Norlite Environmental Sampling Report

New York State Department of Environmental Conservation

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NYSDEC

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1. Executive Summary

Norlite Corporation ("Norlite") has operated a lightweight aggregate plant in the City of Cohoes, NY since 1956. As part of its operations, Norlite receives waste, both hazardous and nonhazardous, for use as fuel in the facility's two (2) rotary kiln furnaces ("kilns"), which produce the lightweight aggregate. Norlite has received hazardous waste management permits from the New York State Department of Environmental Conservation (DEC) to conduct these operations in 1992, 2007, and 2016 as authorized by the U. S. Environmental Protection Agency.

In 2018, Norlite began to receive Per- and Polyfluoroalkyl Substances (PFAS) containing materials from the U.S. Department of Defense collection program, which included phased-out perfluorooctanesulfonic acid (PFOS) aqueous film forming foam (AFFF) for incineration in the facility's kilns. In 2019, DEC directed Norlite to cease all incineration of firefighting foam at the facility after the facility temporarily shut down its operations for planned facility upgrades. DEC provided the same direction in writing in June 2020.

In early 2020, community residents began raising concerns that kiln emissions from the facility may have caused PFAS contamination in the surrounding area. Since these compounds were not included in previously conducted emissions testing and human health and ecological risk assessments, DEC initiated an environmental sampling program to assess any potential impacts to the surrounding area.

Please note, this study was not conducted to determine compliance with applicable laws and regulations and does not preclude DEC from requiring additional investigation or monitoring to ensure compliance with applicable laws and regulations or from taking future enforcement action regarding the subject matter of this report. In addition, this study is specific to sampling for PFAS compounds and metals, and does not address concerns about the facility's non-compliance with fugitive dust emissions from its operations, which are the subject of an ongoing enforcement action.

DEC collected soil and water samples in October and November 2020, and analyzed these samples for the presence of PFAS compounds and metals. Soil samples were taken at locations considered most likely to be impacted from kiln emissions as determined by local meteorological information. Soil samples also were taken in locations near adjacent residential properties to assess the potential for human health exposure. Lastly, soil samples were taken from locations considered to be upwind from the kilns to assess concentrations unlikely to be impacted by kiln emissions.

In total, twenty-two (22) soil samples were collected from eighteen (18) locations. Surface water samples were collected from fourteen (14) locations. Four of the water sample locations were from the Salt Kill, which runs through the Norlite property, two from an on-site quarry pond, and two from an un-named pond immediately south of Norlite. Lastly, water samples from the Patroon Creek in Albany County, and Schuyler Creek in Saratoga County, were collected to assess background concentrations from other surface water sources. The samples from the stream locations were taken at both low and high flow conditions.

With regard to the soil samples collected, low level detections of PFAS compounds were present in all soil samples, which is consistent with background levels in emerging research and well below levels observed in areas impacted by industrial activity or prior releases of AFFF. This is discussed in more detail in Section 7.2 of this report. Although there are no soil cleanup objective concentrations for PFAS in regulation, DOH guidance values have been prepared for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The guidance concentrations are based on the intended use of the property, and range from unrestricted, which envisions residential in addition to farming (assumes exposure through extensive soil contact, homegrown produce, and meat/dairy products), residential use, (exposure through extensive soil contact and homegrown produce), restricted residential (no exposure through food production, but still extensive soil contact), and commercial and industrial.[1]

The soil sample results for Saratoga Sites were all below residential use guidance values, and ranged from 0.29 parts per billion (ppb or µg/kg) and 0.63 ppb for PFOA and from 1.1 ppb and 4.5 ppb for PFOS. All of the soil samples collected showed PFAS concentrations lower than guidance values relevant to the residential areas surrounding Norlite, with the exception of one upwind soil sample south of Norlite (as shown on Figure 2 in the report) that had a concentration of 9.8 parts per billion (ppb or µg/kg). While this concentration exceeds the residential value of 8.8 ppb for PFOS, the resulting level is not indicative of a human health exposure risk because this sample location was not on residential property.

Analysis was also performed for metals concentrations in soils. The results for metals were compared to the 6 NYCRR Subpart 375-6 Soil Cleanup Objectives. Like the PFOA and PFOS guidance values, these values are derived to be protective of human health, based on the use of the property. As with PFOS, only one sample result exceeded a residential use value currently in the Subpart 375-6 regulation. This sample was taken to the east-southeast of Norlite, and contained mercury at 1.6 parts per million (ppm or mg/kg), which is higher than the residential soil cleanup objective of 0.81 ppm. This sample was collected from a non-residential setting in the road right of way adjacent to a former landfill operated by the Bendix Corporation, and poses a minimal health risk because the location is not being used for residential purposes, and exposures associated with residential land use are not likely to occur there.

The results of the analysis for the water samples collected also indicated the presence of PFAS at low concentrations. However, none of these concentrations are indicative of a concentrated source area impact and there is some variability in these concentrations. In general, the concentrations found in the Salt Kill were lower than those found in the Patroon Creek and higher than those found in Schuyler Creek. Of the samples taken from flowing waters, one sample from Patroon Creek exceeded New York State's drinking water Maximum Contaminant Level (MCL) for PFOS. The Patroon Creek is not used as a drinking water source. Concentrations of PFOS were found in the on-site quarry pond at 12 parts per trillion (ppt or ng/l). This concentration level was not found in the adjacent Salt Kill. Low concentrations of

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[1] https://govt.westlaw.com/nycrr/Document/I4eadfca8cd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)&bhcp=1

PFAS compounds in addition to PFOA or PFOS were also found in all samples. DEC guidance requires a screen for total PFAS compounds in water at concentrations greater than 500 ppt. None of the water samples exceeded this value.

Samples obtained from the pond immediately to the south of the Norlite facility had concentrations of one PFAS, Perfluorobutanesulfonic acid (PFBS), at 100 ppt. This concentration is greater than the values found in other nearby water samples. Analysis of the PFBS concentrations and the overall PFAS pattern detected indicates that it is not likely that this concentration is related to Norlite operations. The pond is not used as a source of drinking water and does not represent a risk of exposure to area residents.

Results of the comparison of water samples taken at high flow conditions versus low flow conditions varied between locations. In areas thought to be less impacted by possible PFAS emissions from Norlite or other industrial sources, there was a slight increase in total PFAS concentrations during high flow samples as compared to the low flow samples even though all values were at low concentrations. In other locations, including the Salt Kill sample farthest downstream and Patroon Creek samples 2 through 4, the low flow samples had higher concentrations than at high flow. Overall, this indicates that there may be some impact on these concentrations from stormwater runoff, although other sources may be contributing to the values in Patroon Creek and at Salt Kill sample 4 locations.

DEC also used analysis of measured PFAS and metals concentrations in soils to evaluate the influence of wind direction relative to these sample locations. The full data set for all the individual PFAS compounds were analyzed in the upwind and downwind samples. There is no clear evidence of an upwind and downwind gradient of individual or total PFAS, which would be expected if the PFAS combusted at Norlite was not destroyed by the high temperatures of the kilns. Metals concentrations were also analyzed for distribution due to potential air deposition. Overall, except for arsenic, mercury, copper, and lead, downwind concentrations are lower than or comparable to upwind metal concentrations. Elevated concentrations of mercury, copper and lead were found in downwind sample S10. The results from this sample location, which was in close proximity to a closed industrial landfill, indicates there is the potential that the past operations at the landfill may skew the downwind concentrations higher. When the results from this sample location are removed from the analysis, DEC did not observe any notable upwind/downwind gradient of soil metal concentrations.

Based on the comprehensive review of the data undertaken by DEC experts in consultation with the New York State Department of Health (DOH), the conclusions of this report are as follows:

- Analysis of soil concentrations does not show clear evidence of an increase in downwind PFAS concentrations;
- Analysis of soil concentrations does not show evidence of a significant increase in downwind metals concentrations;
- Concentrations of PFOA and PFOS in soils do not indicate a human health risk. These concentrations are below levels developed by DOH applicable to the current land use and potential for human exposure;
- Analysis of stream water concentrations at high flow and low flow indicates possible influence from soils and precipitation in areas of low surface water PFAS concentrations, but not in locations with higher surface water concentrations, such as those found in the Patroon Creek and in the Salt Kill downstream from Norlite; and
- Analysis of surface water samples in areas of ponded water on or near Norlite property indicate that there are likely sources of PFAS compounds not associated with Norlite kiln emissions.

As a result of this study and its findings:

- DEC and DOH will continue to evaluate health-based values for all PFASs and work to establish guidance values for additional PFASs;
- DEC will monitor groundwater and surface water on Norlite property to better assess existence of PFASs over time;
- DEC will require emissions testing to include analysis of organic and inorganic fluorine compounds from the kilns at Norlite; and
- DEC will further assess potential sources of contamination observed in this report.

Norlite Environmental Sampling Report

2. Introduction – Project Area

Sampling was conducted at the Norlite Corporation facility in Cohoes and at off-site locations by New York State Department of Environmental Conservation (DEC) staff from the Divisions of Environmental Remediation (DER) and Materials Management (DMM) in coordination with the Division of Air Resources (DAR), see Figure 1. Sampling was conducted by DEC to characterize the occurrence of per- and polyfluoroalkyl substances (PFAS) and metals, if any, in soil and surface water. This document presents the sampling results from the onsite and off-site as well as background locations.

2.1 Background

The Norlite facility is an expanded shale aggregate plant and active shale quarry, which has been operating since 1956. Norlite uses waste, both hazardous and nonhazardous, as fuel in the facility's two rotary kiln furnaces. These furnaces heat the shale being mined onsite to create lightweight aggregate. Norlite holds multiple DEC permits to conduct these operations. As a part of the current air discharge and hazardous waste permitting renewal processes, DEC has required emissions testing, and a multi-pathway human health and ecological risk assessment be conducted. These assessments and testing do not include a PFAS emissions assessment based on prior community requests.

As part of its operations, Norlite receives spent solvents and other hazardous and non-hazardous material wastes for use as fuel in firing the kilns to make aggregate. In 2018, Norlite began receiving PFAS-containing aqueous film forming foam (AFFF), which was combusted in the kilns. This practice ended in late 2019 as directed by DEC.

In March 2020, Bennington College conducted limited water and soil sampling in the vicinity of the facility to assess the possible migration of PFAS contamination. Recent sampling coordinated by DEC and DOH (May 2020)at the nearest public water supplies (Cohoes, Green Island) did not find evidence of PFAS contamination stemming from Norlite's activities. However, area residents and public officials are still concerned that the combustion of PFAS-containing materials has led to PFAS contamination off-site and urged DEC to conduct more rigorous sampling to evaluate the possibility of PFAS contamination in the local area. To address the public's overall concern about the combustion of PFAS containing materials at the Norlite facility, DEC conducted a PFAS and metals sampling program. Soil and surface water samples were collected at the Norlite facility, on the grounds of the adjacent Cohoes Housing Authority (CHA) Saratoga Site Apartments, and other off-site areas.

2.2 Site/Sample Location Descriptions

Samples were obtained from within the Norlite facility, within the CHA Saratoga Sites Apartment complex, Patroon Creek, Schuyler Creek, Salt Kill and various off-site locations. See Figure 1.

Norlite:
The Norlite facility, located within the Town of Colonie and City of Cohoes, is in a mixed land use area near residential and commercial properties. Residences are located to the north, east, and south. Commercial areas are located to the east and south. Undeveloped land exists west and north of the site. The site is located on the north side of State Route 7 (locally known as Alternate Route 7), and west of Route 32.

The facility, consists of approximately two hundred-twenty (220) acres, including an active shale mine, site operations area, and undeveloped buffer parcels along some of the site boundaries. Approximately forty (40) acres of the site are developed and include office buildings, shale aggregate processing facilities, rotary kilns, fuel receiving, storage and processing areas, aggregate storage piles and other operations buildings.

CHA Saratoga Sites Apartments:
The Cohoes Housing Authority (CHA) Saratoga Sites Apartments are located in the City of Cohoes in a mixed-use area with residential, commercial, and industrial properties. The apartments are bound to the west by train tracks and then the Norlite facility, to the north by the Norlite access road, to the east by Cohoes Road (Route 32), followed by residential and commercial properties, and to the south by a wooded area. The complex is composed of thirteen buildings, an ashpalt basketball court, paved walkways, and a playground.

Patroon Creek, various locations, Albany, NY:
Patroon Creek flows east-southeast from the Six-Mile Reservoir in the Albany Pine Bush Preserve to the Hudson River. The creek flows through the city of Albany both above and below ground. There were four surface water sample locations along Patroon Creek: Six-Mile Reservoir, an Albany Water Authority right of way, Tivoli Lake Wildlife Park, and the confluence with the Hudson River.

Schyler Creek, various locations, Saratoga County, NY:
Schuyler Creek flows east-southeast from north of Route 243 to the Hudson River in the Town of Stillwater. The creek flows through forested agriculture fields, residential properties, and the Town of Stillwater. The creek was sampled at its intersection with Filke Road and the downstream side of the bridge on Hudson Street.

Salt Kill, Albany County, NY:
The Salt Kill flows east-southest through the Norlite facility and is a tributary of the Hudson River. The off-site surface water sample at Salt Kill was collected at the downstream side of the intersection with Johnson Road. Sampleswere also collected from just upstream from where the Salt Kill enters Norlite property, on Norlite property within operations areas, and just

downstream from Norlite but prior to the stream becoming influenced by the receiving waterbody.

Off-site soil samples, various locations, Albany County, NY:
Soil samples were collected on public rights-of-way throughout Albany County. The sample locations were selected as they are located in upwind and downwind locations in relation to the Norlite facility and were expected to show what impacts the emissions are having on off-site soil. Samples were collected east of the Norlite facility along I-787, Tibbits Avenue, Green Island near the intersection with I-787, at the Alexander Street Trail Head, along Kirkner Avenue, Crabapple Lane, Hilltop Drive, and Boght Road.

The general sampling areas are illustrated on Figure 1.

3. Project Objectives

The project objectives as stated in the sampling program workplan:

- Design a sampling program of environmental media in the vicinity of the Norlite Plant in Cohoes, NY to determine the possibility of surface soil and surface water contamination resulting from the receipt and incineration of PFAS containing materials including AFFF.
- Obtain site specific background PFAS concentrations in these environmental media.
- Soil samples will be analyzed for metals to evaluate these contaminants in soils surrounding the Norlite facility.
- These results will be compared with guidance values listed in *Guidance for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs January 2021* (NYSDEC PFAS Guidance), Title 6 of the New York Codes, Rules and Regulations (6NYCRR) Subpart 375-6 Remedial Program Soil Cleanup Objectives and with other relevant guidance.

