clothing will be folded or hung in accordance with manufacturer's recommendations.

- Respirators: After each use air-purifying respirators will be dismantled, washed, and placed in sealed plastic bags.

PPE Maintenance

Specialized PPE maintenance will be performed only by the factory or an authorized repair person. Routine maintenance, such as cleaning, will be performed by the personnel to whom the equipment is assigned. Respirators will be cleaned at the end of each day with alcohol pads or, preferably, by washing with warm soapy water.

Decontamination Methods

All personnel, clothing, equipment, and samples leaving the work zone area of the Site must be decontaminated to remove any harmful chemicals that may have adhered to them. Decontamination methods either (1) physically remove contaminants (2) inactivate contaminants by chemical detoxification or disinfection/sterilization, or (3) remove contaminants by a combination of both physical and chemical means. In many cases, gross contamination can be removed by physical means involving dislodging/displacement, rinsing, wiping off, and evaporation. Contaminants that can be removed by physical means include dust, vapors, and volatile liquids. All reusable equipment will be decontaminated by rinsing in a bath of detergent and water (respirators, gloves to be reused). Monitoring equipment will be decontaminated by wiping with paper towels and water. All used PPE to be discarded will be disposed offsite as solid waste.

The effectiveness of the decontamination will be evaluated near the beginning of Site activities and will be modified if determined to be ineffective. Visual observation will be used for this purpose. The HSO will inspect decontaminated materials for discoloration, stains, corrosive effects, visible dirt, or other signs of possible residual contamination.

C.2 Community Air Monitoring Plan

This Community Air Monitoring Plan (CAMP) will be implemented at the Site by FPM during the intrusive investigation activities, including soil borings, vertical profiling, well installation, soil vapor implant installation, and sampling. Due to the nature of the PFAS impacts identified at the Site, there is little potential for organic vapor emissions as the intrusive activities occur. However, there is the potential for dust to be associated with intrusive activities. To address these potential concerns, organic vapor monitoring and dust monitoring will be performed.

Any CAMP monitoring results that exceed the action levels described below will be reported (or notice provided by another arrangement acceptable to the NYSDEC) when identified if a NYSDEC representative is present at the Site or within two hours by phone call or email to the NYSDEC Project manager when no NYSDEC representative is onsite. Exceedances of the CAMP action levels will also be summarized in the monthly progress reports, including the duration of the exceedance(s) and any response actions taken.

C.2.1 Organic Vapor Monitoring

Under the CAMP, organic vapor concentrations will be monitored at the boundaries of the work zone. It will be the responsibility of the HSO to implement the plan and to ensure that proper action is taken in the event that any of the established action levels are exceeded.

To monitor organic vapors, a PID capable of calculating 15-minute running average concentrations will be used and maintained in good operating condition. Calibration of the PID will be performed according to manufacturer's instructions. Background levels of organic vapors will be measured at the work zone boundary prior to beginning work and upwind of the work area periodically using a PID. Monitoring may be performed more frequently at the discretion of the HSO. Organic vapors will be monitored continuously at the downwind perimeter of the work area during ground intrusive activities.

PID readings will be recorded in the field logbook for both background and work area perimeter. Logbook recordings will include the time, location, and PID readings observed. Downwind perimeter levels will be recorded in the log whenever the level reaches 5 ppm above the background along with the action(s) taken to mitigate the level. If the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area, work activities will be halted and monitoring continued. The vapor emission response plan will then be implemented.

C.2.1.1 Vapor Emission Response Plan

The vapor emission response plan includes the following trigger levels and responses:

- Greater than 5 ppm at perimeter:

  In the event the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level then decreases to below 5 ppm above background, work activities can resume but organic vapor readings will be obtained more frequently as directed by the HSO.

- 5 ppm to 25 ppm at perimeter and less than 5 ppm at the work zone boundary:

  If the level of organic vapors is greater than 5 ppm but less than 25 ppm over background at the downwind perimeter of the work area, activities will be halted, the source of the vapors will be identified and corrective actions will be taken. Monitoring will be continued and activities will resume if the organic vapor concentration at half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background. More frequent intervals of monitoring will be performed as directed by the HSO.

- Above 25 ppm at perimeter:

  If the level of organic vapors is above 25 ppm at the perimeter of the work area, activities will be shut down. Should such a shutdown be necessary, downwind air monitoring will continue as directed by the HSO to confirm that organic vapor concentrations decrease. Actions will be taken to abate the source of vapor emissions and activities will not resume until the source is controlled.

