FINAL

Data Summary Report

Regional Air Deposition Study for the Village of Hoosick Falls

July 2021

C.T. Male Associates

50 Century Hill Drive
Latham, NY 12110

BEC Engineering and Geology, P.C.

4300 MarketPointe Drive
Minneapolis, MN 55435

FINAL
Data Summary Report
Regional Air Deposition Study for the Village of Hoosick Falls

July 2021

Certifications

I, KIRK MOLINE, P.G. certify that I am currently a NYS registered professional geologist as defined in 6 NYCRR Part 375 and that this DATA SUMMARY REPORT was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

July 27, 2022

Kirk Moline, P.G.
C.T. Male Associates
PG #:000403

Date

I, BRIAN ANGERMAN, P.E. certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this DATA SUMMARY REPORT was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

July 27, 2022

Brian Angerman, P.E.
BEC Engineering and Geology, P.C.
PE #:099361

Date

Contents

List of Figures

List of Tables

List of Appendices

Acronyms

6:2 FTS	6:2 fluorotelomer sulfonic acid
8:2 FTS	8:2 fluorotelomer sulfonic acid
AFFF	aqueous film forming foam
AIO	All In One
ANOVA	analysis of variance
bgs	below ground surface
DUSR	Data Usability Summary Reports
GIS	geographic information system
GPS	global positioning system
IQR	Interquartile Range
ITRC	Interstate Technology Regulatory Council
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
mph	miles per hour
N-EtFOSAA	N-ethyl perfluorooctanesulfonamidoacetic acid
NRCS	Natural Resources Conservation Service
NYSDEC	New York State Department of Environmental Conservation
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutanesulfonic acid
PFCA	perfluoroalkyl carboxylic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFDS	perfluorodecanesulfonic acid
PFHpA	perfluoroheptanoic acid
PFHpS	perfluoroheptanesulfonic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PFOSA/FOSA	perfluorooctanesulfonamide
PFPeA	perfluoropentanoic acid
PFSA	perfluoroalkane sulfonic acid
PFUnA	perfluoroundecanoic acid
ppb	parts per billion
ppt	parts per trillion
PSAT	pressure sensitive adhesive tapes
PTFE	polytetrafluoroethylene
PWS	Personal Weather Station
QAPP	Quality Assurance Project Plan
SGPP	Saint-Gobain Performance Plastics
SPLP	Synthetic Precipitation Leaching Procedure
TOC	total organic carbon
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
WWTP	wastewater treatment plant

1 Introduction

1.1 Study Objective and Report Organization

The New York State Department of Environmental Conservation (NYSDEC) requested a regional air deposition study in the Hoosick Falls area to evaluate the potential for per- and polyfluoroalkyl substances (PFAS), and specifically perfluorooctanoic acid (PFOA), to have been dispersed in the environment through the air deposition pathway. In response to this request, a Regional Air Deposition Study Work Plan for the Village of Hoosick Falls (Work Plan; C.T. Male, 2019) was prepared and submitted to the NYSDEC. The Work Plan was approved by NYSDEC via email on September 3, 2019.

There are several facilities associated with numerous owners and operators in the Hoosick Falls area which utilized PFAS-containing material over several decades, some of which have yet to be investigated. Therefore, the air deposition study is not associated with any single facility or party. Rather, it may be used to supplement and inform investigations for one or more NYSDEC Class 2 and/or Class P sites in the Hoosick Falls area. The study was undertaken in accordance with the NYSDEC Order on Consent and Administrative Settlement between Saint-Gobain Performance Plastics (SGPP), Honeywell International (the Companies), and NYSDEC (Index No. CO 4-20160212-18), dated June 3, 2016, and DER10 – Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010).

The objective of the study was to determine if the presence of PFAS is observable and consistent with an air deposition pattern in historically undisturbed soils surrounding the Village of Hoosick Falls. An interim report documenting the results of the soil sampling conducted as part of the study from October 2019 to January 2020 was submitted to NYSDEC in June 2020 (C.T. Male/BEC, 2020d). NYSDEC provided comments on the interim report via email on November 10, 2020.

The report is organized as follows:

1. **Introduction:** describes the content and objectives of this report, provides general regional background information, and describes the regional physical setting.
2. **Study Approach:** describes activities completed during the study, including vetting and selecting soil sampling locations.
3. **Study Results:** describes and presents evaluation of analytical results.
4. **Summary:** summarizes sampling results and data evaluation.
5. **References:** includes references cited in the report.

1.2 Study Area Background and Physical Setting

The Village of Hoosick Falls (the Village) is approximately centered in the Town of Hoosick, in northeastern Rensselaer County, New York (Figure 1). For ease of reference, the Village and surrounding areas are collectively referred to as the "Hoosick Falls Region" or "Region" in this document. The Hoosick Falls Region is primarily within the Town of Hoosick and centered around the Village as shown in Figure 1. As of the 2010 census, the population of the Town of Hoosick was 6,924, with roughly half of that population

living in the Village. The majority of the Town of Hoosick is zoned for agricultural or residential use, with several areas zoned for light industrial or commercial use along the Hoosic River (Rensselaer County Economic Development & Planning, 2015). The majority of the Village is zoned for residential use with large areas along the Hoosic River zoned for industrial use (Village of Hoosick Falls, 2015).

The Region includes part of the Taconic Mountains upland province (Lafleur and Ellis, 1988; USDA and NRCS, 2011) and two major river valleys – those of the Hoosic and Walloomsac Rivers. The Village is divided by the Hoosic River, which flows generally south to north in the Region. Approximately three-quarters of the Village lies east of the Hoosic River. The Walloomsac River flows generally east to west in the northern area of the Region. Ground surface elevations are approximately 400 to 450 feet above mean sea level along the rivers and rise to more than 800 feet above the rivers in the surrounding uplands (Figure 2).

1.2.1 Weather

Average precipitation in the Region is 36 to 38 inches per year (USDA and NRCS, 2011). Precipitation in Albany, New York (~30 miles away) from 1951-1978 averaged 36 inches per year. Two in 10 years had less than 30 inches or more than 41 inches of precipitation (Work, 1988). Annual precipitation at Albany from 1979-2019 averaged 40 inches per year, with two in 10 years resulting in less than 34 inches or more than 46 inches of precipitation (NOAA, 2020).

Based on available wind data from the weather station installed in the Village at the McCaffrey Street Site in November 2018 (see Section 2.1.3); the weather station at the Bennington, Vermont airport, and nearby personal weather stations, the prevailing winds in the Region blow primarily from the west-northwest to the east-southeast.

1.2.2 Hydrology

The majority of the Region lies within the Hoosic River watershed with a northeastern portion of the Region lying within the Walloomsac River watershed, which is a tributary of the Hoosic River (Figure 1). Smaller tributaries to the Hoosic River in the Region include Case Brook, Little White Creek, Woods Brook, and several unnamed drainages.

Tributary brooks in the Region may lose water through discharge to the subsurface where they pass from upland areas to the major valleys (Kontis, et al., 2004). Infiltration of surface water may be induced from the rivers by pumping of wells near the rivers. During flooding, surface water recharges adjacent floodplains and aquifers.

1.2.3 Geology

The bedrock geology of the Region is complex, consisting of intensely folded and faulted sedimentary and metamorphosed sedimentary rocks that were deformed during two ancient mountain-building episodes (Potter, 1972; Stanley and Ratcliffe, 1985; Lafleur and Ellis, 1988; Ratcliffe, et al., 2011). Portions of the thrust sheets that form the Taconic Mountains have been removed by erosion in the Hoosic and Walloomsac River valleys (Potter, 1972, Plate 1; Ratcliffe, et al., 2011).

The surficial geology of the Region was formed by glaciers. The Region was covered by glaciers multiple times, and each glaciation removed or reworked the deposits of the previous glaciation (Cadwell and Dineen, 1987). The last glaciation deposited thin, lower-permeability materials over much of the uplands of the Region and thicker deposits consisting of discontinuous units of lower- and higher-permeability materials in the river valleys. Unconsolidated deposits in the Region range in thickness from less than a foot to greater than 190 feet or are absent in areas of bedrock outcrops. Complex sequences of deposits mapped in the Hoosic River Valley are believed to have formed in a series of lakes that developed in front of the receding glacier (DeSimone, 2017). These deposits include layers of silt and clay and layers of sand and gravels (stratified drift). Erosion of the valley fill deposits occurred as the last glacier receded from the Region, cutting through older unconsolidated deposits and creating a series of terraces. Alluvial deposits of the modern rivers are the youngest geologic materials in the Region.

1.2.4 Hydrogeology

The Hoosick Falls Region is located in the Northeastern Appalachians groundwater region (Randall, et al., 1988), which is characterized by rolling topography that primarily reflects the weathered bedrock surface, with discontinuous glacial and river-related landforms mantling the bedrock. The bedrock units described in Section 1.2.3 have low primary porosity. Water moves through the bedrock in secondary porosity (fractures, weathered zones, etc.). In some rock types, the secondary porosity is solution enlarged (Cushman, 1950). Based on available water well records, bedrock wells in the Region are up to 620 feet deep, with 27 percent of the wells greater than 500 feet in depth (NYSDEC, 2000).

In general, the groundwater system in the Region is topography-controlled, meaning the water table can be roughly visualized as a lower-relief version of the ground surface (Randall, et al., 1988). In topography-controlled aquifers, water table lows occur along brooks and rivers where groundwater discharge occurs, and water table highs occur between brooks and rivers due to the mounding effects of recharge.

Groundwater recharge to the bedrock is controlled by the permeability and thickness of the overlying glacial deposits. The estimated mean rate of groundwater recharge in a nearby watershed, including bedrock and stratified drift, is nearly 19 inches per year (Bent, 1999). Runoff in upland areas is focused to seasonal streams that typically lose discharge in areas in which they flow over more permeable materials near the margins of the larger valleys. Under certain conditions, recharge to bedrock may occur from adjacent stratified drift aquifers. Discharge from the bedrock occurs to wells and to the stratified drift in the major valleys. Recharge to the stratified drift filling the major valleys also occurs from direct infiltration of precipitation and discharge from bedrock. Recharge from the larger rivers may occur in the case of localized pumping from the stratified drift or higher than normal river stage. Discharge from the stratified drift occurs to wells, evapotranspiration, and to the larger rivers when their stage is at or below normal. Estimated rates of annual groundwater discharge to rivers in the area range from 14 to nearly 17 inches per year (Bent, 1999).

1.3 Expected PFAS Distribution from Air Deposition

Sources for PFAS emissions to air (fugitive and/or process related) include: aqueous film forming foam (AFFF) application sites, landfills, wastewater treatment plants (WWTPs), metal plating facilities, and industrial facilities that produce PFAS or use PFAS chemicals or products in manufacturing processes (ITRC, 2020). The NYSDEC request for this study was related to the manufacturing processes used to apply PTFE coatings. Several facilities in the Region, including the McCaffrey Street Site, John Street Site, and Interface Solutions are understood to have applied PTFE coatings at certain times based on review of publicly available site documents and information. The operational timeline for these and other facilities varies, but PTFE coating processes in Hoosick Falls may have begun as early as the late 1950s and continued beyond 2000. The phasing out of PFOA production in the United States began in 2006 (USEPA, 2017).

1.3.1 Generic Air Deposition Patterns

Given that there are multiple potential sources of PFAS in the Village and Region, and near the Region with various operational and air emission histories, and global atmospheric transport of PFAS, the potential air deposition pattern evaluated in this study is not intended to evaluate the relationship between soil concentrations of PFAS and potential air emissions of PFAS from any individual source. Nor does this study attempt to connect any particular soil sample results to emissions from any particular source(s). Rather, this study assumes a generic localized source within the Village boundaries and is designed to gather data to evaluate whether soil concentrations are indicative of air deposition from such a generic localized source within the Village boundaries. Beyond the Region, atmospheric transport and deposition of PFAS is also known to occur on a global scale (ITRC, 2020). PFAS concentrations in soil have been observed widely throughout the world. This observation suggests that detections of PFAS in soil are not necessarily associated with any local source(s) (ITRC, 2020; NYSDEC, 2021).

The pattern and magnitude of air deposition resulting from emissions are primarily dependent on the following factors:

- Emission rates through time (emission history)
- Pollutant characteristics (e.g., gas or particle, particle size distribution, particle density)
- Meteorological conditions (e.g., wind speed, wind direction, and atmospheric stability) during the time of emissions
- Source characteristics (e.g., emissions through a stack or vent, emission velocity, source height, temperature)
- Other factors (e.g., building downwash effects, vegetation, and topography) that influence air transport and deposition

For this study area, greater deposition of PFAS is anticipated closer to the air emission sources due to the relatively modest source emission characteristics (e.g., stack heights slightly higher than building heights and stack heights much less than the surrounding topography) and as a result of gravitational settling of particulates in proximity to the multiple potential sources. In addition, more particles are deposited closer to a facility during low wind conditions.

Given the operational history of facilities utilizing PFAS in Hoosick Falls of nearly 40 years, potential seasonal variations in wind direction and speeds, deposition of PFAS in multiple directions is possible. Moreover, PFAS contributions from other possible sources, even if smaller than operational facilities, would add to the uncertainty in attributing low concentrations in soil to any specific source. Nevertheless, a central concept of this study is that PFAS mass deposition is generally greatest in the prevailing downwind direction from air emissions sources, and that concept was utilized in the study design as discussed in Section 2.

1.3.2 PFAS Fate and Transport in Soil

Like most solutes, PFAS deposited on the ground surface are subject to downward migration with infiltrating water (i.e., precipitation). PFAS distribution in soil is complex and may reflect the physical and chemical properties of each PFAS and several site-specific factors such as total organic carbon (TOC), particle surface charges, interfaces between different phases (e.g., the air-water interface), time since deposition, climate, and infiltration rates.

Data regarding physical and chemical properties of PFAS are generally limited, highly variable, based on modeling rather than direct measurements, and are based on acid forms of PFAS not present in the environment (ITRC, 2020). However, PFAS commonly detected in the Region are understood to be highly soluble in water, adsorb poorly to materials with low organic content, mobile in groundwater, and persistent in the environment (ITRC, 2020).

The migration of PFOA and other PFAS in soil has been shown to be controlled primarily by adsorption onto organic matter, specifically organic carbon (Zareitalabad et al., 2013). A positive correlation between TOC and PFOA concentrations in soil has been documented and indicates retention of PFOA by organic materials in soil (Ferrey et al., 2012). Several studies have quantified the relationships between the length of linear PFAS and transport rates through soil columns (Higgins and Luthy, 2007; Zhang et al., 2013; Gellrich et al., 2012; Hirata-Koizumi et al., 2015). Longer-chained PFAS have a much higher partition coefficient with respect to organic carbon, resulting in lower mobility within the soil column.

Therefore, compared to PFOA (eight carbons in each molecule), perfluorododecanoic acid (PFDoA; 12 carbons in each molecule) and other long-chain linear PFAS migrate through soil columns more slowly than PFOA. Conversely, perfluoropentanoic acid (PFPeA; five carbons in each molecule) migrates more rapidly through soil columns than PFOA. In addition, perfluoroalkane sulfonic acids (PFSAs) tend to adsorb more strongly in soils than perfluoroalkyl carboxylic acids (PFCAs) with an equal number of carbons (Higgins and Luthy, 2007). Therefore, compared to PFOA (a PFCA), perfluorooctane sulfonate (PFOS; a PFSA) migrates more slowly through soil columns.

PFAS transport in soils is typically conceptualized as involving equilibrium-controlled adsorption processes (e.g., Ahrens, et al., 2011; Anderson, et al., 2019; ITRC, 2020). Equilibrium-controlled adsorption is a reversible process (Zheng and Bennett, 2002). Unless the deposition, infiltration, percolation, and retention processes remained constant over an extended period of time, and similar to other water-soluble contaminants, the vertical distribution of solutes such as PFAS in soil is expected to change over time. For example, if deposition of the solute ceased, the solute adsorbed in the shallowest soil interval would then continue to desorb (go back into solution) and migrate further downward in the soil column

in the percolating soil water as precipitation and infiltration continue. In other words, the solute concentrations would begin to decline in the shallowest interval relative to deeper intervals.

2 Study Approach

2.1 Meteorological Data

As discussed in Section 1.3.1, the pattern and magnitude of air deposition is dependent on many factors including wind conditions (speed and direction) at the time of release. Multiple weather stations were utilized to evaluate the local wind patterns in the area to aid in refining the air deposition pattern.

2.1.1 McCaffrey Street Weather Station

A weather station was installed on the rooftop of the McCaffrey Street facility in November 2018 to gather meteorological data that are representative of conditions at the McCaffrey Street facility and is the only weather station with available data within the Village. The MetOne, All In One (AIO) Sonic Weather Sensor (model AIO-2) was purchased along with a precipitation gauge (model 360). Following installation, the station began recording meteorological data (including ambient air temperature, relative humidity, wind direction, wind speed, barometric pressure, and precipitation). Data are recorded continuously and transmitted every 15 minutes.

Data monitoring and visual inspections have been conducted in accordance with the station's Operation and Maintenance Plan, which was included in the Work Plan (C.T. Male, 2019). A data completeness summary and a summary of audit conducted on May 28, 2020 are included in Appendix A. Based on the results of the audit, no calibration or additional maintenance were recommended.

2.1.2 Regional Data

As noted in Section 1.2, the Village is in the Hoosic River valley with topographic relief of greater than 500 feet in the area. The closest weather stations within the National Weather Service network are nearby airports (e.g., Bennington, VT and Albany, NY). These weather stations are 10 to 30 miles away. As presented in the Work Plan (C.T. Male, 2019), three certified Personal Weather Stations (PWSs) with publicly available data were found within approximately four miles of the Village. The locations of these three nearby PWSs are shown on Figure 5.

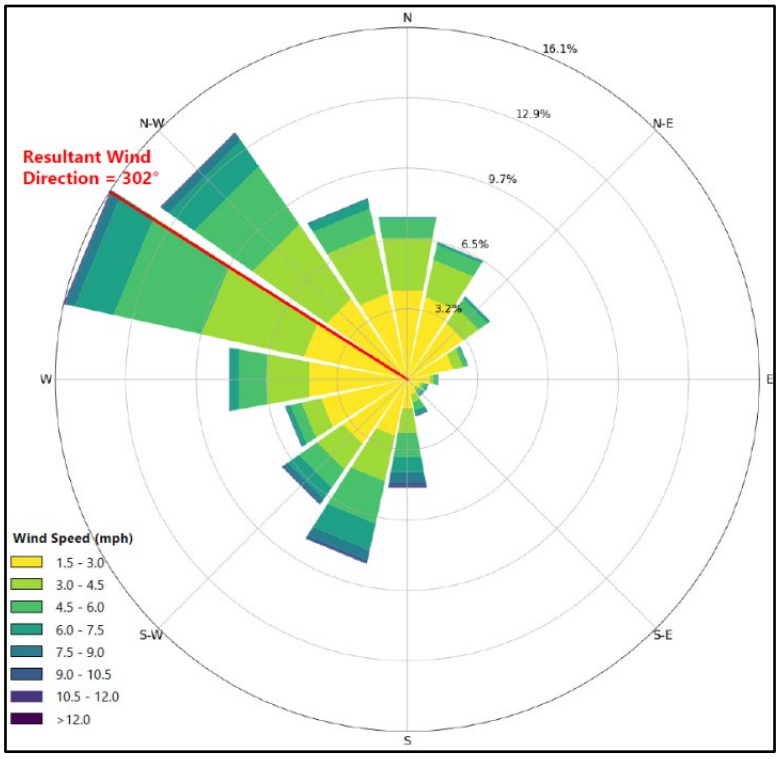
2.1.3 Summary/Comparison

Wind roses are a graphical tool that provide a summary view of how wind speed and directions are distributed through time at a location. Each "spoke" in the wind rose shows the frequency and compass direction from which the wind blows.

Wind roses were generated for the McCaffrey Street Weather Station and the three nearby PWSs (Hoosick NY, Southwest Hoosick, and Perry's Orchard). These wind roses were generated using approximately two years of data spanning 2019 and 2020. A wind rose with all data and a set of four seasonal wind roses for each weather station are included as Appendix A1. Resultant wind direction, or average wind direction, are included as red lines on each of the wind roses. Note that wind speeds of less than 1.5 mile per hour (mph; i.e., calm) are not displayed with an associated wind direction. For example, 30.5% of the recorded wind speeds at the McCaffrey Street Weather Station were less than 1.5 mph. These calm winds are included in the table with each wind rose but are not presented graphically on the wind rose.

All of the wind roses demonstrate localized wind patterns due to the topography surrounding each site. For example, the McCaffrey Street station shows the strongest winds blow from the north and north-northeast corresponding to the shape of the Hoosic Valley. Similarly, the Hoosick station has almost no component to the wind blowing from the east reflecting its location immediately west of a prominent hill. Consequently, while there are some similarities between the stations (e.g., winds from the west are more common than those from the east), these wind roses highlight the local wind variability within the study area. Of particular importance for air deposition within the study area are the high percentage of calm winds at every station as calm conditions allow for greater deposition near the emission sources.

Based on the review of the summary and seasonal wind roses for the McCaffrey Street Weather Station, the prevailing winds in the vicinity of McCaffrey Street Weather Station blow generally from northwest towards the southeast (see Appendix A and Graphic 1). There is no other available meteorological data from within the Village and valley; therefore, the data from the McCaffrey Street station is assumed to be representative of the Village and valley for the purposes of the evaluations within this report.



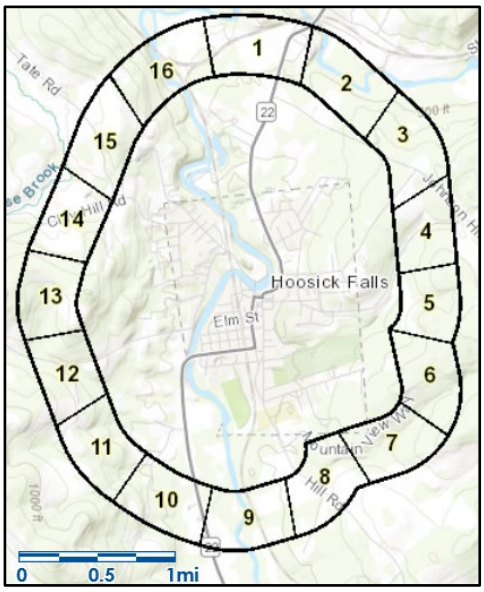
Graphic 1: Wind Rose for McCaffrey Weather Station

2.2 Soil Sampling

As described in Section 1.3.1, a generic air deposition pattern assumes that PFAS concentrations would be higher at locations closer to a source and downwind of the source in the prevailing wind direction. Given uniform conditions, (such as topographical features, tree cover, etc.), across all sample locations, air deposition is expected to produce a regional-scale pattern of concentrations, rather than localized areas of anomalously high concentrations (i.e., "hot spots" indicating localized sources). In order to evaluate potential regional concentrations, the sampling program was designed to provide data representative of the regional-scale processes likely to have influenced air deposition. As detailed in the NYSDEC-approved Work Plan (C.T. Male, 2019), the selected soil sampling design described herein is based on stratified and gridded sampling designs (USEPA, 2002) and is summarized as follows and shown below:

- An area surrounding the Village divided into 16 sectors on a radial grid (see Graphic 2).
- Discrete soil sampling at two to six sampling locations within each sector.
- Soil samples collected from three intervals (0-0.17 feet below ground surface [bgs], 0.17-1 feet bgs, and 1-2 feet bgs) at each sampling location and analyzed for PFAS, TOC, and pH.
- A subset of soil samples selected for additional Synthetic Precipitation Leaching Procedure (SPLP) analysis.

Additional details on the proposed shallow soil sampling program are described in the Work Plan and in the following sections.



Graphic 2: Sampling Sectors

2.2.1 Sample Sectors

For this study, as described in the Work Plan (C.T. Male, 2019) and as shown above, the sample sectors are designated radially based on distance and direction from the potential sources, and to correlate with the display of wind conditions by direction on a wind rose (16 sectors). Given the multiple and various types of potential sources for PFAS in the Hoosick Falls area, PFAS in samples collected within the Village boundaries may be representative of releases to the environment other than air deposition. Therefore, the study area is roughly 1,000-3,000 feet beyond the Village. The boundary for the study area was defined based on the outermost of the following features: the Village boundary, properties on municipal sewer (Figure 3), properties on municipal water supply (Figure 4), and certain known or suspected PFAS sources outside of the Village. 1,000-foot and 3,000-foot buffer lines were then extended around this boundary as the inner and outer distances, respectively, for the sampling area (Figures 6A and 6B). This method established sample locations in an area to assess potential regional PFAS air emission sources while reducing the likelihood that samples may represent other non-air deposition sources.

2.2.2 Sample Location Selection

The selection of proposed surface soil sampling locations within each radial sector was guided by a desktop review of historical information such as aerial images and property records, a visual inspection of site conditions such as topography, and NYSDEC's input on other PFAS-related information in its possession. The goal was to identify locations that meet the criteria listed below:

- Undisturbed (not cultivated, farmed, filled, or manicured) for the past 60 years,
- No indication or evidence of dumping/nearby source,
- Outside of floodplain or wetland,
- Sufficient soil thickness available for sample (avoiding bedrock outcrops and areas of shallow bedrock), and
- Clear land ownership and ability to obtain access from owner.

The initial desktop identification and vetting of proposed sample locations, which began prior to submittal of the draft Work Plan in August 2019, included review of historical aerial photographs (1950 through 2017), topographic maps, floodplain and wetland maps, and regulatory database listings. An area surrounding and including each proposed sample location was designated and made as large as available based on property boundaries and the above criteria. This allowed for flexibility in field determination of the final sample locations within the vetted areas as described below. The materials reviewed as part of the vetting process were compiled and made available within a geographic information system (GIS) mapping application for streamlined and collaborative review of vetted areas and proposed sample locations with the NYSDEC. This effort resulted in vetted area(s) in each of the 16 sectors that were approved by the NYSDEC, with two to six proposed sample locations per sector. Within one week of NYSDEC approval, and beginning in September 2019, requests to obtain access were initiated for all sampling locations. For locations where the property owner did not initially respond, multiple attempts to contact landowners and obtain access were made in coordination with NYSDEC and included such methods as in-person visits, letters, door hangers, phone calls, and/or electronic communications.

Upon receipt of signed access agreements from the property owners, visual inspection of each proposed sampling location was conducted under NYSDEC oversight. In areas with moderate to steep slopes, preference was given to Village-facing slopes and areas located roughly mid-slope, if possible. In some instances, sampling locations on Village-facing slopes were not available, and locations on slopes that do not face the Village were selected following discussions in the field with NYSDEC. Several locations were adjusted based on evidence of recent standing or flowing water (e.g., exposed ground surface with/or clumped surface vegetation) or localized evidence of disturbance (e.g., all-terrain vehicle trails). Once sampling locations were selected, they were flagged and surveyed using a handheld global positioning system (GPS) unit prior to sampling. Information regarding topography, tree cover, and other observations were noted during sampling (see Table 1).

Upon sampling, evidence of disturbance or fill was found at two sampling locations (01D and 10B). At sampling location 10B, possible fill was discovered, likely from development associated with the housing complex on the property. Although a nearby replacement location was established and sampled (location 10E), samples were also collected from 10B at the direction of NYSDEC. At sampling location 01D, debris (an observed food wrapper) was found at a depth of 0.5 feet bgs, indicating that the location was disturbed within the past 60 years. NYSDEC was notified in the field at the time of sample collection and subsequently directed that sampling continue at this location. Because of these findings, the samples collected from locations 01D and 10B did not meet the criteria established in the Work Plan (C.T. Male, 2019) and are considered potentially not representative of air deposition. The results are excluded from selected evaluations herein but included and flagged in summary tables for completeness.

2.2.3 Sampling Methods

Sampling commenced in early October 2019 and was conducted in accordance with the Work Plan (C.T. Male, 2019) and Field Sampling Plan (C.T. Male/BEC, 2020b). Stainless-steel hand tools (hand hoe and two hand augers) were used to collect three soil samples, corresponding to three depth intervals, at each sampling location. Each tool was utilized for a specific sampling interval within the bore hole, telescoping with depth to prevent sloughing. Tools used during sampling were decontaminated before

and after use and wrapped in polyethylene sheeting until use at the next sampling location. A surface soil sample from 0-0.17 feet bgs (beginning below any vegetative cover), a near-surface soil sample from 0.17-1 feet bgs, and a subsurface soil sample starting from 1-foot bgs were successfully collected at each sampling location. The target interval for the subsurface soil sample was from 1-2 feet bgs; however, at several locations (see locations 1D, 4B, 5A, 5B, 5C, 5E, 6F, 10C, and 13D in Table 1), a depth of 2 feet was not reached, even after several attempts due to refusal. Descriptions of each soil sample were made at the time of collection (see Table 2). Each soil sample was homogenized independently prior to being submitted for laboratory analysis.

2.2.4 Laboratory Analysis

All soil samples were submitted for laboratory analysis of NYSDEC's current list of 21 PFAS, TOC, moisture, and pH in accordance with the Quality Assurance Project Plan (QAPP; C.T. Male/BEC, 2020c). In accordance with the Work Plan (C.T. Male, 2019), duplicate soil samples from each of the soil sampling locations and sample depth intervals were collected during the investigation in laboratory-provided containers. These samples were shipped to the laboratory and placed "on hold" for potential analysis using SPLP extraction via SW-846 Test Method 1312 (USEPA, 1994) followed by PFAS analysis. In accordance with the Work Plan, a subset of 45 samples were selected in consultation with NYSDEC for SPLP extraction followed by PFAS analysis. Details and information regarding the SPLP sub-set selection are included in Section 3.2.

2.3 Investigation Summary

The approved Work Plan (C.T. Male, 2019) proposed sampling at a total of 61 proposed sampling locations from 16 predefined sectors. The total number of proposed sampling locations increased to 75 in consultation with NYSDEC due to access issues and field observations. The final status of all sample locations is shown on Figures 6A and 6B. Additional details for sampling locations are included in Table 1. Sampling, analysis, and validation related to the study as described in the approved work plan is complete. Based on access and site conditions at the proposed locations, the final data set for this study includes 171 soil samples (plus field duplicates) collected from 57 individual sampling locations and a subset of 45 samples submitted for SPLP analysis followed by PFAS analysis.

3 Study Results

As stated above, this report includes analytical results for samples collected from 57 unique sampling locations (Table 1 and Figures 6A and 6B).