4. Task Description

Field activities included the collection of forty-eight (48) soil samples and twenty-seven (27) surface water samples from thirty-two locations for PFAS, metals, and Total Oxidizable Precursor (TOP) assay. A list of the sample locations and analyses is presented in Table 1. Soil samples were collected from the top six inches to represent surface soil conditions. Soil sampling occurred on the Norlite facility, CHA Saratoga Apartment Sites, along Patroon Creek in Albany, NY, and within public right of ways in Albany County. Additional soil samples were collected from the top two inches from the CHA Saratoga Sites Apartments to represent possible public health exposure. Surface water samples were collected over two days to assess both high and low flow conditions. High flow conditions show contributions from stormwater runoff and precipitation in the watershed and low flow conditions indicate concentrations without contributions from stormwater runoff. Each sample location was recorded using a calibrated GPS Trimble in degrees of latitude and longitude.

4.1 Soil Sampling

Soil samples were collected on October 21, 2020, targeting areas with the highest potential of kiln emissions impact and sensitive receptors. Five (5) samples were collected on Norlite property. Thirteen (13) background samples were collected for comparison. Thirteen samples (13) were collected for quality control and quality assurance.

In accordance with the October 2020 Norlite sampling workplan and the NYSDEC PFAS Guidance, soil samples were collected both on and off-site. DER and DMM staff collected grab samples by digging soil with a stainless-steel spoon, excluding ground cover and organic matter (e.g., roots, sticks, leaves), then using the spoon to mix soil in a stainless-steel bowl until homogenized. The soil was then packed into the laboratory provided container. Soil collection equipment was decontaminated between samples with Alconox and certified PFAS-free tap water. Staff utilized proper personal protective equipment (PPE) (i.e., level D - nitrile gloves, non-PFAS containing clothing) while sampling. The soil sample name, location (latitude/longitude), collection depth, color, description, and analysis to be performed were recorded on a sampling field log (Appendix A). Total Oxidizable Precursor (TOP) assay samples were collected from 0-2 inches to evaluate degradation products individuals may be exposed to. The TOP assay was developed to indirectly quantify the concentration of perfluoroalkyl acid (PFAA) precursors, i.e., PFASs, that may degrade in the environment to other products such as perfluoroalkyl carboxylic (PFCAs).[2] These samples were taken from residential properties. Additional grab samples were collected from 0-6 inches to assess air deposition and the downward migration of PFAS over time. The 0-6 inch samples were collected at all soil sampling locations.

4.2 Surface Water Sampling

Surface water samples were collected during both high and low flow conditions from a total of fourteen (14) locations. High flow conditions occur within 24 hours of a rainfall event that produces at least a quarter inch of rain. Low flow conditions occur after at least 72 hours of no precipitation. High flow surface water samples were collected on October 30, 2020 following a significant precipitation event, in which greater than one inch of rain fell (Appendix C). Low flow surface water samples were collected on November 6, 2020. Precipitation did not occur within 72 hours prior to the sampling event.

Sampling methods remained consistent for both high and low flow conditions. A decontaminated stainless-steel sampling bucket (see photos in Appendix B) was rinsed three times with the site water to be collected. The sample was then collected from the surface water air interface and poured directly into the sample container. When filling multiple sampling containers, more than one scoop was needed to fill all the containers. Immediately after

[2] Houtz EF; Sedlak DL Oxidative Conversion as a Means of Detecting Precursors to Perfluoroalkyl Acids in Urban Runoff. Environ. Sci. Technol 2012, 46, 9342–9349.

collection, the samples were placed in iced coolers to keep the samples at 4± 2º Celsius until laboratory analysis could be performed.

4.3 Field Procedures, Analytical Methods, and Quality Assurance

Hazardous Waste Operations and Emergency Response-certified field staff collected water and soil samples using the grab sampling technique as described in this document. PFAS samples were stored in laboratory-provided, clean, high-density polyethylene containers. Metal samples were stored in clean glass containers proved by the laboratory. Field staff practiced proper sample packaging methods and chain of custody procedures as well as the shipment of samples to the contract laboratory.

Quality control (QC) sampling included matrix spike (MS) and matrix spike duplicates (MSD) and trip blanks. MS and MSD samples were collected at a frequency of one per twenty samples and analyzed for the same analytes as the environmental samples per sampling event. The laboratory provided trip blanks with each shipment of sample water sampling containers. Trip blanks were analyzed for PFAS only. At the end of each sampling day, one equipment blank was collected after all sampling activates were completed and the sampling equipment was decontaminated. PFAS-free water supplied by the laboratory was poured into the clean sampler/stainless-steel bowl and then placed into a container for analysis.

All samples were submitted to Eurofins TestAmerica, a New York State Department of Health Environmental Laboratory Approval Program (ELAP) certified laboratory, for analysis. Eurofins TestAmerica performed the analysis in accordance with the latest edition of the NYSDEC Analytical Services Protocol and provided 6 NYSDEC Category B laboratory deliverables packages. EPA Method 537 (modified) was used to analyze surface water and soil samples for PFAS. Additionally, soil samples were analyzed for metals per EPA Methods 6010D (various analytes), 7471B (mercury) and 7196A (hexavalent chromium). Two soil locations and two surface water locations were analyzed using TOP assay.

5. Analytical Results

The following section provides a summary of the soil and surface water data generated during the site investigation. Data summary tables generated during the site investigation are provided in Tables 2 through 6. Compounds exceeding applicable or established NYSDEC standards and guidance values for soil and surface water are summarized on Figures 2 through 7. Analytical reports are provided in Appendix E.

5.1 Soil

A total of forty-eight (48) soil samples including four (4) field duplicates were collected from eighteen (18) soil sample locations and submitted for laboratory analysis. All metals analytical soil data were compared to the 6NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Residential Soil Cleanup Objectives (RSCOs). All PFAS analytical soil data were assessed using guidance values for unrestricted use and residential use provided in NYSDEC PFAS Guidance, January 2021. This guidance currently presents Unrestricted Use

Guidance Values (UUGVs) and Residential Use Guidance Values (RUGVs) among other restrictive use values. Laboratory analytical data generated during the investigation for soil is summarized in Table 2 through Table 4. Soil sample locations and exceedances of guidance values, UUSSCOs and RSCOs are shown on Figure 2 through Figure 4.

A summary of soil sampling results is provided in the following sections.

5.1.1 PFAS

All samples were analyzed for PFAS compounds using Method 537 (modified) and two soil locations were additionally analyzed using TOP Assay. Currently there are two compounds with guidance values (GV) established for PFAS in soil. Perfluorooctanesulfonic acid (PFOS) has an unrestricted use guidance value (UUGV) of 0.88 parts per billion (ppb) and residential use guidance value (RUGV) of 8.8 ppb. Perfluorooctanoic acid (PFOA) has an UUGV of 0.66 ppb and RUGV of 6.6 ppb.

- PFOA and PFOS were detected in 23 of 24 soil samples collected and was distributed throughout the soil sampling locations.
- PFOA exceedances of the UUGV were detected in seven samples and no exceedance of the RUGV was detected in the samples. Sample concentrations ranged from non-detect to 1.1 ppb.
- PFOS exceedances of the UUGV were detected in 16 samples and an exceedance of the RUGV in one sample collected at the Soil 14 location. Sample concentrations ranged from non-detect to 9.8 ppb.

5.1.2 Total Oxidizable Precursor (TOP) Assay

Two soil samples, an upwind and a downwind sample (S15 and S8B) were analyzed using the TOP Assay. The TOP Assay will identify if there is a significant PFAS mass in the samples that the conventional method of analysis does not capture and provides additional information regarding the scale of potential PFAS contamination. It will transform sulfonamido and fluorotelomer precursors which cannot be detected using traditional methods into perfluoroalkyl carboxylates, which are referred to as terminal end products, which means they persist in the environment indefinitely.

The soil samples were analyzed to evaluate how much oxidizable PFAS could be liberated into the environment. In the upwind sample (S15) the post TOP Assay results indicated there was minimal formation ofterminal end products, the difference between the pre- and post-sample was 0.1 ppb total perfluoroalkyl carboxylates indicating no real presence of precursors in this sample. The downwind sample (S8B) contained minimal precursors, the difference between the pre- and post-sample was 2.3 ppb total and the increase was primarily in the short-chain PFBA. This result indicates there were some short-chain precursors detected in this sample which oxidized to PFBA. Overall, the results of the TOP Assay on these soil samples indicated there are minimal perfluoroalkyl precursors in these two soil samples.

5.1.3 Metals

A total of twenty (20) samples and two (2) field-duplicates were analyzed for twenty-two (22) metals via method 6010D. The samples were analyzed for mercury using method 7471B

- Detections of aluminum, arsenic, barium, beryllium, calcium, Total chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, vanadium and zinc were found in all samples.
- Detection of cadmium was detected in 86% of samples, sodium was detected in 45% of samples, thallium was detected in 32% of samples and selenium 18% of samples.
- Metal exceedances of the UUSCO were detected in nine samples.
- Lead, nickel and zinc accounted for the highest percentage of metal samples exceeding the UUSCOs at 14%, 18% and 36%, respectively. The highest concentrations of exceedances for each of these metals were within an order of magnitude of their UUSCO value.
- Copper exceeded its UUSCO once in twenty-two (22) samples, at a concentration of 90.7 ppm.
- Mercury exceeded its UUSCO only at the Soil 10 location, with a concentration of 1.6 ppm.
- Iron was detected in all soil samples. There are no regulatory values for iron established in 6NYCRR Part 375, but the concentrations found were greater than the guidance value found in DEC's Commissioner's Policy 51.

5.2 Water

A total of twenty (27) samples were collected from fourteen (14) surface water locations and submitted for laboratory analysis for PFAS compounds. All analytical water data were assessed using NYSDEC PFAS Guidance, October 2020.

Per the guidance document, guidance values for PFOA or PFOS concentrations in groundwater or surface water are assessed against a guidance value at or above 10 parts per trillion (ppt or ng/L). In addition, any other individual PFAS (not PFOA or PFOS) is assessed against a guidance value at or above 100 ppt; and the total concentration of PFAS (including PFOA and PFOS) in a single sample is assessed at a guidance value at or above 500 ppt. Laboratory analytical data generated during the investigation for water is summarized in Tables 5 and 6.

All water samples were analyzed for PFAS compounds using Method 537 (modified) and two water samples were additionally analyzed using TOP Assay. Laboratory analytical data generated during the investigation for surface water quality is summarized in Table 5 and Table 6. Surface water sample locations and exceedances of guidance values are shown on Figure 5 through Figure 7.

A summary of water quality results is provided in the following sections.

5.2.1 PFAS

All samples were analyzed for PFAS compounds using Method 537 (modified) and two (2) soil locations were additionally analyzed using TOP Assay. The guidance document presents guidance values for 21 PFAS compounds and total PFAS in a sample. Currently the values for PFOA or PFOS concentrations in groundwater or surface water are compared to the New York State maximum contaminant level of 10 parts per trillion (ppt), which is being used as a guidance value although the MCL does not apply to these water resources as they are not being used for drinking water. As stated above, the nearest public drinking water supplies (Cohoes, Green Island) were assessed in a previous sampling effort (May 2020) and found to not be impacted. For the current analysis,any other individual PFAS (not PFOA or PFOS) is assessed against a guidance value at or above 100 ppt; and the total concentration of PFAS (including PFOA and PFOS) in single sample is assessed at a guidance value at or above 500 ppt. A summary of the PFAS analysis follows and all data is presented in Table 5.

- PFOA and PFOS were detected in all water samples at all locations.
- PFOS exceeded the guidance value of 10 ppt at three locations: Water 5, Water 6 and Water PC2 during low flow sampling, with a maximum concentration of 21 ppt.
- All PFOA detections were below the guidance value of 10 ppt.
- Perfluorobutanesulfonic acid (PFBS) was detected at the guidance value of 100 ppt at two surface water locations: Water 7 and Water 8.
- All other individual PFAS (not PFOA or PFOS) compounds were below the guidance value of 100 ppt.
- No samples exceeded the total PFAS guidance value of 500 ppt.
- No exceedances were detected for any PFAS guidance value during high flow sampling.

5.2.2 Analysis of Water Samples Using the Total Oxidizable Precursor (TOP) Assay

Two (2) water samples (W4 and W7) were analyzed using the TOP Assay. In the W4 sample there was a minimal formation of terminal end products the difference between the pre- and post-sample was only 10 (ppt) and the increase was primarily in the short chain PFBA.

In the W7 sample there was minimal formation ofterminal end products. The difference between the pre- and post-samples was 27 ppt and the increase was primarily in the short chain PFBA. The slight increase of perfluoroalkyl precursors in this water sample versus W4 indicates some short chain perfluoroalkyl precursors were present to a

greater degree in the W7 sample. Overall, the results of the TOP Assay on these water samples indicated a minimal increase in perfluoroalkyl precursors in these two water samples which indicates a minimum amount of precursors were in the water samples.

This data is presented in Table 6.

6. Data Usability

DEC chemists conducted data reviews on all samples submitted for analysis. Data usability summary reports (DUSR) were created and are provided in Appendix E. The data review summarizes analytical protocol compliance or deviation, and quality control. Two water samples required a qualifier adjustment (low flow samples 4 and 7) due to Extracted Internal Standards (Isotope Dilution Analytes) criteria not being met; no other water samples required qualifiers. For soil samples analyzed for PFAS, criteria for blanks, MS/MSD, and lab control spike were not met for fourteen, one, and four samples, respectively which required a qualifier adjustment for each. Soil samples S13-SOIL-102120 and S9B-SOIL-102120 analyzed for metals are unusable for hexavalent chromium as the matrix spike was below control limits. Additionally, hexavalent chromium in water blank samples exceeded holding times and were therefore determined to be unusable.

7. Discussion

7.1 Soil Concentrations Compared to Applicable Standards

No regulatory value of PFOA or PFOS has yet been established by the State for concentrations of PFAS compounds in soil. However, guidance values derived to be protective of human health have been established for PFOA and PFOS as follows for different land uses. The NYS guidance values in this chart are lower (more stringent) than residential soil targets in any other state reporting such criteria (See Interstate Technology Regulatory Council 2021 PFAS Fact Sheets https://pfas-1.itrcweb.org/fact-sheets/).