C.2.1.2 Major Vapor Emission Response Plan

The Major Vapor Emission Response Plan shall automatically be placed into effect if:

- Efforts to abate the emission source are unsuccessful and levels above 5 ppm persist for more than 30 minutes in the 20-foot zone; or

- The vapor levels are greater than 10 ppm above background in the 20-foot zone.

Upon activation of the Major Vapor Emission Response Plan, the following activities will be undertaken:

- All emergency response contacts as listed in the HASP will be notified;

- Air monitoring will be conducted at 30-minute intervals within the 20-foot zone. If two successive readings below action levels are measured, air monitoring will be halted or modified as directed by the HSO; or

- If air monitoring readings remain above action levels, work will be halted and further measures taken to reduce organic vapors.

If a Major Vapor Emission Response Plan is implemented, the NYSDEC and NYSDOH will be contacted within 24 hours.

C.2.2 Dust Monitoring

Dust (particulate) monitoring will be performed during intrusive activities with the potential to create dust by using a Miniram personal monitor calibrated according to the manufacturer's instructions. The Miniram will be capable of calculating 15-minute running average concentrations and operated continuously at the downwind perimeter of the work zone during ground intrusive activities. To ensure the validity of the fugitive dust measurements, appropriate QA/QC measures will be employed, including periodic instrument calibration, operator training, daily instrument performance (span) checks, and record-keeping on daily log sheets. If measurable dust levels are noted, then readings will also be obtained upwind of the work zone. If the downwind particulate level exceeds the upwind level by more than 100 micrograms per cubic meter (ug/m^3), then dust suppression techniques will be employed or work will be halted or controlled such that dust levels are reduced at the downwind perimeter to within 150 ug/m^3 of the upwind level.

If dust is generated during boring, vertical profiling, or installation activities, then dust suppression will be performed, as discussed in Section C.1.6 of this HASP. Corrective measures may include increasing the level of PPE for onsite personnel and implementing additional dust suppression techniques. Should the action level of 150 μg/m^3 continue to be exceeded, work will stop and the NYSDEC will be notified as described in Section C.2 above. The notification will include a description of the control measures implemented to prevent further exceedances.

Reasonable fugitive dust suppression techniques will be employed during all intrusive Site activities that may generate fugitive dust. Particulate (fugitive dust) monitoring will be employed during the handling of contaminated soil or when onsite activities may generate fugitive dust from exposed contaminated soil.

Fugitive dust from contaminated soil that migrates offsite has the potential for transporting contaminants offsite. Although there may be situations when the monitoring equipment does not measure dust at or above the action level, visual observation may indicate that dust is leaving the Site. If dust is observed leaving the working area, additional dust suppression techniques will be employed.

The following techniques have been shown to be effective for controlling the generation and migration of dust during intrusive investigation activities and will be used as needed during investigation activities at the Site:

- Wetting equipment and exposed soil;
- Restricting vehicle speeds to 10 mph;
- Covering areas of exposed soil after investigation activity ceases; and
- Reducing the size and/or number of areas of exposed soil.

When techniques involving water application are used, care will be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will be considered to prevent overly wet conditions, conserve water, and provide an effective means of suppressing fugitive dust.

Evaluation of weather conditions is also necessary for proper fugitive dust control. When extreme wind conditions may make dust control ineffective, investigation actions may be suspended until wind speeds are reduced.

C.2.3 Noise Monitoring

Due to the use of heavy equipment, there is a potential for noise to impact the surrounding community. Work will be performed only during normal working hours when ambient noise levels may be elevated due to ongoing activities in the surrounding community, much of which is commercial and industrial. Therefore, the potential for noise impacts on the surrounding community is low.

However, if pedestrians are present in the Site vicinity or work is performed near residences, it is possible for noise impacts to occur. To address these concerns and other safety concerns, pedestrians will be barred from entering the work zone and work will be conducted during normal working hours. In addition, the HSO will periodically monitor noise levels at the work zone boundary and the closest property boundary with a Realistic^{tm} hand-held sound level meter. Noise levels will be monitored in dBs in the A-weighted, slow-response mode. If noise level readings exceed an eight-hour time-weighted average of 85 dB at the work zone boundary or at the closest property boundary, the HSO will take appropriate measures to reduce noise exposure beyond these boundaries. These measures may include extension of the work zone boundary, issuing appropriate hearing protection devices as discussed in Section C.1.6 of this work plan, or other measures, as appropriate. In the event that the noise exposure measures are inadequate, work will cease until noise levels can be reduced to below 85 dB at the work zone boundary and/or at the closest property boundary.