Analytical results for soil (reported on a dry weight basis) and SPLP samples are included in Table 3, which presents PFAS results sorted by group (i.e., sulfonic acids, carboxylic acids, and sulfonamide acetic acids) and in increasing carbon chain length order. PFAS that were not detected in any soil sample or SPLP extract are not shown in Table 3 and include:

- Perfluoroheptanesulfonic acid (PFHpS),
- Perfluorodecanesulfonic acid (PFDS),
- 8:2 Fluorotelomer sulfonic acid (8:2 FTS), and
- N-methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA).

The results of validation of the laboratory analytical data are summarized in the Data Usability Summary Reports (DUSRs) and will be provided to NYSDEC under a separate cover. The data validation was performed in accordance with the QAPP (C.T. Male/BEC, 2020c), NYSDEC requirements, and the requirements for development of DUSRs in Appendix 2B of DER-10, Technical Guidance for Site Investigations and Remediation. Analytical data were determined to be valid and usable as qualified for the purposes of the study with nine exceptions. Of over 5,200 analyses performed, nine were rejected for a completeness of 99.8%. Seven of the rejected results were for N-MeFOSAA (see Table 3), which was not detected in samples collected for this study. Two of the rejected results were for N-ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA), which was detected in three samples (see Table 3).

Two of the 57 locations sampled (01D and 10B) did not meet the vetting criteria established in the approved Work Plan (see Section 2.2.2) based on field observations at the time of sampling. Because they did not meet vetting criteria, samples from these two locations (i.e., three samples from both locations) have been removed from evaluations within this report and were not considered for SPLP analysis but are included and noted in Table 3 for completeness. The discussion of analytical results for soil samples is included in Section 3.1, and the discussion of SPLP analytical results is included in Section 3.2.

3.1 Soil Results

3.1.1 General Summary and Discussion

The total soil data set includes 171 soil samples (three depth intervals at 57 locations) and nine duplicates. A field description of each soil sample is included in Table 2. As noted above, results of samples from 01D and 10B have been excluded from the evaluations within this report, leaving a soil data set of 165 samples for further analysis. Duplicates were also excluded from evaluations.

Table 4 includes PFAS summary statistics (number of samples, number of detections, minimum, maximum, arithmetic mean, geometric mean, median, and quartiles) for the 165 soil samples evaluated. Note that arithmetic mean, geometric mean, median, 25th percentile, and 75th percentile are presented in Table 4 where detection frequencies were greater than or equal to 50% and the total number of detections was at

least five. As shown, only 13 of the 21 PFAS were detected in at least one soil sample. The following eight PFAS were not detected in any soil samples:

- Perfluorobutanesulfonic acid (PFBS)
- Perfluorohexanesulfonic acid (PFHxS)
- PFHpS
- PFDS
- 6:2 Fluorotelomer sulfonic acid (6:2 FTS)
- 8:2 FTS
- Perfluorooctanesulfonamide (PFOSA / FOSA)
- N-MeFOSAA

Of the 13 PFAS detected (see Table 4), 11 were PFCAs and the only non-PFCAs detected were PFOS and N-EtFOSAA. The four most frequently detected PFAS, listed in order by decreasing detection frequency, were PFOA (98%), PFOS (70%), perfluoroheptanoic acid (PFHpA; 59%), and perfluorohexanoic acid (PFHxA; 46%). All other detected PFAS were detected in 27% or less of the soil samples (Table 4).

PFOA was the most predominant PFAS in samples from this study in that it was both the most frequently detected and had the highest median and maximum concentrations. The maximum concentration for all other PFAS was below the median concentration for PFOA. PFOA was the PFAS detected at the highest concentration in 54 of the 55 near-surface and sub-surface soil samples and in 44 of the 55 surface soil samples (Table 3). The concentration of PFOA in each soil sample is shown on Figures 7A and 7B. Detected PFOA concentrations ranged from 0.53 to 44 parts per billion (ppb; equal to nanograms per gram), with the maximum concentration detected in sub-surface soil at location 05B (Figures 7A and 7B).

PFOS was the next most predominant PFAS, with detection frequency and median concentration second to PFOA. In the 13 samples where PFOA was not the predominant PFAS, PFOS was detected at higher concentrations than PFOA. The concentration of PFOS in each soil sample is shown on Figures 8A and 8B. Detected PFOS concentrations ranged from 0.24 to 2.5 ppb, with the maximum concentration detected in surface soil at location 02A (Figures 8A and 8B).

The concentrations in soil samples for six additional PFAS are shown on figures as indicated below:

- Perfluorobutanoic acid (PFBA) Figures 9A and 9B,
- PFHxA Figure 10A and 10B,
- PFHpA Figure 11A and 11B,
- Perfluorononanoic acid (PFNA) Figure 12A and 12B,
- Perfluorodecanoic acid (PFDA) Figure 13A and 13B,
- Perfluoroundecanoic acid (PFUnA) Figure 14A and 14B.

There are no soil cleanup objective concentrations for PFAS in New York regulations; however, New York State Department of Health (DOH) guidance values (NYSDEC, 2021b) have been prepared for PFOA and PFOS and were included by NYSDEC in the October 2020 and January 2021 revisions to their PFAS guidance (NYSDEC, 2021a). Table 3 denotes whether the sample results for PFOA and PFOS exceed the various DOH guidance values.

PFOA concentrations were below residential guidance values in 65% of the samples. Importantly, PFOA concentrations in only two of the 165 samples exceeded residential guidance values in surface soils (0-2

inches bgs), which is the preferred interval to determine potential exposure for residents (NYSDEC, 2021b) Additionally, only two of the 165 samples exhibited PFOA concentrations in exceedance of the Restricted Residential guidance values; however, these were both sub-surface samples (deeper than one foot) and not used to assess residential soil exposure (NYSDEC, 2010). PFOA concentrations exceeded the Protection of Groundwater Guidance Values in 86% of the samples.

PFOS concentrations were below the unrestricted guidance value in approximately 84% of the samples and all results were below the other guidance values including Residential Guidance Values.

Analytical results for TOC, moisture, and pH are also included in Table 3 and the summary statistics are included in Table 4. These parameters are discussed and evaluated in subsequent sections.

3.1.2 Data Evaluation

Visual, statistical, and qualitative evaluations of the analytical data are included in the following subsections. Several relationships among the data have been assessed statistically in order to evaluate whether various soil parameters exhibit similar trends. Details of the statistical methods and results are included in Appendix B. The statistical analysis focused on:

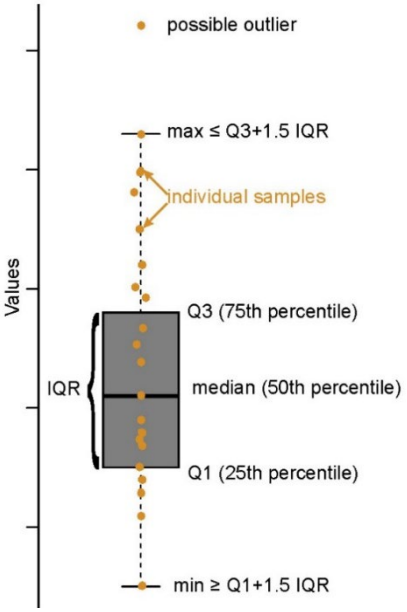
1. evaluating the difference in concentrations of PFAS, TOC, and pH among groupings (e.g., sample depth intervals, soil types, topographic parameters) that might potentially affect deposition or retention of PFAS in soils; and
2. determining any correlations between these parameters that may further the understanding of potential PFAS air deposition and/or PFAS fate and transport within the Region.

As described in Appendix B, statistical analysis was limited due to low detection frequencies for several parameters and groupings. The handling of data below detection limits for this data evaluation is addressed within Appendix B.

3.1.2.1 Evaluation by Sample Depth Interval

Box-and-whisker plots for all detected PFAS, TOC, pH, and moisture with groupings by sample interval, included in Appendix C, provide a visual comparison of the analytical data. Table 4 presents the accompanying summary statistics sorted by sample interval. The plots in Appendix C provide PFOA and PFOS first since they are the most frequently detected PFAS, with the remaining PFAS sorted by group, then in order of increasing chain length (similar to Tables 3 and 4).

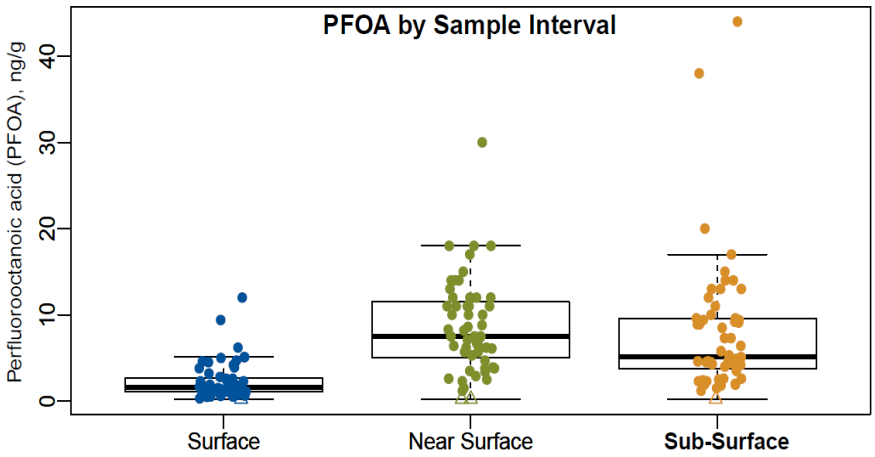
As shown in Graphic 3, box-and-whisker plots consist of a central box, with the lower limit of the box indicating the first quartile (25th percentile of the data) and the upper limit of the box indicating the third quartile (75th percentile of the data). The height of the box (the difference between the first and third quartiles) is called the interquartile range (IQR). Within the box is a heavy line indicating the median (50th percentile of the data). Extending in each direction from the box are



Graphic 3: Box and Whisker Plot Key

"whiskers," which extend to values within one and a half times the IQR from each end of the box. Values beyond the whiskers are potential outliers. Note that box-and-whiskers are only included where detection frequencies were greater than or equal to 50%. Strip plots are provided, without the boxes or whiskers, when detection frequencies are less than 50%. Results below detection were included at their detection limits in the plots and labeled as "non-detect."

For several analytes, the range of concentrations differed by depth interval. TOC and moisture are consistently highest in surface soils and appear to decrease with depth (Table 4 and Appendix C), while pH demonstrates more consistency across the sample intervals than other parameters. The highest median concentrations for PFOA were found in near-surface soils and the lowest median concentrations in the surface soils (Table 4 and Graphic 4,). At 48 of the 55 sample locations evaluated, the surface soil sample was the interval with the lowest detected PFOA concentration (Figures 7A and 7B).

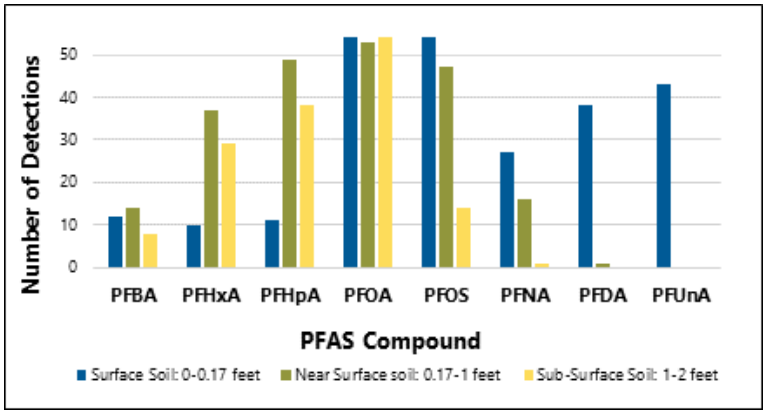


Graphic 4: Box and Whiskers Plot of PFOA by Sample Interval

For the remaining PFAS, the box-and-whisker plots show that shorter chain length PFAS were generally detected at higher concentrations and frequencies in deeper sample intervals (near-surface and subsurface). Longer chain length PFAS exhibit the opposite relationship (lower concentrations and frequencies in deeper intervals). For example, perfluorohexanoic acid (PFHxA; six carbons in each molecule) was detected in 76 soil samples, but only 10 of those detections were in surface soil samples. However, perfluoroundecanoic acid (PFUnA; 11 carbons in each molecule) was detected in 43 soil samples, all of which were surface soil samples. Following this pattern, the highest median concentration for PFOS (eight carbons in each molecule) was found in surface soils and the lowest in the subsurface soils (where it was only detected in five samples). Graphic 5, below, depicts the frequency of detections for PFAS compounds in different sampling intervals.

The statistical evaluation (Appendix B) assessed whether any differences among sample depth intervals could be considered statistically significant using a rank-based analysis of variance (ANOVA). Based on this evaluation, the differences in the following parameters among sample depth intervals are considered statistically significant (See Appendices B and C):

- TOC
- Moisture
- PFOA
- PFOS
- PFHxA
- PFHpA



Graphic 5: Frequency of PFAS Detections with Depth

Of the four PFAS above, the only depth interval pairing that did not demonstrate a statistically significant difference was PFOA in near surface and sub-surface soils (see Graphic 4), indicating that there is no statistically significant difference between PFOA concentrations in these two intervals. The low frequency of detections for other PFAS precluded the ANOVA analysis for depth intervals included in Appendix B. The detected concentrations and frequency appear to follow the pattern anticipated based on their chain length (i.e., higher concentration and detection frequency of shorter chain length PFAS in deeper sample intervals and the opposite relationship for longer chain length PFAS). Given the significant differences in PFAS concentrations and other parameters among sample intervals, additional evaluation within this report will continue to separate results into groups by sample depth interval.

The distribution of PFAS, particularly PFOA, with depth indicates more historic rather than recent deposition. Precipitation and infiltration solutes adsorbed in the shallowest soil intervals would migrate downward in the soil column in percolating soil water (Section 1.3.2). The higher concentrations of PFOA and shorter chain PFCA concentrations in sub-surface soils suggest that a downward migration from the surface has occurred over time.

3.1.2.2 Evaluation within Sectors

As described in Section 2.2.1, 16 sampling sectors are arranged radially to provide data distributed in all directions from the Village for comparison with summaries of wind conditions by direction on a wind rose. The analytical data for each sample are presented on strip plots in Appendix D, arranged by sample interval and sector.

The target number of sample locations in each sector, from two to six, was achieved; however, only sectors 2, 5, 6, 10, 11, 12, and 15 have at least four sampling locations (Figure 6A). Evaluation of the variability of PFAS concentrations within individual sectors included below is limited to these sectors with at least four sampling locations.

Detected PFOA concentrations within a single depth interval and sector demonstrate high variability. This is illustrated by the subsurface soil samples within sector 5. The subsurface sample from location 05B represents the maximum detected PFOA concentration in the entire data set, while PFOA was not detected in the subsurface sample from the nearest location (05C).

Detected PFOS concentrations within a single depth interval demonstrate a range of up to 1.7 ppb (surface soils in Sector 5; 0.27 to 2 ppb). By comparison, the range for detected PFOS concentrations for all the soil samples in this study, regardless of sample interval, is 2.3 ppb (0.22 to 2.5 ppb).

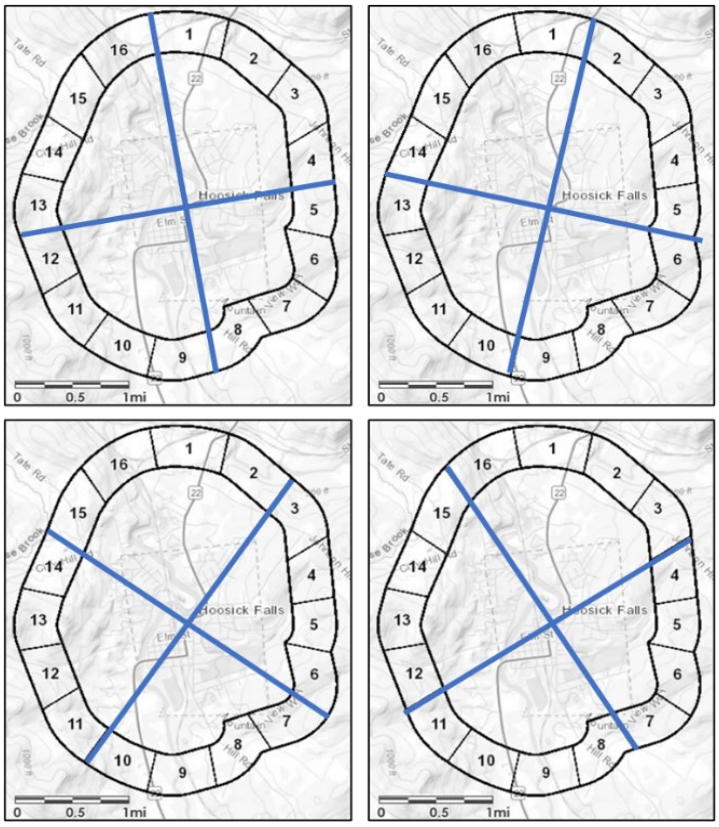
The variability described above indicates that PFOA and PFOS concentrations within the same sampling interval and sector can vary as much as concentrations among the entire data set. This high degree of variability indicates that additional factors, beyond the sample depth and sector location, may have a material influence on PFAS concentrations in soils. Evaluation of several additional factors (i.e. TOC, pH, etc.) is included in Section 3.1.2.4.

3.1.2.3 Evaluation Between Sectors

As described in Section 2.2.1, the 16 sampling sectors were arranged radially to provide data distributed in all directions from the Village for comparison with summaries of wind conditions by direction on a wind rose. The analytical data for each sample are presented on strip plots in Appendix D, arranged by sample interval and sector.

Several radial (or polar) plots were also generated to provide for visual evaluation of the spatial distribution of PFOA and PFOS concentrations and are included in Appendix E1. Figures E1 and E2 plot the PFOA and PFOS concentrations of individual samples on a radial axis; i.e., higher concentrations plot farther from the center of the figure. The radial position of each sample on the figure is its geographic position, in degrees, relative to the centroid of the sampling area. Figures E3 and E4 are similar to Figures E1 and E2 but instead use a logarithmic scale on the radial axis for PFOA and PFOS concentrations. Figure E5 and E6 group the data by sampling sector and provide the minimum, mean, and maximum PFOA and PFOS concentrations for each sector as a radial bar graph. Clear patterns in PFOA and PFOS concentrations in the radial plots (Figures E1-E6) are not readily apparent. However, of the 11 samples with concentrations at or above 15 ppb approximately 90% were on the eastern half (0-180°) of the study area and more than 60% are in the southeast quarter (90-180°) of the study area.

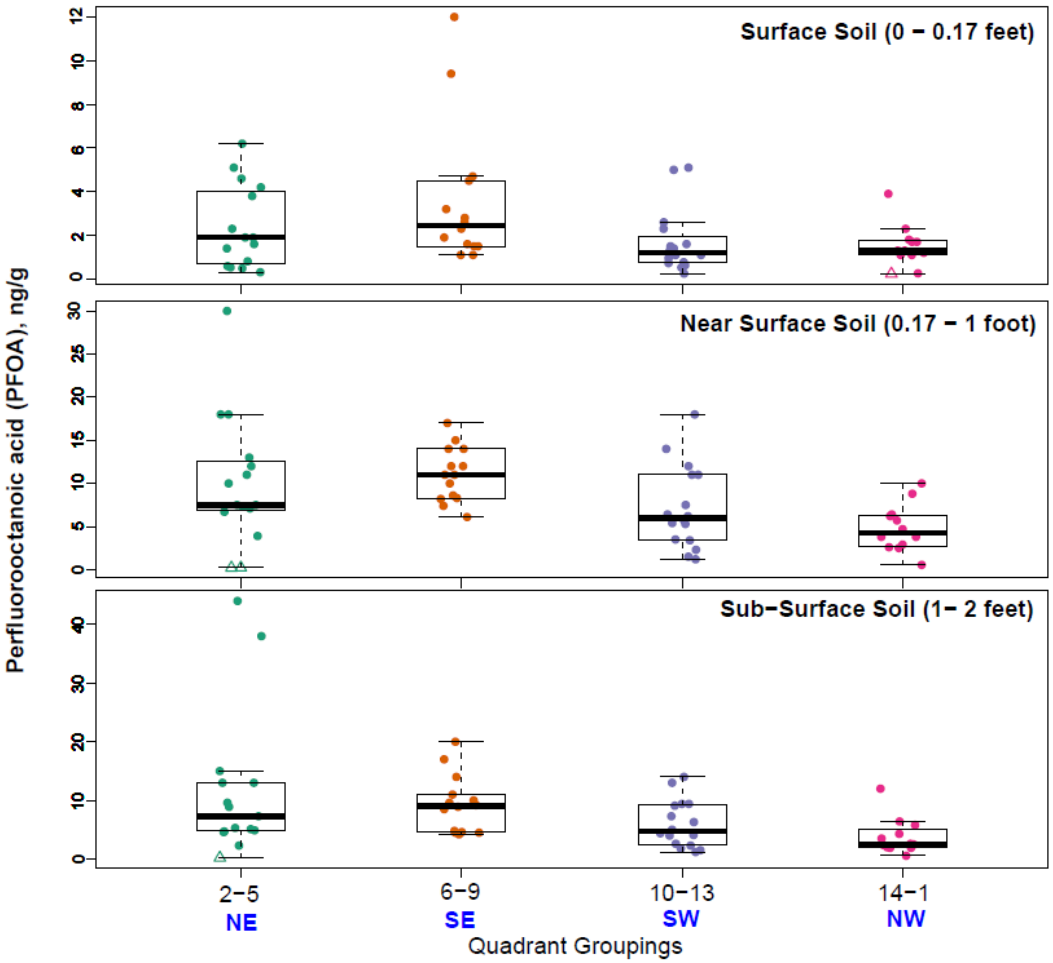
The target number of sampling locations for each of the 16 sectors was two to six samples. To provide a more robust data set for statistical analysis (see Appendix B), the sectors were grouped into quadrants consisting of four sectors. Four sets of quadrants were used so that all possible groupings of four adjacent sectors were evaluated (see Graphic 6). The statistical evaluation (Appendix B) assessed whether any differences among these quadrants could be considered statistically significant using a rank-based ANOVA. As sampling depth interval was shown to demonstrate a statistically significant difference for PFAS concentrations (see 3.1.2.1), this evaluation segregated results by depth interval.



Graphic 6: Quadrant Groupings for Evaluation

Most of these comparisons yielded no statistically significant differences between sampling quadrants. Statistically significant differences between quadrants were found at all three depth intervals but for different PFAS (Table 5 of Appendix B). For PFOA, there were 12 different comparisons (i.e., three intervals and four different quadrant groupings). Only one of these comparisons yielded a statistically significant difference.

The quadrant grouping that yielded the most statistically significant differences (2-5, 6-9, 10-13, and 14-16; Table 5 of Appendix B) was selected for further comparison and qualitative evaluation (corresponding to NE, SE, SW, and NW respectively). Tabulated summary statistics and box-and-whisker plots for all detected PFAS with groupings by quadrant and sample interval are included in Appendix E2. As shown in Appendix E2 and Graphic 7, the southeast quadrant (Sectors 6-9) demonstrates the highest median PFOA concentrations for all three sampling intervals. Alternatively, the northwest quadrant (Sectors 14-1) demonstrates the lowest median PFOA concentrations for all three sampling intervals. A similar pattern (highest in southeast and/or lowest in northwest) is found for PFHxA and PFHpS in near surface soils. A notable departure from this pattern is evident with PFDA and PFUnA, where the highest median concentrations are in the northeast and lowest concentrations in the southeast.



Graphic 7: PFOA by Quadrant and Sample Interval

A central concept of this study is that mass deposition from air emissions sources is generally greatest in the prevailing downwind direction. Based on the review of the summary and seasonal wind roses for the only weather station in Hoosick Falls (see Section 2.1), the prevailing winds in Hoosick Falls blow generally from the northwest towards the southeast. Therefore, higher PFAS concentrations would be anticipated in soils southeast of the Village. In alignment with this, elevated PFOA concentrations are more prevalent in the southeastern quarter of the sampling area and lower PFOA concentrations are observed in the northwestern quarter as noted earlier in this section and Graphic 7 above. However, based on the evaluation of data from this study, there is limited statistical significance to the difference of PFAS concentrations based on their radial location around the Village. The limited statistical significance and lack of stronger visual pattern may reflect the potential contribution from multiple sources, long industrial operational histories, the various factors affecting depositional patterns (Section 1.3.1), the various factors

affecting retention in soils, and/or the cessation of historical emissions followed by 15 or more years of transport (i.e., leaching, erosion, etc.).

3.1.2.4 Relationship Between Parameters

Given the variability noted above, additional factors may account for the observed ranges in concentrations between or within sectors. The following section provides an evaluation of relationships between parameters, both analytical and field-based quantitative parameters, and field-based qualitative categorical parameters. Two types of plots were generated to evaluate these relationships. Scatter plots were generated where two quantitative parameters were evaluated. Like elsewhere in this report, box-and-whisker plots were generated where a qualitative parameter was evaluated. Both types of plots have been split by sample interval, organized by PFAS in order like Appendix C, and are included in Appendix F.

The scatter plots included as Appendix F1 present results for the eight most frequently detected PFAS, versus TOC, pH, and elevation of the sampling location. Note that each individual plot has unique scales for each axis. These scatter plots can be used to visually examine the correlation between variables. For example, a positive correlation between PFOS and TOC in surface soils is apparent (p.4 of Appendix F1). Where sufficient data were available, the correlation between these variables was also evaluated using monotonic trend analysis as described in Appendix B. This analysis results in correlation coefficients and an indication of statistical significance. Based on this analysis, the following statistically significant relationships were found (type of correlation, p. 5 of Appendix B):

- Surface Soil
  - TOC and Moisture (positive
  - TOC and PFOS (positive)
  - TOC and PFDA (positive)
  - TOC and PFUnA (positive)
  - pH and PFOS (negative)
  - pH and PFDA (negative)
  - pH and PFUnA (negative)

- Near-Surface Soil
  - TOC and PFOS (positive)
  - TOC and PFOA (positive)

- Sub-Surface Soil
  - TOC and PFHpA (positive)
  - TOC and PFOA (positive)

No statistically significant relationship was found between elevation of sampling location and the concentration of any PFAS at any depth interval.

The box-and-whisker plots, included as Appendix F2, present the results for the eight most frequently detected PFAS grouped by different parameters including general soil type, tree cover at the sampling location, and topographic characteristics of the sampling location. Like other plots included in this report, box-and-whiskers are only included where detection frequencies were greater than or equal to 50% and the total number of detections was at least five. Strip plots are provided, without the boxes or whiskers,

when this threshold is not met. These plots can be used to visually examine potential differences in concentration between groups (i.e., between different general soil types). The statistical evaluation (Appendix B) assessed whether differences among groups could be considered statistically significant using a rank-based ANOVA. Based on this evaluation, a statistically significant difference was found among the following parameter pairs and groups (p. 4 of Appendix B):

- Type of Tree Cover at the Sampling Location
  - PFOS in surface soil (p. 14 of Appendix F2)

- General Soil Type
  - PFDA in surface soil (p. 29 of Appendix F2)
  - PFUnA in surface soil (p. 30 of Appendix F2)

Given the statistically significant differences among groups identified above, these factors may need to be considered when evaluating deposition patterns. With respect to PFOA, this evaluation indicates that the TOC may influence the concentration of PFOA found in near-surface and sub-surface soils.

3.2 SPLP Results

3.2.1 SPLP Methods and Use

The NYSDEC produced PFAS sampling and analysis guidelines in early 2020 (NYSDEC, 2021a) that included the use of SPLP. These guidelines include the use of SPLP extraction followed by PFAS analysis for the testing of imported fill and for remedy evaluations. SPLP analysis was also requested by NYSDEC for evaluation. As described below, a sub-set of 28 of the soil samples collected for this study were submitted for SPLP extraction followed by PFAS analysis.

SPLP is an analytical method designed to determine the mobility of analytes present in liquids, soils, and waste (USEPA, 1994). SPLP is considered a batch equilibrium experiment in which analytes are partitioned between an extraction fluid and soils. Soils are combined with extraction fluid equal to 20 times the weight of the soil and tumbled end over end approximately 30 times per minute for 16 to 20 hours. Following this agitation, the samples are filtered, and the fluid (known then as leachate) is analyzed using standard analytical methods (e.g., metals, pesticides, or PFAS for this study). SPLP does not replicate in-situ conditions, either generally or those conditions specific to a particular site.

The pH of the extraction fluid in SPLP is intended to approximate the acidity of rain would infiltrate through unsaturated soils, but the agitation does not approximate the condition of soils in place at a site (i.e., water percolating downward through a soil column). This agitation has the potential to create more contact between the soil and the extraction fluid than in-situ conditions, and also has the potential to change geochemical relationships (e.g., oxidation). Additionally, SPLP does not account for site-specific differences regarding climate and depth to groundwater. Therefore, SPLP is generally considered a conservative screening approach to evaluate leachability of contaminants from soil and potential impacts to groundwater posed by soils.

3.2.2 Sample Selection

A sub-set of 45 samples were selected for analysis using SPLP extraction followed by PFAS analysis in accordance with the Work Plan and in coordination with NYSDEC (C.T. Male/BEC, 2020a and 2020e). The SPLP sub-set was selected to represent a range in PFOA, TOC, and pH concentrations, as well as a variety of sectors, sample intervals, and soil types.

3.2.3 General Summary and Discussion

PFAS results for the SPLP samples are included, associated with the related soil sample, in Table 3. PFOA was detected in each of the 45 samples submitted for SPLP analysis. PFOA detections in SPLP leachate samples ranged from 3.3 parts per trillion (ppt; equal to nanograms per liter) to 1,200 ppt.

PFOS was detected in 35 of 45 samples submitted for SPLP analysis. The PFOS detections in SPLP leachate samples ranged from 0.62 ppt to 7.7 ppt. PFOS was detected in seven SPLP samples where PFOS was not detected in the related soil sample. Conversely, PFOS was not detected in nine SPLP samples where PFOS was detected in the related soil sample.

Several additional PFAS were detected in SPLP leachate samples that were not detected in the corresponding soil sample (Table 3). Out of the eight PFAS not detected in soil samples, the following were detected in the SPLP leachate samples:

- 6:2 FTS (11 detections with a maximum detection of 32 ppt)
- PFBS (11 detections with a maximum detection of 1.6 ppt)
- PFHxS (two detections of 1.1 ppt)
- PFOSA (16 detections with a maximum detection of 6.5 ppt)

Detections in SPLP leachate samples without detections in the related soil samples is anticipated when the detection limits differ by several orders of magnitude. For example, the detection limits for PFBS in soil were approximately 0.5 ppb and were close to 0.5 ppt (i.e., three orders of magnitude lower) for SPLP leachate.