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater	1.1	3.7

UUGV values are protective for an intensive residential/farm soil use scenario where contact with soil contaminants is possible via three pathways: direct contact/ingestion, the consumption of homegrown fruit/vegetables and the consumption of homeraised meat/dairy products. RUGVs are for a residential non-farm scenario which excludes the consumption of

homeraised meat/dairy products. Restricted Residential Use Guidance Values (RRUGVs) are residential-based targets where no homegrown products of any type are consumed but there remains direct soil contact and ingestion. Relative to Saratoga Sites and other residential areas that surround Norlite the RUGV and RRUGV scenarios are most consistent with the current land use, the corresponding soil GVs being 6.6 to 33 ppb for PFOA and 8.8 to 44 ppb for PFOS. In all cases, both upwind and downwind, PFOA concentrations are below the RUGV targets for PFOA, which is also true for PFOS except for one location which is slightly above the RUGV. The one location exceeding the RUGV for PFOS was at location 14. The value of 9.8 ppb at this location is greater than the RUGV of 8.8 ppb, but below the RRUGV of 44 ppb. Location 14 is in a location expected to be predominantly upwind from Norlite and was taken from a non-residential area. PFOS soil levels in that area (locations 13-15) varied between 1.1 and 9.8 ppb while locations further south along the Patroon Creek and Interstate 90 in Albany ranged from 1.3 to 6 ppb PFOS. These upwind results show the variable nature of PFOS soil data in the general area. Overall, the soil results indicate no exceedances of restricted residential guidance values and one slight exceedance of the RUGVs (PFOS at 9.8 ppb, upwind location, non-residential location). Thus, the PFAS levels detected in soil in this study do not represent a public health concern.

It should be noted that soil sample locations 6, 7, 8, and 9 were within CHA property at the Saratoga Sites Apartments. For apartment complexes such as this where homegrown food production opportunities are limited or do not exist, the use guidance value with which to compare results is restricted residential. Results from these locations were all less than one tenth of the restricted residential use guidance value for PFOA and PFOS when looking at the 0-2 inch sample depth. The 0-2 inch depth is preferred to determine potential exposures for residents as it represents the most likely soil depth for human contact. All of the Saratoga Sites soil PFOA and PFOS results were also below the RUGV values.

For metals, the results were compared to the 6 NYCRR Subpart 375-6 Soil Cleanup Objectives (SCOs). Like the PFOA and PFOS soil guidance values, these are also derived to be protective of human health and are based on the use of the property. With the exception of the mercury at location 10, all of these results are below residential standards. The residential SCO for mercury is 0.81 ppm.

Soil sample location 10 is located along Tibbets Avenue and was taken on the public right of way, but as far away from the road as possible along a fenceline for the adjacent property. Photos of all sample locations are shown in Appendix B. The adjacent property is the location of the former Bendix landfill. While the mercury concentration exceeds the residential SCO, residental land use involving regular direct contact with and ingestion of soil as well as raising vegetables does not occur at this location making any possible health risk minimal from mercury at location 10. As a point of reference, the soil cleanup objective for mercury that has the most relevance to location 10 is the industrial SCO which is 5.7 ppm.

In summary, none of the samples taken in this study indicate soil concentrations of PFAS compounds or metals that exceed the established standards or guidance values for current and anticipated use of the property.

7.2 Detection Frequency and Concentration of PFAS in Soils

Table 7.2 provides the range of individual PFAS detected in the soil studies conducted in the northeast in comparison to the samples collected around Norlite. These studies were conducted to examine the soil concentrations of PFAS in areas which were not directly impacted by known sources of PFAS emissions. In general, soil that has been contaminated by industrial emissions or the application of PFAS containing bio-solids have soil concentrations of total Perfluoroalkyl Carboxylates (PFCAs) and Perfluorosulfonic Acids (PFSAs) in excess of 100 ppb.[3] None of the soil samples collected in this study had total PFCA and PFSA concentrations which exceeded this value. Since soil contamination of PFAS is so widespread a recent study attempted to delineate background concentrations of PFOS and PFOA from areas of known contamination.[4] The median PFOS and PFOA concentrations for background areas was 2.7 ppb. In comparison, the median values for PFOS and PFOA in the soil samples collected around Norlite were 1.2 and 0.58 ppb. These extensive studies on soil concentrations indicate there has not been any gross soil PFOA and PFOS contamination detected in the area around Norlite as result of the high temperature incineration of AFFF or other PFAS containing fuels.

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[3] Rankin K, Mabury SA, Jenkins TM, Washington JW (2016). A North American and Global Survey of Perfluoroalkyl Substances in Surface Soils: Distribution Pattern and Mode of Occurrence. Chemosphere 161: 333 – 341

[4] Brusseau ML, Anderson RH, Guo B. 2020. PFAS concentrations in soils: Background levels versus contaminated sites. Science of the Total Environment. 740. 140017. Available On-Line: PFAS concentrations in soils: Background levels versus contaminated sites - ScienceDirect

Table 7.2 – Range of PFAS Detected in Soil Studies from the Northeast (ug/kg or ppb)[5,6]

Analyte	Vermont Range[1]	Norlite Range[2]	Catskills/Adirondack Range[3]
PFBA	N/A	0.1 – 0.9	
PFPeA	0.14 – 1.3	ND – 1.6	
PFHxA	0.05 – 4.4	0.12 – 1.1	ND - 0.32
PFHpA	0.044 – 0.9	0.063 – 1.0	ND – 0.41
PFOA	0.052 – 4.9	0.19 – 1.1	0.26 – 1.1
PFNA	0.051 – 5.0	0.16 - 2.4	ND - 0.45
PFDA	0.043 – 7.6	0.073 – 2.1	
PFUnA	0.038 – 2.6	0.12 – 1.8	ND – 0.34
PFDoA	0.10 – 0.69	ND - 0.35	ND
PFTriA	N/A - 0.13	ND - 0.26	
PFTeA	N/A	ND – 0.13	
PFBS	0.033 – 1.6	0.044 – 0.25	
PFHxS	0.076 – 0.88	ND - 1.5	
PFOS	0.106 – 9.7	0.26 – 9.8	ND – 1.4
PFDS	0.032 – 0.92	ND - 5.7	
NetFOSSA	4	ND – 1.5	
6:2 FTS	4	ND – 0.23	
8:2 FTS	4	ND – 0.70	

N/A – not applicable due to limited quantitative detection.
ND – not detected.
1 – Analysis performed for 17 PFAS (66 soil samples collected)
2 - Analysis performed for 21 PFAS (16 soil samples collected)
3 – Analysis performed for 14 PFAS (6 soil samples collected)
4 – . Not included in laboratory analysis.

The qualitative and quantitative detection frequency of each PFAS, minimum and maximum concentration of quantitative detections at the 18 locations sampled at the 0 – 6" depth is displayed in Appendix D. Qualitative values are estimated concentrations which were detected and flagged in the laboratory analysis. Quantitative values are concentrations which are not flagged by the laboratory and are considered to be accurate. As estimated values, qualitative detections were not included in the ranges presented in Appendix D but are noted in the qualitative frequency column.

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[5] Zhu,W, Roakes H, Zemba, SG, Badireddy AR. 2019. PFAS Background in Vermont Shallow Soils. University of Vermont. Available On-Line: Microsoft Word - PFAS FINAL REPORT_03-24-19.docx (vt.gov).

[6] Schroeder T, Bond D, Foley J. 2019. Report of PFAS Soil Sampling on NY-DEC Lands by the Bennington College "Understanding PFOA Project". Available Upon Request.

Several PFAS were quantitively detected at relatively high frequencies in the soil samples upwind and downwind from Norlite. PFOA, PFNA and PFDA were quantitatively found in 50% or more of the samples collected. PFBA, PFHxA, PFUnA and PFOS were found quantitatively in 20 to < 50% of the samples collected. PFPeA, PFHpA and PFDOA were found quantitatively in < 20% of samples. PFTriA, PFHxS PFHpS and PFDS were found in < 10% of the samples. There were no quantitative results found for 8:2 FTS, 6:2 FTS NetFOSSA, MeFOSSA, FOSA, PFHpS, PFBS and PFTeA. Concentration of total PFAS quantitatively detected ranged from 0.3 – 12.30 (ppb). The highest quantitative total PFAS concentrations were observed at locations S8B (12.30 ppb), S14 (12.24 ppb) and S13 (11.49 ppb).

Qualitative detected soil samples were pooled with the quantitative samples to examine if the same pattern as observed with the quantitative samples occurred. Many PFAS were qualitatively detected with relatively high frequencies in the soil samples upwind and downwind from Norlite. PFBA, PFPeA, PFHpA, PFOA, PFNA, PFDA, PFUnA, PFDoA, and PFOS were qualitatively detected in 90 to 100% of the samples. PFPeA, PFDoA and PFBS were qualitatively detected in 50 to < 90% of the samples. PFHxS, PFDS and PFTriA were qualitatively detected in 20 to < 50% of the samples. PFTeA was found qualitatively in < 20% of the samples. PFHpS, NetFOSSA, 6:2 FTS and 8:2 FTS were found in < 10% of the samples. There were no qualitative results found for FOSA and MeFOSSA. Concentrations of total PFAS qualitatively and quantitatively detected ranged from 0.32 – 19.0 ppb. The highest qualitative/quantitative total PFAS concentrations were observed again at locations S8B (19 ppb), S14 (14.7 ppb) and S13 (11.9 ppb).

Of specific interest are the results for the perfluoralkyl sulfonates (PFSAs). The two PFSAs detected in the highest percentages in AFFF produced in 2001 are PFOS and PFHxS.[7] The quantitative analysis found PFOS and PFHxS in less than 50% and 10% of the soil samples respectively. The qualitative analysis found PFOS and PFHxS in 94% and 25% of the soil samples respectively.

7.3 Distribution of Concentrations in Soils

7.3.1 Methods Used to Evaluate the Influence of Wind Direction on Measured Concentrations of PFAS and Metals in Soil.

Five years of meteorological data from the Albany Airport and one year of meteorological data from the Albany South End Community Air Quality Study were used to determine if the soil samples collected were upwind or downwind of the Norlite facility. (Appendix C). The Albany Airport data represents the 5-year average (2015 – 2019) of wind direction and the Albany South End data represents the one-year average

[7] Annunziato, KM, Doherty J, Lee J, Clark JM, Liang W, Clark,CW, Nguyen M, Roy MA, Timme-Laragy. 2020. Chemical Characterization of a Legacy Aqueous Film-Forming Foam Sample and Developmental Toxicity in Zebrafish (Danio rerio). Environmental Health Perspectives 128 (9) pp. 097006-1 – 097006-13. Available On-Line: https://doi.org/10.1289/EHP6470

of wind direction from August 2017 – November 2018. These data sets overlap the time-period when Norlite was incinerating AFFF foam at high combustion temperatures.

An analysis of weather patterns from this data indicate that the wind direction is most common from the south and also the winds tend to be strongest from that direction. The second most common wind direction is from the west. Thus, soil samples 1, 11, 12, 13, 14 and 15 were designated as upwind locations. Soil Samples 2,3,4,5,6,7,8,9,10 and 16 were designated as downwind locations. When the wind is blowing from the predominant direction (South) and a secondary direction from the West Northwest, the soil concentrations will be primarily influenced by sources in this area which includes Norlite (downwind locations). A comparison can be made with the soil concentrations when the wind is blowing from the opposite direction without the influences from Norlite (upwind locations). A consistent increase in PFAS and metal soil concentrations would be expected to be observed in the downwind locations if the PFAS incinerated at Norlite were not destroyed by high temperature combustion and the air pollution control equipment was not reducing emissions of the metals. The soil sampling was designed to determine if this was occurring by collecting 10 soil samples in downwind areas versus 6 soil samples in upwind areas.

7.3.2 Prevailing Wind Influences on Measured Concentrations of PFAS in Soil.

As described in section 7.3.1 above, meteorological data indicates soil samples considered to be in an upwind location include soil sample locations 1, 11, 12, 13, 14, and 15. Downwind locations include soil sample locations 2, 3, 4, 5, 6, 7, 8, 9, 10 and 16. In the upwind locations, PFOA concentrations range from 0.29 to 0.88 parts per billion (ppb), PFOS ranging from 0.46 to 9.8 ppb, lead ranging from 12.4 to 46.5 parts per million (ppm), and mercury ranging from .017 to 0.1 ppm.

In locations determined to be in prevailing downwind directions, concentrations range between 0.19 and 0.95 ppb for PFOA, 0.26 to 4.5 ppb for PFOS, 15.1 to 236 ppm for lead and 0.017 to 1.6 ppm for mercury.

Based upon the prevailing wind direction from south to north along the Hudson River Valley as shown in the wind rose data found in Appendix C, any contamination occurring as a result of emissions from combustion in the kilns would be expected to be at their highest concentrations at the downwind soil sample locations.

The PFAS soil data was examined in multiple ways to discern if there was a large difference which could be observed between the upwind and downwind samples since soil is a known reservoir for PFAS which could be atmospherically deposited.[4,5,8] The

[8] Washington JW., Rosal CG., McCord JP., Strynar MJ., Lindstrom AB., Bergman EL., Goodrow SM,. Tadesse HK., Pilant AN., Washington BJ., Davis MJ., Stuart BG., and TM Jenkins. 2020. Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils. Science 368:6495.

soil data was also analyzed to evaluate if there was a consistent pattern between the individual PFASs detected in this study.

The full data set for all the individual PFAS qualitatively and quantitatively analyzed and determined in the upwind and downwind samples, along with total PFAS concentrations, are shown in figures in Appendix D. When evaluating the geometric means for all the individual PFAS qualitatively and quantitatively detected in the upwind and downwind samples there is no evidence of a strong upwind and downwind gradient of individual or total PFAS which would be expected to be observed if the PFAS combusted at Norlite was not destroyed by the high combustion temperatures of the kilns. The upwind concentrations of PFOA and total PFAS are higher than the downwind concentrations. A very small upwind/downwind gradient for PFNA, PFUnA, PFTriA, PFOS and PFBS was observed. (Appendix D).

Overall, there is no evidence of the strong upwind/downwind gradient being observed in these samples that would be expected to be observed if the PFAS combusted at Norlite was not destroyed by the high combustion temperature of the kilns, especially when other local sources in the area that may be contributing to these findings are considered. It should also be noted that there are other potential sources of PFAS emissions in the area which could contribute to the upwind concentrations.

Individual soil samples were examined also and the pattern that emerges is that total quantitative PFAS concentrations are the highest in the locations near a potential source which uses imported textiles that most likely contain PFAS surface coatings. The highest soil concentrations for total PFAS qualitatively and quantitatively determined were collected in Sample 13, which is near an area where textile cuttings and dust are disposed of and transported from the facility; Sample 14 which is upwind of the facility but nearby, and Sample 8, which is downwind of the facility and near the laundry room at the Saratoga Sites. A recent evaluation of PFAS concentrations in indoor dust primarily from the use of PFAS-treated textiles has found total and individual PFAS concentrations that are higher than those observed in Sample 8 and all soils samples collected in this study.[9]

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pp 1103 – 1107. Available On-Line: Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils | Science (sciencemag.org)

[9] Young AS, Hauser R, James-Todd TM, Coull BA, Zhu H, Kannan K, Specht AJ, Bliss MS, Allen JA. 2020. Impact of "heathier" materials intervention on dust concentrations of per and polyfluoroalkyl substances, polybrominated diphenyl ethers and organophosphate esters. Environment International. In Press. Available On-Line: https://reader.elsevier.com/reader/sd/pii/S0160412020321061?token=20C7A98B371878FEE251C4B75F1F32213F10CC535D1737735A4CD70DEE22C8D2352C0CB2BBD2AF5BC8AA573991F41F23

7.3.3 Prevailing Wind Influences on Measured Concentrations of Metals in Soil.

The full data set of all the geometric means for the individual metals analyzed in the upwind and downwind samples are shown in Appendix D. The analysis of the geometric means indicates copper is the only metal distinctly elevated above the upwind samples. It should be noted that all the metal samples results are below the applicable use-based SCOs.

7.4 Concentrations of PFAS in High and Low Flow Water Samples

Sampling was conducted during a high flow event to assess the impact of stormwater runoff on the three study area streams which were sampled. A consistent pattern of an increase in total PFAS concentrations during a high flow event was not observed in all the streams sampled. The samples from Schuyler Creek exhibited a slight increase in total PFAS concentrations during the high flow sampling event. This increase was primarily driven by increased PFBA concentrations, with smaller increases of PFPeA, PFHxA, PFBS and PFOS. The increase in PFOS was observed only in Schuyler Creek 2 sample after the creek flowed through a populated area of the village. There was no increase in PFOA during the high flow event in these samples.

The Salt Kill followed a similar pattern during the high flow event for Samples 1 through 3, but not Sample 4. The increase in total PFAS concentrations were higher than observed in the more distant and rural Schuyler Creek indicating an increase in surface water loading in this more urban area after a precipitation event. The increase was primarily driven by PFBA, PFPeA, PFHxA and PFOS. The total PFAS concentration in Salt Kill Sample 4 was higher than all the samples collected, however this sample had a unique signature in comparison to the other samples collected from the Salt Kill. It was dominated by 6:2 FTS and PFPeA as measured during the low flow event. The reason for this difference has not been determined. It is possible that there are other sources contributing to the increased low flow total PFAS concentration found in this sample including groundwater or sediments. 6:2 FTS was not observed in any other water samples collected in this study. Of significant note, PFOS followed the increased high flow loading as observed in Salt Kill samples 1 -3.

The Patroon Creek samples did not follow this pattern of increased loading during a high flow event. Overall, the Patroon Creek samples were higher in total PFAS concentrations during the low flow event, indicating a possible sediment effect which was observed in Salt Kill sample 4. In this case the stormwater runoff is diluting the total PFAS concentrations during the high flow event and the high sediment concentrations are masking any increases as observed in the other two streams during the high flow event. The results of this analysis reveal some PFAS loading into the Salt Kill and Schuyler Creeks during the high flow events, which indicates a combination of the PFAS contribution from precipitation events and stormwater runoff. This finding is not unexpected since it is known that perfluoroalkyl carboxylates are being detected in rainwater across the United States. This issue is discussed further in the PFAS in Precipitation section of this report.

Table 7.4. Differences in Total PFAS during a Low Flow and High Flow Creek Event.

Sample ID	Low Flow (Total PFAS) (ppt)	High Flow (Total PFAS) (ppt)	Difference
Schuyler Creek 1	4.34	9.44	+ 5.10
Schuyler Creek 2	9.03	12.05	+ 3.02
Salt Kill 1	10.03	18.25	+8.22
Salt Kill 2	8.64	18.91	+10.27
Salt Kill 3	10.59	19.98	+9.39
Salt Kill 4	100	28.08	- 71.92
Patroon Creek 2	64.80	33.42	- 31.38
Patroon Creek 3	41.43	34.70	-6.73
Patroon Creek 4	36.90	31.84	-5.06

7.5 Concentrations of PFAS in Ponded Waterbodies

Water samples 5,6,7 and 8 were collected in surface water bodies (quarry ponds and an un-named pond) in close proximity to Norlite. The patterns of PFAS were distinctly different between the quarry ponds, samples W5 and W6 and un-named pond samples W7 and W8. This observed difference in PFAS surface water profiles between the two areas in close proximity of each other indicates there is likely another source contributing to the PFAS water and soil concentrations. The unique surface water PFAS profiles observed in samples W7 and W8 are consistent with the use of textiles which contain PFAS used to provide resistance to water and staining.

It is well known many textiles currently manufactured and used are produced with chemical treatments using per and poly fluoroalkyl substances to provide protection against fading, water, stain, and oil penetration. The PFAS profiles of these imported textiles are changing as newer shorter chain PFAS replacements are currently being used, which includes the PFOS replacement PFBS.[10,11,12,13] . In comparison to all the other water samples collected, the

[10] Heydebreck F, Tang J, Xie Z, Ebinghaus R. 2016. Emissions of Per- and Polyfluoroalkyl Substances in a Textile Manufacturing Plant in China and Their Relevance for Workers Exposure. Environmental Science and Technology 50 (19) Available On-Line: DOI: 10.1021/acs.est.6b03213

[11] California Environmental Protection Agency. 2019. Product-Chemical Profile for Treatments Containing Perfluoroalkyl or Polyfluoroalkyl Substances for Use on Converted Textiles and Leathers. November 2019 – Discussion Draft. Available On-Line: Product-Chemical Profile for Treatments Containing Perfluoroalkyl or Polyfluoroalkyl Substances for Use on Converted Textiles or Leathers

[12] Norwegian Environment Agency. 2017. Investigations of Sources to PFBS in the Environment. Report of 15 May 2017. Available On-Line: Investigation of sources to PFBS in the environment (miljodirektoratet.no)

[13] Li J, Xu JH, Song R, Zhu Y, Sun W, Ni J. (2020) Polyfluoroalkyl Substances in Danjiangkou Reservoir, China: Occurrence, composition, and source appointment. Science of the Total Environment

PFBS concentrations point to a local contributing source different than the other sample locations. The hightest total PFAS water concentrations were measured in the unnamed pond which is downwind and in close proximity to a manufacturer that uses textiles. Additional investigations will continue to further explore potential sources of the detections observed in this area.

PFBS was purportedly developed as a less toxic and persistent replacement for PFOS for use in surface coatings to instill water repellency and stain resistance. It is also a component used to replace PFOS in AFFF foams. A comparison of the PFAS profiles in surface water and run-off water sampling from AFFF firefighting sites indicates the PFAS profile being observed in no-name pond is related to its use in textiles, not a spill of AFFF or emissions of unburned AFFF in this study area. AFFF-contaminated sites have a unique profile, which is not being observed in any of these water samples collected in the study area. For example, surface water runoff of PFOS and PFOA from the AFFF training area in Newburgh, New York ranged from 47 – 280 ppt and 15 – 40 ppt, respectively. Our analysis of PFAS contamination around fire training sites reveals high levels of PFAS in all water samples dominated by PFOS, PFHxS, PFHxA and PFOA in rank order. None of these rank-ordered profiles were observed in any of the surface water samples collected in the vicinity of Norlite.

Table 7.5 displays the surface water ranges from three independent studies conducted in the Northeast. The results from Washington Park Lake in Albany, New York indicates the PFAS contamination profile from 2007 is still consistent with the results from the Norlite surface water samples for the analytes sampled. Recent work conducted by New Jersey Department of Environmental Protection (NJDEP) in 2018 also reveals a consistent PFAS profile, with the higher PFOS, PFHxS, PFHxA and PFOA values collected from surface waters with possible AFFF contamination. Of note in the NJDEP study, was a sample collected in a creek downstream from a carpet manufacturer. The PFAS profile in this sample matches the PFAS profile collected in the unnamed pond. Both samples contain the same nine detected individual PFASs, which provides more certainty about the textile source of contamination in no-name pond.

725:10 138352. Available On-Line: Polyfluoroalkyl substances in Danjiangkou Reservoir, China: Occurrence, composition, and source appointment - ScienceDirect

TABLE 7.5 Range of PFAS Detected in Surface Water Studies (ppt or ng/l) [14,15]

Analyte	**Washington Lake Range[1]**	**Norlite Range[2]**	**New Jersey Surface Water Range[3]**
PFBA	N/A	ND - 23	ND – 5.2
PFPeA	N/A	2.3 - 13	1.0 – 10.0
PFHxA	N/A	2.4 - 11	ND – 26.0
PFHpA	1.15 – 12.7	0.86 – 11.0	1.1 – 14.6
PFOA	3.27 – 15.8	0.97 – 5.6	1.9 – 33.9
PFNA	ND – 3.51	0.41 – 1.8	ND – 2.1
PFDA	0.25 – 3.58	ND	ND
PFUnA	ND – 1.45	0.28 – 1.8	ND
PFDoA	ND	ND	ND
PFTriA	N/A	ND	N/A
PFTeA	N/A	ND	N/A
NMeFOSSA	N/A	ND	N/A
NetFOSSA	N/A	ND	N/A
PFBS	N/A	0.56 - 100	ND – 6.6
PFHxS	ND – 4.05	1.7 – 3.4	ND – 95.9
PFHpS	N/A	ND	N/A
PFOS	ND – 9.3	2.1 – 12	ND – 102.0
PFDS	ND – 3.4	ND	N/A
PFOSA	ND – 0.47	ND	ND
6:2 FTS	ND – 1.46	ND	N/A
8:2 FTS	ND – 0.32	ND	N/A

N/A – not applicable due to limited quantitative detection.
1 – Analysis performed for 12 PFAS
2 - Analysis performed for 21 PFAS
3 – Analysis performed for 12 PFAS

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[14] Kim K. and Kannan K. 2007. Perfluorinated Acids in Air, Rain, Snow, Surface Runoff and Lakes: Relative Importance of Pathways to Contamination of Urban Lakes. *Environ. Sci. Technol.* **2007,** *41,* 8328–8334

[15] New Jersey Department of Environmental Protection (NJDEP). 2018. Investigation of Levels of Perfluorinated Compounds in New Jersey Fish, Surface Water and Sediment. Updated April 9, 2019. Available On-Line: Investigation of Levels of Perfluorinated Compounds in New Jersey Fish, Surface Water, and Sediment (nj.gov)

7.6 PFAS in Precipitation

The National Atmospheric Deposition Program (NADP) has recently launched a national investigation into the PFAS concentrations in rainwater across the United States. Preliminary research has identified that the shorter chain PFAS are dominating the samples. Overall concentrations were low (<1 ppt), with the sum of total PFAS being around 4 ppt. The dominant PFAS detected in rainwater were the perfluoroalkyl carboxylates. Preliminary research has indicated more individual PFAS are detected and higher concentrations of atmospheric PFAS are observed in the mid-Atlantic States.[16,17] The most extensive evaluation of PFAS atmospheric concentrations and wet deposition across the United States has been compiled by researchers in North Carolina.[18]

This research is continuing and will assist DEC by determining the chemical identity and quantity of PFAS which is currently cycling in the atmosphere and contributing to the current soil and water contamination levels being observed in this community. This research in tandem with a robust emissions testing program will be invaluable in understanding how potential sources of PFAS and PFAS precursors are contributing to atmospheric concentrations which continue to contaminate our environment.

8. Conclusions and Recommendations

8.1 Analysis of soil concentrations does not show evidence of a strong upwind / downwind gradient of PFAS and metals.

As described in this report, sampling results were analyzed using a variety of basic statistical methods. These analyses did not indicate a clearly discernible upwind / downwind gradient as is commonly found when soil samples are analyzed upwind and downwind from known emission sources of PFAS and metals. Given the absence of a deposition pattern attributable to this point source, the concentrations of PFAS observed in this study are consistent with background levels documented in the literature and more likely the result of 70 years of widespread releases to the environment since PFAS were introduced into commerce.

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[16] Schafer M., Olson M., Danielson C., Widmayer K. 2020. PFAS Deposition in Precipitation: Efficacy of the NADP – NTN & Initial Findings. Presented at WisPAC Meeting, January 2020. Available On-Line: January 16, 2020, WIsPAC Presentation - PFAS Deposition in Precipitation: Efficacy of the NADP-NTN & Initial Findings

[17] Schafer M., Olson M., Schauer J. 2020. The National Atmospheric Deposition Program: National Trends Network, A Premier Model of Multi-Sector Partnerships, Working to Provide New Information on PFAS Deposition in Precipitation. Presented at 2020 National Environmental Monitoring Conference August 14, 2020. Available On-Line: PowerPoint Presentation (nelac-institute.org)

[18] North Carolina PFAS Testing (PFAST) Network. 2019. Atmospheric Concentrations and Deposition of PFAS. Available On-Line: Air and Atmospheric Deposition of PFAS in North Carolina (nccoast.org)

Investigation by the USEPA as well as DEC to understand the sources and extent of PFAS contamination will be critical so that it can be effectively managed and/or mitigated in the future.

The analysis of the soil metal concentrations in the majority of residential soil samples did not reveal any concentrations above the restricted residential use soil cleanup objective criteria used by the DEC for making soil cleanup determinations with the exception of one sample for mercury. Some residential samples were above the unrestricted use soil cleanup objectives as discussed in the report. Overall, the upwind/downwind analysis of the metals in the soil samples did not reveal a strong gradient in soil metal concentrations in the predominant downwind area around Norlite. In addition, statistical evaluation of metals concentrations in soils does not show clear evidence of an upwind / downwind gradient for these contaminants.

8.2 Concentrations of PFOA and PFOS in soils do not indicate a human health risk.

While guidance concentrations have not been established for all PFAS compounds which were analyzed in this study, the concentrations of PFOA and PFOS found were largely below residential use values that have been established in DEC guidance. The one sample result showing a PFOS concentration exceeding the residential use value was found in a location that is not used for residential purposes and thus exposures associated with residntial property use are unlikely. Likewise, only one result for metals (mercury) exceeded a residential soil cleanup objective in regulation. This soil location is near a landfill and is also not in an area associated with residential use. In all cases, concentrations were less than the guidance use values for the current uses of the sampled property.

Recommendation: DEC and DOH will continue to evaluate health-based values for all PFAS compounds and will work to establish guidance values for additional compounds as scientific studies support these designations.

8.3 Analysis of stream concentrations at high flow and low flow indicates possible influence from soils and from precipitation, but not in locations with higher concentrations such as those found in the Patroon Creek and in the Salt Kill downstream from Norlite.

The reversal of the concentration trends in streams in areas with higher PFAS concentrations during low flow events indicates that there are likely sources of these contaminants other than from air deposition leading to increased storm-water runoff and precipitation concentrations/loading. This observation will be further evaluated by DEC in other areas of the state in the future.