3.2.4 Relationship Between Soil and SPLP Results

Based on detection frequencies for soil and SPLP leachate results (Section 3.2.3), the evaluation herein is limited to PFOA and PFOS. The scatter plots included as Appendix G1 present PFOA and PFOS results in soil to the corresponding results in SPLP leachate and are divided by sample interval.

Based on these plots, PFOA and PFOS concentrations in soil and the corresponding leachate concentrations appear weakly correlated. The statistical significance of these apparent correlations between these variables was evaluated using monotonic trend analysis as described in Appendix B and summarized below:

- PFOA in soils and SPLP leachate concentrations demonstrate statistically significant positive correlation when the three depth intervals are combined, and for the near-surface and sub-surface sample depth intervals individually.

- PFOS in soils and SPLP leachate concentrations demonstrate no statistically significant correlation whether data from the three depth intervals are combined or evaluated individually.

At the request of NYSDEC, the SPLP leachate results were also compared to PFOA concentrations in soils accounting for TOC concentrations, due to the potential effect of TOC on PFAS mobility in soils (see Section 1.3.2). This was accomplished by normalizing the PFOA and PFOS results in soil to their TOC concentrations (i.e., dividing each PFOA and PFOS result by its corresponding TOC concentration). The plots and analysis above were then repeated (Appendix G2 and Appendix B) for the TOC-normalized results. This analysis demonstrated the following:

- TOC-normalized PFOA in soils and SPLP leachate concentrations demonstrate statistically significant positive correlation when the three depth intervals are combined and for the near-surface sample interval, with each demonstrating weaker correlation than PFOA concentrations not normalized to TOC.
- TOC-normalized PFOS in soils and SPLP leachate concentrations demonstrate no statistically significant correlation whether data from the three depth intervals are combined or evaluated individually.

Based on the analysis described above, the concentrations of PFOA in SPLP leachate demonstrate a correlation with the concentrations in the tested soil samples when all depths are considered. Generally, TOC normalization of soil results reduced or eliminated the strength of this correlation. Although SPLP does not replicate or represent in-situ conditions, the correlation of PFOA concentrations in soil and the SPLP leachate indicates that concentrations in soil may be generally informative of potential lab-derived leachate concentrations, without additional SPLP analysis.

4 Summary

The soil data set for this study includes results for 171 soil samples collected from 57 locations with three depth intervals at each location. Two of the 57 locations sampled (01D and 10B) did not meet the criteria established in the Work Plan and were excluded from evaluations, leaving a total of 165 soil samples evaluated. In addition to soil sampling, a weather station was installed at the McCaffrey Street facility in November 2018 and has generated data since that time in support of this study.

Results from this study indicate the presence of PFAS in shallow soils surrounding the Village is observable and qualitatively consistent with an air deposition pattern from sources within the Village, Below is a summary of the results and evaluations included in this report.

- Data from the McCaffrey Street Weather Station indicates that the predominant winds within the Village and valley generally blow from the northwest towards the southeast (Section 2.1.3).
- Eight of the 21 PFAS included for analysis were not detected in samples from this study, and only four PFAS (PFHxA, PFHpA, PFOA, and PFOS) were detected in at least 46-98% of the samples (Section 3.1.1). All other PFAS were either not detected or detected at a frequency of less than 28%.
- PFOA was the predominant PFAS detected in soil samples with concentrations ranging from 0.24 ppb to 44 ppb. PFOA had the highest detection frequency and highest concentration detected in all but 13 of the 165 samples (Section 3.1.1 and Figures 7A and 7B).
- PFOS was the second most frequently detected PFAS with detections ranging from 0.26 ppb to 2.5 ppb (Section 3.1.1 and Figures 8A and 8B).
- PFAS, TOC, and moisture varied significantly across sampling depth intervals. Generally, the distribution of PFAS across sampling depth intervals demonstrates a pattern as would be predicted by their chain length (i.e.; longer chain lengths migrate more slowly through the soil column). PFOA concentrations were consistently higher in the near-surface and sub-surface samples than in the surface soils. (Section 3.1.2.1). The distribution of PFOA with depth indicates historical rather than recent deposition. This is consistent with what is known about timeframes for potential emission sources within the Village.
- Detected PFOA concentrations within a single depth interval and sector demonstrate high variability (e.g., PFOA was not detected at the location closest to where the maximum detected PFOA concentration was detected in the entire data set; Section 3.1.2.2).
- PFOA in surface soils did not exhibit significant correlation with other variables evaluated. However, PFOA and TOC demonstrate statistically significant positive correlation in near surface and subsurface soils (Section 3.1.2.4).
- There is limited statistical significance to the difference in PFAS concentrations based on location around the Village (i.e., the pattern). However, qualitatively (Section 3.1.2.3), there are several

indications that PFAS concentrations are not randomly distributed around the Village. For example, elevated PFOA concentrations are more prevalent (i.e., over 60% of samples with a concentration of 15 ppb or greater) in the southeastern quarter of the sampling area, which is situated in the predominant downwind direction from the sources within the Village. This distribution suggests air deposition from sources within the Village has contributed to the presence of PFOA in portions of the study area.

- PFOA detections in SPLP leachate samples demonstrated significant positive correlation with the concentrations in their associated soil samples when all sample intervals are considered. Although SPLP does not replicate or represent in-situ conditions, the strength in correlation of PFOA and PFOS concentrations in soil and the SPLP leachate indicate that concentrations in soil may be generally informative of potential lab-derived leachate concentrations.

5 References

Ahrens, L., Yeung, L.W., Taniyasu, S., Lam, P.K. and Yamashita, N., 2011. Partitioning of perfluorooctanoate (PFOA), perfluorooctane sulfonate (PFOS) and perfluorooctane sulfonamide (PFOSA) between water and sediment. Chemosphere, 85(5), pp.731-737.

Anderson, R.H., Adamson, D.T. and Stroo, H.F., 2019. Partitioning of poly-and perfluoroalkyl substances from soil to groundwater within aqueous film-forming foam source zones. Journal of contaminant hydrology, 220, pp.59-65.

Bent, G.C., 1999. Streamflow, base flow, and ground-water recharge in the Housatonic River basin, western Massachusetts and parts of eastern New York and northwestern Connecticut. United States Geological Survey (USGS) Water Resources Investigations Report 98-4232.

C.T. Male, 2019. Final Regional Air Deposition Study Work Plan for the Village of Hoosick Falls, Rensselaer County, New York. August 23, 2019.

C.T. Male/BEC, 2020a. Summary of Sampling Results and Samples Proposed for SPLP Analysis. Regional Air Deposition Study for the Village of Hoosick Falls. January 31, 2020.

C.T. Male/BEC, 2020b. Field Sampling Plan. 14 McCaffrey Street (Site No. 442046) and 1 Liberty Street (Site No. 442048) Village of Hoosick Falls. March 2020.

C.T. Male/BEC, 2020c. Quality Assurance Project Plan. 14 McCaffrey Street (Site No. 442046) and 1 Liberty Street (Site No. 442048) Village of Hoosick Falls. 06 March 2020.

C.T. Male/BEC, 2020d. Interim Report, Regional Air Deposition Study for the Village of Hoosick Falls. June, 2020.

C.T. Male/BEC, 2020e. Additional Samples Proposed for SPLP Analysis. Regional Air Deposition Study for the Village of Hoosick Falls. November 04, 2020.

C.T. Male/BEC, 2020f. Baseline Conceptual Site Model for PFAS in the Hoosick Falls Region. December 2020.

C.T. Male/BEC, 2020g. Baseline Conceptual Site Model for the McCaffrey Street Site. December 2020.

C.T. Male/BEC, 2021. Baseline Conceptual Site Model for the Liberty Street Site. January, 2021.

Cadwell, D.H., and Dineen, R.J., 1987. Surficial geologic map of New York, Hudson-Mohawk sheet: New York State Museum Map and Chart series 40, 1 sheet, scale 1:250,000.

Cushman, R.V., 1950. The ground-water resources of Rensselaer County, New York: N.Y. Dept. of Conservation Bulletin GW-21, 56 p.

DeSimone, D.J., 2017. Surficial Geology of Hoosick Falls, NY with Implications for Hydrogeology of Village Aquifer. A Report to Accompany Surficial Geologic Map and Cross Sections. Prepared under contract to Hoosick Falls Central School District. January 2017.

Ferrey, M. L., Wilson, J. T., Adair, C., Su, C., Fine, D. D., Liu, X. and Washington, J. W. (2012), Behavior and Fate of PFOA and PFOS in Sandy Aquifer Sediment. Groundwater Monitoring and Remediation 32: 63–71.

Gellrich, V., T. Stahl, and T. P. Knepper, 2012. "Behavior of perfluorinated compounds in soils during leaching experiments." Chemosphere 87 (9):1052-1056. doi: https://doi.org/10.1016/j.chemosphere.2012.02.011.

Higgins, C.P., and R.G. Luthy, 2007. "Modeling Sorption of Anionic Surfactants onto Sediment Materials: An a priori Approach for Perfluoroalkyl Surfactants and Linear Alkylbenzene Sulfonates." Environmental Science & Technology 41 (9):3254-3261. doi: 10.1021/es062449j.

Hirata-Koizumi, M., Fujii, S., Hina, K., Matsumoto, M., Takahashi, M., Ono, A., and Hirose, A. 2015. Repeated dose and reproductive/development toxicity of long-chain perfluoroalkyl carboxylic acids in rats: perfluorohexadecanoic acid and perfluorotetradecanoic acid. Fundamental Toxicological Sciences. 2(4):177-190. doi: 10.2131/fts.2.177.

ITRC . 2020. PFAS Technical and Regulatory Guidance Document and Fact Sheets PFAS-1. Washington, D.C.: Interstate Technology & Regulatory Council, PFAS Team. Accessed February 10, 2021 https://pfas-1.itrcweb.org/.

Kontis, A.L., Randall, A.D. and Mazzaferro, D.L., 2004. Regional hydrology and simulation of flow of stratified-drift aquifers in the glaciated northeastern United States. USGS Professional Paper 1415. US Geological Survey. 156 p., 3 plates.

Lafleur, R.G. and B.S. Ellis, 1988. Physiography and Geology, in Work, R., 1988. Soil Survey of Rensselaer County, New York. United States Department of Agriculture, Soil Conservation Service.

National Oceanic and Atmospheric Administration (NOAA), 2020. Data for Albany International Airport (Station USW00014735) acquired on May 4, 2020 from https://www.ncdc.noaa.gov/cdo-web/.

NYSDEC, 2000. Water Well Program - New York State (NYSDEC). Vector digital data, revised December 10, 2016. Accessed March 5, 2021. https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1203

NYSDEC, 2010. DER-10/Technical Guidance for Site Investigation and Remediation. May 3, 2010NYSDEC, 2019a. Summer 2019 Community Update on PFAS Cleanup in the Hoosick Area. 26 June 2019.

NYSDEC, 2021a. Guidelines for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs. January 2021.

NYSDEC, 2021b. Norlite Environmental Sampling Report. March 2021.

NYSDEC, 2021c. Per- and Polyfluoroalkyl Substances (PFAS). New York State Department of Environmental Conservation https://www.dec.ny.gov/chemical/108831.html. Accessed June 30, 2021.

Potter, D.B., 1972. Stratigraphy and Structure of the Hoosick Falls Area, New York--Vermont, East-central Taconics. New York State Museum and Science Service, Geological Survey. Map and Chart Series 19, 71 p., 2 plates.

Randall, A.D., Francis, R.M., Frimpter, M.H. and Emery, J.M., 1988. Region 19, Northeastern Appalachians. Hydrogeology. The Geological Society of North America, Boulder Colorado. 1988. p 177-187. 7 fig, 1 tab, 70 ref.

Ratcliffe, N.M., Stanley, R.S., Gale, M.H., Thompson, P.J., and Walsh, G.J., 2011. Bedrock geologic map of Vermont: U.S. Geological Survey Scientific Investigations Map 3184, 3 sheets, scale 1:100,000.

Rensselaer County Economic Development & Planning, 2015. Town of Hoosick, New York Land Use District Map. Downloaded from http://www.townofhoosick.org/zoningboard.shtml on September 4, 2019.

Sepulvado, et al., 2011. Occurrence and fate of perfluorochemicals in soil following the land application of municipal biosolids. Environ Sci Technol. 45(19):8106-12.

Stanley, R.S. and Ratcliffe, N.M., 1985. Tectonic synthesis of the Taconian orogeny in western New England. Geological Society of America Bulletin, 96(10), pp.1227-1250.

United States Department of Agriculture and Natural Resources Conservation Service (USDA and NRCS), 2011. New York Rapid Watershed Assessment Profile. Hudson-Hoosic Watershed HUC: 02020003. 30 p.

USEPA, 1994. Method 1312: Synthetic Precipitation Leaching Procedure. Revision 0. September 1994.

USEPA, 2002. Guidance on Choosing a Sampling Design for Environmental Data Collection. EPA/240/R-02/005, December.

USEPA, 2008. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements Version 2.0 (Final) (EPA-454/B-08-002) March, 2008

USEPA, 2017. Technical Fact Sheet – Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA). EPA 505-F-17-001, November 2017.

USEPA, 2020. Basic Information on PFAS. Downloaded from https://www.epa.gov/pfas/basic-information-pfas on June 5, 2020.

Village of Hoosick Falls, 2015. Existing Zoning Map. Draft. January 2015. Downloaded from https://www.ecode360.com/attachment/HO3619/Att%204%20Zoning%20Map.pdf on September 12, 2019.

Work, R., 1988. Soil Survey of Rensselaer County, New York. United States Department of Agriculture, Soil Conservation Service. 191 p.

Zareitalabad, P., Siemens, J., Hamer M., and Amelung, W., 2013. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in surface waters, sediments, soils and wastewater - a review on concentrations and distribution coefficients. Chemosphere. 91(6):725-732. doi: 10.1016/j.chemosphere.2013.02.024

Zhang, T., Sun, H., Lin, Y., Qin, X., Zhang, Y., Geng, X. and Kannan, K., 2013. Distribution of poly-and perfluoroalkyl substances in matched samples from pregnant women and carbon chain length related maternal transfer. Environmental science & technology, 47(14), pp.7974-7981.

Zheng, C. and G.D. Bennett, 2002. Applied Contaminant Transport Modeling, Second Edition. Wiley-Interscience, New York, NY. 621p.

Tables

Table 1: Sample Location Summary Table
Regional Air Deposition Study
Village of Hoosick Falls, New York

Sample Location	Elevation (ft AMSL)	Longitude	Latitude	Topography	Location on Slope	Village Facing?	Tree Cover	Tree Type	Field Observations / Comments
01A	470.09	-73.355226	42.923266	Flat	Top of Slope	No	50%	Both[1]	Large quantity of small brush vegetation (ferns).
01B	479.54	-73.352449	42.922609	Flat	Top of Slope	No	75%	Deciduous	No notable features.
01C	485.03	-73.34564138	42.9224507	Flat	N/A	N/A	75%	Both[1]	Old, rotting, fallen trees nearby. Small, open field adjacent to sample area.
01D	477.51	-73.34490038	42.9254597	Flat	Top of Slope	No	90%	Deciduous	Side of Frazier Lane. Top of Slope, with debris present down the slope. Wrapper found at depth of 6 inches.
02A	487.67	-73.34444938	42.9220037	Flat	N/A	N/A	100%	Deciduous	Sample area inside of a small clearing, surrounded by 20-30 young trees.
02B	512.78	-73.34175263	42.9211843	Flat	N/A	No	75%	Deciduous	Easily accessible, flat terrain.
02C	524.95	-73.33856284	42.92014474	Slope	Mid-slope	No	95%	Both[1]	Agricultural fields at top of slope; heavily sloped areas, very steep.
02D	592.98	-73.33557563	42.9188283	Slope	Mid-slope	No	75%	Coniferous	Agricultural fields at top of slope; heavily sloped areas, very steep.
03A	462.87	-73.33198063	42.9185533	Slope	Mid-slope	No	75%	Both[1]	Refusal at 1.2 feet on tree root at marked sampling location; offset to reach desired depth of 2 feet.
03B	674.08	-73.32910275	42.91633047	Slope	Mid-slope	No	60%	Deciduous	Snowmobile/ATV trail approximately 1000 feet away.
03C	746.82	-73.32771063	42.9147393	Slope	Mid-slope	No	65%	Both[1]	Snowmobile/ATV trail approximately 100 feet away.
03D	--	--	--	--	--	--	--	--	--
03E	--	--	--	--	--	--	--	--	--
03G	--	--	--	--	--	--	--	--	--
04A	--	--	--	--	--	--	--	--	--
04B	805.24	-73.32914063	42.9052593	Slope	Mid-slope	Yes	40%	Deciduous	Loose root mat in top 0.5 inch of soil. Frequent bedrock outcrops in vicinity. Refusal at 17 inches on bedrock after multiple (±5) attempts.
04C	658.97	-73.333306	42.906251	Slope	Mid-slope	No	50%	Deciduous	Downslope from grazing area (cows).
4D	709.05	-73.33086	42.90443	Slope	Mid-slope	Yes	65%	Deciduous	Agricultural fields at bottom of slope.
04E	--	--	--	--	--	--	--	--	--
04F	--	--	--	--	--	--	--	--	--
05A	761.31	-73.32875663	42.9010003	Slope	Mid-slope	No	60%	Deciduous	Up slope from a logging road; rock outcrops in area.
05B	783.53	-73.33090063	42.9001223	Slope	Mid-slope	Yes	50%	Deciduous	Numerous blown-down trees in area; rock outcrops in area.
05C	854.00	-73.32899763	42.8995093	Slope	Top of Slope	Partially	60%	Deciduous	Rock outcrops in area.
05D	--	--	--	--	--	--	--	--	Field reconnaissance determined not a viable sampling area. Vetted area is a wetland or in high water area of brook.
05E	803.02	-73.32689463	42.9001523	Slope	Mid-slope	Yes	70%	Deciduous	Numerous rock outcrops in area, opening in tree canopy nearby.
05F	827.71	-73.32876963	42.9039483	Slope	Top of Slope	Yes	50%	Deciduous	Top of moderate slope. Light tree cover. Approximately 75 feet from a field.
06A	784.17	-73.33305316	42.89541701	Slope	Mid-slope	Yes	30%	Both[1]	Village facing, very little tree cover. Frequent fractured boulders. Inside "S" of dirt road winding up the hill.
06B	793.76	-73.32969063	42.8942103	Flat	N/A	No	90%	Both[1]	Very moist soil, location on elevated berm in marsh area. Groundwater not observed in hand auger bore hole.
06C	792.3	-73.32661816	42.89058201	Slope	Top of Slope	Partially	50%	Deciduous	Tree cover opens up to the east. Near stone wall as property line marker.
06D	724.68	-73.33158315	42.89176002	Slope	Top of Slope	Partially	80%	Both[1]	Leaf litter had strange rotting odor.
06E	718.53	-73.32839437	42.8908347	Slope	Mid-slope	Partially	50%	Both[1]	Sample area was next to a large fallen tree with uprooted soil.
06F	730.01	-73.32805963	42.8930973	Slope	Mid-slope	No	75%	Both[1]	Immobile and partially demolished car located approximately 200-300 feet away. Terminated at 22 inches due to presence of saturated soils, possible perched groundwater
07A	665.26	-73.33064237	42.8898567	Flat	Top of Slope	Yes	60%	Deciduous	Approximately 20 feet off of an ATV path, some fallen pines nearby.
07B	633.34	-73.33223837	42.8886897	Slope	Mid-slope	Yes	80%	Deciduous	About halfway down a slope from an ATV trail, stream at bottom of the slope.
07C	581.61	-73.33769937	42.88614969	Flat	Top of Slope	Yes	90%	Coniferous	Heavy tree cover. Thin vetted area with no noticeable difference in environment outside area.
07D	--	--	--	--	--	--	--	--	--
08A	573.35	-73.33906816	42.88609201	Slope	Top of Slope	Yes	40%	Both[1]	Old 1950s car in the stream bed downgradient of the sample location. Thin vetted area with no noticeable difference in environment outside area.
08B	544.21	-73.34379437	42.8860917	Flat	N/A	N/A	70%	Deciduous	Approximately 20 feet off of a walking path that bisects vetted area (lengthwise). Large quantity of hunting tree stands nearby. Steep slope approximately 25 feet to the south.
08C	530.42	-73.34498263	42.88249331	Flat	N/A	No	95%	Deciduous	Heavy tree cover; narrow vetted area; equestrian area nearby.
09A	472.74	-73.35025163	42.88066731	Flat	Top of Slope	Yes	85%	Deciduous	Narrow vetted area; equestrian area nearby.
09B	502.62	-73.34806563	42.88052431	Flat	N/A	Yes	90%	Deciduous	Heavy tree cover; narrow vetted area; equestrian area nearby.
10A	514.99	-73.36372838	42.88088369	Flat	N/A	N/A	100%	Deciduous	Small vetted area. Moved upgradient from depressed area. Small runoff stream occasionally flows nearby. Large quantity of fallen leaves on ground. Property owner mentioned surrounding land used to be an orchard.
10B	445.76	-73.35875162	42.88213431	Slope	Mid-slope	No	50%	Deciduous	Possible fill placed during development of housing complex. Added location 10E.
10C	616.87	-73.36590262	42.88239231	Slope	Top of Slope	Partially	80%	Deciduous	Frequent bedrock outcrops in vicinity. Refusal at 18 inches on bedrock after multiple (±5) attempts.
10D	561.73	-73.36615516	42.88402801	Slope	Mid-slope	Yes	30%	Deciduous	Located halfway up a steep hill. Large quantity of boulders and bedrock outcrops, rocky terrain.
10E	441.08	-73.35880962	42.88205931	Slope	Toe of Slope	No	50%	Deciduous	Possible flood plain of small stream. Mottling in soil at 1 to 2 feet.
11A	765.53	-73.37073415	42.88350301	Slope	Top of Slope	Partially	100%	Coniferous	Overhead was completely covered by dense pine tree canopy cover. Location was next to a steep ridge into a stream. ATV trails approximately 200-300 feet away.
11B	619.02	-73.36898515	42.88447901	Slope	Mid-slope	Yes	80%	Both[1]	Located at top of steep bank next to a stream and small waterfall.
11C	759.67	-73.37387162	42.88640031	Slope	Mid-slope	Yes	50%	Deciduous	Located halfway up steep hill, upgradient of a small stream that bisects vetted area. Grass fields (cow pasture to the north) on either side of the wooded area.
11D	649.53	-73.36911462	42.88654131	Slope	Mid-slope	No	50%	Deciduous	Approximately 200-300 feet down slope from ATV trail.
11E	719.17	-73.37149862	42.88583531	Slope	Mid-slope	Partially	40%	Deciduous	Approximately 200-300 feet down slope from ATV trail.
12A	595.98	-73.37084062	42.8929663	Slope	Toe of Slope	No	40%	Both[1]	Located on semi-flat area near the bottom of a slope. Stream is at the bottom of the slope.
12B	881.87	-73.37645238	42.8927087	Flat	Top of Slope	Partially	25%	Deciduous	Located in small opening in wood area, some waist high flowers and vegetation.
12C	666.32	-73.37207462	42.8938823	Slope	Mid-slope	No	60%	Both[1]	Steep slope. Gravel trail in vicinity.
12D	694.31	-73.37592958	42.8954543	Slope	Mid-slope	No	75%	Deciduous	Halfway up a steep slope. Agricultural field at the top of the slope. Stream is at the bottom of the slope.
13A	774.72	-73.37728971	42.89875199	Slope	Mid-slope	No	60%	Both[1]	Approximately 200-300 feet from an ATV trail; mostly larger, older trees.
13C	--	--	--	--	--	--	--	--	--
13D	990.30	-73.37972339	42.9047567	Slope	Mid-slope	No	85%	Deciduous	Located at the top of a ridge, frequent boulders and bedrock outcrops. Refusal at 20 inches on bedrock after multiple (5) attempts.
13E	--	--	--	--	--	--	--	--	--
14A	845.03	-73.37960739	42.9058537	Slope	Mid-slope	No	85%	Deciduous	Down slope/gradient from 13D. Occasional boulders and bedrock outcrops. Located on mound with depressions in area.
14B	--	--	--	--	--	--	--	--	--
14C	893.38	-73.38087	42.90574	Slope	Mid-slope	No	80%	Deciduous	Tightly woven root mat in top 1 inch of soil. Bedrock outcrops at surface in area of sample.
14D	--	--	--	--	--	--	--	--	--
14E	--	--	--	--	--	--	--	--	--
15A	721.08	-73.36752562	42.9156843	Slope	Mid-slope	Yes	75%	Deciduous	Very dry and loose soil. Possible overgrown path/logging road up the slope. Logged clearing with aged stumps to the north.
15B	--	--	--	--	--	--	--	--	--
15C	745.45	-73.36749462	42.9176463	Slope	Mid-slope	No	80%	Deciduous	Very dry and loose soil. Dense undergrowth in portions of vetted area.
15D	759.44	-73.36720162	42.9203263	Slope	Top of Slope	Yes	50%	Deciduous	Located at the top of a ridge, frequent boulders and bedrock outcrops. Large quantity of cut down trees and stumps (still in the ground) nearby. Sample location moved in the field, actual location is within the Sector 16 boundary.
15E	--	--	--	--	--	--	--	--	--
15F	--	--	--	--	--	--	--	--	--
15G	639.29	-73.36967	42.91262	Slope	Mid-slope	No	50%	Deciduous	Approximately 200 feet up slope from road. Approximately 100 yards from property residence.
16A	679.39	-73.36600562	42.9189943	Slope	Mid-slope	Yes	50%	Deciduous	Diagonally down slope/gradient from 15D. Trace tree stumps nearby (still in the ground).
16B	--	--	--	--	--	--	--	--	--
16C	--	--	--	--	--	--	--	--	--
16D	424.32	-73.358404	42.921363	Flat	N/A	N/A	75%	Deciduous	Located on a flat area with gentle slope starting approximately 20 feet to the northwest and wetland downgradient. Reached the target depth of 2 inches after encountering multiple refusals on gravel/cobbles.