Recommendation: Add PFAS monitoring requirements to Norlite's hazardous waste management permit to assess the possibility of contaminant loading from groundwater or other on-site sources.

8.4 Analysis of surface water samples in areas of ponded water on or near Norlite property indicate that there are likely sources of PFAS compounds not associated with Norlite kiln emissions.

The observed difference in PFAS surface water profiles between two ponded areas in close proximity of each other indicates there are likely other sources contributing to the PFAS water and soil concentrations. DEC believes sources contributing to the unique surface water PFAS profiles observed in samples W7 and W8 are related to the use of textiles, used to provide resistance to water and staining, which contain PFAS.

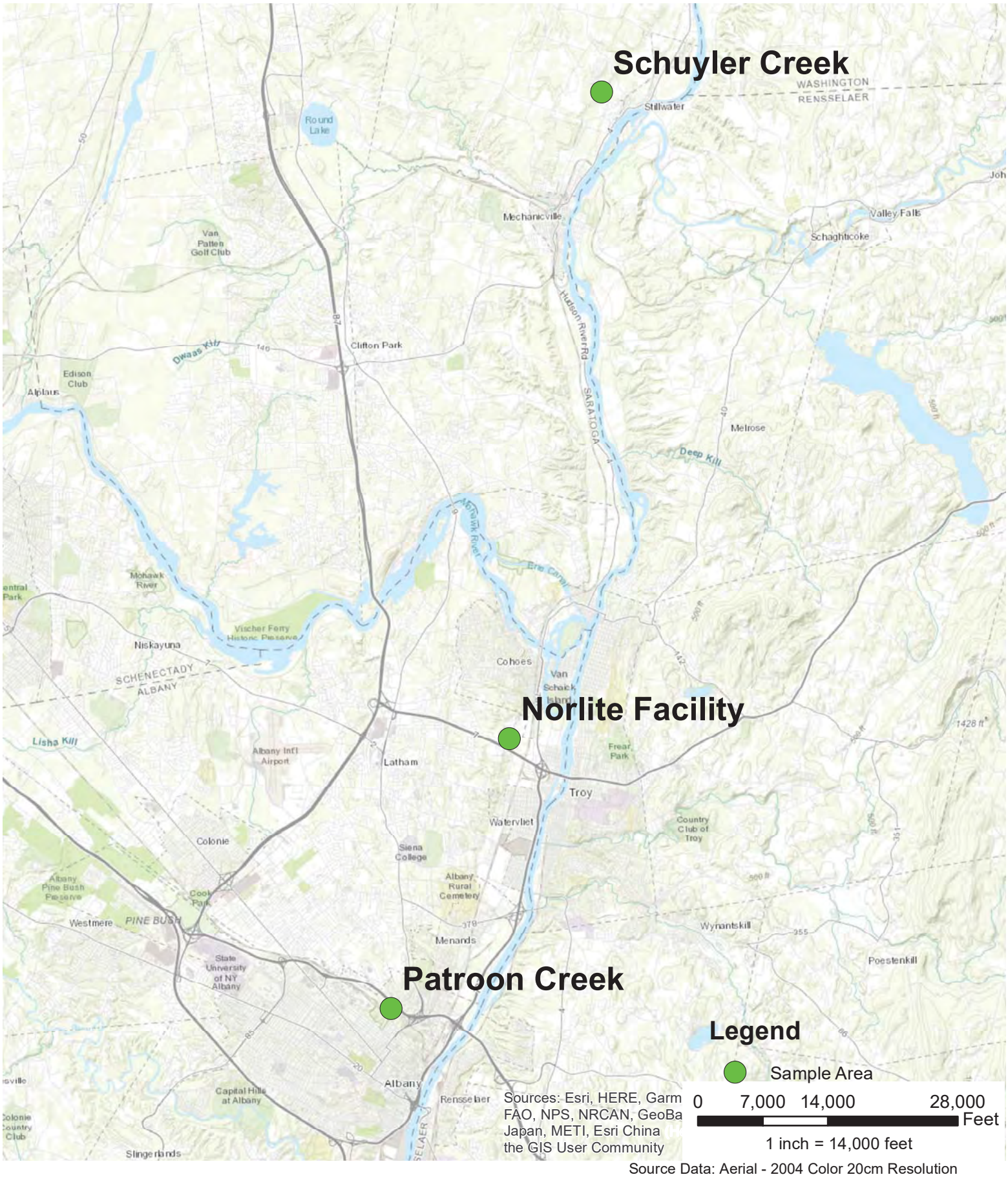
Recommendation: Investigate for other local sources of short-chained PFAS compounds. In addition, add additional monitoring requirements to Norlite's hazardous waste management permit to monitor PFAS concentrations in quarry pond water.

8.5 Source Characterization of Organic and Inorganic Fluorine Emissions:

The fate of fluorinated chemicals being emitted from the kilns can be more fully understood by using the recently developed US EPA Method OTM 45 and other analytical methods for measuring inorganic fluoride.

Recommendation: Require emissions testing which includes an analysis of inorganic and organic fluorine emissions from the kilns at Norlite. Consult with researchers from the US EPA Office of Research and Development to design an emissions study to verify the formation of hydrogen fluoride (HF) during the high temperature combustion of organic fluorinated compounds and verify compliance with the current New York State Standard (6 NYCRR Part 257-4) for gaseous fluoride.

Figures



Source Data: Aerial - 2004 Color 20cm Resolution

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Figure 1
Norlite Study
Albany County, New York

N

Location	SOIL 16
Sample ID	S16
Depth (in.)	0 - 6
PFOS	0.65
PFOA	0.52
Total PFAS	3.009

Location	SOIL 2	SOIL 2
Sample ID	DUP1	S2
Depth (in.)	0 - 6	0 - 6
PFOS	**1.5**	**1.4**
PFOA	**1.1**	**0.95**
Total PFAS	5.429	5.668

Location	SOIL 1
Sample ID	S1
Depth (in.)	0 - 6
PFOS	**0.95 J+**
PFOA	0.3
Total PFAS	2.066

Location	SOIL 3
Sample ID	S3
Depth (in.)	0 - 6
PFOS	< 0.50 U
PFOA	< 0.20 U
Total PFAS	0.322

Location	SOIL 5
Sample ID	S5
Depth (in.)	0 - 6
PFOS	**1.7 J+**
PFOA	**0.93**
Total PFAS	5.718

Location	SOIL 4	SOIL 4
Sample ID	DUP2	S4
Depth (in.)	0 - 6	0 - 6
PFOS	< 0.32 U	0.26 J
PFOA	0.36	0.38
Total PFAS	1.578	2.097

Location	SOIL 6	SOIL 6
Sample ID	S6A	S6B
Depth (in.)	0 - 2	0 - 6
PFOS	**2.8 J+**	**2.3 J+**
PFOA	0.45	0.63
Total PFAS	5.142	5.093

Location	SOIL 11
Sample ID	S11
Depth (in.)	0 - 6
PFOS	0.78 J+
PFOA	0.58
Total PFAS	2.96

Location	SOIL 8	SOIL 8
Sample ID	S8A	S8B
Depth (in.)	0 - 2	0 - 6
PFOS	**4.2**	**4.5**
PFOA	0.39	0.42
Total PFAS	18.7	18.95

Location	SOIL 7	SOIL 7
Sample ID	S7A	S7B
Depth (in.)	0 - 2	0 - 6
PFOS	**1.2 J+**	**1.1 J+**
PFOA	0.33	0.29
Total PFAS	2.65	2.326

Location	SOIL 9	SOIL 9
Sample ID	S9A	S9B
Depth (in.)	0 - 2	0 - 6
PFOS	**3.0 J+**	**2.9 J+**
PFOA	0.54	0.6
Total PFAS	5.537	5.422

Location	SOIL 12
Sample ID	S12
Depth (in.)	0 - 6
PFOS	< 0.45 U
PFOA	0.29
Total PFAS	0.878

Location	SOIL 13
Sample ID	S13
Depth (in.)	0 - 6
PFOS	0.65
PFOA	**1.1**
Total PFAS	11.896

Location	SOIL 10
Sample ID	S10
Depth (in.)	0 - 6
PFOS	**1.4 J+**
PFOA	0.19 J
Total PFAS	2.471

Location	SOIL 14
Sample ID	S14
Depth (in.)	0 - 6
PFOS	***9.8***
PFOA	**1.1**
Total PFAS	14.711

Location	SOIL 15
Sample ID	S15
Depth (in.)	0 - 6
PFOS	**1.2**
PFOA	**0.88**
Total PFAS	4.769

Legend

Surface Soil Location

Notes:

units:	micrograms per kilogram or parts per billion
U:	Not Detected
J+:	estimated value biased high
Bold values:	above unrestricted use criteria
Bold Italicized values:	above residential use criteria

	Unrestricted Use Criteria	Residential Use Criteria
PFOS	0.88	8.8
PFOA	0.66	6.6

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

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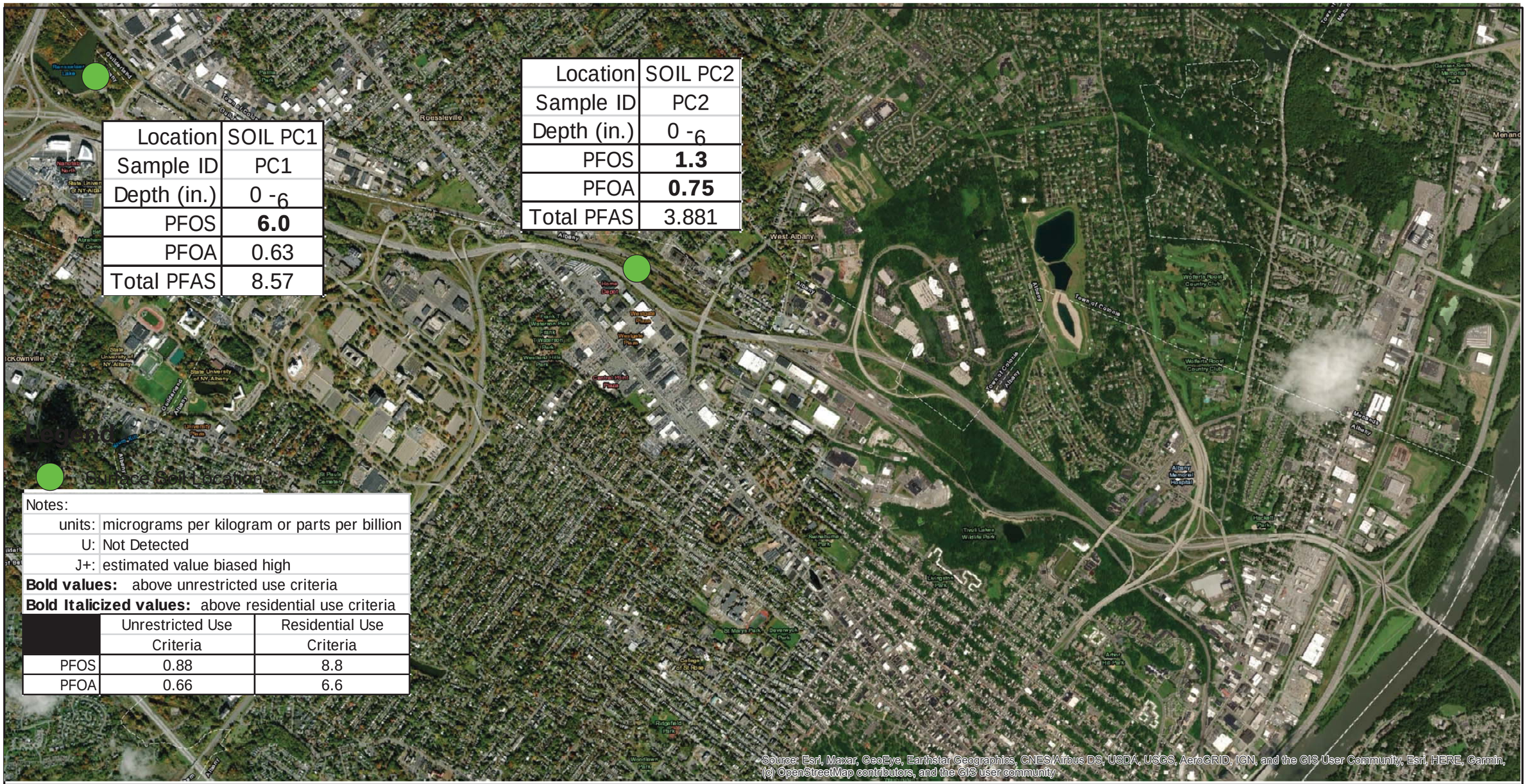
Figure 2
PFOS, PFOA, and Total PFAS Soil Results
Norlite Area
Albany County, New York

0 305 610 1,220 Feet

1 inch = 600 feet

N

October/November 2020



Location	SOIL PC1
Sample ID	PC1
Depth (in.)	0 -6
PFOS	**6.0**
PFOA	0.63
Total PFAS	8.57

Location	SOIL PC2
Sample ID	PC2
Depth (in.)	0 -6
PFOS	**1.3**
PFOA	**0.75**
Total PFAS	3.881

Notes:

units:	micrograms per kilogram or parts per billion
U:	Not Detected
J+:	estimated value biased high

Bold values: above unrestricted use criteria

Bold Italicized values: above residential use criteria

	Unrestricted Use Criteria	Residential Use Criteria
PFOS	0.88	8.8
PFOA	0.66	6.6

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Figure 3
PFOS, PFOA, and Total PFAS Soil Results
Patroon Creek Area
Albany County, New York