Notes:
[1] Both indicates the presence of deciduous and coniferous tree types
*NYSDEC currently pursuing access to this location
ft AMSL = feet above mean sea level
N/A = not applicable
-- = no data
ATV = all-terrain vehicle
= Location sampled, results available and included in this report
= Access to sample location not successful or determined not viable

Table 2: Description of Soil Samples
Regional Air Deposition Study
Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
01A	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace light brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
01B	0.0-0.17	Dark Brown SILT, little clay, little organics. No odor, no staining.	Silt
	0.17-1.0	Brown SILT and CLAY, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Brown CLAY, some light brown Silt. No odor, no staining.	Clay
01C	0.0-0.17	Brown SILT and ORGANICS, trace clay.	Silt Organics
	0.17-1.0	Light Brown SILT and CLAY, trace fine to coarse gravel, trace organics.	Silt Clay
	1.0-2.0	Light Brown SILT and CLAY, trace fine to coarse gravel.	Silt Clay
01D	0.0-0.17	Dark Brown SILT and CLAY, little organics, trace semi-angular gravel.	Silt Clay
	0.17-1.0	Dark Brown SILT, some angular fine to coarse Gravel, little organics and clay, trace trash (food wrapper).	Silt
	1.0-1.6	Dark Brown SILT, some angular fine to coarse Gravel, little clay, trace organics. Refusal at 20" on possible cobbles.	Silt
02A	0.0-0.17	Dark SILT, some Organics, trace clay.	Silt
	0.17-1.0	Light Brown CLAY, little brown silt, trace organics.	Clay
	1.0-2.0	Light Brown CLAY, little brown silt.	Clay
02B	0.0-0.17	Dark Brown SILT, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse sub-angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
02C	0.0-0.17	Dark Brown SILT, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, little fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
02D	0.0-0.17	Brown SILT, little organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
03A	0.0-0.17	Dark Brown SILT, little brown clay, little organics. No odor, no staining	Silt
	0.17-1.0	Light Brown SILT, some brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay
03B	0.0-0.17	Dark Brown SILT and ORGANICS, trace dark brown clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little fine sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse angular gravel, trace light brown fine to coarse sand, trace organics. No odor, no staining.	Silt
03C	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine to coarse sub-angular gravel. No odor, no staining	Silt
	0.17-1.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace light brown fine to coarse sand. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace light brown fine to coarse sand. Pine sap odor, no staining.	Silt
04B	0.0-0.17	0.0-0.5: ORGANICS (root mat), trace silt; 0.5-2.0: Dark Brown SILT and ORGANICS. No odor, no staining.	Organics
	0.17-1.0	Brown SILT, little fine sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-1.42	Light Brown SILT, little fine to coarse angular gravel, trace organics, trace light brown clay. No odor, no staining.	Silt
04C	0.0-0.17	Dark Brown SILT, little organics, trace dark brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown CLAY and SILT, some fine to coarse angular Gravel. No odor, no staining.	Silt Clay
04D	0.0-0.17	Dark Brown SILT, little organics, trace coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, trace organics, trace clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse sub-angular gravel. Moist. No odor, no staining.	Silt
05A	0.0-0.17	Dark Brown SILT and ORGANICS, trace coarse sub-angular gravel. No odor, no staining.	Silt - Organics
	0.17-1.0	Brown SILT, little fine to coarse sub-angular gravel, little organics, trace brown clay. No odor, no staining.	Silt
	1.0-1.83	Light Brown SILT, some fine to coarse angular Gravel, trace organics, trace brown clay, trace brown coarse sand. No odor, no staining.	Silt
05B	0.0-0.17	Dark Brown SILT and ORGANICS, trace coarse angular gravel, trace brown clay. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, some Organics, little fine to coarse sub-angular gravel, trace clay. No odor, no staining.	Silt
	1.0-1.2	Light Brown SILT, little fine to coarse sub-angular gravel, trace organics, trace clay. No odor, no staining.	Silt
05C	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, some fine to coarse angular Gravel, trace organics, trace clay. No odor, no staining.	Silt
	1.0-1.6	Brown and Gray SILT and coarse angular GRAVEL, trace organics. No odor, no staining.	Silt
05E	0.0-0.17	Dark Brown SILT, some Organics, trace fine angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little fine to coarse angular gravel, little organics, trace clay. No odor, no staining.	Silt
	1.0-1.33	Light Brown SILT, trace brown clay, trace fine to coarse angular gravel, trace brown coarse sand. No odor, no staining.	Silt
05F	0.0-0.17	Dark Brown SILT, little organics, trace brown clay, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, trace coarse sub-angular gravel, trace organics, trace brown clay. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace coarse sub-rounded gravel, trace organics, trace brown clay. No odor, no staining.	Silt
06A	0.0-0.17	Dark Brown ORGANICS and SILT, trace clay, trace fine to coarse angular gravel. No odor, no staining.	Silt Organics
	0.17-1.0	Brown SILT and CLAY, some fine to coarse angular Gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, little light brown silt, little fine to coarse angular gravel, trace organics. No odor, no staining.	Clay

Table 2: Description of Soil Samples
Regional Air Deposition Study
Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
06B	0.0-0.17	Brown CLAY, little brown silt, trace organics. No odor, no staining.	Clay
	0.17-1.0	Light Brown CLAY, little fine angular gravel, trace organics. No odor, no staining.	Clay
	1.0-2.0	Mottled Brown and Orange CLAY, trace silt, trace angular fine gravel. Moist. No odor, no staining.	Clay
06C	0.0-0.17	Dark Brown SILT, some Organics, trace coarse to fine angular gravel, trace dark brown clay.	Silt
	0.17-1.0	Brown SILT and CLAY, trace organics, trace fine to coarse angular gravel. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel. No odor, no staining.	Clay
06D	0.0-0.17	Dark Brown SILT, some Organics, trace coarse to fine angular gravel, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
06E	0.0-0.17	Dark Brown SILT, some Organics, little brown clay.	Silt
	0.17-1.0	Light Brown SILT, some brown Clay, trace angular fine gravel.	Silt
	1.0-2.0	Light Brown SILT, some brown Clay, little angular fine to coarse gravel.	Silt
06F	0.0-0.17	Dark Brown SILT, little organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown CLAY, little fine to coarse angular gravel, trace light brown silt. No odor, no staining.	Clay
	1.0-1.83	Light Brown CLAY, little fine to coarse angular gravel, trace light brown silt. No odor, no staining. No mottling present.	Clay
07A	0.0-0.17	ORGANICS, some brown Silt, trace brown clay, occasional cobbles.	Organics
	0.17-1.0	Brown SILT, some brown Clay, trace subrounded coarse gravel, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little light brown clay, little angular coarse gravel, trace fine gravel, trace organics.	Silt
07B	0.0-0.17	Brown SILT, little brown clay, trace fine sand, trace organics in the top inch of soil.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace brown fine sand, trace organics, trace angular coarse gravel.	Silt
	1.0-2.0	Brown SILT, some angular fine to coarse Gravel, trace organics, trace fine brown sand.	Silt
07C	0.0-0.17	Dark Brown SILT, some brown Clay, some Organics.	Silt
	0.17-1.0	Brown SILT, some brown Clay, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, little angular fine to coarse gravel.	Silt
08A	0.0-0.17	Dark Brown SILT and ORGANICS, trace clay. No odor, no staining.	Silt Organics
	0.17-1.0	Brown SILT and CLAY, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some Clay, little fine to coarse angular gravel. No odor, no staining.	Silt
08B	0.0-0.17	Dark Brown SILT, little clay, little organics, trace angular coarse gravel.	Silt
	0.17-1.0	Light Brown SILT, some angular fine to coarse Gravel, little brown clay, trace organics.	Silt
	1.0-2.0	Light Brown SILT, some brown Clay, little angular coarse grave, trace organics.	Silt
08C	0.0-0.17	Dark Brown SILT, some Organics, trace dark brown clay. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, little coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little coarse sub-angular gravel, trace brown clay, trace organics. No odor, no staining.	Silt
09A	0.0-0.17	Dark Brown SILT, some Organics, trace fine sub-angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little organics, trace fine sub-angular gravel, trace brown clay. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace organics, trace brown clay. No odor, no staining.	Silt
09B	0.0-0.17	Dark Brown SILT, some Organics, trace brown clay. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, some Organics, trace brown clay, trace fine angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace clay, trace organics. No odor, no staining.	Silt
10A	0.0-0.17	Dark Brown SILT and CLAY, little organics.	Silt Clay
	0.17-1.0	Brown SILT and CLAY, little angular fine to coarse gravel, trace organics.	Silt Clay
	1.0-2.0	Brown SILT and CLAY, little angular fine to coarse gravel, little organics.	Silt Clay
10B	0.0-0.17	Fill: Dark Brown SILT and fine to coarse SAND, some fine to coarse sub-angular Gravel, trace organics. No odor, no staining.	Silt Sand
	0.17-1.0	Fill: Dark Brown SILT, little organics, little fine to coarse sub-angular gravel, trace fine sand. No odor, no staining.	Silt
	1.0-2.0	Fill: Dark Brown SILT, little fine to coarse sub-angular gravel, trace fine sand. No odor, no staining.	Silt
10C	0.0-0.17	Dark Brown SILT, trace dark brown clay, trace fine to coarse subrounded gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, little organics, trace fine to coarse angular-gravel, trace brown clay. No odor, no staining.	Silt
	1.0-1.5	Brown SILT, little fine to coarse angular gravel, trace organics, trace brown clay. No odor, no staining. Refusal on possible bedrock. Multiple offset attempts.	Silt
10D	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
10E	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace clay. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, little fine to coarse angular gravel, trace organics, trace clay. No odor, no staining.	Silt
	1.0-2.0	Grey and Light Brown mottle CLAY, some light grey Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay

Table 2: Description of Soil Samples
Regional Air Deposition Study
Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
11A	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
11B	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, little organics, little fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, little fine to coarse angular gravel. No odor, no staining.	Silt
11C	0.0-0.17	Dark Brown SILT, little dark brown clay, little organics. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Brown SILT, some brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
11D	0.0-0.17	Dark Brown SILT, some Organics, little brown clay, trace coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, some fine to coarse angular Gravel. No odor, no staining.	Silt Clay
11E	0.0-0.17	Dark Brown SILT, some Organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay
12A	0.0-0.17	Dark Brown SILT, some Organics, trace dark brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
12B	0.0-0.17	Dark Brown SILT, little brown clay, little organics, trace angular coarse gravel.	Silt
	0.17-1.0	Little Brown SILT, little brown clay, little angular coarse gravel, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little angular coarse gravel, trace light brown clay.	Silt
12C	0.0-0.17	Dark Brown SILT and ORGANICS, trace dark brown clay. No odor, no staining.	Silt Organics
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse angular gravel, little light brown clay. No odor, no staining.	Silt
12D	0.0-0.17	Dark Brown SILT, little fine to coarse angular gravel, little organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel. No odor, no staining.	Silt
13A	0.0-0.17	Dark Brown SILT, some Organics, trace brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown CLAY, little fine to coarse angular gravel, trace brown silt. No odor, no staining.	Clay
	1.0-2.0	Light Brown CLAY, some fine to coarse angular Gravel, trace brown silt. No odor, no staining.	Clay
13D	0.0-0.17	Dark Brown SILT, some Organics, little dark brown clay, trace angular fine gravel.	Silt
	0.17-1.0	Light Brown SILT, little light brown clay, trace angular fine to coarse gravel.	Silt
	1.0-1.6	Light Brown SILT, little light brown clay, trace angular fine to coarse gravel.	Silt
14A	0.0-0.17	Dark Brown SILT, some Organics, little brown clay.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace brown fine sand, trace angular fine gravel.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, trace brown fine sand, trace angular fine to coarse gravel.	Silt
14C	0.0-0.17	0-1": ORGANICS, little dark brown silt, trace brown fine sand (root mat); 1-2": Dark Brown SILT, little organics, trace brown fine to coarse sand, trace fine angular gravel. No odor, no staining.	Organics
	0.17-1.0	Light Brown CLAY, some light brown Silt, little organics, trace coarse sub-angular gravel. No odor, no staining.	Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Clay
15A	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular to sub-angular gravel, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little light brown fine sand, trace organics, trace fine to coarse angular gravel, loose. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown fine Sand, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
15C	0.0-0.17	Dark Brown SILT, trace dark brown clay, trace coarse angular gravel, trace organics, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little light brown clay, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little light brown clay, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
15D	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace coarse brown sand. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, little fine to coarse angular gravel. No odor, no staining.	Silt Clay
15G	0.0-0.17	Brown SILT, some brown Clay, little organics, trace fine sub-angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace coarse sub-rounded gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
16A	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace coarse sand. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace coarse sand, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, some fine to coarse Gravel. No odor, no staining.	Silt Clay
16D	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine to coarse angular gravel. No odor, no staining.	Silt Organics
	0.17-1.0	Dark Brown SILT, little fine to coarse angular gravel, trace light brown clay, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and fine to coarse angular GRAVEL, trace clay, very moist. No odor, no staining.	Silt Gravel

Notes:
*= Modified Burmister Soil Descriptions

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	01A			01B			01C			01D**			02A	
									Soil Type	Silt	Silt	Silt	Silt	Silt Clay	Clay	Silt Organics	Silt Clay	Silt Clay	Silt Clay	Silt	Silt	Silt	Clay
									Date	10/30/2019	10/30/2019	10/30/2019	10/30/2019	10/30/2019	10/30/2019	10/18/2019	10/18/2019	10/18/2019	10/18/2019	10/18/2019	10/18/2019	10/18/2019	10/18/2019
									Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.6 ft	0 - 0.17 ft	0.17 - 1 ft
									Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																				
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial															
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--															
	General Parameters																						
	Carbon, total organic	mg/kg	--		--	--	--	--		**33800**	**7970**	**3020**	**65700**	**12400**	**1580**	**79800**	**13800**	**14700**	**37000**	**27000**	**13100**	**171000**	**15800**
	Moisture	%	--		--	--	--	--		**25.1**	**17.3 J**	**16.1 J**	**37.1**	**23.1**	**19.6**	**42.4**	**23.2**	**24.0**	**24.2**	**12.7**	**14.4**	**57.4**	**32.4**
	pH	pH units	--		--	--	--	--		**4.88**	**4.87**	**4.94**	**5.28**	**4.45**	**4.56**	**5.10**	**5.65**	**5.76**	**7.52**	**7.76**	**7.52**	**4.57**	**4.57**
	Temperature	deg C	--		--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																						
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**0.77**	**0.50 J**	< 0.23 U	**0.79 J**	**0.48 J**	< 0.23 U	**0.95 J**	**0.34 J**	< 0.26 U	**0.32 J**	**0.53 J**	**0.55 J**	**2.5**	< 0.27 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 1.0 U	< 0.89 U	< 0.92 UJ	**1.3 J**	< 0.97 U	< 0.92 U	< 1.4 U	< 1.0 U	< 1.1 U	< 1.0 U	< 0.89 U	< 0.93 U	< 1.7 U	< 1.1 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 UJ	**0.33 J**	**0.34 J**	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	**0.31 J**
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	**0.72 J**	< 0.23 U	< 0.35 U	< 0.25 UJ	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.45 J**	**0.56 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		< 0.25 U	**0.23 J**	**0.27 J**	**0.34 J**	**0.61 J**	< 0.23 U	< 0.35 U	**0.25 J**	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.55 J**	**0.87**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***1.2***	***2.6***	***2.4 J***	***1.7***	***8.8***	***1.9***	***1.1***	***2.5***	***1.9***	**0.26 J**	**0.55 J**	**0.56 J**	***5.1***	***18***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	**0.33 J**	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.63 J**	< 0.27 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		**0.29 J**	< 0.22 U	< 0.23 UJ	**0.38 J**	< 0.24 U	< 0.23 U	**0.59 J**	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.83 J**	< 0.27 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		**0.35 J**	< 0.22 U	< 0.23 U	**0.42 J**	< 0.24 U	< 0.23 U	**0.49 J**	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.89 J**	< 0.27 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	**0.36 J**	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	**0.50 J**	< 0.27 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	
								Soil Type	**Clay**
								Date	**10/18/2019**
								Depth	**1 - 2 ft**
								Sample Type	**N**
			Guidance Values [1]						
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial	
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--	
	General Parameters								
	Carbon, total organic	mg/kg	--		--	--	--	--	**3510**
	Moisture	%	--		--	--	--	--	**19.0**
	pH	pH units	--		--	--	--	--	**4.41**
	Temperature	deg C	--		--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances								
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.97 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***2.3 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.24 UJ

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	02B				02C			02D			03A			03B		
									Soil Type	Silt	Silt	Silt		Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Clay	Silt	Silt	Silt
									Date	1/23/2020	1/23/2020	1/23/2020		1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/22/2020	1/22/2020	1/22/2020	6/19/2020	6/19/2020	6/19/2020
									Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
									Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																						
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial																		
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--																		
	General Parameters																								
	Carbon, total organic	mg/kg	--		--	--	--	--		**136000 J**	**17400 J**	**5450 J**	**4490 J**	**65200 J**	**9980 J**	**4240 J**	**112000 J**	**30500 J**	**10600 J**	**97400 J**	**25100 J**	**5950 J**	**140000 J**	**18000 J**	**10000 J**
	Moisture	%	--		--	--	--	--		**45.3 J**	**22.4 J**	**15.3 J**	**16.0 J**	**49.8 J**	**15.5 J**	**15.8 J**	**44.5 J**	**24.7 J**	**16.9 J**	**53.5 J**	**28.4 J**	**16.0 J**	**28.0**	**10.4**	**8.1**
	pH	pH units	--		--	--	--	--		**5.02**	**4.71**	**4.61**	**4.59**	**4.85**	**4.54**	**4.61**	**4.44**	**4.36**	**5.68**	**4.57**	**4.55**	**5.16**	**4.9**	**4.8**	**4.7**
	Temperature	deg C	--		--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	**19.8**	**19.8**	**19.7**
PFAS Group	Per- and Polyfluoroalkyl Substances																								
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**0.92 J**	< 0.24 U	< 0.23 U	< 0.23 U	**1.8 J**	**0.35 J**	< 0.24 U	**2.0 J**	**1.2**	**0.43 J**	**1.4**	**0.60 J**	< 0.23 U	**1.3**	**0.41 J**	< 0.20 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 1.5 U	< 0.95 U	< 0.93 U	< 0.92 U	< 1.4 U	< 0.95 U	< 0.94 U	< 1.4 U	**1.1 J**	< 0.88 UJ	< 1.7 U	< 1.1 U	< 0.92 U	**1.2 J**	**0.92 J**	**1.6 J**
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	**0.41 J**	< 0.24 U	< 0.24 U	< 0.34 U	**0.84**	< 0.22 U	< 0.42 U	**0.63 J**	< 0.23 U	**0.49 J**	**0.39 J**	< 0.20 UJ
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	**0.37 J**	**0.37 J**	< 0.34 U	**1.6**	**0.41 J**	< 0.42 U	**1.0**	< 0.23 U	< 0.27 U	< 0.22 U	**0.31 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		< 0.37 U	**0.48 J**	< 0.23 U	< 0.23 U	< 0.36 U	**0.32 J**	**0.46 J**	< 0.34 U	**1.7**	**0.72**	< 0.42 U	**1.2**	**0.29 J**	< 0.27 U	**0.48 J**	**1.1 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***1.9***	***12***	***4.6 J***	***4.0***	***4.6***	***10***	***13***	***4.2***	***30***	***38***	***1.9***	***13***	***4.9***	***1.6***	***7.3***	***13 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	**0.60 J**	< 0.24 U	< 0.24 U	**0.74 J**	**0.58 J**	< 0.22 U	**0.60 J**	**0.42 J**	< 0.23 U	**0.44 J**	**0.22 J**	< 0.20 UJ
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		**0.42 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.91 J**	< 0.24 U	< 0.24 U	**1.4**	**0.43 J**	< 0.22 U	**0.74 J**	< 0.26 U	< 0.23 U	**1.1**	< 0.22 U	< 0.20 UJ
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		**0.51 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.61 J**	< 0.24 U	< 0.24 U	**1.4**	< 0.25 U	< 0.22 U	**1.0 J**	< 0.26 U	< 0.23 U	**1.2**	< 0.22 U	< 0.20 UJ
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	**0.45 J**	< 0.24 U	< 0.24 U	**1.0 J**	< 0.25 U	< 0.22 U	**0.62 J**	< 0.26 U	< 0.23 U	**0.78 J**	< 0.22 U	< 0.20 UJ
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	< 0.24 U	< 0.24 U	**0.77 J**	< 0.25 U	< 0.22 U	**0.45 J**	< 0.26 U	< 0.23 U	**0.57 J**	< 0.22 U	< 0.20 UJ
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	< 0.24 U	< 0.24 U	**0.68 J**	< 0.25 U	< 0.22 U	< 0.42 U	< 0.26 U	< 0.23 U	**0.44 J**	< 0.22 U	< 0.20 UJ
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.37 U	< 0.24 U	**0.44 J**	**0.40 J**	< 0.36 U	< 0.24 U	< 0.24 U	< 0.34 U	< 0.25 U	< 0.22 U	< 0.42 U	< 0.26 U	< 0.23 U	< 0.27 U	< 0.22 U	R

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	03C		
								Soil Type	Silt	Silt	Silt
								Date	6/19/2020	6/19/2020	6/19/2020
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
								Sample Type	N	N	N
			Guidance Values [1]								
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial			
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--			
	General Parameters										
	Carbon, total organic	mg/kg	--		--	--	--	--	**63000 J**	**16000 J**	**9300 J**
	Moisture	%	--		--	--	--	--	**13.8**	**10.3**	**8.8**
	pH	pH units	--		--	--	--	--	**4.6**	**4.7**	**4.8**
	Temperature	deg C	--		--	--	--	--	**19.8**	**19.7**	**19.9**
PFAS Group	Per- and Polyfluoroalkyl Substances										
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**2.2**	**0.44 J**	< 0.22 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	**1.1 J**	**2.0 J**	< 0.87 UJ
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	**0.28 J**	**0.32 J**	< 0.22 UJ
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.23 U	**0.42 J**	< 0.22 UJ
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	**0.23 J**	**0.59 J**	**0.58 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***2.3***	***7.1 J***	***5.1 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	**0.58 J**	**0.24 J**	< 0.22 UJ
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	**0.86**	< 0.21 UJ	< 0.22 UJ
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.96**	< 0.21 U	< 0.22 UJ
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**0.63 J**	< 0.21 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	**0.35 J**	< 0.21 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	**0.40 J**	< 0.21 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.23 U	< 0.21 U	R