0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

N

October/November 2020



NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

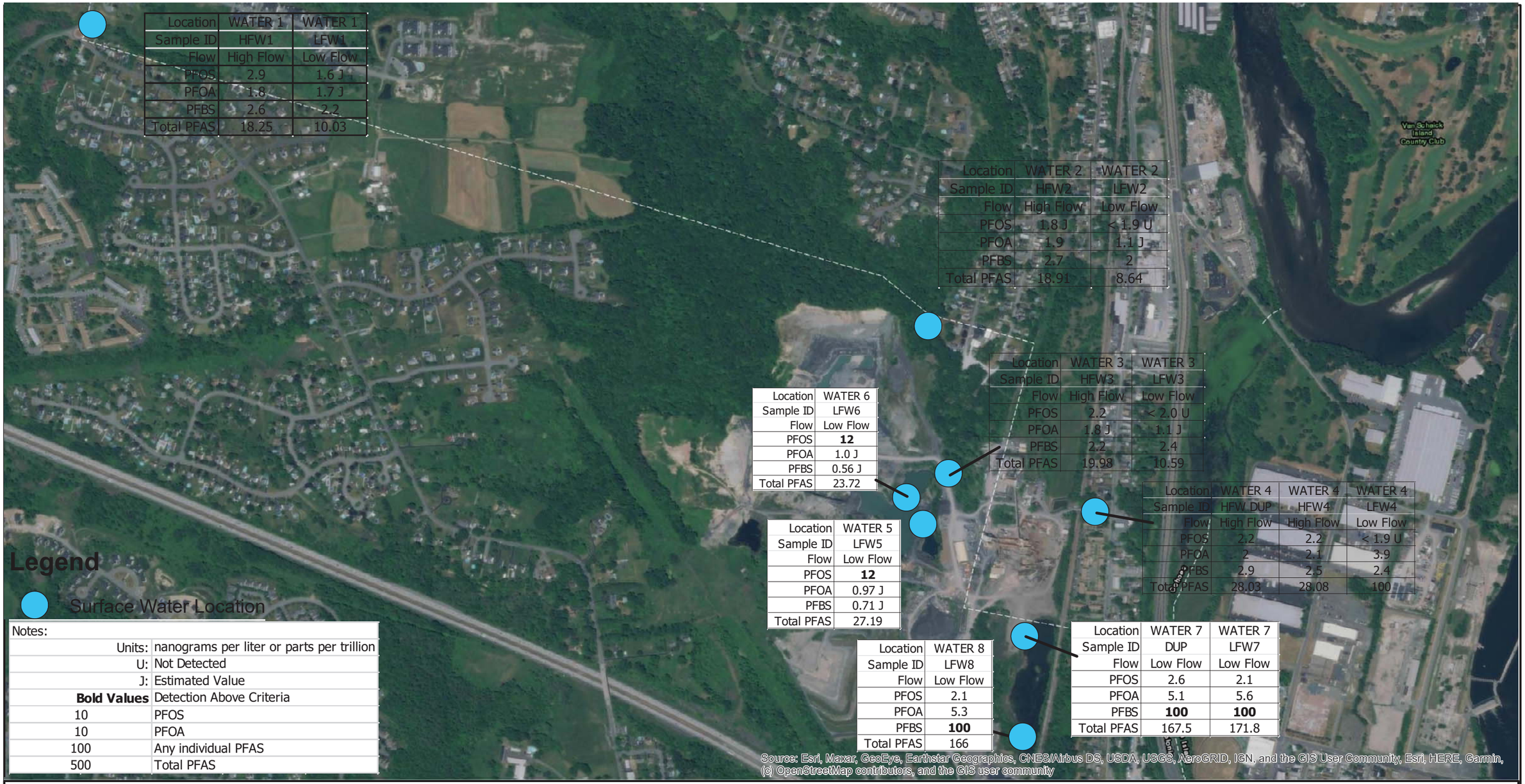
0 305 610 1,220 Feet

1 inch = 600 feet

Figure 4
Metal Soil Results
Above Unrestricted Use
Norlite Area
Albany County, New York

N

October/November 2020



Location	WATER 1	WATER 1
Sample ID	HFW1	LFW1
Flow	High Flow	Low Flow
PFOS	2.9	1.6 J
PFOA	1.8	1.7 J
PFBS	2.6	2.2
Total PFAS	18.25	10.03

Location	WATER 2	WATER 2
Sample ID	HFW2	LFW2
Flow	High Flow	Low Flow
PFOS	1.8 J	< 1.9 U
PFOA	1.9	1.1 J
PFBS	2.7	2
Total PFAS	18.91	8.64

Location	WATER 3	WATER 3
Sample ID	HFW3	LFW3
Flow	High Flow	Low Flow
PFOS	2.2	< 2.0 U
PFOA	1.8 J	1.1 J
PFBS	2.2	2.4
Total PFAS	19.98	10.59

Location	WATER 6
Sample ID	LFW6
Flow	Low Flow
PFOS	**12**
PFOA	1.0 J
PFBS	0.56 J
Total PFAS	23.72

Location	WATER 5
Sample ID	LFW5
Flow	Low Flow
PFOS	**12**
PFOA	0.97 J
PFBS	0.71 J
Total PFAS	27.19

Location	WATER 4	WATER 4	WATER 4
Sample ID	HFW DUP	HFW4	LFW4
Flow	High Flow	High Flow	Low Flow
PFOS	2.2	2.2	< 1.9 U
PFOA	2	2.1	3.9
PFBS	2.9	2.5	2.4
Total PFAS	28.03	28.08	100

Location	WATER 8
Sample ID	LFW8
Flow	Low Flow
PFOS	2.1
PFOA	5.3
PFBS	**100**
Total PFAS	166

Location	WATER 7	WATER 7
Sample ID	DUP	LFW7
Flow	Low Flow	Low Flow
PFOS	2.6	2.1
PFOA	5.1	5.6
PFBS	**100**	**100**
Total PFAS	167.5	171.8

Legend

Surface Water Location

Notes:	
Units:	nanograms per liter or parts per trillion
U:	Not Detected
J:	Estimated Value
Bold Values	Detection Above Criteria
10	PFOS
10	PFOA
100	Any individual PFAS
500	Total PFAS

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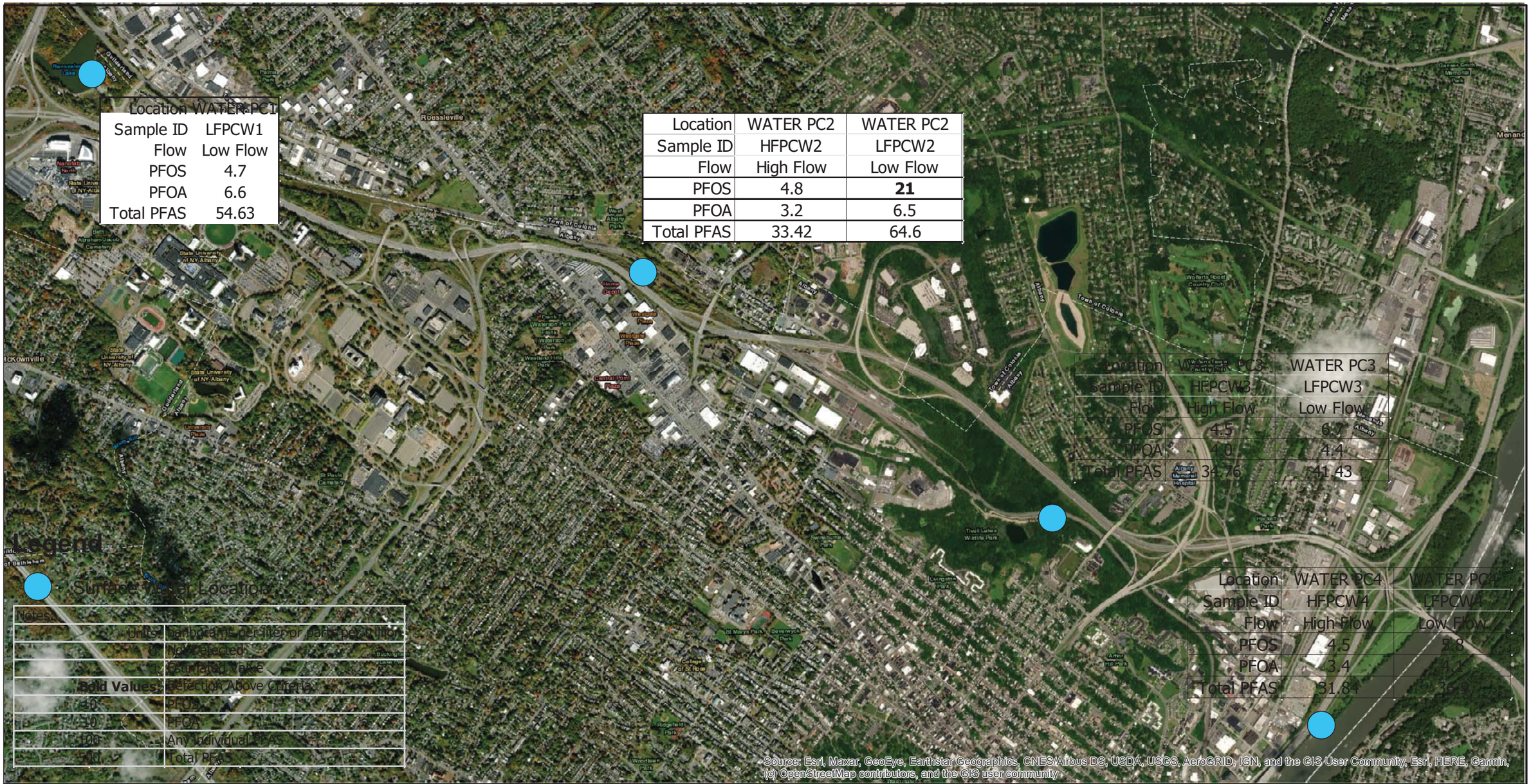
Figure 5
PFOS, PFOA, PFBS, and Total PFAS
Surface Water Results
Norlite Area
Albany County, New York

0 400 800 1,600 Feet

1 inch = 800 feet

N

October/November 2020



NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Figure 6
PFOS, PFOS, and Total PFAS
Surface Water Results
Patroon Creek Area
Albany County, New York

0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

N

October/November 2020

Location	WATER SC2
Sample ID	LFSCW2
Flow	Low Flow
PFOS	< 1.9 U
PFOA	1.6 J
Total PFAS	4.34

Location	WATER SC1
Sample ID	HFSCW1
Flow	High Flow
PFOS	1.1 J
PFOA	1.8 J
Total PFAS	12.05

Legend

Surface Water Location

Notes:	
Units:	nanograms per liter or parts per trillion
U:	Not Detected
J:	Estimated Value
Bold Values:	Detection Above Criteria
10	PFOS
10	PFOA
100	Any individual PFAS
500	Total PFAS

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

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Figure 7
PFOS, PFOA, and Total PFAS Surface Water Results
Schuyler Creek Area
Saratoga County, New York

0 400 800 1,600 Feet

1 inch = 800 feet

N

October/November 2020

Tables

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Table 1
Norlite Area Investigation
Sample Locations and Description

Site ID	LOCATION	LATITUDE	LONGITUDE	ANALYSES
Soil 1	Norlite Property	42.75804605	-73.71673	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 2	Off-site	42.76100097	-73.704122	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 3	Norlite Property	42.75720798	-73.702848	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 4	Norlite Property	42.75504483	-73.70223	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 5	Off-Site	42.75662583	-73.69885	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 6(a,b)	Cohoes Housing Authority	42.75399417	-73.701248	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 7(a,b)	Cohoes Housing Authority	42.75324278	-73.701162	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 8(a,b)	Cohoes Housing Authority	42.75274306	-73.701225	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury, TOP Assay (Soil 8b)
Soil 9(a,b)	Cohoes Housing Authority	42.75274356	-73.701226	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 10	Off-site	42.74969361	-73.697726	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 11	Norlite Property	42.75348835	-73.712804	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 12	Norlite Property	42.75173317	-73.712829	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 13	Off-site	42.74751773	-73.707682	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 14	Off-site	42.7580473	-73.70932	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil 15	Off-site	42.74167	-73.713694	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury, TOP Assay
Soil 16	Off-site	42.76260021	-73.704122	PFAS Modified 21, Hexavalent Chromium, Metals, Mercury
Soil PC1	Patroon Creek	42.6970986	-73.831029	PFAS Modified 21
Soil PC2	Patroon Creek	42.68582622	-73.78982	PFAS Modified 21
Water 1	Salt Kill Norlite Property	42.76573167	-73.73163	PFAS Modified 21
Water 2	Salt Kill Norlite Property	42.7586184	-73.708186	PFAS Modified 21
Water 3	Salt Kill Norlite Property	42.75528025	-73.705555	PFAS Modified 21
Water 4	Salt Kill Norlite Property Downgradient	42.7543632	-73.705287	PFAS Modified 21, TOP Assay
Water 5	Norlite Property	42.75399167	-73.706342	PFAS Modified 21
Water 6	Norlite Property	42.75473194	-73.706872	PFAS Modified 21
Water 7	Off-site Surface Waterbody	42.75155667	-73.703293	PFAS Modified 21, TOP Assay
Water 8	Off-site Surface Waterbody	42.74930139	-73.703398	PFAS Modified 21
Water PC1	6 Mile Reservoir	42.6972244	-73.731317	PFAS Modified 21
Water PC2	Patroon Creek	42.6856165	-73.789469	PFAS Modified 21
Water PC3	Patroon Creek	42.67144944	-73.758501	PFAS Modified 21
Water PC4	Patroon Creek	42.65956167	-73.738226	PFAS Modified 21
Water SC1	Schuyler Creek	42.93756178	-73.657972	PFAS Modified 21
Water SC2	Schuyler Creek	42.97425	-73.671394	PFAS Modified 21

Note: EPA Method 537 (modified) used to analyze for PFAS. Methods 6010D, 7471B (mercury) and 7196A (hexavalent chromium) used to analyze for metals.