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	04B			04C			04D			05A			05B		
								Soil Type	Organics	Silt	Silt	Silt	Silt	Silt Clay	Silt	Silt	Silt	Silt - Organics	Silt	Silt	Silt	Silt	Silt
								Date	6/18/2020	6/18/2020	6/18/2020	10/30/2019	10/30/2019	10/30/2019	4/23/2020	4/23/2020	4/23/2020	8/06/2020	8/06/2020	8/06/2020	8/06/2020	8/06/2020	8/06/2020
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.42 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.83 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.2 ft
								Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																				
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial															
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--															
	General Parameters																						
	Carbon, total organic	mg/kg	--		--	--	--	--	**330000**	**55000**	**23000**	**111000**	**20600**	**8130**	**88400**	**19000**	**4540**	**180000**	**28000**	**9700**	**130000**	**38000**	**38000 J**
	Moisture	%	--		--	--	--	--	**43.0**	**14.6**	**11.2**	**37.6**	**23.5**	**18.8**	**30.7**	**16.5**	**15.1**	**36.0**	**18.2**	**11.4**	**28.0**	**19.3**	**19.1**
	pH	pH units	--		--	--	--	--	**5.0**	**4.4**	**4.5**	**4.78**	**4.75**	**5.02**	**4.75 J**	**4.66 J**	**4.75 J**	**4.2**	**4.5**	**4.5**	**3.9**	**4.3**	**4.5**
	Temperature	deg C	--		--	--	--	--	**19.1**	**19.7**	**19.7**	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																						
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**0.46 J**	**0.54 J**	**0.32 J**	**0.81 J**	**0.64 J**	< 0.24 U	**0.55 J**	**0.33 J**	< 0.23 U	**1.8**	< 0.23 U	**0.28 J**	**2.0**	**0.73**	**0.36 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.3 U	< 0.88 U	< 0.87 U	< 1.2 U	< 1.0 U	< 0.95 U	< 1.1 U	< 0.92 U	< 0.91 U	< 1.2 U	< 0.92 U	< 0.85 U	< 1.0 U	< 0.96 U	< 0.96 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.33 U	**0.25 J**	< 0.22 U	< 0.30 U	**0.26 J**	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	**0.39 J**	**0.38 J**	< 0.21 U	**0.26 J**	**0.51 J**	**0.25 J**
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	**1.1 J**	**0.41 J**	**0.77**	< 0.30 U	**0.27 J**	**0.57 J**	< 0.28 U	**0.23 J**	< 0.23 U	**0.36 J**	**0.84**	**0.31 J**	**0.39 J**	**1.2**	**0.69 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.33 U	**0.50 J**	**0.57 J**	< 0.30 U	**0.41 J**	**0.72**	< 0.28 U	**0.50 J**	**0.27 J**	**0.41 J**	**0.77**	**0.59 J**	**0.40 J**	**1.0**	**2.2**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	**0.59 J**	***7.5***	***9.6***	**0.53 J**	***3.9***	***4.7***	**0.49 J**	***7.5***	***7.3***	***3.8***	< 0.23 U	***8.9***	***6.2***	***18***	***44***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.33 U	**0.23 J**	< 0.22 U	< 0.30 U	**0.34 J**	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	**0.62 J**	**0.26 J**	< 0.21 U	**0.67 J**	**0.43 J**	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	**0.45 J**	< 0.25 U	< 0.24 U	**0.29 J**	< 0.23 U	< 0.23 U	**0.75 J**	< 0.23 U	< 0.21 U	**0.67 J**	< 0.24 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.51 J**	< 0.22 U	< 0.22 U	**0.71 J**	< 0.25 U	< 0.24 U	**0.36 J**	< 0.23 U	< 0.23 U	**1.1**	< 0.23 U	< 0.21 U	**0.83**	< 0.24 U	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**0.35 J**	< 0.22 U	< 0.22 U	**0.35 J**	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	**0.60 J**	< 0.23 U	< 0.21 U	**0.45 J**	< 0.24 U	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	**0.32 J**	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	**0.44 J**	< 0.23 U	< 0.21 U	**0.43 J**	< 0.24 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	< 0.30 U	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	**0.33 J**	< 0.23 U	< 0.21 U	**0.29 J**	< 0.24 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	< 0.30 U	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.23 U	< 0.21 U	< 0.25 U	< 0.24 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	05C		
								Soil Type	Silt	Silt	Silt
								Date	8/06/2020	8/06/2020	8/06/2020
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.6 ft
								Sample Type	N	N	N
			Guidance Values [1]								
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial			
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--			
	General Parameters										
	Carbon, total organic	mg/kg	--		--	--	--	--	**160000**	**18000**	**20000**
	Moisture	%	--		--	--	--	--	**23.8**	**14.8**	**11.0**
	pH	pH units	--		--	--	--	--	**4.1**	**4.9**	**5.1**
	Temperature	deg C	--		--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances										
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**0.73 J**	**0.22 J**	**0.36 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.1 U	< 0.88 U	< 0.89 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	**0.28 J**	< 0.22 U	< 0.22 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.22 U	**0.24 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	**0.81**	< 0.22 U	< 0.22 U
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	**0.42 J**	< 0.22 U	< 0.22 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.63 J**	< 0.22 U	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**0.33 J**	< 0.22 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	**0.30 J**	< 0.22 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	05E	05E	05E	05F	05F	05F	06A	06A	06A	06B	06B	06B	06C	06C	06C
								Soil Type	Silt	Silt	Silt	Silt	Silt	Silt	Silt Organics	Silt Clay	Clay	Clay	Clay	Clay	Silt	Silt Clay	Clay
								Date	8/06/2020	8/06/2020	8/06/2020	6/18/2020	6/18/2020	6/18/2020	10/23/2019	10/23/2019	10/23/2019	1/22/2020	1/22/2020	1/22/2020	10/23/2019	10/23/2019	10/23/2019
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.33 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
								Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																				
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial															
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--															
	General Parameters																						
	Carbon, total organic	mg/kg	--		--	--	--	--	**110000**	**29000**	**16000**	**43000 J**	**13000 J**	**13000 J**	**183000**	**38400**	**10700**	**46400 J**	**23400 J**	**10900 J**	**89900**	**35500**	**18400**
	Moisture	%	--		--	--	--	--	**33.3**	**17.4**	**14.2**	**15.7**	**12.8**	**11.3**	**52.3 J**	**22.9**	**18.5**	**36.4 J**	**29.8 J**	**18.4 J**	**34.8 J**	**31.1 J**	**27.0 J**
	pH	pH units	--		--	--	--	--	**4.5**	**4.7**	**4.9**	**5.4**	**5.2**	**5.3**	**3.96 J**	**4.71**	**4.67**	**6.19**	**6.16**	**5.95**	**5.27**	**5.21**	**5.02**
	Temperature	deg C	--		--	--	--	--	--	--	--	**19.8**	**19.7**	**19.8**	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																						
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**0.89**	**0.75**	**0.39 J**	**0.27 J**	**0.39 J**	**0.24 J**	**1.9**	**0.49 J**	< 0.23 U	**0.57 J**	**0.42 J**	< 0.24 UJ	**0.87**	**0.57 J**	**0.60 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.2 U	< 0.92 U	< 0.91 U	**1.2 J**	< 0.90 U	**1.0 J**	< 1.6 U	< 1.0 U	< 0.92 U	< 1.2 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.1 U	< 1.0 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.29 U	**0.29 J**	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	**0.35 J**	< 0.27 U	< 0.24 U	< 0.29 U	**0.43 J**	< 0.26 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	**0.29 J**	**0.41 J**	**0.34 J**	< 0.23 U	< 0.22 U	**0.21 J**	< 0.39 U	< 0.26 U	**0.65 J**	**0.56 J**	**0.64 J**	< 0.24 U	< 0.29 U	**1.2**	**0.28 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.29 U	**0.56 J**	**0.78**	< 0.23 U	**0.35 J**	**0.37 J**	**0.48 J**	**0.26 J**	**0.94**	**0.59 J**	**0.88**	**0.31 J**	< 0.29 U	**1.5**	**0.92**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***1.4***	***11***	***15***	**0.31 J**	***6.7***	***5.3***	***9.4***	***11***	***14***	***4.7***	***11***	***4.5***	***1.1***	***14***	***17***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	**0.32 J**	**0.28 J**	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	**0.57 J**	**0.26 J**	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	**0.44 J**	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	**0.62 J**	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	**0.29 J**	< 0.27 U	< 0.26 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.62 J**	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	**0.98 J**	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	**0.37 J**	< 0.27 U	< 0.26 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**0.34 J**	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	**0.49 J**	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	**0.29 J**	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	**0.50 J**	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.29 U	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.29 U	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	06D				06E			06F			07A			07B	
								Soil Type	Silt	Silt Clay	Silt		Silt	Silt	Silt	Silt	Clay	Clay	Organics	Silt	Silt	Silt	Silt
								Date	10/23/2019	10/23/2019	10/23/2019		10/09/2019	10/09/2019	10/09/2019	11/26/2019	11/26/2019	11/26/2019	10/09/2019	10/09/2019	10/09/2019	10/09/2019	10/09/2019
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.83 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft
								Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																				
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial															
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--															
	General Parameters																						
	Carbon, total organic	mg/kg	--		--	--	--	--	**150000**	**14100**	**7390 J**	**5130 J**	**136000**	**11800**	**2940**	**41600**	**18900**	**3000**	**62200**	**18300**	**12000**	**68600**	**21100**
	Moisture	%	--		--	--	--	--	**32.0 J**	**19.8 J**	**14.2 J**	**16.1 J**	**37.0**	**17.2**	**14.1**	**33.0**	**24.2**	**15.6**	**31.9**	**17.9**	**13.8**	**33.4**	**23.8**
	pH	pH units	--		--	--	--	--	**5.01**	**5.06**	**4.87**	**4.84**	**5.14**	**4.87**	**4.70**	**6.19**	**5.88**	**5.97**	**4.72**	**4.98**	**4.73**	**5.87**	**5.50**
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																						
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**1.2**	**0.45 J**	< 0.23 U	< 0.23 U	**1.2**	**0.28 J**	< 0.22 U	**0.49 J**	**0.26 J**	< 0.23 U	**1.2**	**0.27 J**	< 0.21 U	**0.37 J**	**0.52 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.1 U	< 0.96 U	< 0.92 U	< 0.93 U	< 1.2 U	< 0.97 U	< 0.90 UJ	< 1.2 U	< 0.97 U	< 0.94 U	< 1.1 U	< 0.92 U	< 0.86 UJ	< 1.1 U	< 1.0 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.27 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.30 U	**0.25 J**	< 0.22 U	< 0.29 U	**0.25 J**	< 0.23 U	**0.41 J**	< 0.23 U	< 0.21 UJ	< 0.28 U	**0.26 J**
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.27 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.30 U	**0.52 J**	**0.32 J**	< 0.29 U	**0.29 J**	< 0.23 U	**0.29 J**	**0.42 J**	< 0.21 U	< 0.28 U	**0.53 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.27 U	**0.36 J**	**0.37 J**	**0.36 J**	< 0.30 U	**0.76**	**0.48 J**	< 0.29 U	**0.89**	**0.39 J**	**0.33 J**	**0.72**	**0.25 J**	< 0.28 U	**0.67 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***1.5***	***7.4***	***20***	***20***	***1.9***	***12***	***10 J***	***2.3***	***10***	***4.6***	***1.1***	***12***	***11 J***	***2.6***	***17***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	**0.35 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.40 J**	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	**0.34 J**	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	**0.50 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.44 J**	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	**0.40 J**	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.72 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.66 J**	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	**0.58 J**	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**0.30 J**	< 0.24 U	< 0.23 U	< 0.23 U	**0.36 J**	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.27 U	< 0.24 U	< 0.23 U	< 0.23 U	**0.33 J**	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.27 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.21 U	< 0.28 U	< 0.25 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.27 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.30 U	**0.26 J**	< 0.22 UJ	< 0.29 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.21 UJ	< 0.28 U	< 0.25 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location		07C				08A			08B			08C				
								Soil Type	Silt	Silt	Silt	Silt	Silt Organics	Silt Clay	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt
								Date	10/09/2019	10/10/2019	10/10/2019	10/10/2019	10/23/2019	10/23/2019	10/23/2019	10/10/2019	10/10/2019	10/10/2019	8/06/2020	8/06/2020		8/06/2020	8/06/2020
								Depth	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft
								Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
			Guidance Values [1]																			
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial														
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--														
	General Parameters																					
	Carbon, total organic	mg/kg	--		--	--	--	--	**8580**	**174000**	**33100**	**18900**	**92200**	**19200**	**3690**	**46200**	**14200**	**4720**	**49000**	**21000**	**26000**	**9400**	**50000**
	Moisture	%	--		--	--	--	--	**10.1**	**43.7 J**	**21.1 J**	**16.2 J**	**41.8 J**	**23.2 J**	**13.9 J**	**23.0 J**	**12.4**	**5.6**	**30.2**	**20.4**	**22.7**	**10.4**	**20.1**
	pH	pH units	--		--	--	--	--	**5.93**	**5.51**	**5.96**	**5.89**	**4.91**	**4.93**	**5.27**	**6.53**	**5.26**	**5.47**	**5.6**	**5.8**	**6.5**	**5.9**	**5.3**
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																					
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	< 0.20 U	**0.72 J**	**0.68 J**	**0.38 J**	**1.3**	**0.37 J**	< 0.23 U	**0.63 J**	**0.42 J**	< 0.20 U	**0.51 J**	**0.41 J**	**0.42 J**	< 0.21 U	**0.53 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.81 U	< 1.4 U	< 0.95 U	< 0.88 U	< 1.3 U	**1.2 J**	< 0.91 U	< 0.96 U	< 0.85 U	< 0.81 U	< 1.1 U	< 0.93 U	< 0.98 U	< 0.84 U	< 0.94 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	**0.27 J**	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	**0.25 J**	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	**0.27 J**	< 0.35 U	**0.58 J**	**0.42 J**	< 0.33 U	< 0.25 U	**0.25 J**	< 0.24 U	**0.62 J**	**0.24 J**	< 0.28 U	< 0.23 U	**0.25 J**	< 0.21 U	< 0.24 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	**0.49 J**	< 0.35 U	**0.82**	**0.59 J**	< 0.33 U	**0.32 J**	**0.32 J**	< 0.24 U	**0.69**	**0.34 J**	< 0.28 U	**0.36 J**	**0.38 J**	< 0.21 U	< 0.24 U
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***8.9***	***4.5***	***14***	***9.2***	***2.8***	***6.1***	***4.2***	***1.6***	***8.3***	***4.5***	***3.2***	***8.6***	***9.0***	***4.8***	***1.5***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	**0.28 J**	< 0.22 U	**0.43 J**	< 0.25 U	< 0.23 U	**0.29 J**	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.20 U	**0.37 J**	< 0.24 U	< 0.22 U	**0.46 J**	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.20 U	**0.62 J**	< 0.24 U	< 0.22 U	**0.53 J**	< 0.25 U	< 0.23 U	**0.30 J**	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	09A		09B			10A			
									Soil Type	Silt	Silt	Silt	Silt	Silt	Silt Clay	Silt Clay		Silt Clay
									Date	8/06/2020	8/06/2020	8/06/2020	8/06/2020	8/06/2020	10/18/2019	10/18/2019		10/18/2019
									Depth	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	0.17 - 1 ft	1 - 2 ft
									Sample Type	N	N	N	N	N	N	N	FD	N
			Guidance Values [1]															
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial										
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--										
	General Parameters																	
	Carbon, total organic	mg/kg	--		--	--	--	--		**23000**	**14000**	**83000**	**56000**	**30000**	**81100**	**27200**	**30000**	**12700**
	Moisture	%	--		--	--	--	--		**19.5**	**14.2**	**33.4**	**27.6**	**13.9**	**41.2**	**25.0**	**24.1**	**17.5**
	pH	pH units	--		--	--	--	--		**4.7**	**4.9**	**6.3**	**5.7**	**6.1**	**6.50**	**5.32**	**5.18**	**5.26**
	Temperature	deg C	--		--	--	--	--		--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																	
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**0.51 J**	**0.33 J**	**0.79 J**	**1.0**	**0.48 J**	**0.79 J**	**0.46 J**	**0.58 J**	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 0.99 U	< 0.91 U	< 1.1 U	< 1.1 U	< 0.89 U	< 1.3 U	< 1.0 U	< 1.0 U	< 0.95 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		**0.42 J**	**0.23 J**	**0.39 J**	< 0.28 U	< 0.22 U	< 0.32 U	**0.31 J**	**0.31 J**	< 0.24 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		**0.80**	**0.69**	**0.33 J**	**0.34 J**	**0.22 J**	< 0.32 U	**0.71 J**	**0.56 J**	< 0.24 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		**0.67 J**	**0.71**	**0.40 J**	**0.47 J**	**0.35 J**	< 0.32 U	**0.86**	**0.67 J**	**0.42 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***8.2***	***8.5***	***12***	***15***	***9.6***	***1.6***	***7.5***	***6.2***	***7.3***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	**0.34 J**	**0.33 J**	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	**0.28 J**	< 0.28 U	< 0.22 U	**0.39 J**	< 0.25 U	< 0.25 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	**0.29 J**	< 0.28 U	< 0.22 U	**0.54 J**	< 0.25 U	< 0.25 U	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	10B**			10C			10D			10E			11A		
								Soil Type	Silt Sand	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Clay	Silt	Silt Clay	Silt
								Date	10/30/2019	10/30/2019	10/30/2019	1/22/2020	1/22/2020	1/22/2020	10/24/2019	10/24/2019	10/24/2019	10/30/2019	10/30/2019	10/30/2019	10/24/2019	10/24/2019	10/24/2019
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.5 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
								Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																					
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial																
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--																
	General Parameters																							
	Carbon, total organic	mg/kg	--		--	--	--	--	**13100**	**12400**	**5910**	**83500 J**	**33900 J**	**35000 J**	**34100**	**13500**	**10300**	**74000**	**21100**	**10500**	**154000**	**13900**	**2070**
	Moisture	%	--		--	--	--	--	**12.2**	**11.7 J**	**11.2 J**	**42.4 J**	**28.4 J**	**29.9 J**	**24.4**	**20.4**	**14.8**	**29.5 J**	**19.9 J**	**19.9 J**	**35.2**	**17.2**	**10.1**
	pH	pH units	--		--	--	--	--	**4.87**	**4.61**	**4.67**	**7.12**	**7.39**	**7.52**	**5.03**	**5.21**	**5.16**	**4.19**	**4.24**	**4.63**	**4.91**	**5.48**	**6.02**
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																							
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**0.34 J**	**0.39 J**	< 0.22 U	**0.96 J**	**0.75 J**	**0.76 J**	**0.52 J**	< 0.24 U	< 0.22 U	**0.57 J**	**0.39 J**	< 0.23 U	**1.7**	< 0.22 U	< 0.21 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.84 U	< 0.88 U	< 0.88 U	< 1.3 U	**1.2 J**	< 1.1 U	< 0.98 U	< 0.97 U	< 0.89 U	< 1.1 U	< 0.93 U	< 0.93 U	< 1.2 U	< 0.89 U	< 0.86 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	**0.42 J**	**0.42 J**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	< 0.29 U	< 0.22 U	< 0.21 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	**0.69 J**	**0.99**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	**0.52 J**	**0.23 J**	< 0.29 U	**0.25 J**	< 0.21 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	**0.53 J**	**0.78 J**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	**0.38 J**	**0.57 J**	< 0.29 U	**0.23 J**	< 0.21 U
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	**0.25 J**	***5.4***	***6.3***	***2.3***	***12***	***14***	**0.95**	***1.5***	***2.6***	***1.3***	***14***	***13***	***1.4***	***2.3***	***1.2***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	**0.45 J**	**0.31 J**	**0.33 J**	**0.34 J**	< 0.24 U	< 0.22 U	**0.27 J**	< 0.23 U	< 0.23 U	**0.36 J**	< 0.22 U	< 0.21 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	**0.34 J**	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	**0.48 J**	< 0.22 U	< 0.21 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	**0.31 J**	< 0.23 U	< 0.23 U	**0.57 J**	< 0.22 U	< 0.21 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	< 0.29 U	< 0.22 U	< 0.21 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	< 0.29 U	< 0.22 U	< 0.21 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	< 0.29 U	< 0.22 U	< 0.21 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.21 U	< 0.22 U	< 0.22 U	< 0.34 U	< 0.28 U	< 0.28 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.27 U	< 0.23 U	< 0.23 U	**0.66 J**	< 0.22 U	< 0.21 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	11B			11C			11D			11E			12A		
									Soil Type	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt Clay	Silt	Silt Clay	Clay	Silt	Silt Clay	Silt Clay
									Date	10/24/2019	10/24/2019	10/24/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019	11/13/2019	11/13/2019	11/13/2019
									Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
									Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																					
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial																
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--																
	General Parameters																							
	Carbon, total organic	mg/kg	--		--	--	--	--		**61500**	**23700**	**4500**	**122000**	**29000**	**9940**	**68800**	**14100**	**8820**	**108000**	**9510**	**6230**	**91700**	**14200**	**4590**
	Moisture	%	--		--	--	--	--		**26.4**	**18.8**	**13.1**	**46.8 J**	**22.8 J**	**16.2 J**	**30.2 J**	**17.3 J**	**15.5 J**	**39.5 J**	**22.6 J**	**18.7 J**	**40.6 J**	**23.8 J**	**16.5 J**
	pH	pH units	--		--	--	--	--		**4.69**	**4.88**	**5.04**	**6.34**	**5.82**	**5.90**	**5.08**	**4.85**	**5.74**	**5.25**	**5.10**	**4.99**	**4.83**	**4.87**	**4.77**
	Temperature	deg C	--		--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																							
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**1.1**	**0.87**	< 0.22 U	**0.85 J**	**0.50 J**	< 0.23 U	**0.92**	**0.37 J**	< 0.23 U	**0.81 J**	**0.37 J**	< 0.24 U	**2.0**	**0.45 J**	< 0.22 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 1.0 U	< 0.94 U	< 0.86 U	< 1.5 U	< 0.98 U	< 0.92 U	< 1.1 U	**1.2 J**	< 0.92 U	**2.3 J**	**1.3 J**	**1.7 J**	**1.8 J**	**1.5 J**	**1.3 J**
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	**0.25 J**	< 0.22 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	**0.23 J**	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	**0.52 J**	< 0.24 U	< 0.34 U	**0.46 J**	**0.41 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		**0.33 J**	**0.25 J**	< 0.22 U	< 0.38 U	< 0.24 U	**0.26 J**	< 0.28 U	**0.30 J**	**0.27 J**	< 0.32 U	**0.47 J**	< 0.24 U	< 0.34 U	**0.38 J**	**0.37 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***5.0***	***6.2***	***2.3***	**0.53 J**	***1.2***	***4.0***	**0.77 J**	***3.5***	***1.8***	***1.1***	***5.3***	***9.4***	***5.1***	***6.4***	***5.0***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		**0.37 J**	**0.36 J**	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	**0.55 J**	< 0.24 U	< 0.22 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		**0.30 J**	< 0.23 U	< 0.22 U	**0.43 J**	< 0.24 U	< 0.23 U	**0.30 J**	< 0.23 U	< 0.23 U	**0.36 J**	< 0.26 U	< 0.24 U	**0.57 J**	< 0.24 U	< 0.22 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		**0.33 J**	< 0.23 U	< 0.22 U	**0.53 J**	< 0.24 U	< 0.23 U	**0.40 J**	< 0.23 U	< 0.23 U	**0.48 J**	< 0.26 U	< 0.24 U	**0.73 J**	< 0.24 U	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	**0.30 J**	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	**0.41 J**	< 0.24 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	< 0.24 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	< 0.24 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.26 U	< 0.23 U	< 0.22 UJ	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 UJ	< 0.34 U	< 0.24 U	< 0.22 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	12B		
								Soil Type	Silt	Silt	Silt
								Date	10/10/2019	10/10/2019	10/10/2019
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
								Sample Type	N	N	N
			Guidance Values [1]								
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial			
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--			
	General Parameters										
	Carbon, total organic	mg/kg	--		--	--	--	--	**48500**	**18900**	**10500**
	Moisture	%	--		--	--	--	--	**30.8**	**19.5**	**12.7**
	pH	pH units	--		--	--	--	--	**5.42**	**4.97**	**5.15**
	Temperature	deg C	--		--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances										
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**0.59 J**	**0.47 J**	**0.34 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.1 U	< 0.97 U	< 0.90 UJ
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 UJ
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.28 U	**0.53 J**	**0.27 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.28 U	**0.76**	**0.53 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***1.5***	***11***	***9.1 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 UJ
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 UJ
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**0.31 J**	< 0.24 U	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.28 U	< 0.24 U	< 0.22 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	12C				12D			13A			13D			14A	
								Soil Type	Silt Organics	Silt		Silt	Silt	Silt Clay	Silt	Silt	Clay	Clay	Silt	Silt	Silt	Silt	Silt
								Date	11/13/2019	11/13/2019		11/13/2019	11/13/2019	11/13/2019	11/13/2019	11/13/2019	11/13/2019	11/13/2019	10/09/2019	10/09/2019	10/09/2019	10/09/2019	10/09/2019
								Depth	0 - 0.17 ft	0.17 - 1 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.6 ft	0 - 0.17 ft	0.17 - 1 ft
								Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
			Guidance Values [1]																				
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial															
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--															
	General Parameters																						
	Carbon, total organic	mg/kg	--		--	--	--	--	**432000**	**23500**	**23300**	**3000**	**25200**	**9150**	**4250**	**37100**	**13900**	**2270**	**114000**	**23700**	**29400**	**40900**	**9240**
	Moisture	%	--		--	--	--	--	**65.8 J**	**18.5 J**	**18.2 J**	**13.2 J**	**23.3 J**	**18.1 J**	**12.5 J**	**31.9 J**	**24.5 J**	**13.6 J**	**26.1 J**	**14.5 J**	**13.6 J**	**22.5 J**	**17.4 J**
	pH	pH units	--		--	--	--	--	**4.07**	**4.77**	**4.64**	**4.93**	**5.16**	**4.83**	**4.68**	**4.91**	**4.87**	**4.68**	**4.63**	**4.68**	**4.73**	**5.10**	**5.02**
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																						
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	**1.9**	**0.37 J**	**2.1 J**	< 0.22 U	**0.82**	< 0.23 U	< 0.22 U	**1.5**	**0.53 J**	< 0.22 U	**1.6**	**0.29 J**	< 0.23 U	< 0.24 U	**0.24 J**
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	**3.3 J**	**1.2 J**	**1.2 J**	**1.4 J**	**1.8 J**	**1.4 J**	**1.7 J**	**1.3 J**	**1.4 J**	< 0.87 U	< 1.1 U	**1.4 J**	< 0.92 UJ	< 0.96 U	< 0.89 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.57 U	< 0.24 U	< 0.24 U	< 0.22 UJ	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	**0.29 J**	< 0.22 U	< 0.27 U	< 0.22 UJ	< 0.23 UJ	**0.79**	< 0.22 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.57 U	< 0.24 U	< 0.24 U	**0.24 J**	< 0.24 U	**0.33 J**	< 0.22 U	< 0.29 U	**0.32 J**	< 0.22 U	< 0.27 U	**0.49 J**	**0.26 J**	< 0.24 U	< 0.22 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.57 U	< 0.24 U	< 0.24 U	< 0.22 UJ	< 0.24 U	**0.25 J**	**0.26 J**	< 0.29 U	**0.54 J**	< 0.22 U	< 0.27 U	**0.69 J**	**0.36 J**	< 0.24 U	< 0.22 U
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***2.6***	***5.7***	***5.2***	***4.4 J***	**0.73**	***3.4***	***4.1***	**0.63 J**	***11***	***1.5***	***1.1***	***18 J***	***9.4 J***	< 0.24 U	***3.8***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	**0.71 J**	< 0.24 U	< 0.24 U	< 0.22 UJ	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	**0.49 J**	< 0.22 UJ	< 0.23 UJ	< 0.24 U	< 0.22 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	**0.98 J**	< 0.24 U	< 0.24 U	< 0.22 UJ	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	**0.48 J**	< 0.22 UJ	< 0.23 UJ	< 0.24 U	< 0.22 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	**2.3**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U	**0.37 J**	< 0.25 U	< 0.22 U	**0.55 J**	< 0.22 U	< 0.23 U	< 0.24 U	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	**1.3 J**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	**0.29 J**	< 0.22 U	< 0.23 U	< 0.24 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	**1.0 J**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.22 U	< 0.23 U	< 0.24 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	**0.67 J**	< 0.24 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.22 U	< 0.23 U	< 0.24 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.57 U	< 0.24 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U	< 0.29 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.22 U	< 0.23 U	< 0.24 U	< 0.22 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location		
								Soil Type	Silt	
								Date	10/09/2019	
								Depth	1 - 2 ft	1 - 2 ft
								Sample Type	N	FD
			Guidance Values [1]							
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial		
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--		
	General Parameters									
	Carbon, total organic	mg/kg	--		--	--	--	--	**3520**	**3460**
	Moisture	%	--		--	--	--	--	**12.8 J**	**13.5 J**
	pH	pH units	--		--	--	--	--	**5.24**	**5.24**
	Temperature	deg C	--		--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances									
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	< 0.22 U	< 0.22 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.90 UJ	< 0.90 UJ
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.22 UJ	< 0.22 UJ
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.22 UJ	< 0.22 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.22 UJ	< 0.22 UJ
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***3.5 J***	***3.1 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.22 U	< 0.22 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.22 UJ	< 0.22 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.22 U	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.22 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.22 U	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.22 U	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.22 UJ	< 0.22 UJ

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	14C			15A			15C				15D				15G	
									Soil Type	Organics	Clay	Clay	Silt	Silt	Silt	Silt	Silt	Silt		Silt	Silt	Silt Clay		Silt	Silt
									Date	4/23/2020	4/23/2020	4/23/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020		11/26/2019	11/26/2019	11/26/2019		4/23/2020	4/23/2020
									Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft
									Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N
			Guidance Values [1]																							
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial																		
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--																		
	General Parameters																									
	Carbon, total organic	mg/kg	--		--	--	--	--		**148000**	**11800**	**7230**	**120000**	**15000 J**	**6500 J**	**63000**	**7000**	**2700 J**	**3800 J**	**40200**	**12300**	**6590**	**6100**	**50600**	**9810**
	Moisture	%	--		--	--	--	--		**42.6**	**19.0**	**15.7**	**26.7**	**10.8**	**10.2**	**27.3**	**13.6**	**9.3**	**10.7**	**28.6**	**19.8**	**14.7**	**16.5**	**31.7**	**17.9**
	pH	pH units	--		--	--	--	--		**4.22 J**	**5.12 J**	**4.95 J**	**5.8**	**5.1**	**5.2**	**6.5**	**5.1**	**5.5**	**5.8**	**5.06**	**4.98**	**5.41**	**5.47**	**5.34 J**	**4.87 J**
	Temperature	deg C	--		--	--	--	--		--	--	--	**19.8**	**19.7**	**19.9**	**19.6**	**19.8**	**19.8**	**19.8**	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances																									
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**0.84 J**	< 0.23 U	< 0.23 U	**0.73 J**	**0.48 J**	**0.28 J**	**0.79**	**0.37 J**	< 0.21 U	< 0.22 U	**0.42 J**	**0.27 J**	< 0.22 U	< 0.23 U	**0.57 J**	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 1.4 U	< 0.91 U	< 0.92 U	**1.0 J**	**0.95 J**	**0.90 J**	**1.1 J**	< 0.87 U	< 0.84 U	< 0.87 U	< 1.0 U	< 0.95 U	< 0.89 U	< 0.92 U	< 1.1 U	< 0.97 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	**0.25 J**	**0.21 J**	< 0.25 U	**0.39 J**	**0.25 J**	< 0.22 U	< 0.26 U	**0.36 J**	< 0.22 U	< 0.23 U	< 0.27 U	**0.26 J**
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	**0.53 J**	**0.40 J**	**0.40 J**	< 0.26 U	**0.50 J**	**0.71**	**0.87**	< 0.27 U	**0.80**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		< 0.34 U	**0.26 J**	< 0.23 U	< 0.26 U	**0.30 J**	< 0.21 U	< 0.25 U	**0.25 J**	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	**0.64 J**	**0.59 J**	< 0.27 U	**0.67 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***1.3***	***2.9***	***6.4***	***2.3***	***6.2***	***2.6***	***1.3***	***3.8***	***2.0***	***2.0***	***1.8***	***6.4***	***12***	***11***	***1.1***	***5.7***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	**0.27 J**	< 0.22 U	< 0.21 U	< 0.25 U	**0.23 J**	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		**0.40 J**	< 0.23 U	< 0.23 U	**0.51 J**	< 0.22 U	< 0.21 U	**0.42 J**	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		**0.43 J**	< 0.23 U	< 0.23 U	**0.75 J**	< 0.22 U	< 0.21 U	**0.56 J**	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	**0.31 J**	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	**0.37 J**	< 0.22 U	< 0.21 U	**0.28 J**	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	
								Soil Type	**Silt**
								Date	**4/23/2020**
								Depth	**1 - 2 ft**
								Sample Type	**N**
			Guidance Values [1]						
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial	
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--	
	General Parameters								
	Carbon, total organic	mg/kg	--		--	--	--	--	**3440**
	Moisture	%	--		--	--	--	--	**15.5**
	pH	pH units	--		--	--	--	--	**4.76 J**
	Temperature	deg C	--		--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances								
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	< 0.22 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.86 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	**0.33 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	**0.52 J**
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600	***5.8***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.22 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.22 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.22 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

									Location	16A				16D		
									Soil Type	Silt	Silt	Silt Clay		Silt Organics	Silt	Silt Gravel
									Date	11/26/2019	11/26/2019	11/26/2019		10/30/2019	10/30/2019	10/30/2019
									Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
									Sample Type	N	N	N	FD	N	N	N
			Guidance Values [1]													
	Parameter	Units	Unrestricted	Protection of Groundwater[2]	Residential	Restricted Residential	Commercial	Industrial								
	Exceedance Key		Underline	*Italic*	Border	Shade	--	--								
	General Parameters															
	Carbon, total organic	mg/kg	--		--	--	--	--		**83400**	**19200**	**6800 J**	**11800 J**	**98700**	**19600**	**3550**
	Moisture	%	--		--	--	--	--		**37.9**	**24.1**	**17.9**	**18.9**	**38.1**	**18.8**	**18.3**
	pH	pH units	--		--	--	--	--		**5.22**	**5.07**	**5.67**	**5.42**	**4.57**	**4.76**	**4.48**
	Temperature	deg C	--		--	--	--	--		--	--	--	--	--	--	--
PFAS Group	Per- and Polyfluoroalkyl Substances															
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440		**0.71 J**	**0.47 J**	< 0.23 U	**0.40 J**	**1.1**	**0.64 J**	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--		< 1.3 U	< 1.0 U	< 0.90 U	< 0.94 U	**1.5 J**	**1.2 J**	**1.0 J**
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--		< 0.32 U	**0.41 J**	< 0.23 U	< 0.23 U	**0.45 J**	**0.64 J**	**0.26 J**
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--		< 0.32 U	**1.1**	< 0.23 U	**0.35 J**	**0.35 J**	**1.0**	**0.33 J**
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--		< 0.32 U	**0.52 J**	< 0.23 U	**0.25 J**	**0.43 J**	**0.75**	< 0.24 U
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	*1.1*	6.6	33	500	600		***1.7***	***4.7***	***2.5 J***	***3.7 J***	***3.9***	***10***	***4.3 J***
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	**0.51 J**	**0.31 J**	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	**0.68 J**	< 0.24 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	**0.90 J**	< 0.24 U	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	**0.45 J**	< 0.24 U	< 0.24 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	**0.33 J**	< 0.24 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--		< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan
Detections are presented in bold.
N - Sample type: Normal
FD - Sample type: Field Duplicate
mg/kg - milligram per kilogram
ng/g - nanogram per gram
J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.
R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U - The analyte was analyzed for, but was not detected.
UJ - The analyte was analzyed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.
FASAs - perfluoroalkane sulfonamides
FASAAs - perfluoroalkane sulfonamido acetic acids
FTSAs - fluorotelomer sulfonic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids
N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid
[1] Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 4: Summary Statistics
Regional Air Deposition Study
Village of Hoosick Falls, New York

All Soil Samples (0-2 feet)*											
	Parameter	**# of Samples**	**# of Detections**	**Detection Frequecy**	**Max**	**Min**	**Median**	**Arithmetic Mean**	**Geometric Mean**	**75th Percentile**	**25th Percentile**
	Carbon, total organic (mg/kg)	165	165	100%	432,000	1,580	20,000	43,922	4,504	56,000	10,000
	Moisture (% by weight)	165	165	100%	65.8	5.6	19.8	23.4	0.8	29.8	15.5
	pH (pH units)	165	165	100%	7.52	3.90	4.98	5.10	0.05	5.32	4.70
PFAS Group	**PFAS Compound** (ng/g)**										
PFSAs	Perfluorooctanesulfonate (PFOS)	165	115	70%	2.5	--	0.42	0.58	0.04	0.75	--
PFCAs	Perfluorobutanoic acid (PFBA)	165	34	21%	3.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	165	45	27%	0.84	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	165	76	46%	1.6	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	165	98	59%	2.2	--	0.34	0.42	0.02	0.53	--
	Perfluorooctanoic acid (PFOA)	165	161	98%	44	--	4.6	6.3	0.5	9.2	1.9
	Perfluorononanoic acid (PFNA)	165	44	27%	0.74	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	165	39	24%	1.4	--	--	--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	165	43	26%	2.3	--	--	--	--	--	--
	Perfluorododecanoic acid (PFDoA / PFDoDA)	165	23	14%	1.3	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	165	13	8%	1	--	--	--	--	--	--
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	165	6	4%	0.68	--	--	--	--	--	--
FASAAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	163	3	2%	0.66	--	--	--	--	--	--

Surface Soil Samples (0-0.17 feet)*											
	Parameter	**# of Samples**	**# of Detections**	**Detection Frequecy**	**Maximum**	**Minimum**	**Median**	**Arithmetic Mean**	**Geometric Mean**	**75th Percentile**	**25th Percentile**
	Carbon, total organic (mg/kg)	55	55	100%	432,000	25,200	83,500	101,249	9,453	126,000	56,050
	Moisture (% by weight)	55	55	100%	65.8	13.8	33.4	34.9	1.4	41.5	28.0
	pH (pH units)	55	55	100%	7.12	3.90	5.02	5.11	0.10	5.37	4.66
PFAS Group	**PFAS Compound** (ng/g)**										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	54	98%	2.5	--	0.84	1.0	0.1	1.3	0.61
PFCAs	Perfluorobutanoic acid (PFBA)	55	12	22%	3.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	55	11	20%	0.79	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	10	18%	1.1	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	55	11	20%	0.59	--	--	--	--	--	--
	Perfluorooctanoic acid (PFOA)	55	54	98%	12	--	1.6	2.4	0.3	2.7	1.1
	Perfluorononanoic acid (PFNA)	55	27	49%	0.74	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	55	38	69%	1.4	--	0.39	0.46	0.03	0.51	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	55	43	78%	2.3	--	0.51	0.57	0.05	0.69	0.31
	Perfluorododecanoic acid (PFDoA / PFDoDA)	55	23	42%	1.3	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	55	13	24%	1	--	--	--	--	--	--
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	55	6	11%	0.68	--	--	--	--	--	--
FASAAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	55	1	2%	0.66	--	--	--	--	--	--

Table 4: Summary Statistics
Regional Air Deposition Study
Village of Hoosick Falls, New York

Near Surface Soil Samples (0.17-1 feet)*											
	Parameter	**# of Samples**	**# of Detections**	**Detection Frequecy**	**Maximum**	**Minimum**	**Median**	**Arithmetic Mean**	**Geometric Mean**	**75th Percentile**	**25th Percentile**
	Carbon, total organic (mg/kg)	55	55	100%	56,000	7,000	18,900	20,523	1,396	23,700	13,850
	Moisture (% by weight)	55	55	100%	32.4	10.3	19.5	20.2	0.7	23.4	17.3
	pH (pH units)	55	55	100%	7.39	4.24	4.88	5.03	0.07	5.21	4.71
PFAS Group	**PFAS Compound** (ng/g)**										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	47	85%	1.2	--	0.42	0.45	0.03	0.52	0.29
PFCAs	Perfluorobutanoic acid (PFBA)	55	14	25%	2.0	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	55	28	51%	0.84	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	37	67%	1.6	--	0.41	0.49	0.04	0.60	--
	Perfluoroheptanoic acid (PFHpA)	55	49	89%	1.7	--	0.48	0.54	0.04	0.71	0.28
	Perfluorooctanoic acid (PFOA)	55	53	96%	30	--	7.5	8.6	0.7	11.5	5.0
	Perfluorononanoic acid (PFNA)	55	16	29%	0.58	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	55	1	2%	0.43	--	--	--	--	--	--
FASAAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	55	1	2%	0.28	--	--	--	--	--	--

Sub-Surface Soil Samples (1-2 feet)*											
	Parameter	**# of Samples**	**# of Detections**	**Detection Frequecy**	**Maximum**	**Minimum**	**Median**	**Arithmetic Mean**	**Geometric Mean**	**75th Percentile**	**25th Percentile**
	Carbon, total organic (mg/kg)	55	55	100%	38,000	1,580	8,130	9,995	1,108	11,450	4,245
	Moisture (% by weight)	55	55	100%	29.9	5.6	14.8	15.1	0.6	17.2	12.8
	pH (pH units)	55	55	100%	7.52	4.41	5.02	5.16	0.08	5.49	4.72
PFAS Group	**PFAS Compound** (ng/g)**										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	14	25%	0.76	--	--	--	--	--	--
PFCAs	Perfluorobutanoic acid (PFBA)	55	8	15%	1.7	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	55	6	11%	0.42	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	29	53%	0.99	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	55	38	69%	2.2	--	0.34	0.45	0.04	0.57	--
	Perfluorooctanoic acid (PFOA)	55	54	98%	44	--	5.1	8.0	1.1	9.6	3.8
	Perfluorononanoic acid (PFNA)	55	1	2%	0.33	--	--	--	--	--	--
FASAAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	53	1	2%	0.44	--	--	--	--	--	--

Notes:
mg/kg - milligram per kilogram.
ng/g - nanogram per gram.
PFAS (perfluoroalkane sulfonic acids) values are given in parts per billion (ppb) (ng/g).
Maximum: Highest detected concentration.
Mean, median, and 75th percentile calculated if detection frequency was ≥ 50% and at least 5 detections.
Summary statistics with non-detects were calculated using Kaplan-Meier estimation method (See Appendix B for further discussion of statistical methods)
25th percentile calculated if at least 75% of samples were measured above detection limits.
Minimum calculated only if all samples were measured above detection limits.
* Results from locations 01D and 10B were deemed not representative and have been excluded.
**PFAS with zero detections for the given sample interval are excluded.
FASAAs - perfluoroalkane sulfonamide acetic acids
PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids
PFSAs - perfluoroalkane sulfonic acids

Figures

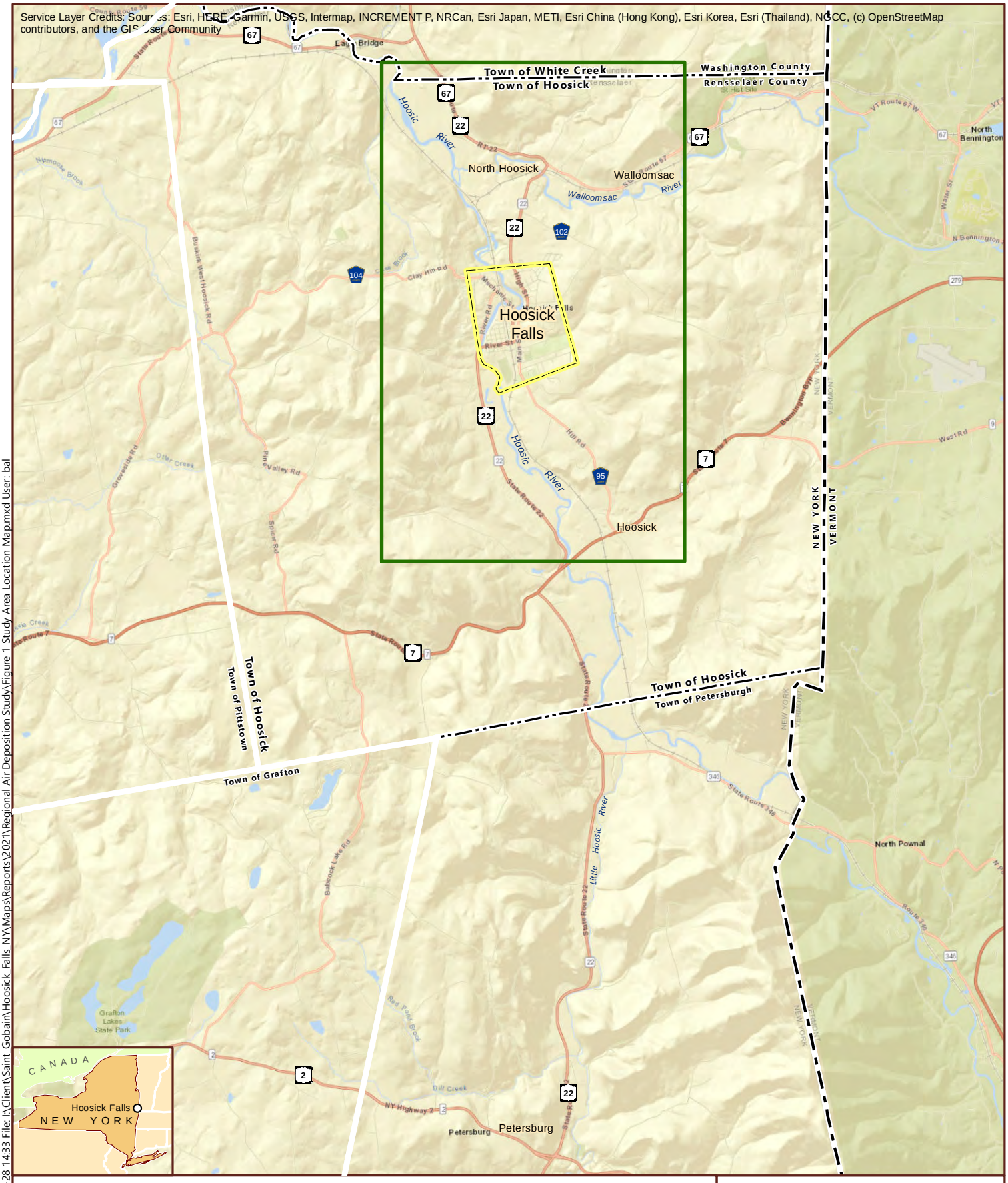
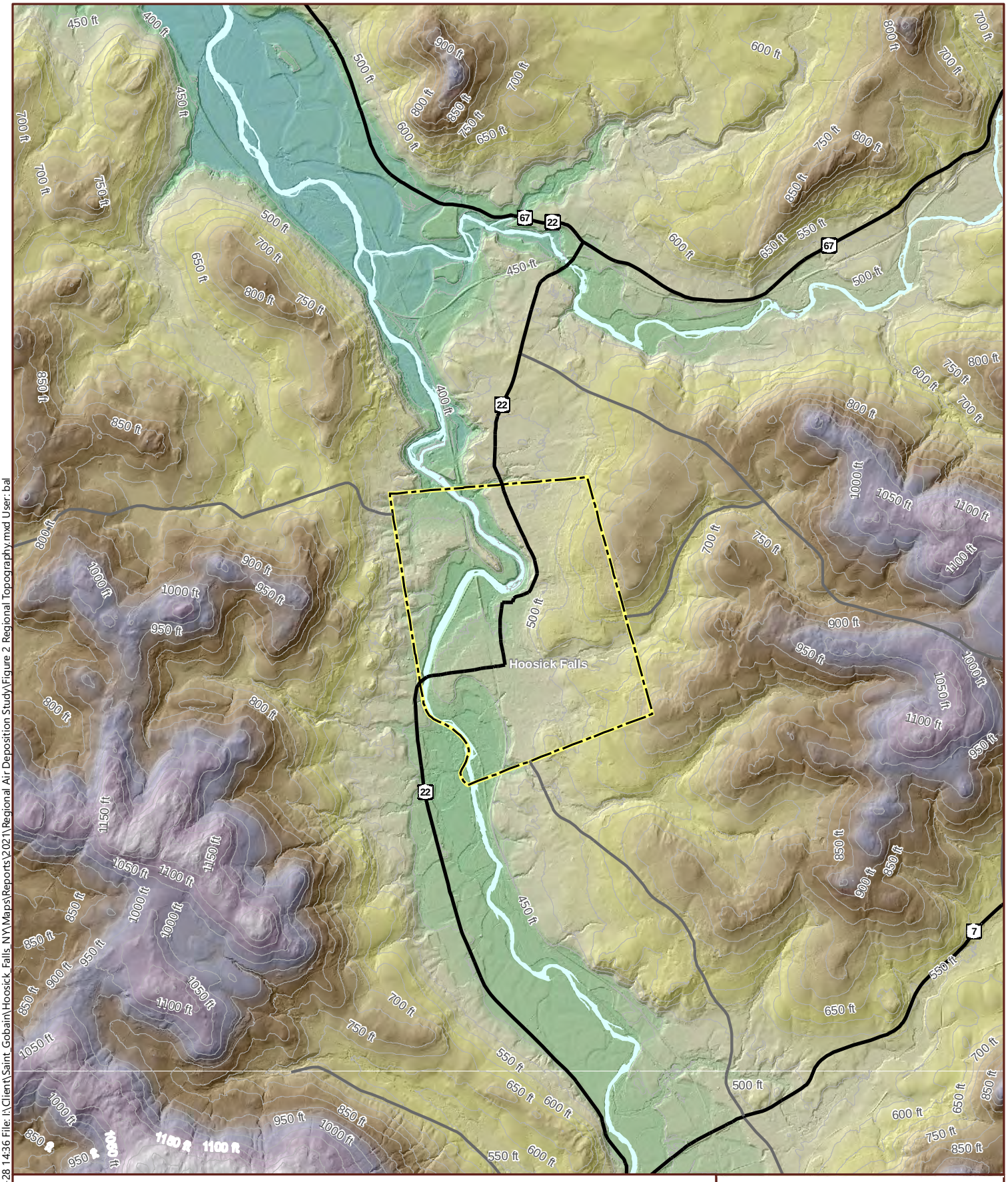


FIGURE 1

STUDY AREA LOCATION MAP

Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 14:33 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 1 Study Area Location Map.mxd User: bal



Hoosick Falls Village Limits

50 ft Elevation Contour

Elevations shown are in feet above mean sea level

Topography: NYSGPO RensselaerHoosickRiver2010 2010 LiDAR Data Collection, State of New York

N

0 2,000 4,000 6,000

Feet

FIGURE 2

REGIONAL TOPOGRAPHY

Regional Air Deposition Study Report

Hoosick Falls, NY

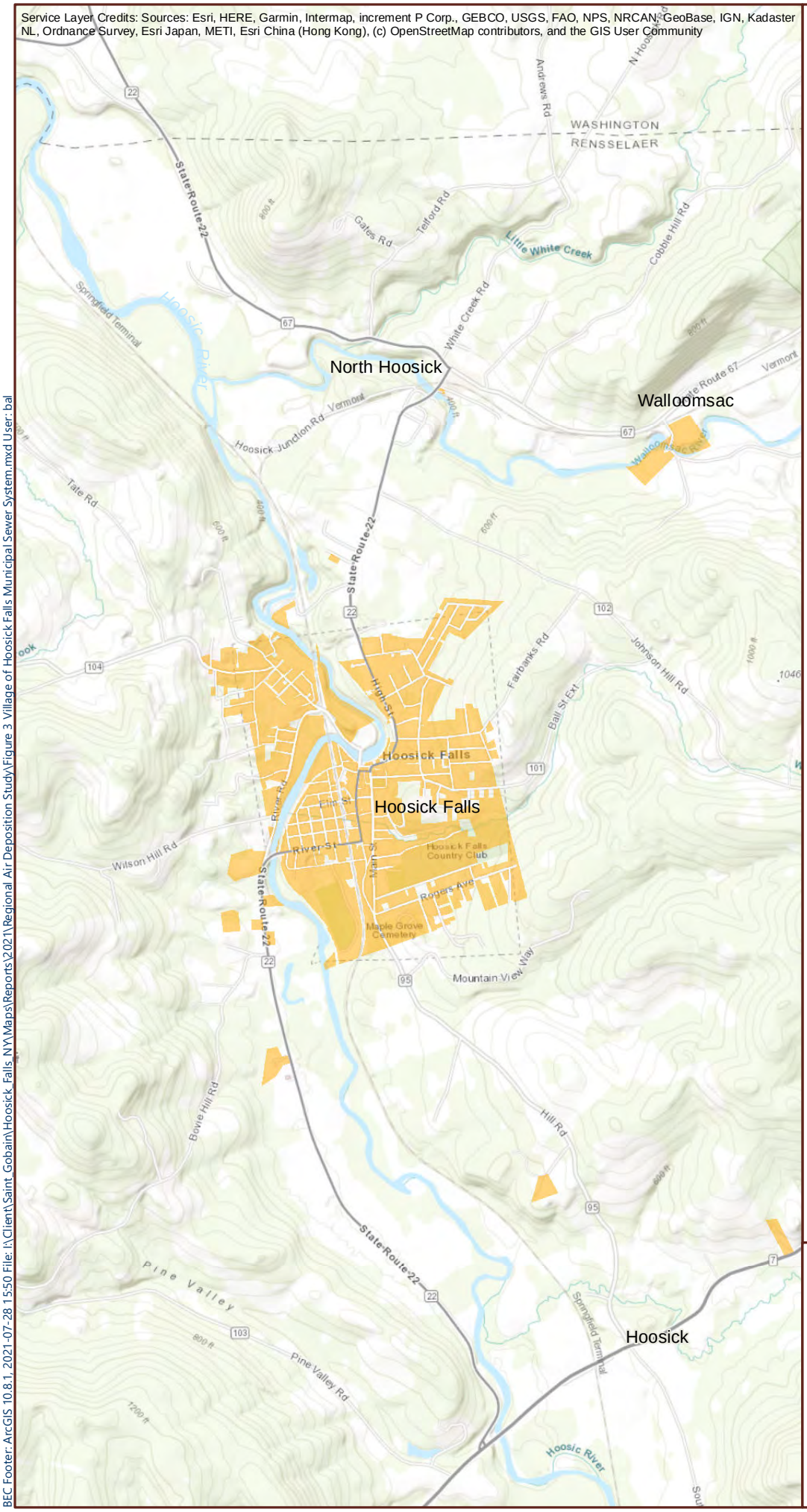


FIGURE 3

VILLAGE OF HOOSICK FALLS MUNICIPAL SEWER SYSTEM

Regional Air Deposition Study Report

Hoosick Falls, NY

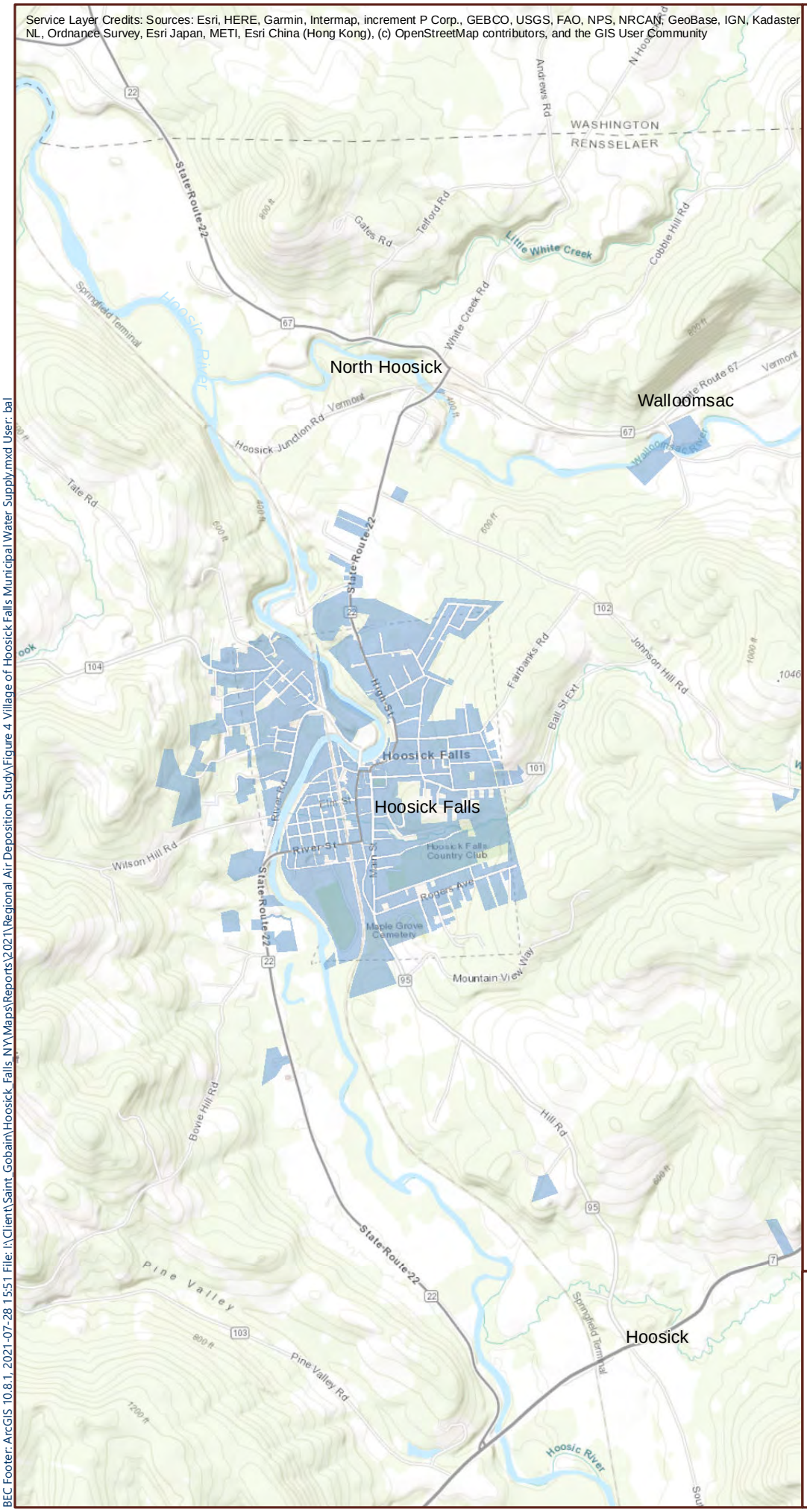
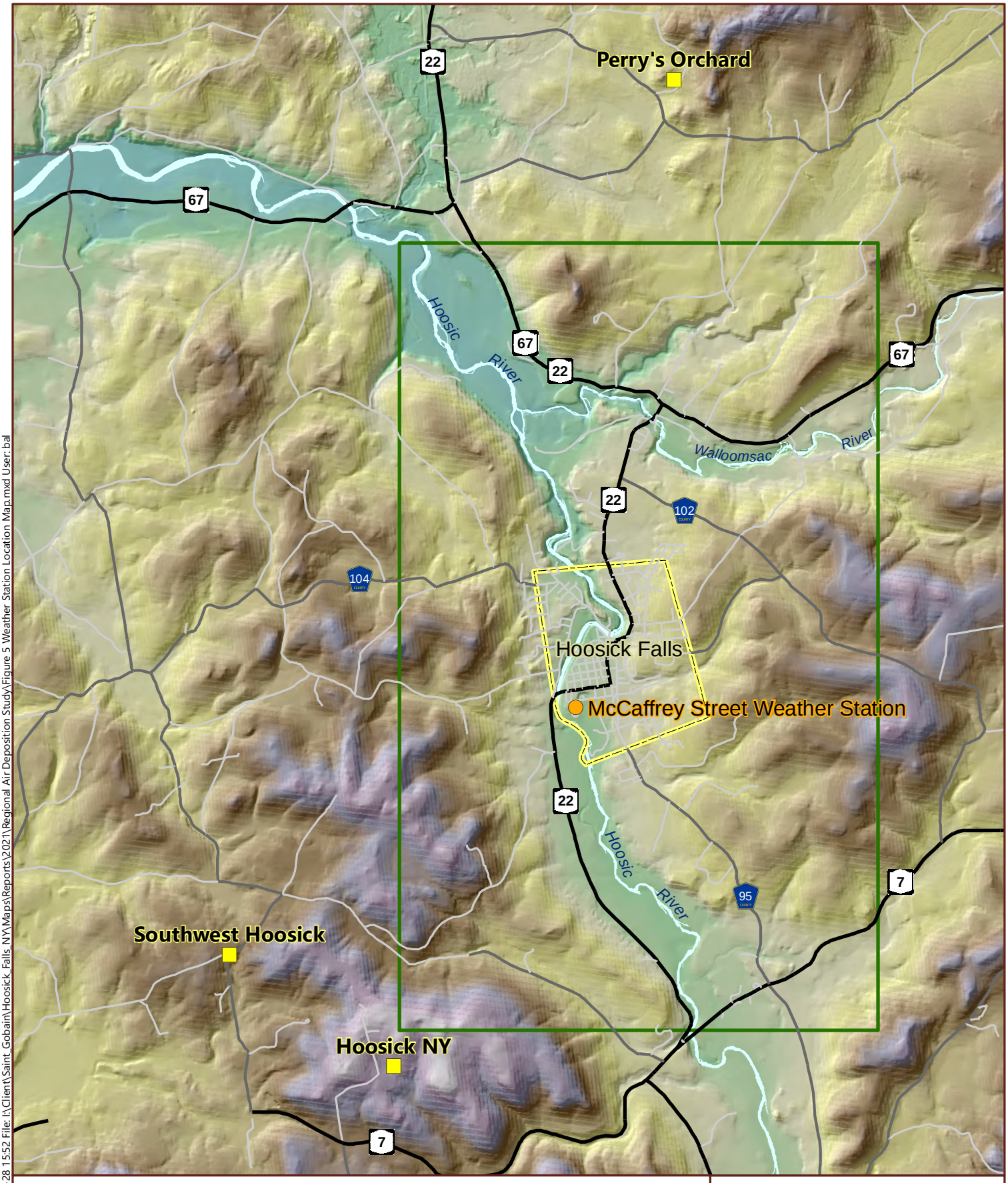


FIGURE 4

VILLAGE OF HOOSICK FALLS MUNICIPAL WATER SUPPLY

Regional Air Deposition Study Report

Hoosick Falls, NY



McCaffrey Street Weather Station

Personal Weather Station (PWS) Location and Name (Source: Weather Underground)

Hoosick Falls Village Limits

Hoosick Falls Region

0 0.5 1 1.5 2

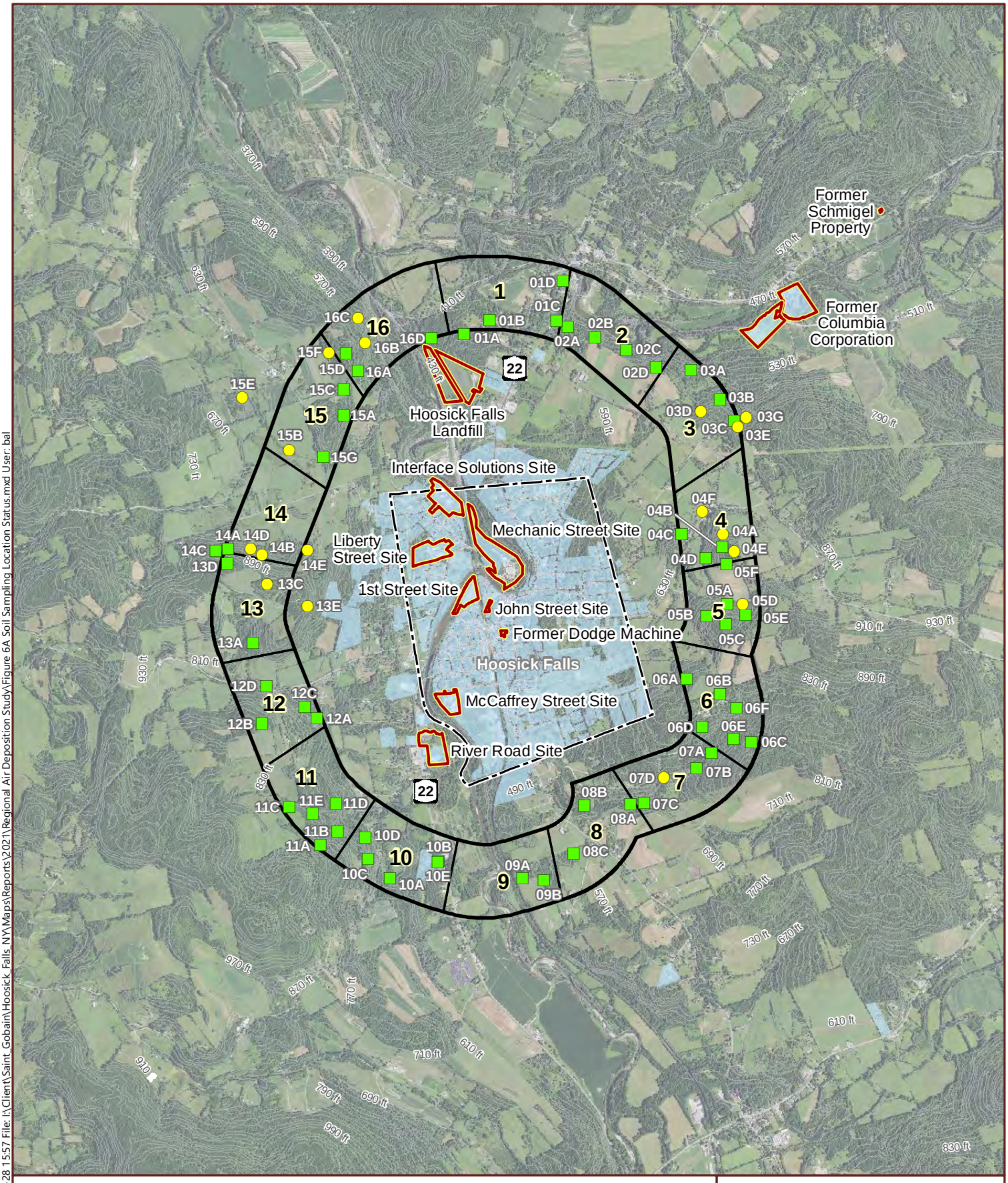
Miles

FIGURE 5

WEATHER STATION LOCATION MAP

Regional Air Deposition Study Report

Hoosick Falls, NY



Location Not Sampled
Sampled Location
Soil Sampling Sector Boundary
Sites of Interest
Hoosick Falls Village Limits
Village Water Supply Area*

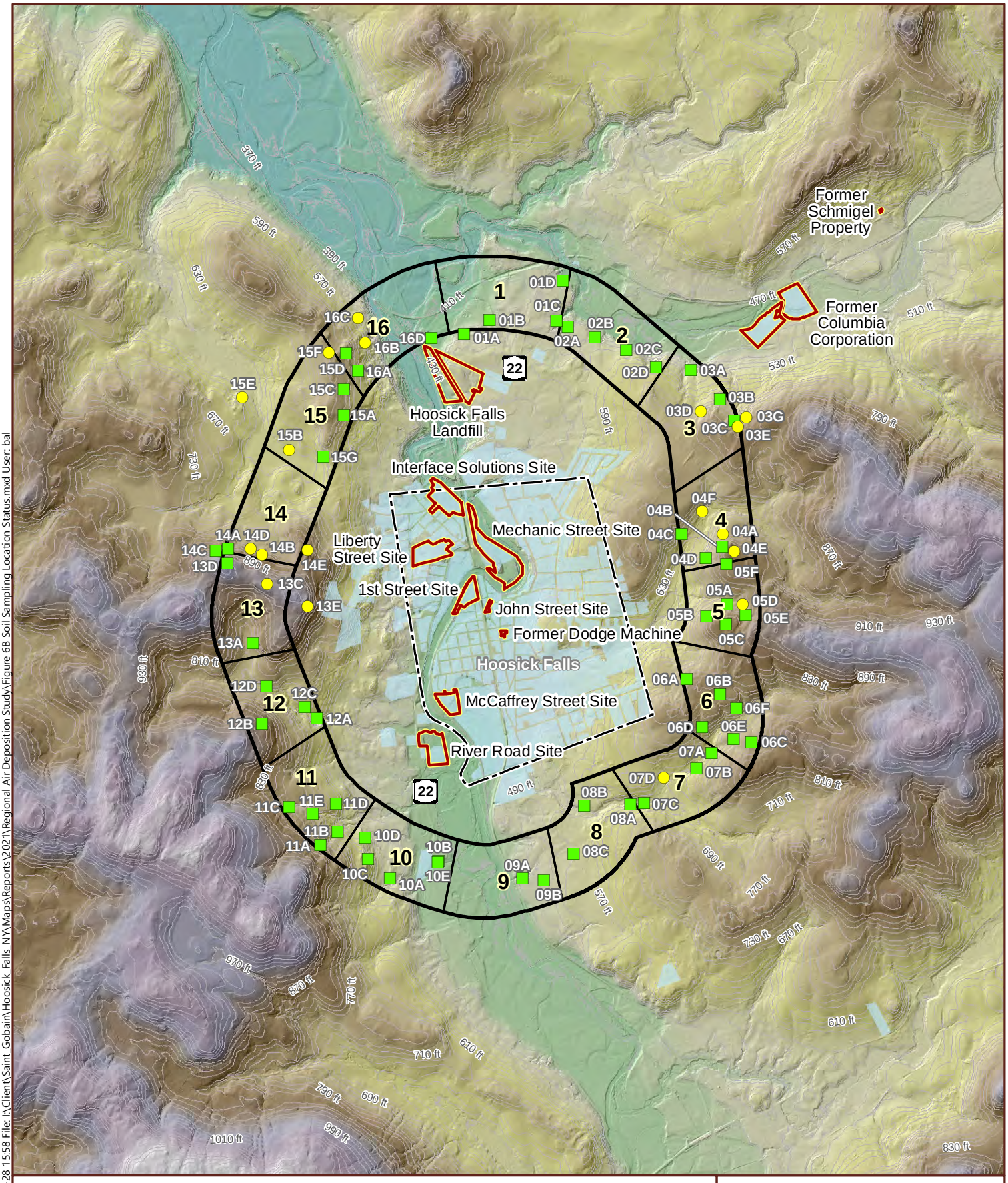
*Based on information contained within parcel data provided by Rensselaer County in July 2019.