Table 2
Norlite Area Investigation
Soil Per- and Polyfluoroalkyl Substances (PFAS) Results - October 2020

Location Sample ID Sample Date Depth (inches)	Unrestricted Use Criteria	Residential Use Criteria	SOIL 1 S1 10/21/2020 0 - 6	SOIL 2 DUP1 10/21/2020 0 - 6	SOIL 2 S2 10/21/2020 0 - 6	SOIL 3 S3 10/21/2020 0 - 6	SOIL 4 DUP2 10/21/2020 0 - 6	SOIL 4 10/21/2020 0 - 6	SOIL 5 S5 10/21/2020 0 - 6	SOIL 6 S6A 10/21/2020 0 - 2	SOIL 6 S6B 10/21/2020 0 - 6	SOIL 7 S7A 10/21/2020 0 - 2	SOIL 7 S7B 10/21/2020 0 - 6
CHEMICAL NAME													
Perfluorooctanesulfonic acid (PFOS)	0.88	8.8	**0.95 J+**	**1.5**	**1.4**	< 0.50 U	< 0.62 U	0.26 J	**1.7 J+**	**2.8 J+**	**2.3 J+**	**1.2 J+**	**1.1 J+**
Perfluorooctanoic acid (PFOA)	0.66	6.6	0.30	**1.1**	**0.95**	< 0.20 U	0.36	0.38	**0.93**	0.45	0.63	0.33	0.29
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NC	NC	< 2.7 U	< 2.8 U	< 2.9 U	< 2.0 U	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 2.6 U	< 2.7 U	< 2.5 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NC	NC	< 2.7 U	< 2.8 U	< 2.9 U	< 2.0 U	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 2.6 U	< 2.7 U	< 2.5 U
Perfluorobutanesulfonic acid (PFBS)	NC	NC	< 0.27 U	0.26 J	0.25 J	< 0.20 U	0.033 J	0.050 J	0.075 J	0.093 J	0.089 J	0.059 J	0.056 J
Perfluorobutanoic acid (PFBA)	NC	NC	0.19 J	0.55	0.59	0.10 J	0.38	0.50	0.71	0.22 J	0.34	0.21 J	0.16 J
Perfluorodecanesulfonic Acid (PFDS)	NC	NC	< 0.27 U	< 0.28 U	< 0.29 U	< 0.20 U	< 0.25 U	< 0.24 U	0.26 UJ	0.15 J	0.15 J	0.067 J	0.075 J
Perfluorodecanoic acid (PFDA)	NC	NC	0.092 J	0.24 J	0.32	< 0.20 U	0.066 J	0.089 J	0.35			0.11 J	0.16 J
Perfluorododecanoic acid (PFDoA)	NC	NC	< 0.27 U	0.11 J	0.14 J	< 0.20 U	< 0.25 U	< 0.24 U	0.16 J	0.15 J	0.14 J	< 0.27 U	< 0.25 U
Perfluoroheptanesulfonic acid (PFHpS)	NC	NC	< 0.27 U	< 0.28 U	< 0.29 U	< 0.20 U	< 0.25 U	< 0.24 U	< 0.26 U	< 0.27 U	< 0.26 U	< 0.27 U	< 0.25 U
Perfluoroheptanoic acid (PFHpA)	NC	NC	0.10 J	0.29	0.30	0.063 J	0.16 J	0.17 J	0.29 0.40	0.13 0.34	0.17 J	0.11 J	0.085 J
Perfluorohexanesulfonic acid (PFHxS)	NC	NC	< 0.27 U	0.052 J	0.049 J	< 0.20 U	< 0.25 U	< 0.24 U	< 0.26 U	0.059 J	0.064 J	0.044 J	< 0.25 U
Perfluorohexanoic acid (PFHxA)	NC	NC	0.084 J	0.27 J	0.32	0.080 J	0.15 J	0.20 J	0.23 J	< 0.27 U	0.16 J	0.13 J	0.12 J
Perfluorononanoic acid (PFNA)	NC	NC	0.19 J	0.43	0.45	< 0.20 U	0.17 J	0.17 J	0.49			0.17 J	0.16 J
Perfluorooctanesulfonamide (FOSA)	NC	NC	< 0.27 U	< 0.28 U	< 0.29 U	< 0.20 U	< 0.25 U	< 0.24 U	< 0.26 U	< 0.27 U	< 0.26 U	< 0.27 U	< 0.25 U
Perfluoropentanoic acid (PFPeA)	NC	NC	< 0.27 U	0.29	0.37	0.079 J	0.16 J	0.20 J	0.31	0.16 J	0.23 J	0.11 J	< 0.25 U
Perfluorotetradecanoic acid (PFTeA)	NC	NC	< 0.27 U	< 0.28 U	0.079 J	< 0.20 U	< 0.25 U	< 0.24 U	0.093 0.32	< 0.27 0.31	< 0.26 U	< 0.27 U	< 0.25 U
Perfluorotridecanoic acid (PFTriA)	NC	NC	< 0.27 U	0.087 J	0.11 J	< 0.20 U	< 0.25 U	< 0.24 U	0.10 J	< 0.27 U	< 0.26 U	< 0.27 U	< 0.25 U
Perfluoroundecanoic acid (PFUnA)	NC	NC	0.16 J	0.25 J	0.34	< 0.20 U	0.099 J	0.078 J	0.28	0.21 J	0.17 J	0.11 J	0.12 J
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NC	NC	< 2.7 U	< 2.8 U	< 2.9 U	< 2.0 U	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 2.6 U	< 2.7 U	< 2.5 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NC	NC	< 2.7 U	< 2.8 U	< 2.9 U	< 2.0 U	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 2.6 U	< 2.7 U	< 2.5 U
Total Per- and Polyfluoroalkyl Substances (PFAS)	NC	NC	2.066	5.429	5.668	0.322	1.578	2.097	5.978	5.142	5.093	2.65	2.326

Notes:

Units:	micrograms per kilogram or parts per billion
U:	Not Detected
J:	Estimated Value
J+:	Estimated Value but may be biased high
J-:	Estimated Value but may be biased low
B:	Compound was found in the blank and sample
NC:	No Criteria
Duplicates:	DUP1 duplicate of S2 and DUP2 duplicate of S4
Bold Values:	Detection above NYSDEC Guidance Value for Unrestricted Use
Bold Italicized Values:	Detection above NYSDEC Guidance Value for Residential Use

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Table 2 Continued
Norlite Area Investigation
Soil Per- and Polyfluoroalkyl Substances (PFAS) Results - October 2020

Location Sample ID Sample Date Depth (inches)	Unrestricted Use Criteria	Residential Use Criteria	SOIL 8 S8A 10/21/2020 0 - 2	SOIL 8 S8B 10/21/2020 0 - 6	SOIL 9 S9A 10/21/2020 0 - 2	SOIL 9 S9B 10/21/2020 0 - 6	SOIL 10 S10 10/21/2020 0 - 6	SOIL 11 S11 10/21/2020 0 - 6	SOIL 12 S12 10/21/2020 0 - 6	SOIL 13 S13 10/21/2020 0 - 6	SOIL 14 S14 10/21/2020 0 - 6	SOIL 15 S15 10/21/2020 0 - 6	SOIL 16 S16 10/21/2020 0 - 6
CHEMICAL NAME													
Perfluorooctanesulfonic acid (PFOS)	0.88	8.8	**4.2**	**4.5**	**3.0 J+**	**2.9 J+**	**1.4 J+**	0.78 J+	< 0.61 U	0.65	***9.8***	**1.2**	0.65
Perfluorooctanoic acid (PFOA)	0.66	6.6	0.39	0.42	0.54	0.60	0.19 J	0.58		**1.1**	**1.1**	**0.88**	0.52
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NC	NC	< 2.4 U	< 2.4 U	< 2.5 U	< 2.5 U	< 3.1 U	< 2.7 U	< 2.4 U	< 2.4 U	< 2.5 U	< 3.0 U	< 2.4 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NC	NC	1.4 J	1.5 J	< 2.5 U	< 2.5 U	< 3.1 U	< 2.7 U 0.29	< 2.4 U	< 2.4 U	< 2.5 U	< 3.0 U	< 2.4 U
Perfluorobutanesulfonic acid (PFBS)	NC	NC	0.15 J	0.12 J	0.092 J	0.079 J	< 0.31 U	< 0.27 U	< 0.24 U	< 0.24 U	0.044 J	0.046 J	0.11 J
Perfluorobutanoic acid (PFBA)	NC	NC	0.10 J	0.20 J	< 0.25 U	< 0.25 U	0.15 J	0.27	0.089 J	0.90	0.45	0.28 J	0.45
Perfluorodecanesulfonic Acid (PFDS)	NC	NC	5.9	5.7	0.19 J-	0.16 J-	< 0.31 UJ	< 0.27 U	< 0.24 U	< 0.24 U	< 0.25 U	< 0.30 U	< 0.24 U
Perfluorodecanoic acid (PFDA)	NC	NC	0.91	0.88	0.25	0.27	0.20 J	0.21 J	0.073 J	2.1	0.27	0.35	0.21 J
Perfluorododecanoic acid (PFDoA)	NC	NC	0.47	0.35	0.12 J	0.14 J	< 0.31 U	< 0.27 U	< 0.24 U	0.28	0.11 J	0.15 J	0.089 J
Perfluoroheptanesulfonic acid (PFHpS)	NC	NC	< 0.24 U	< 0.24 U	< 0.25 U	< 0.25 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.24 U	0.047 J	< 0.30 U	< 0.24 U
Perfluoroheptanoic acid (PFHpA)	NC	NC	0.090 J	0.13 J	0.15 J	0.15 J	0.071 J	0.18 J	0.065 J	1.0	0.24 J	0.26 J	0.19 J
Perfluorohexanesulfonic acid (PFHxS)	NC	NC	< 0.24 U	< 0.24 U	0.075 J	0.073 J	< 0.31 U	< 0.27 U	< 0.24 U	< 0.24 U	1.5	< 0.30 U	< 0.24 U
Perfluorohexanoic acid (PFHxA)	NC	NC	0.24	0.28	0.22 J	0.20 J	0.11 J	0.13 J	0.061 J	1.1	0.27	0.27 J	0.19 J
Perfluorononanoic acid (PFNA)	NC	NC	2.4	2.4	0.23 J	0.24 J	0.13 J	0.41	0.17 J	1.2	0.35	0.37	0.29
Perfluorooctanesulfonamide (FOSA)	NC	NC	< 0.24 U	< 0.24 U	< 0.25 U	< 0.25 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.24 U	< 0.25 U	< 0.30 U	< 0.24 U
Perfluoropentanoic acid (PFPeA)	NC	NC	0.20 J	0.28	0.21 J	0.20 J	< 0.31 U	0.10 J	< 0.24 U	1.6	0.24 J	0.19 J	0.17 J
Perfluorotetradecanoic acid (PFTeA)	NC	NC	0.14 J	0.13 J	< 0.25 U	< 0.25 U	< 0.31 U	< 0.27 U	< 0.24 U	0.066 J	< 0.25 U	< 0.30 U	< 0.24 U
Perfluorotridecanoic acid (PFTriA)	NC	NC	0.31	0.26	< 0.25 U	< 0.25 U	< 0.31 U	< 0.27 U	< 0.24 U	0.11 J	0.090 J	0.089 J	< 0.24 U
Perfluoroundecanoic acid (PFUnA)	NC	NC	1.8	1.8	0.22 J	0.22 J	0.22 J	0.30 J	0.13 J	0.86	0.20 J	0.27 J	0.14 J
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NC	NC	< 2.4 U	< 2.4 U	< 2.5 U	< 2.5 U	< 3.1 U	< 2.7 U	< 2.4 U	0.70 J	< 2.5 U	< 3.0 U	< 2.4 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NC	NC	< 2.4 U	< 2.4 U	< 2.5 U	< 2.5 U	< 3.1 U	< 2.7 U	< 2.4 U	0.23 J	< 2.5 U	< 3.0 U	< 2.4 U
Total Per- and Polyfluoroalkyl Substances (PFAS)	NC	NC	18.7	18.95	5.297	5.232	2.471	2.96	0.878	11.896	14.711	4.769	3.009

Notes:

Units:	micrograms per kilogram or parts per billion
U:	Not Detected
J:	Estimated Value
J+:	Estimated Value but may be biased high
J-:	Estimated Value but may be biased low
B:	Compound was found in the blank and sample
NC:	No Criteria
Duplicates:	DUP1 duplicate of S2 and DUP2 duplicate of S4
Bold Values:	Detection above NYSDEC Guidance Value for Unrestricted Use
Bold Italicized Values:	Detection above NYSDEC Guidance Value for Residential Use

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Table 2 Continued
Norlite Area Investigation
Soil Per- and Polyfluoroalkyl Substances (PFAS) Results - October 2020

Location Sample ID Sample Date Depth (inches)	Unrestricted Use Criteria UUSCO	Residential Use Criteria RSCO	SOIL PC1 PC1 10/21/2020 0 - 6	SOIL PC2 PC2 10/21/2020 0 - 6
CHEMICAL NAME				
Perfluorooctanesulfonic acid (PFOS)	0.88	8.8	**6.0**	**1.3**
Perfluorooctanoic acid (PFOA)	0.66	6.6	0.63	**0.75**
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NC	NC	< 3.3 U	< 2.4 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NC	NC	< 3.3 U	< 2.4 U
Perfluorobutanesulfonic acid (PFBS)	NC	NC	< 0.51 U	< 0.24 U
Perfluorobutanoic acid (PFBA)	NC	NC	0.26 J	0.54
Perfluorodecanesulfonic Acid (PFDS)	NC	NC	< 0.33 U	0.078 J
Perfluorodecanoic acid (PFDA)	NC	NC	0.37	0.15 J
Perfluorododecanoic acid (PFDoA)	NC	NC	< 0.33 U	< 0.24 U
Perfluoroheptanesulfonic acid (PFHpS)	NC	NC	< 0.33 U	< 0.24 U
Perfluoroheptanoic acid (PFHpA)	NC	NC	0.18 J	0.23 J
Perfluorohexanesulfonic acid (PFHxS)	NC	NC	0.21 J	0.053 J
Perfluorohexanoic acid (PFHxA)	NC	NC	0.27 J	0.20 J
Perfluorononanoic acid (PFNA)	NC	NC	0.27 J	0.25
Perfluorooctanesulfonamide (FOSA)	NC	NC	< 0.33 U	< 0.24 U
Perfluoropentanoic acid (PFPeA)	NC	NC	0.20 J	0.22 J
Perfluorotetradecanoic acid (PFTeA)	NC	NC	< 0.33 U	< 0.24 U
Perfluorotridecanoic acid (PFTriA)	NC	NC	< 0.33 U	< 0.24 U
Perfluoroundecanoic acid (PFUnA)	NC	NC	0.18 J	0.11 J
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NC	NC	< 3.3 U	< 2.4 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NC	NC	< 3.3 U	< 2.4 U
Total Per- and Polyfluoroalkyl Substances (PFAS)	NC	NC	8.57	3.881

Notes:

Units:	micrograms per kilogram or parts per billion
U:	Not Detected
J:	Estimated Value
B:	Compound was found in the blank and sample
NC:	No Criteria
Duplicates:	DUP1 duplicate of S2 and DUP2 duplicate of S4
Bold Values:	Detection above NYSDEC Guidance Value for Unrestricted Use
Bold Italicized Values:	Detection above NYSDEC Guidance Value for Residential Use

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Table 3
Norlite Area Investigation
Soil Per- and Polyfluoroalkyl Substances (PFAS) TOP Assay Results - October 2020