0 2,000 4,000 6,000
Feet

FIGURE 6A

SOIL SAMPLING LOCATION STATUS
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 15:57 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 6A Soil Sampling Location Status.mxd User: bal



Location Not Sampled
Sampled Location
Soil Sampling Sector Boundary
Sites of Interest
Hoosick Falls Village Limits
Village Water Supply Area*

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

0 2,000 4,000 6,000
Feet

FIGURE 6B

SOIL SAMPLING LOCATION STATUS
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 15:58 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 6B Soil Sampling Location Status.mxd User: bal

01A
1.2
2.6
2.4 J

01B
1.7
8.8
1.9

01C
1.1
2.5
1.9

01D**
0.26 J
0.55 J
0.56 J

02A
5.1
18
2.3 J

02B
1.9
12
4.6 J

02C
4.6
10
13

02D
4.2
30
38

03A
1.9
13
4.9

03B
1.6
7.3
13 J

03C
2.3
7.1
5.1 J

04A
1.1
12
11 J

04B
0.59 J
7.5
9.6

04C
0.53 J
3.9
4.7

04D
0.49 J
7.5
7.3

05A
3.8
< 0.23 U
8.9

05B
6.2
18
44

05C
0.81
< 0.22 U
< 0.22 U

05E
1.4
11
15

05F
0.31 J
6.7
5.3

06A
9.4
11
14

06B
4.7
11
4.5

06C
1.1
14
17

06D
1.5
7.4
20

06E
1.9
12
10 J

06F**
2.3
10
4.6

07A
1.1
12
11 J

07B
2.6
17
8.9

07C
4.5
14
9.2

08A
2.8
6.1
4.2

08B
1.6
8.3
4.5

08C
3.2
8.6
4.8

09A
1.5
8.2
8.5

09B
12
15
9.6

10A
1.6
7.5
7.3

10B**
0.25 J
5.4
6.3

10C
2.3
12
14

10D
0.95
1.5
2.6

10E
1.3
14
13

11A
1.4
2.3
1.2

11B
5.0
6.2
2.3

11C
0.53 J
1.2
4.0

11D
0.77 J
3.5
1.8

11E
1.1
5.3
9.4

12A
5.1
6.4
5.0

12B
1.5
11
9.1 J

12C
2.6
5.7
4.4 J

12D
0.73
3.4
4.1

13A
0.63 J
11
1.5

13D
1.1
18 J
9.4 J

14A
< 0.24 U
3.8
3.5 J

14C
1.3
2.9
6.4

15A
2.3
6.2
2.6

15C
1.3
3.8
2.0

15D
1.8
6.4
12

15G
1.1
5.7
5.8

16A
1.7
4.7
2.5 J

16D
3.9
10
4.3 J

Hoosick Falls Landfill
Former Columbia Corporation
Interface Solutions Site
Mechanic Street Site
Liberty Street Site
1st Street Site
John Street Site
Former Dodge Machine Company
Hoosick Falls
McCaffrey Street Site
River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFOA = Perfluorooctanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFOA concentrations in ppb

10A
1.6 Surface Soil: 0-0.17 ft
7.5 Near Surface Soil: 0.17-1 ft
7.3 Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 7A

PFOA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:00 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 7A PFOA in Soil.mxd User: bal

01A	01B	01C	01D**
1.2	1.7	1.1	0.26 J
2.6	8.8	2.5	0.55 J
2.4 J	1.9	1.9	0.56 J

02A	02B	02C	02D
5.1	1.9	4.6	4.2
18	12	10	30
2.3 J	4.6 J	13	38

03A	03B	03C
1.9	1.6	2.3
13	7.3	7.1
4.9	13 J	5.1 J

04A	04B	04C	04D
< 0.24 U	0.59 J	0.53 J	0.49 J
3.8	7.5	3.9	7.5
3.5 J	9.6	4.7	7.3

05A	05B	05C	05E	05F
3.8	6.2	0.81	1.4	0.31 J
< 0.23 U	18	< 0.22 U	11	6.7
8.9	44	< 0.22 U	15	5.3

06A	06B	06C	06D	06E	06F**
9.4	4.7	1.1	1.5	1.9	2.3
11	11	14	7.4	12	10
14	4.5	17	20	10 J	4.6

07A	07B	07C
1.1	2.6	4.5
12	17	14
11 J	8.9	9.2

08A	08B	08C
2.8	1.6	3.2
6.1	8.3	8.6
4.2	4.5	4.8

09A	09B
1.5	12
8.2	15
8.5	9.6

10A	10B**	10C	10D	10E
1.6	0.25 J	2.3	0.95	1.3
7.5	5.4	12	1.5	14
7.3	6.3	14	2.6	13

11A	11B	11C	11D	11E
1.4	5.0	0.53 J	0.77 J	1.1
2.3	6.2	1.2	3.5	5.3
1.2	2.3	4.0	1.8	9.4

12A	12B	12C	12D
5.1	1.5	2.6	0.73
6.4	11	5.7	3.4
5.0	9.1 J	4.4 J	4.1

13A	13D
0.63 J	1.1
11	18 J
1.5	9.4 J

14A	14C
< 0.24 U	1.3
3.8	2.9
3.5 J	6.4

15A	15C	15D	15G
2.3	1.3	1.8	1.1
6.2	3.8	6.4	5.7
2.6	2.0	12	5.8

16A	16D
1.7	3.9
4.7	10
2.5 J	4.3 J

Hoosick Falls Landfill
Former Columbia Corporation
Interface Solutions Site
Mechanic Street Site
Liberty Street Site
1st Street Site
John Street Site
Former Dodge Machine Company
Hoosick Falls
McCaffrey Street Site
River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFOA = Perfluorooctanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits
Village Water Supply Area*

Values in labels depict PFOA concentrations in ppb

10A
1.6
7.5
7.3

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 7B

PFOA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:00 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 7B PFOA in Soil.mxd User: bal

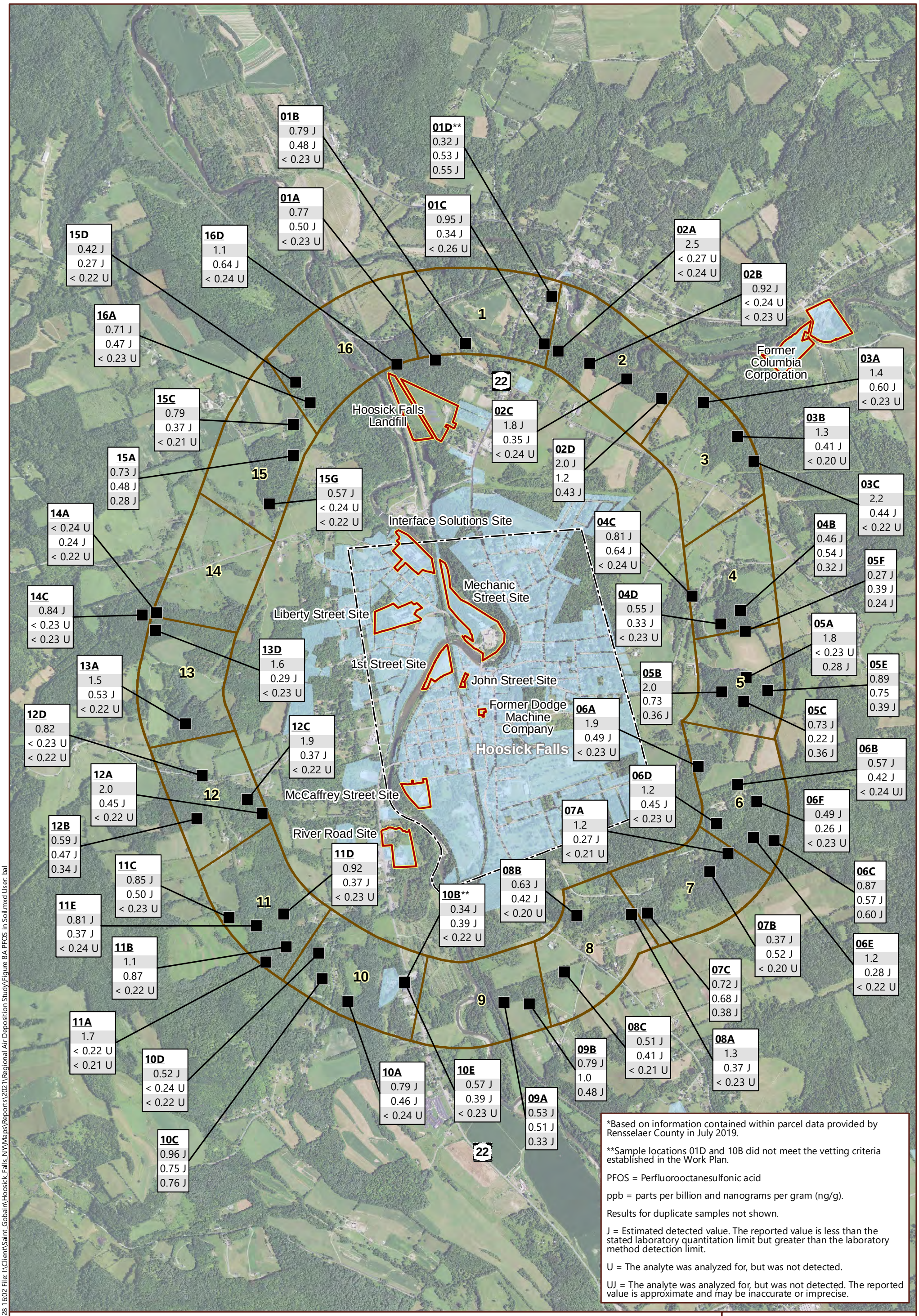


FIGURE 8A

PFOS IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

01B	01D**	01A	01C	02A	02B
0.79 J	0.32 J	0.77	0.95 J	2.5	0.92 J
0.48 J	0.53 J	0.50 J	0.34 J	< 0.27 U	< 0.24 U
< 0.23 U	0.55 J	< 0.23 U	< 0.26 U	< 0.24 U	< 0.23 U

15D	16D	16A	15C	15A	15G
0.42 J	1.1	0.71 J	0.79	0.73 J	0.57 J
0.27 J	0.64 J	0.47 J	0.37 J	0.48 J	< 0.24 U
< 0.22 U	< 0.24 U	< 0.23 U	< 0.21 U	0.28 J	< 0.22 U

02C	02D	03A	03B	03C
1.8 J	2.0 J	1.4	1.3	2.2
0.35 J	1.2	0.60 J	0.41 J	0.44 J
< 0.24 U	0.43 J	< 0.23 U	< 0.20 U	< 0.22 U

14A	14C	13D	13A	12D	12C
< 0.24 U	0.84 J	1.6	1.5	0.82	1.9
0.24 J	< 0.23 U	0.29 J	0.53 J	< 0.23 U	0.37 J
< 0.22 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U

12A	12B	11C	11D	11E	11B
2.0	0.59 J	0.85 J	0.92	0.81 J	1.1
0.45 J	0.47 J	0.50 J	0.37 J	0.37 J	0.87
< 0.22 U	0.34 J	< 0.23 U	< 0.23 U	< 0.24 U	< 0.22 U

11A	10D	10C	10A	10B**	10E
1.7	0.52 J	0.96 J	0.79 J	0.34 J	0.57 J
< 0.22 U	< 0.24 U	0.75 J	0.46 J	0.39 J	0.39 J
< 0.21 U	< 0.22 U	0.76 J	< 0.24 U	< 0.22 U	< 0.23 U

09A	09B	08B	08C	08A
0.53 J	0.79 J	0.63 J	0.51 J	1.3
0.51 J	1.0	0.42 J	0.41 J	0.37 J
0.33 J	0.48 J	< 0.20 U	< 0.21 U	< 0.23 U

07A	07B	07C	06A	06B	06C
1.2	0.37 J	0.72 J	1.9	0.57 J	0.87
0.27 J	0.52 J	0.68 J	0.49 J	0.42 J	0.57 J
< 0.21 U	< 0.20 U	0.38 J	< 0.23 U	< 0.24 UJ	0.60 J

06D	06E	06F	05A	05B	05C
1.2	1.2	0.49 J	1.8	2.0	0.73 J
0.45 J	0.28 J	0.26 J	< 0.23 U	0.73	0.22 J
< 0.23 U	< 0.22 U	< 0.23 U	0.28 J	0.36 J	0.36 J

05E	05F	04A	04B	04C	04D
0.89	0.27 J	0.46 J	0.46 J	0.81 J	0.55 J
0.75	0.39 J	0.54 J	0.54 J	0.64 J	0.33 J
0.39 J	0.24 J	0.32 J	0.32 J	< 0.24 U	< 0.23 U

Hoosick Falls Landfill

Former Columbia Corporation

Interface Solutions Site

Mechanic Street Site

Liberty Street Site

1st Street Site

John Street Site

Former Dodge Machine Company

Hoosick Falls

McCaffrey Street Site

River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFOS = Perfluorooctanesulfonic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location

Sites of Interest

Soil Sampling Sector Boundary

Hoosick Falls Village Limits

Village Water Supply Area*

Values in labels depict PFOS concentrations in ppb

10A
0.79 J
0.46 J
< 0.24 U

Surface Soil: 0-0.17 ft

Near Surface Soil: 0.17-1 ft

Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000

Feet

FIGURE 8B

PFOS IN SOIL

Regional Air Deposition Study Report

Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:02 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 8B PFOS in Soil.mxd User: bal

01A
< 1.0 U
< 0.89 U
< 0.92 UJ

01B
1.3 J
< 0.97 U
< 0.92 U

01C
< 1.4 U
< 1.0 U
< 1.1 U

01D**
< 1.0 U
< 0.89 U
< 0.93 U

02A
< 1.7 U
< 1.1 U
< 0.97 U

02B
< 1.5 U
< 0.95 U
< 0.93 U

02C
< 1.4 U
< 0.95 U
< 0.94 U

02D
< 1.4 U
1.1 J
< 0.88 UJ

03A
< 1.7 U
< 1.1 U
< 0.92 U

03B
1.2 J
0.92 J
1.6 J

03C
1.1 J
2.0 J
< 0.87 UJ

04A
< 1.1 U
< 0.92 U
< 0.86 UJ

04B
< 1.3 U
< 0.88 U
< 0.87 U

04C
< 1.2 U
< 1.0 U
< 0.95 U

04D
< 1.1 U
< 0.92 U
< 0.91 U

05A
< 1.2 U
< 0.92 U
< 0.85 U

05B
< 1.0 U
< 0.96 U
< 0.96 U

05C
< 1.1 U
< 0.88 U
< 0.89 U

05E
< 1.2 U
< 0.92 U
< 0.91 U

05F
1.2 J
< 0.90 U
1.0 J

06A
< 1.6 U
< 1.0 U
< 0.92 U

06B
< 1.2 U
< 1.1 U
< 0.97 U

06C
< 1.1 U
< 1.1 U
< 1.0 U

06D
< 1.1 U
< 0.96 U
< 0.92 U

06E
< 1.2 U
< 0.97 U
< 0.90 UJ

06F
< 1.2 U
< 0.97 U
< 0.94 U

07A
< 1.1 U
< 0.92 U
< 0.86 UJ

07B
< 1.1 U
< 1.0 U
< 0.81 U

07C
< 1.4 U
< 0.95 U
< 0.88 U

08A
< 1.3 U
1.2 J
< 0.91 U

08B
< 0.96 U
< 0.85 U
< 0.81 U

08C
< 1.1 U
< 0.93 U
< 0.84 U

09A
< 0.94 U
< 0.99 U
< 0.91 U

09B
< 1.1 U
< 1.1 U
< 0.89 U

10A
< 1.3 U
< 1.0 U
< 1.0 U

10B**
< 0.84 U
< 0.88 U
< 0.88 U

10C
< 1.3 U
1.2 J
< 1.1 U

10D
< 0.98 U
< 0.97 U
< 0.89 U

10E
< 1.1 U
< 0.93 U
< 0.93 U

11A
< 1.2 U
< 0.89 U
< 0.86 U

11B
< 1.0 U
< 0.94 U
< 0.86 U

11C
< 1.5 U
< 0.98 U
< 0.92 U

11D
< 1.1 U
1.2 J
< 0.92 U

11E
2.3 J
1.3 J
1.7 J

12A
1.8 J
1.5 J
1.3 J

12B
< 1.1 U
< 0.97 U
< 0.90 U

12C
3.3 J
1.2 J
1.4 J

12D
1.8 J
1.4 J
1.7 J

13A
1.3 J
1.4 J
< 0.87 U

13D
< 1.1 U
1.4 J
< 0.92 UJ

14A
< 0.96 U
< 0.89 U
< 0.90 UJ

14C
< 1.4 U
< 0.91 U
< 0.92 U

15A
1.0 J
0.95 J
0.90 J

15C
1.1 J
< 0.87 U
< 0.84 U

15D
< 1.0 U
< 0.95 U
< 0.89 U

15G
< 1.1 U
< 0.97 U
< 0.86 U

16A
< 1.3 U
< 1.0 U
< 0.90 U

16D
1.5 J
1.2 J
1.0 J

Hoosick Falls Landfill

Former Columbia Corporation

Interface Solutions Site

Mechanic Street Site

Liberty Street Site

1st Street Site

John Street Site

Former Dodge Machine Company

Hoosick Falls

McCaffrey Street Site

River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFBA = Perfluorobutanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFBA concentrations in ppb

10A
< 1.3 U
< 1.0 U
< 1.0 U

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

0 1,000 2,000 3,000
Feet

FIGURE 9A

PFBA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1. 2021-07-28 16:05 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 9A PFBA in Soil.mxd User: bal

01A
< 1.0 U
< 0.89 U
< 0.92 UJ

01B
1.3 J
< 0.97 U
< 0.92 U

01C
< 1.4 U
< 1.0 U
< 1.1 U

01D**
< 1.0 U
< 0.89 U
< 0.93 U

02A
< 1.7 U
< 1.1 U
< 0.97 U

02B
< 1.5 U
< 0.95 U
< 0.93 U

02C
< 1.4 U
< 0.95 U
< 0.94 U

02D
< 1.4 U
1.1 J
< 0.88 UJ

03A
< 1.7 U
< 1.1 U
< 0.92 U

03B
1.2 J
0.92 J
1.6 J

03C
1.1 J
2.0 J
< 0.87 UJ

04A
< 1.2 U
< 1.0 U
< 0.95 U

04B
< 1.3 U
< 0.88 U
< 0.87 U

04C
< 1.2 U
< 1.0 U
< 0.95 U

04D
< 1.1 U
< 0.92 U
< 0.91 U

05A
< 1.2 U
< 0.92 U
< 0.85 U

05B
< 1.0 U
< 0.96 U
< 0.96 U

05C
< 1.1 U
< 0.88 U
< 0.89 U

05E
< 1.2 U
< 0.92 U
< 0.91 U

05F
1.2 J
< 0.90 U
1.0 J

06A
< 1.6 U
< 1.0 U
< 0.92 U

06B
< 1.2 U
< 1.1 U
< 0.97 U

06C
< 1.1 U
< 1.1 U
< 1.0 U

06D
< 1.1 U
< 0.96 U
< 0.92 U

06E
< 1.2 U
< 0.97 U
< 0.90 UJ

06F
< 1.2 U
< 0.97 U
< 0.94 U

07A
< 1.1 U
< 0.92 U
< 0.86 UJ

07B
< 1.1 U
< 1.0 U
< 0.81 U

07C
< 1.4 U
< 0.95 U
< 0.88 U

08A
< 1.3 U
1.2 J
< 0.91 U

08B
< 0.96 U
< 0.85 U
< 0.81 U

08C
< 1.1 U
< 0.93 U
< 0.84 U

09A
< 0.94 U
< 0.99 U
< 0.91 U

09B
< 1.1 U
< 1.1 U
< 0.89 U

10A
< 1.3 U
< 1.0 U
< 1.0 U

10B**
< 0.84 U
< 0.88 U
< 0.88 U

10C
< 1.3 U
1.2 J
< 1.1 U

10D
< 0.98 U
< 0.97 U
< 0.89 U

10E
< 1.1 U
< 0.93 U
< 0.93 U

11A
< 1.2 U
< 0.89 U
< 0.86 U

11B
< 1.0 U
< 0.94 U
< 0.86 U

11C
< 1.5 U
< 0.98 U
< 0.92 U

11D
< 1.1 U
1.2 J
< 0.92 U

11E
2.3 J
1.3 J
1.7 J

12A
1.8 J
1.5 J
1.3 J

12B
< 1.1 U
< 0.97 U
< 0.90 U

12C
3.3 J
1.2 J
1.4 J

12D
1.8 J
1.4 J
1.7 J

13A
1.3 J
1.4 J
< 0.87 U

13D
< 1.1 U
1.4 J
< 0.92 UJ

14A
< 0.96 U
< 0.89 U
< 0.90 UJ

14C
< 1.4 U
< 0.91 U
< 0.92 U

15A
1.0 J
0.95 J
0.90 J

15C
1.1 J
< 0.87 U
< 0.84 U

15D
< 1.0 U
< 0.95 U
< 0.89 U

15G
< 1.1 U
< 0.97 U
< 0.86 U

16A
< 1.3 U
< 1.0 U
< 0.90 U

16D
1.5 J
1.2 J
1.0 J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 22

Hoosick Falls Landfill
Former Columbia Corporation
Interface Solutions Site
Mechanic Street Site
Liberty Street Site
1st Street Site
John Street Site
Former Dodge Machine Company
Hoosick Falls
McCaffrey Street Site
River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFBA = Perfluorobutanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits
Village Water Supply Area*

Values in labels depict PFBA concentrations in ppb

10A
< 1.3 U
< 1.0 U
< 1.0 U

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 9B

PFBA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

01A
< 0.25 U
< 0.22 U
< 0.23 U

01B
< 0.31 U
0.72 J
< 0.23 U

01D**
< 0.25 U
< 0.22 U
< 0.23 U

01C
< 0.35 U
< 0.25 UJ
< 0.26 U

02A
0.45 J
0.56 J
< 0.24 U

02C
< 0.36 U
0.37 J
0.37 J

03A
< 0.42 U
1.0
< 0.23 U

03B
< 0.27 U
< 0.22 U
0.31 J

03C
< 0.23 U
0.42 J
< 0.22 UJ

04A
< 0.30 U
0.27 J
0.57 J

04B
1.1 J
0.41 J
0.77

04C
< 0.30 U
0.27 J
0.57 J

04D
< 0.28 U
0.23 J
< 0.23 U

05A
0.36 J
0.84
0.31 J

05B
0.39 J
1.2
0.69 J

05C
0.28 J
< 0.22 U
< 0.22 U

05E
0.29 J
0.41 J
0.34 J

05F
< 0.23 U
< 0.22 U
0.21 J

06A
< 0.39 U
< 0.26 U
0.65 J

06B
0.56 J
0.64 J
< 0.24 U

06C
< 0.29 U
1.2
0.28 J

06D
< 0.27 U
< 0.24 U
< 0.23 U

06E
< 0.30 U
0.52 J
0.32 J

06F
< 0.29 U
0.29 J
< 0.23 U

07A
0.29 J
0.42 J
< 0.21 U

07B
< 0.28 U
0.53 J
0.27 J

07C
< 0.35 U
0.58 J
0.42 J

08A
< 0.33 U
< 0.25 U
0.25 J

08B
< 0.24 U
0.62 J
0.24 J

08C
< 0.28 U
< 0.23 U
< 0.21 U

09A
< 0.24 U
0.80
0.69

09B
0.33 J
0.34 J
0.22 J

10A
< 0.32 U
0.71 J
< 0.24 U

10B**
< 0.21 U
< 0.22 U
< 0.22 U

10C
< 0.34 U
0.69 J
0.99

10D
< 0.24 U
< 0.24 U
< 0.22 U

10E
< 0.27 U
0.52 J
0.23 J

11A
< 0.29 U
0.25 J
< 0.21 U

11B
< 0.26 U
< 0.23 U
< 0.22 U

11C
< 0.38 U
< 0.24 U
0.23 J

11D
< 0.28 U
< 0.23 U
< 0.23 U

11E
< 0.32 U
0.52 J
< 0.24 U

12A
< 0.34 U
0.46 J
0.41 J

12B
< 0.28 U
0.53 J
0.27 J

12C
< 0.57 U
< 0.24 U
0.24 J

12D
< 0.24 U
0.33 J
< 0.22 U

13A
< 0.29 U
0.32 J
< 0.22 U

13D
< 0.27 U
0.49 J
0.26 J

14A
< 0.24 U
< 0.22 U
< 0.22 UJ

14C
< 0.34 U
< 0.23 U
< 0.23 U

15A
< 0.26 U
< 0.22 U
< 0.21 U

15C
< 0.25 U
0.53 J
0.40 J

15D
< 0.26 U
0.50 J
0.71

15G
< 0.27 U
0.80
0.33 J

16A
< 0.32 U
1.1
< 0.23 U

16D
0.35 J
1.0
0.33 J

02B
< 0.37 U
< 0.24 U
< 0.23 U

02D
< 0.34 U
1.6
0.41 J

Hoosick Falls Landfill

Former Columbia Corporation

Interface Solutions Site

Mechanic Street Site

Liberty Street Site

1st Street Site

John Street Site

Former Dodge Machine Company

Hoosick Falls

McCaffrey Street Site

River Road Site

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 22

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFHxA = Perfluorohexanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFHxA concentrations in ppb

10A
< 0.32 U
0.71 J
< 0.24 U

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 10A

PFHxA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:07 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 10A PFHxA in Soil.mxd User: bal

01A
< 0.25 U
< 0.22 U
< 0.23 U

01B
< 0.31 U
0.72 J
< 0.23 U

01D**
< 0.25 U
< 0.22 U
< 0.23 U

01C
< 0.35 U
< 0.25 UJ
< 0.26 U

02A
0.45 J
0.56 J
< 0.24 U

02C
< 0.36 U
0.37 J
0.37 J

03A
< 0.42 U
1.0
< 0.23 U

03B
< 0.27 U
< 0.22 U
0.31 J

03C
< 0.23 U
0.42 J
< 0.22 UJ

04A
1.1
0.41 J
0.77

04B
< 0.30 U
0.27 J
0.57 J

04C
< 0.28 U
0.23 J
< 0.23 U

04D
< 0.23 U
< 0.22 U
0.21 J

05F
0.36 J
0.84
0.31 J

05A
0.29 J
0.41 J
0.34 J

05E
0.28 J
< 0.22 U
< 0.22 U

05B
0.39 J
1.2
0.69 J

05C
< 0.39 U
< 0.26 U
0.65 J

06A
< 0.29 U
0.29 J
< 0.23 U

06F
< 0.30 U
0.52 J
0.32 J

06E
< 0.29 U
1.2
0.28 J

06B
0.56 J
0.64 J
< 0.24 U

06D
< 0.27 U
< 0.24 U
< 0.23 U

06C
< 0.29 U
1.2
0.28 J

07A
0.29 J
0.42 J
< 0.21 U

07B
< 0.28 U
0.53 J
0.27 J

07C
< 0.35 U
0.58 J
0.42 J

08A
< 0.33 U
< 0.25 U
0.25 J

08B
< 0.24 U
0.62 J
0.24 J

08C
< 0.28 U
< 0.23 U
< 0.21 U

09A
< 0.24 U
0.80
0.69

09B
0.33 J
0.34 J
0.22 J

10A
< 0.32 U
0.71 J
< 0.24 U

10B**
< 0.21 U
< 0.22 U
< 0.22 U

10C
< 0.34 U
0.69 J
0.99

10D
< 0.24 U
< 0.24 U
< 0.22 U

10E
< 0.27 U
0.52 J
0.23 J

11A
< 0.29 U
0.25 J
< 0.21 U

11B
< 0.26 U
< 0.23 U
< 0.22 U

11C
< 0.38 U
< 0.24 U
0.23 J

11D
< 0.28 U
< 0.23 U
< 0.23 U

11E
< 0.32 U
0.52 J
< 0.24 U

12A
< 0.34 U
0.46 J
0.41 J

12B
< 0.28 U
0.53 J
0.27 J

12C
< 0.57 U
< 0.24 U
0.24 J

12D
< 0.24 U
0.33 J
< 0.22 U

13A
< 0.29 U
0.32 J
< 0.22 U

13D
< 0.27 U
0.49 J
0.26 J

14A
< 0.24 U
< 0.22 U
< 0.22 UJ

14C
< 0.34 U
< 0.23 U
< 0.23 U

15A
< 0.26 U
< 0.22 U
< 0.21 U

15C
< 0.25 U
0.53 J
0.40 J

15D
< 0.26 U
0.50 J
0.71

15G
< 0.27 U
0.80
0.33 J

16A
< 0.32 U
1.1
< 0.23 U

16D
0.35 J
1.0
0.33 J

02B
< 0.37 U
< 0.24 U
< 0.23 U

02D
< 0.34 U
1.6
0.41 J

Former Columbia Corporation

Hoosick Falls Landfill

Interface Solutions Site

Mechanic Street Site

Liberty Street Site

1st Street Site

John Street Site

Former Dodge Machine Company

Hoosick Falls

McCaffrey Street Site

River Road Site

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 22

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFHxA = Perfluorohexanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits
Village Water Supply Area*

Values in labels depict PFHxA concentrations in ppb

10A
< 0.32 U
0.71 J
< 0.24 U

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 10B

PFHxA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:08 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\Regional Air Deposition Study\Figure 10B PFHxA in Soil.mxd User: bal

01A
< 0.25 U
0.23 J
0.27 J

01B
0.34 J
0.61 J
< 0.23 U

01C
< 0.35 U
0.25 J
< 0.26 U

01D**
< 0.25 U
< 0.22 U
< 0.23 U

02A
0.55 J
0.87
< 0.24 U

02B
< 0.37 U
0.48 J
< 0.23 U

02C
< 0.36 U
0.32 J
0.46 J

02D
< 0.34 U
1.7
0.72

03A
< 0.42 U
1.2
0.29 J

03B
< 0.27 U
0.48 J
1.1 J

03C
0.23 J
0.59 J
0.58 J

04A
< 0.33 U
0.32 J
0.32 J

04B
< 0.33 U
0.50 J
0.57 J

04C
< 0.30 U
0.41 J
0.72

04D
< 0.28 U
0.50 J
0.27 J

05A
0.41 J
0.77
0.59 J

05B
0.40 J
1.0
2.2

05C
< 0.26 U
< 0.22 U
0.24 J

05E
< 0.29 U
0.56 J
0.78

05F
< 0.23 U
0.35 J
0.37 J

06A
0.48 J
0.26 J
0.94

06B
0.59 J
0.88
0.31 J

06C
< 0.29 U
1.5
0.92

06D
< 0.27 U
0.36 J
0.37 J

06E
< 0.30 U
0.76
0.48 J

6F
< 0.29 U
0.89
0.39 J

07A
0.33 J
0.72
0.25 J

07B
< 0.28 U
0.67 J
0.49 J

07C
< 0.35 U
0.82
0.59 J

08A
< 0.33 U
0.32 J
0.32 J

08B
< 0.24 U
0.69
0.34 J

08C
< 0.28 U
0.36 J
< 0.21 U

09A
< 0.24 U
0.67 J
0.71

09B
0.40 J
0.47 J
0.35 J

10A
< 0.32 U
0.86
0.42 J

10B**
< 0.21 U
< 0.22 U
< 0.22 U

10C
< 0.34 U
0.53 J
0.78 J

10D
< 0.24 U
< 0.24 U
< 0.22 U

10E
< 0.27 U
0.38 J
0.57 J

11A
< 0.29 U
0.23 J
< 0.21 U

11B
0.33 J
0.25 J
< 0.22 U

11C
< 0.38 U
< 0.24 U
0.26 J

11D
< 0.28 U
0.30 J
0.27 J

11E
< 0.32 U
0.47 J
< 0.24 U

12A
< 0.34 U
0.38 J
0.37 J

12B
< 0.28 U
0.76
0.53 J

12C
< 0.57 U
< 0.24 U
< 0.22 UJ

12D
< 0.24 U
0.25 J
0.26 J

13A
< 0.29 U
0.54 J
< 0.22 U

13D
< 0.27 U
0.69 J
0.36 J

14A
< 0.24 U
< 0.22 U
< 0.22 UJ

14C
< 0.34 U
0.26 J
< 0.23 U

15A
< 0.26 U
0.30 J
< 0.21 U

15C
< 0.25 U
0.25 J
< 0.21 U

15D
< 0.26 U
< 0.24 U
0.64 J

15G
< 0.27 U
0.67 J
0.52 J

16A
< 0.32 U
0.52 J
< 0.23 U

16D
0.43 J
0.75
< 0.24 U

Hoosick Falls Landfill
Former Columbia Corporation
Interface Solutions Site
Mechanic Street Site
Liberty Street Site
1st Street Site
John Street Site
Former Dodge Machine Company
Hoosick Falls
McCaffrey Street Site
River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFHpA = Perfluoroheptanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFHpA concentrations in ppb

10A
< 0.32 U
0.86
0.42 J

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 11A

PFHpA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:26 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\McCaffrey RI Report\Figure 11A PFHpA in Soil.mxd User: bal

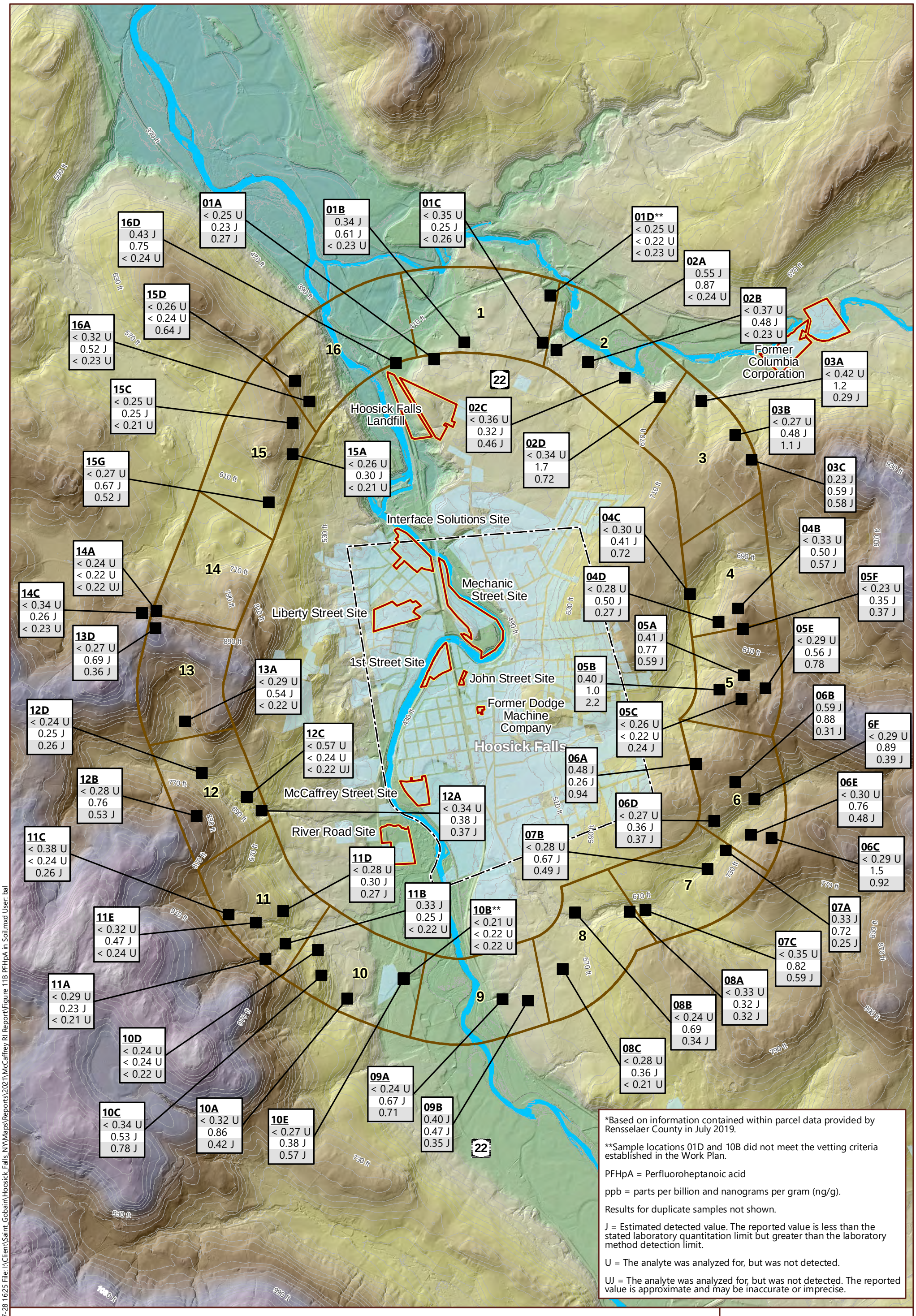
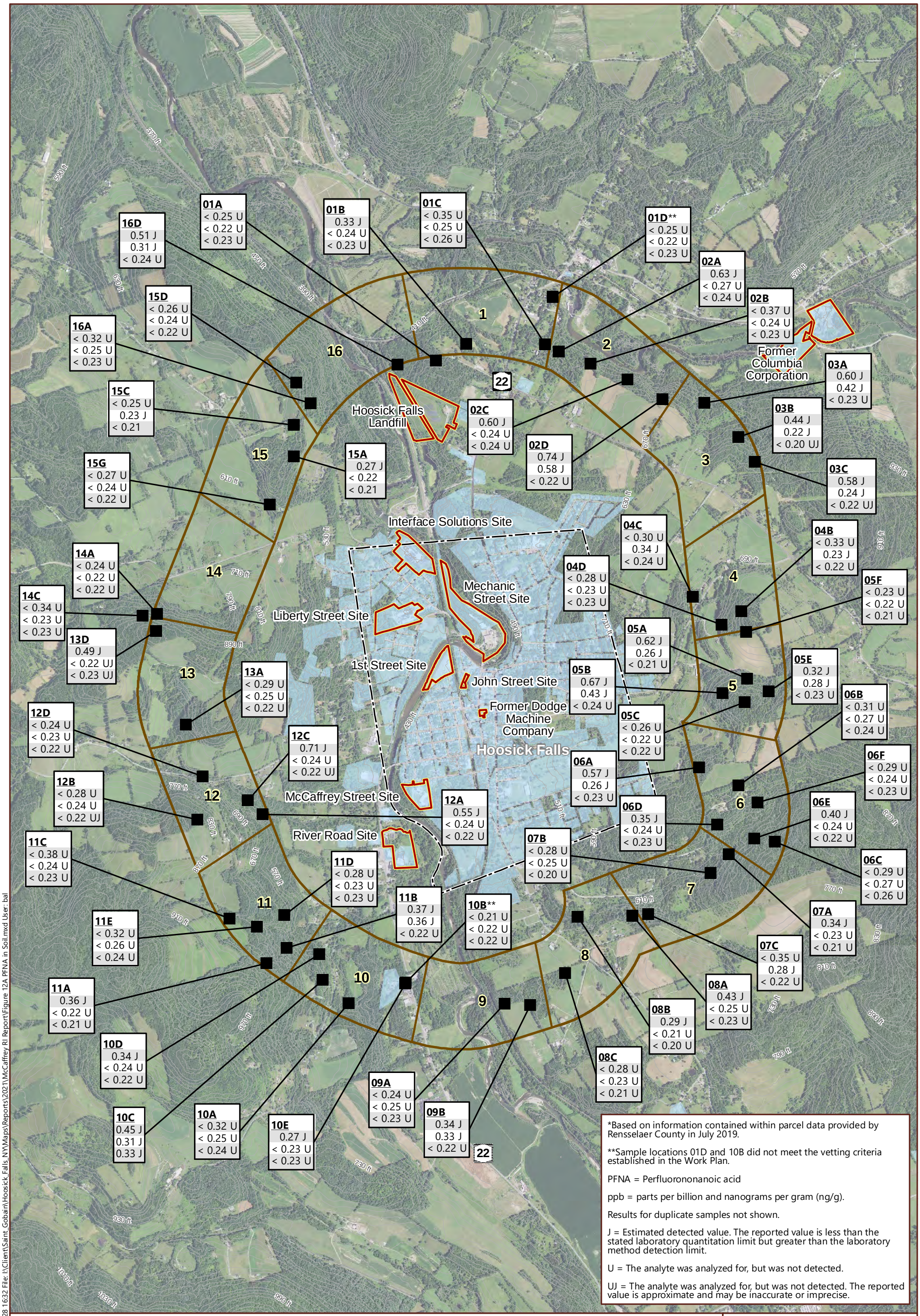


FIGURE 11B

PFHpA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1. 2021-07-28 16:25 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\McCaffrey RI Report\Figure 11B PFHpA in Soil.mxd User: bal



*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFNA = Perfluorononanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location

Sites of Interest

Soil Sampling Sector Boundary

Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFNA concentrations in pbb

10A
< 0.32 U
< 0.25 U
< 0.24 U

Surface Soil: 0-0.17 ft

Near Surface Soil: 0.17-1 ft

Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000

Feet

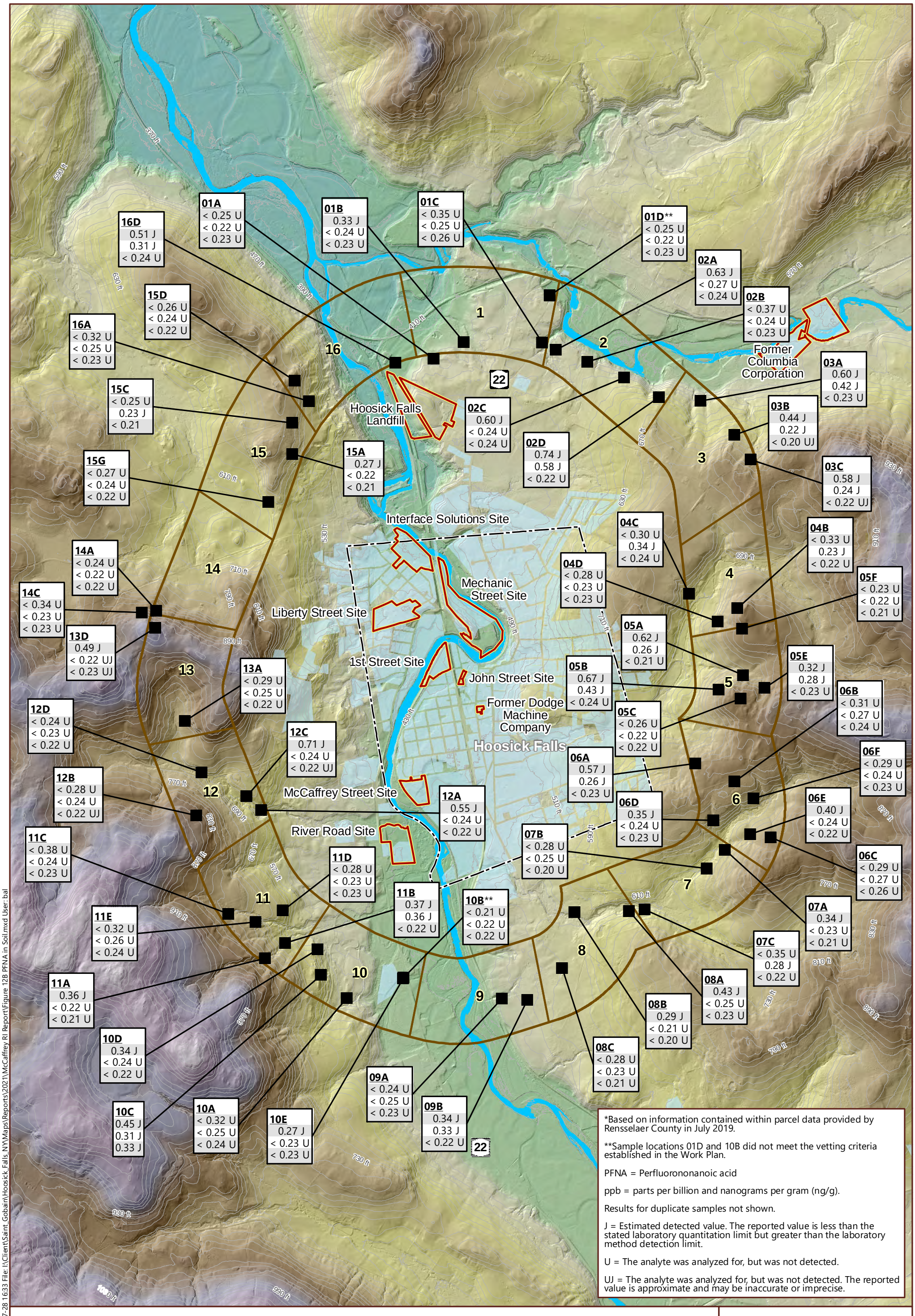
FIGURE 12A

PFNA IN SOIL

Regional Air Deposition Study Report

Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:32 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\McCaffrey RI Report\Figure 12A PFNA in Soil.mxd User: bal



*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFNA = Perfluorononanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

- Soil Sample Location
- Sites of Interest
- Soil Sampling Sector Boundary
- Hoosick Falls Village Limits
- Village Water Supply Area*

Values in labels depict PFNA concentrations in pbb

10A
< 0.32 U
< 0.25 U
< 0.24 U

- Surface Soil: 0-0.17 ft
- Near Surface Soil: 0.17-1 ft
- Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000

Feet

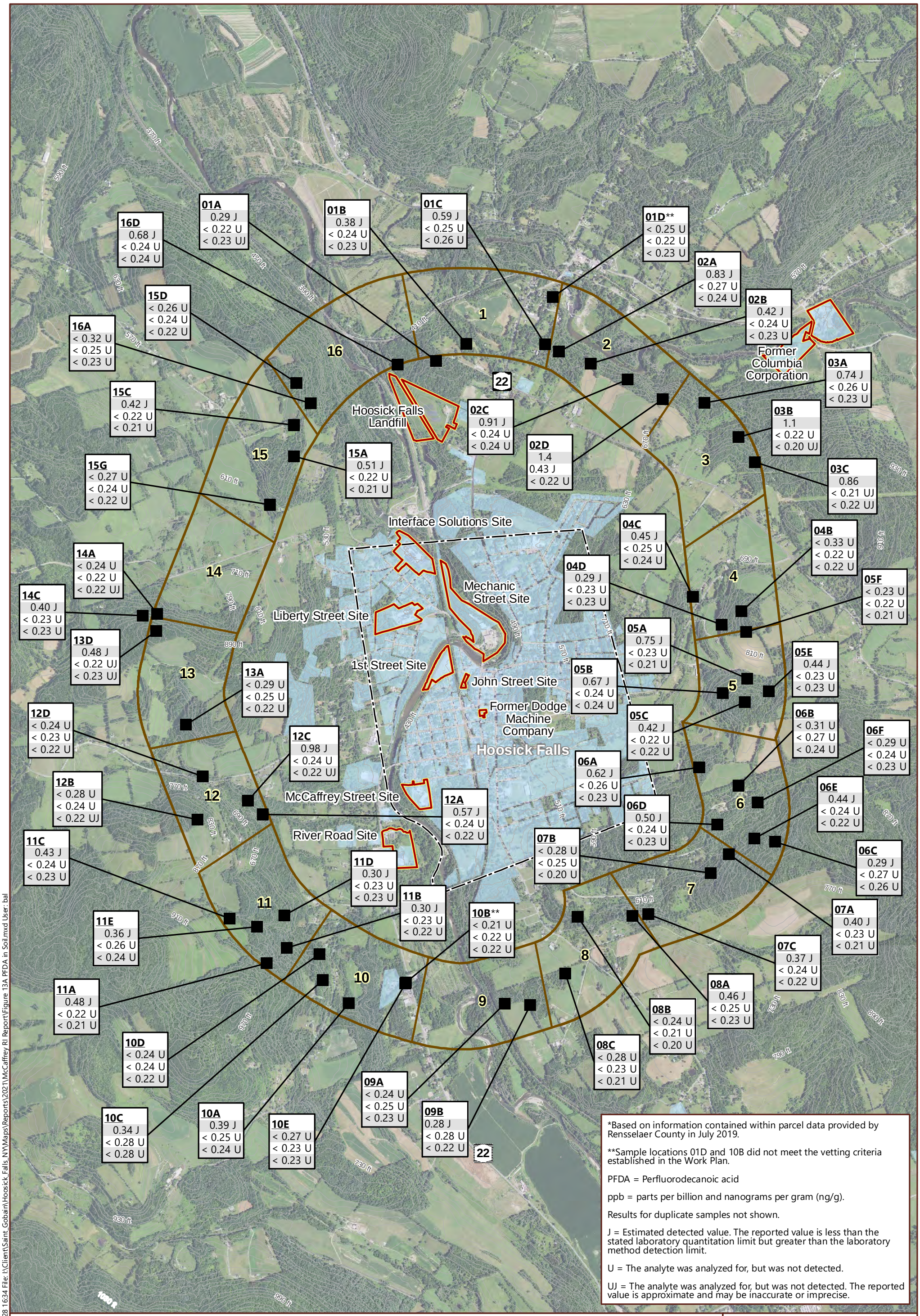
FIGURE 12B

PFNA IN SOIL

Regional Air Deposition Study Report

Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:33 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\McCaffrey RI Report\Figure 12B PFNA in Soil.mxd User: bal



*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFDA = Perfluorodecanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location

Sites of Interest

Soil Sampling Sector Boundary

Hoosick Falls Village Limits

Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFDA concentrations in ppb

10A
0.39 J
< 0.25 U
< 0.24 U

Surface Soil: 0-0.17 ft

Near Surface Soil: 0.17-1 ft

Sub-Surface Soil: 1-2ft

0 1,000 2,000 3,000

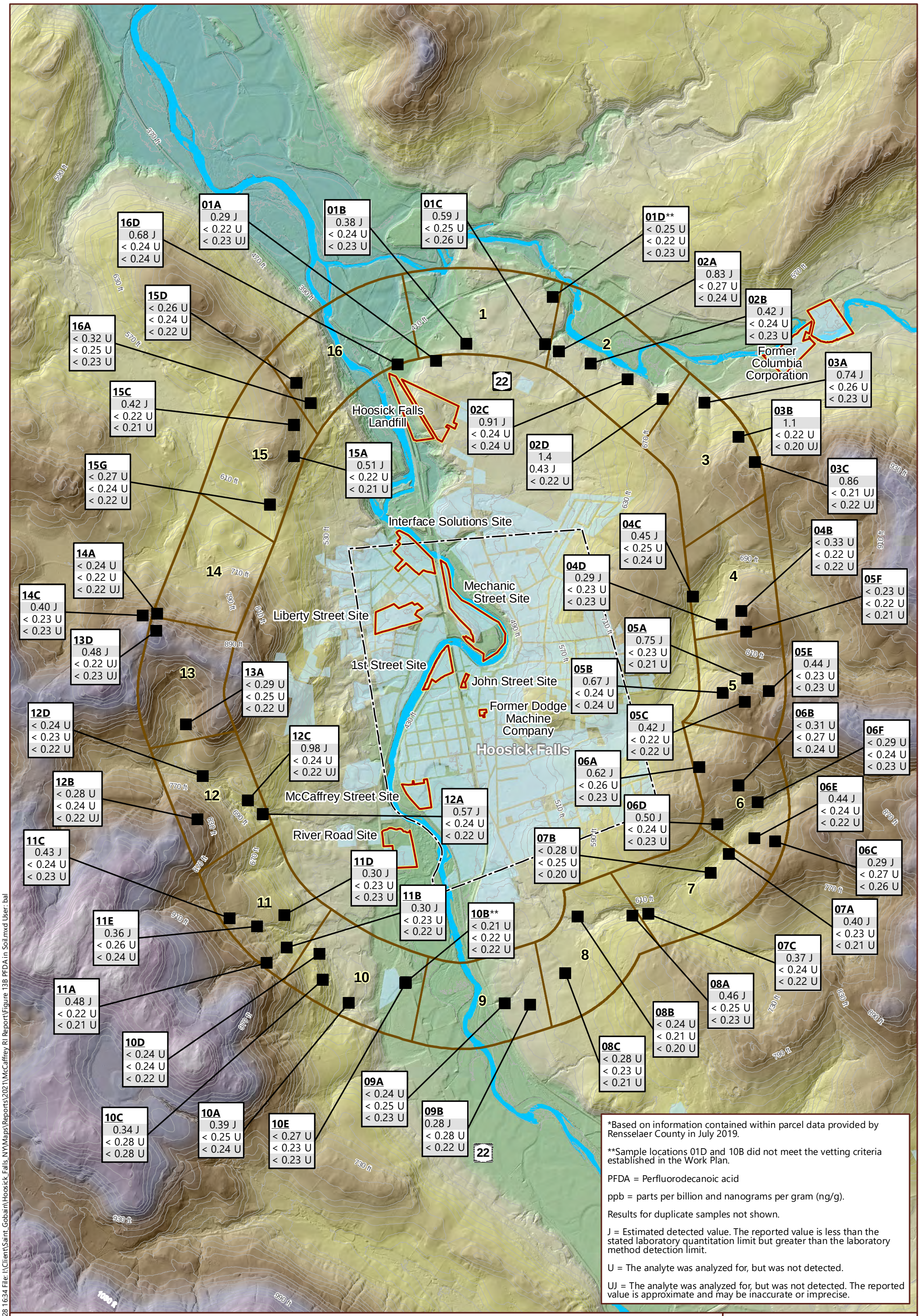
Feet

FIGURE 13A

PFDA IN SOIL

Regional Air Deposition Study Report

Hoosick Falls, NY



*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFDA = Perfluorodecanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location

Sites of Interest

Soil Sampling Sector Boundary

Hoosick Falls Village Limits

Village Water Supply Area*

Values in labels depict PFDA concentrations in ppb

10A
0.39 J
< 0.25 U
< 0.24 U

Surface Soil: 0-0.17 ft

Near Surface Soil: 0.17-1 ft

Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000

Feet

FIGURE 13B

PFDA IN SOIL

Regional Air Deposition Study Report

Hoosick Falls, NY

01A
0.35 J
< 0.22 U
< 0.23 U

01B
0.42 J
< 0.24 U
< 0.23 U

01C
0.49 J
< 0.25 U
< 0.26 U

01D**
< 0.25 U
< 0.22 U
< 0.23 U

02A
0.89 J
< 0.27 U
< 0.24 U

02B
0.51 J
< 0.24 U
< 0.23 U

02C
0.61 J
< 0.24 U
< 0.24 U

02D
1.4
< 0.25 U
< 0.22 U

03A
1.0 J
< 0.26 U
< 0.23 U

03B
1.2
< 0.22 U
< 0.20 UJ

03C
0.96
< 0.21 U
< 0.22 UJ

04A
0.58 J
< 0.23 U
< 0.21 U

04B
0.51 J
< 0.22 U
< 0.22 U

04C
0.71 J
< 0.25 U
< 0.24 U

04D
0.36 J
< 0.23 U
< 0.23 U

05A
1.1
< 0.23 U
< 0.21 U

05B
0.83
< 0.24 U
< 0.24 U

05C
0.63 J
< 0.22 U
< 0.22 U

05E
0.62 J
< 0.23 U
< 0.23 U

05F
< 0.23 U
< 0.22 U
< 0.21 U

06A
0.98 J
< 0.26 U
< 0.23 U

06B
< 0.31 U
< 0.27 U
< 0.24 U

06C
0.37 J
< 0.27 U
< 0.26 U

06D
0.72 J
< 0.24 U
< 0.23 U

06E
0.66 J
< 0.24 U
< 0.22 U

06F
< 0.29 U
< 0.24 U
< 0.23 U

07A
0.58 J
< 0.23 U
< 0.21 U

07B
< 0.28 U
< 0.25 U
< 0.20 U

07C
0.62 J
< 0.24 U
< 0.22 U

08A
0.53 J
< 0.25 U
< 0.23 U

08B
0.30 J
< 0.21 U
< 0.20 U

08C
< 0.28 U
< 0.23 U
< 0.21 U

09A
< 0.24 U
< 0.25 U
< 0.23 U

09B
0.29 J
< 0.28 U
< 0.22 U

10A
0.54 J
< 0.25 U
< 0.24 U

10B**
< 0.21 U
< 0.22 U
< 0.22 U

10C
< 0.34 U
< 0.28 U
< 0.28 U

10D
< 0.24 U
< 0.24 U
< 0.22 U

10E
0.31 J
< 0.23 U
< 0.23 U

11A
0.57 J
< 0.22 U
< 0.21 U

11B
0.33 J
< 0.23 U
< 0.22 U

11C
0.53 J
< 0.24 U
< 0.23 U

11D
0.40 J
< 0.23 U
< 0.23 U

11E
0.48 J
< 0.26 U
< 0.24 U

12A
0.73 J
< 0.24 U
< 0.22 U

12B
0.31 J
< 0.24 U
< 0.22 U

12C
2.3
< 0.24 U
< 0.22 U

12D
< 0.24 U
< 0.23 U
< 0.22 U

13A
0.37 J
< 0.25 U
< 0.22 U

13D
0.55 J
< 0.22 U
< 0.23 U

14A
< 0.24 U
< 0.22 U
< 0.22 U

14C
0.43 J
< 0.23 U
< 0.23 U

15A
0.75 J
< 0.22 U
< 0.21 U

15C
0.56 J
< 0.22 U
< 0.21 U

15D
< 0.26 U
< 0.24 U
< 0.22 U

15G
0.31 J
< 0.24 U
< 0.22 U

16A
< 0.32 U
< 0.25 U
< 0.23 U

16D
0.90 J
< 0.24 U
< 0.24 U

Hoosick Falls Landfill
Former Columbia Corporation
Interface Solutions Site
Mechanic Street Site
Liberty Street Site
1st Street Site
John Street Site
Former Dodge Machine Company
Hoosick Falls
McCaffrey Street Site
River Road Site

*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFUnA = Perfluoroundecanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits
Village Water Supply Area*

Aerial Imagery: FSA 2019

Values in labels depict PFUnA concentrations in ppb

10A
0.54 J
< 0.25 U
< 0.24 U

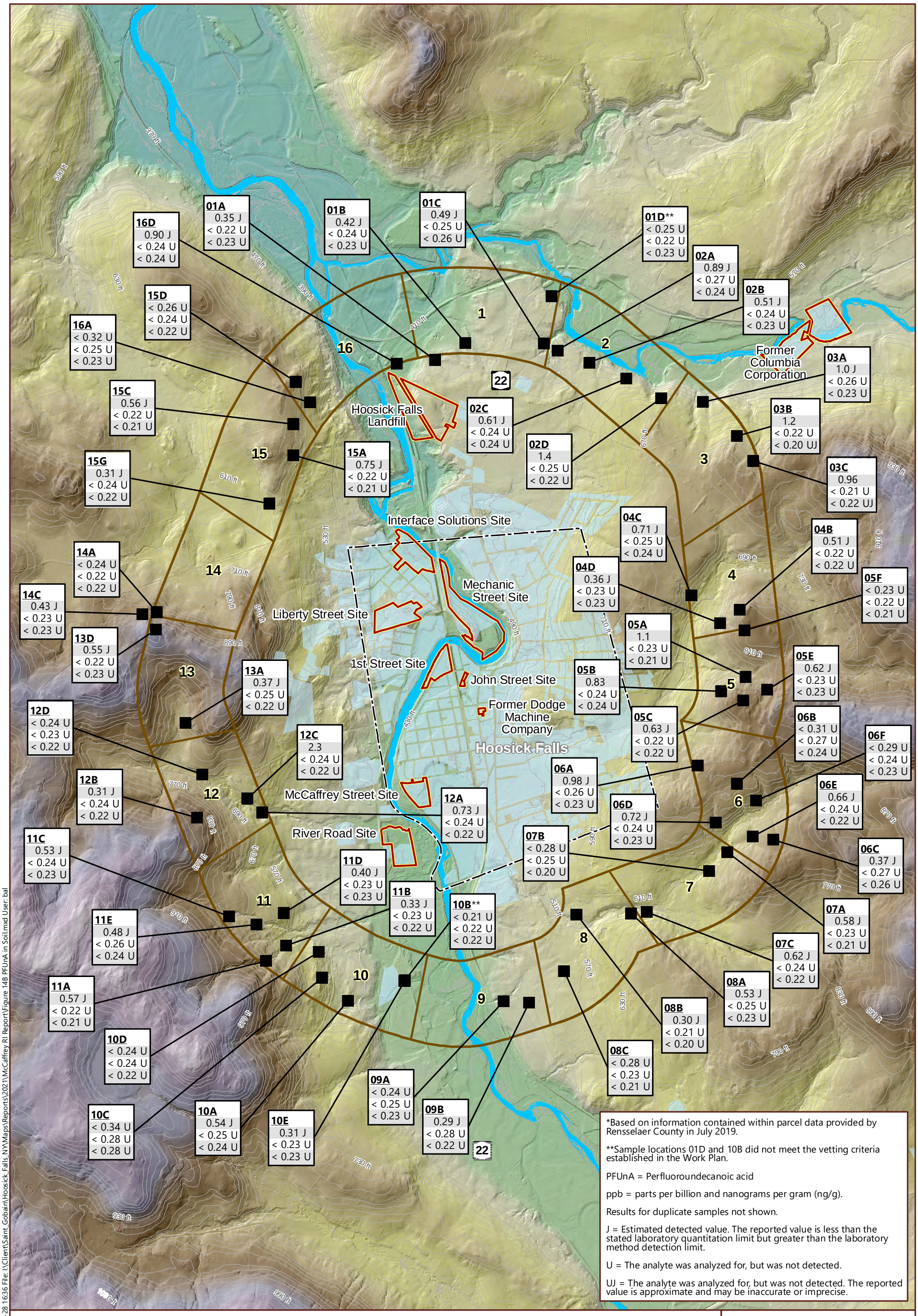
Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

0 1,000 2,000 3,000
Feet

FIGURE 14A

PFUnA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY

BEC Footer: ArcGIS 10.8.1, 2021-07-28 16:35 File: I:\Client\Saint_Gobain\Hoosick_Falls_NY\Maps\Reports\2021\McCaffrey RI Report\Figure 14A PFUnA in Soil.mxd User: bal



*Based on information contained within parcel data provided by Rensselaer County in July 2019.

**Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan.

PFUnA = Perfluoroundecanoic acid

ppb = parts per billion and nanograms per gram (ng/g).

Results for duplicate samples not shown.

J = Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

U = The analyte was analyzed for, but was not detected.

UJ = The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

Soil Sample Location
Sites of Interest
Soil Sampling Sector Boundary
Hoosick Falls Village Limits
Village Water Supply Area*

Values in labels depict PFUnA concentrations in ppb

10A
0.54 J
< 0.25 U
< 0.24 U

Surface Soil: 0-0.17 ft
Near Surface Soil: 0.17-1 ft
Sub-Surface Soil: 1-2ft

N

0 1,000 2,000 3,000
Feet

FIGURE 14B

PFUnA IN SOIL
Regional Air Deposition Study Report
Hoosick Falls, NY