Location Sample ID Sample Date Depth (inches) FRACTION	SOIL 8 S8B 10/21/2020 0-6 TOP_Post	SOIL 8 S8B 10/21/2020 0-6 TOP_Pre	SOIL 15 S15 0-6 TOP_Post	SOIL 15 S15 0-6 TOP_Pre
CHEMICAL_NAME				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	< 6.2 U	< 6.2 U	< 8.0 U	< 8.0 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	< 6.2 U	< 6.2 U	< 8.0 U	< 8.0 U
Perfluorobutanesulfonic acid (PFBS)	0.18 J	0.14 J	< 0.80 U	< 0.80 U
Perfluorobutanoic acid (PFBA)	2.2 BT	0.16 J	1.2 BT	0.25 J
Perfluorodecanesulfonic Acid (PFDS)	4.1	4.8	< 0.80 U	< 0.80 U
Perfluorodecanoic acid (PFDA)	0.83	0.80	0.29 J	0.32 J
Perfluorododecanoic acid (PFDoA)	0.44 J	0.36 J	< 0.80 U	< 0.80 U
Perfluoroheptanesulfonic acid (PFHpS)	< 0.62 U	< 0.62 U	< 0.80 U	< 0.80 U
Perfluoroheptanoic acid (PFHpA)	0.36 J	0.13 J	0.24 J	0.22 J
Perfluorohexanesulfonic acid (PFHxS)	< 0.62 U	< 0.62 U	< 0.80 U	< 0.80 U
Perfluorohexanoic acid (PFHxA)	0.56 J	0.23 J	0.42 J	0.18 J
Perfluorononanoic acid (PFNA)	1.9	1.9	0.36 J	0.36 J
Perfluorooctanesulfonamide (FOSA)	< 0.62 U	< 0.62 U	< 0.80 U	< 0.80 U
Perfluorooctanesulfonic acid (PFOS)	3.6	3.9	0.95 J	1.1 J
Perfluorooctanoic acid (PFOA)	1.2 T	0.40 J	0.80 T	0.83
Perfluoropentanoic acid (PFPeA)	0.50 J	0.27 J	< 0.80 U	< 0.80 U
Perfluorotetradecanoic acid (PFTeA)	0.19 J	< 0.62 U	< 0.80 U	< 0.80 U
Perfluorotridecanoic acid (PFTriA)	0.35 J	0.22 J	< 0.80 U	< 0.80 U
Perfluoroundecanoic acid (PFUnA)	1.0	1.2	0.22 J	0.31 J
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	< 6.2 U	< 6.2 U	< 8.0 U	< 8.0 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	< 6.2 U	< 6.2 U	< 8.0 U	< 8.0 U

Notes:

Units: micrograms per kilogram or parts per billion
U: Not Detected
J: Estimated Value

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Table 4
Norlite Area Investigation
Soil Sample Results - Metals

Location Sample ID Sample Date Depth (inches)	Unrestricted Use Criteria	Residential Use Criteria	SOIL 1 S1 10/21/2020 0 - 6	SOIL 2 DUP1 10/21/2020 0 - 6	SOIL 2 S2 10/21/2020 0 - 6	SOIL 3 S3 10/21/2020 0 - 6	SOIL 4 DUP2 10/21/2020 0 - 6	SOIL 4 S4 10/21/2020 0 - 6	SOIL 5 S5 10/21/2020 0 - 6	SOIL 6 S6A 10/21/2020 0 - 6	SOIL 6 S6B 10/21/2020 0 - 6	SOIL 7 S7A 10/21/2020 0 - 2	SOIL 7 S7B 10/21/2020 0 - 6	SOIL 8 S8A 10/21/2020 0 - 2	SOIL 8 S8B 10/21/2020 0 - 6
CHEMICAL_NAME															
Aluminum	NC	NC	11900	17400	18100	15400	19200	20400	9780	12000	12200	9130	9790	7790	7530
Antimony	NC	NC	< 4.3 U	1.7 J	< 5.6 U	1.3 J	< 3.9 U	< 5.1 U	< 4.6 U	< 4.0 U	< 4.2 U	< 4.2 U	< 3.9 U	< 4.2 U	< 4.0 U
Arsenic	13	16	4.9	10.1	9.6	8.4	7.7	6.9	6.5	8.5	8.6	7.2	7.4	10.5	9.9
Barium	350	350	46.9	141	146	150	114	125	80.2	105	109	81.6	83.5	88.2	86.8
Beryllium	7.2	14	0.54	0.80	0.80	0.71	0.93	0.87	0.52	0.59	0.62	0.43	0.43	0.31 J	0.31 J
Cadmium	2.5	2.5	< 0.87 U	0.84 J	0.86 J	0.66 J	< 0.79 U	0.66 J	0.30 J	0.091 J	0.084 J	0.31 J	0.26 J	0.23 J	0.23 J
Calcium	NC	NC	940 J	6890	8480	6760	3160	3510	4120	2450	2470	4370	5300	3320	3120
Chromium, Hexavalent	1	22	< 2.7 U	< 2.9 U	< 3.0 U	< 2.2 U	< 2.6 U	< 2.6 U	< 2.9 U	< 2.7 U	< 2.6 U	< 2.7 U	< 2.5 U	< 2.6 U	< 2.5 U
Chromium, Total	30	36	14.8	24.8	24.9	23.1	21.0	22.4	17.5	17.0	17.4	14.0	15.8	15.8	15.3
Cobalt	NC	30	6.6 J	14.3	14.4	15.9	14.6	15.5	8.7 J	10.8	10.7	8.1 J	8.7 J	6.1 J	5.8 J
Copper	50	270	12.4	37.8	37.8	44.3	23.3	24.8	32.5	27.9	26.9	25.2	24.9	32.6	32.6
Iron	NC	2000	***18700***	***33300***	***34400***	***34200***	***32300***	***34400***	***20200***	***22000***	***22000***	***18600***	***20100***	***14200***	***14200***
Lead	63	400	19.4	45.7	43.2	25.1	12.8	15.1	**70.0**	38.5	39.8	23.0	25.7	48.8	**73.0**
Magnesium	NC	NC	2230	6320	6740	8480	5380	5870	2970	3740	3670	3810	4330	2550	2460
Manganese	1600	2000	288	647	642	923	500	596	425	722	714	447	491	332	341
Mercury	0.18	0.81	0.048	0.078	0.074	0.017	0.022	0.022	0.17	0.051	0.053	0.027	0.034	0.076	0.080
Nickel	30	140	13.9	**32.1**	**32.4**	**33.8**	26.3	28.1	18.7	20.7	20.7	17.7	19.3	15.6	15.5
Potassium	NC	NC	640 J	3270	3280	1660	2460	2900	1410	1360	1240	1470	1430	960 J	858 J
Selenium	3.9	36	< 4.3 U	< 5.6 U	< 5.6 U	< 4.2 U	1.1 J	< 5.1 U	< 4.6 U	< 4.0 U	< 4.2 U	1.3 J	< 3.9 U	< 4.2 U	< 4.0 U
Silver	2	36	< 2.2 U	< 2.8 U	< 2.8 U	< 2.1 U	< 2.0 U	< 2.5 U	< 2.3 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.1 U	< 2.0 U
Sodium	NC	NC	< 1080 U	139 J	144 J	< 1060 U	90.6 J	125 J	< 1140 U	< 1010 U	< 1050 U	< 1050 U	< 963 U	150 J	132 J
Thallium	NC	NC	< 4.3 U	< 5.6 U	< 5.6 U	< 4.2 U	0.91 J	< 5.1 U	0.80 J	1.1 J	1.0 J	< 4.2 U	0.96 J	< 4.2 U	< 4.0 U
Vanadium	NC	100	23.8	35.9	36.2	25.9	30.9	33.7	26.2	26.2	27.2	22.1	22.9	23.4	23.3
Zinc	109	2200	45.4	**134**	**132**	85.3	72.1	78.5	**150**	95.3	101	76.5	78.9	96.9	91.6

Notes:

Units:	milligrams per kilogram or parts per million
NC:	No Criteria
U:	Not Detected
J:	Estimated Value
Duplicates:	DUP1 duplicate of S2 and DUP2 duplicate of S4
Bold Values:	Detection above Part 375 Unrestricted Use Soil Cleanup Objective
Bold Italicized Values:	Detection above either Part 375 Residential Use Soil Cleanup Objective or CP-51 Residential Use Soil Cleanup Objective

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Table 4 Continued
Norlite Area Investigation
Soil Sample Results - Metals

Location Sample ID Sample Date Depth (inches)	Unrestricted Use SCO	Residential Use SCO	SOIL 9 S9A 10/21/2020 0 - 2	SOIL 9 S9B 10/21/2020 0 - 6	SOIL 10 S10 10/21/2020 0 - 6	SOIL 11 S11 10/21/2020 0 - 6	SOIL 12 S12 10/21/2020 0 - 6	SOIL 13 S13 10/21/2020 0 - 6	SOIL 14 S14 10/21/2020 0 - 6	SOIL 15 S15 10/21/2020 0 - 6	SOIL 16 S16 10/21/2020 0 - 6
CHEMICAL_NAME											
Aluminum	NC	NC	9210	10300	10400	17400	11500	13100	16800	21300	15900
Antimony	NC	NC	< 4.1 U	< 3.9 UT	< 6.2 U	< 5.1 U	< 3.7 U	< 5.1 UT	1.7 J	< 6.2 U	< 4.8 U
Arsenic	13	16	7.8	7.8	7.4	6.2	6.2	5.1	8.1	7.8	6.4
Barium	350	350	101	103	95.3	110	63.9	112	126	152	106
Beryllium	7.2	14	0.43	0.45	0.14 J	0.71	0.58	0.56	0.77	0.93	0.68
Cadmium	2.5	2.5	0.18 J	0.15 J	0.34 J	0.63 J	< 0.74 U	0.57 J	0.88 J	0.90 J	0.52 J
Calcium	NC	NC	3930	4120	2840	12500	2280	2160	8900	5940	4010
Chromium, Hexavalent	1	22	< 2.7 U	< 2.6 UT	< 3.2 U	< 2.8 U	< 2.5 U	< 2.5 UT	< 2.5 U	< 3.2 U	< 2.6 U
Chromium, Total	30	36	15.5	16.4	26.2	21.5	14.0	16.9	22.7	26.5	18.9
Cobalt	NC	30	8.2 J	8.4 J	9.8 J	14.1	8.1 J	7.9 J	13.1	16.1	12.7
Copper	50	270	28.1	29.1	**90.7**	22.9	15.7	22.2	41.2	34.3	24.4
Iron	NC	2000	***18000***	***19700***	***23900***	***32400***	***23300***	***23300***	***32400***	***37800***	***28700***
Lead	63	400	34.2	36.5	**236**	14.1	12.4	20.1	46.5	35.8	17.8
Magnesium	NC	NC	3460	3630	3790	9160	3100	4330	5700	6780	5120
Manganese	1600	2000	432	441	547	683	500	893	698	775	619
Mercury	0.18	0.81	0.086	0.068	***1.6***	0.017 J	0.031	0.039	0.10	0.032	0.018 J
Nickel	30	140	18.9	19.3	25.6	28.7	15.4	19.6	26.8	**34.1**	23.9
Potassium	NC	NC	1300	1520	1620	3210	1040	1170 J	2410	3490	2280
Selenium	3.9	36	0.92 J	0.80 J	< 6.2 U	< 5.1 U	< 3.7 U	< 5.1 U	< 4.7 U	< 6.2 U	< 4.8 U
Silver	2	36	< 2.1 U	< 2.0 U	< 3.1 U	< 2.6 U	< 1.8 U	< 2.5 U	< 2.4 U	< 3.1 U	< 2.4 U
Sodium	NC	NC	106 J	113 J	< 1540 U	211 J	< 925 U	512 J	< 1180 U	163 J	< 1190 U
Thallium	NC	NC	< 4.1 U	0.86 J	< 6.2 U	< 5.1 U	0.86 J	< 5.1 U	< 4.7 U	< 6.2 U	< 4.8 U
Vanadium	NC	100	24.2	26.1	25.6	30.3	22.5	22.2	29.6	38.0	28.1
Zinc	109	2200	104	**112**	**211**	76.8	47.5	**112**	**160**	**141**	79.2

Notes:

Units: milligrams per kilogram or parts per million
NC: No Criteria
U: Not Detected
Estimated
J: Value
Duplicates: DUP1 duplicate of S2 and DUP2 duplicate of S4
Bold Values: Detection above Part 375 Unrestricted Use Soil Cleanup Objective
Bold Italicized Values: Detection above either Part 375 Residential Use Soil Cleanup Objective or CP-51 Residential Use Soil Cleanup Objective

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Table 5
Norlite Area Investigation
Surface Water Per- and Polyfluoroalkyl Substances (PFAS) Results - October and November 2020

Location Sample ID Sample Date Flow Condition		WATER 1 HFW1 10/30/2020 High Flow	WATER 1 LFW1 11/6/2020 Low Flow	WATER 2 HFW2 10/30/2020 High Flow	WATER 2 LFW2 11/6/2020 Low Flow	WATER 3 HFW3 10/30/2020 High Flow	WATER 3 LFW3 11/6/2020 Low Flow	WATER 4 HFW DUP 10/30/2020 High Flow	WATER 4 HFW4 10/30/2020 High Flow	WATER 4 LFW4 11/6/2020 Low Flow	WATER 5 LFW5 11/6/2020 Low Flow	WATER 6 LFW6 11/6/2020 Low Flow	WATER 7 DUP 11/6/2020 Low Flow	WATER 7 LFW7 11/6/2020 Low Flow	WATER 8 LFW8 11/6/2020 Low Flow
CHEMICAL NAME	Part 375 GV														
Perfluorooctanesulfonic acid (PFOS)	10	2.9	1.6 J	1.8 J	< 1.9 U	2.2	< 2.0 U	2.2	2.2	< 1.9 U	**12**	**12**	2.6	2.1	2.1
Perfluorooctanoic acid (PFOA)	10	1.8	1.7 J	1.9	1.1 J	1.8 J	1.1 J	2.0	2.1	3.9	0.97 J	1.0 J	5.1	5.6	5.3
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	100	< 4.6 U	< 4.7 U	< 4.7 U	< 4.7 U	< 4.9 U	< 4.9 U	< 4.8 U	< 4.6 U	< 4.7 U	< 4.6 U	< 4.6 U	< 4.6 U	< 4.7 U	< 4.9 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	100	< 4.6 U	< 4.7 U	< 4.7 U	< 4.7 U	< 4.9 U	< 4.9 U	< 4.8 U	< 4.6 U	< 4.7 U	< 4.6 U	< 4.6 U	< 4.6 U	< 4.7 U	< 4.9 U
Perfluorobutanesulfonic acid (PFBS)	100	2.6	2.2	2.7	2.0	2.2	2.4	2.9	2.5	2.4	0.71 J	0.56 J	**100**	**100**	**100**
Perfluorobutanoic acid (PFBA)	100	3.7 J	< 4.7 U	4.3 J	2.3 J	4.1 J	2.3 J	4.7 J	4.6	8.6	3.3 J	2.9 J	21	23	20
Perfluorodecanesulfonic Acid (PFDS)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorodecanoic acid (PFDA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorododecanoic acid (PFDoA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroheptanesulfonic acid (PFHpS)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroheptanoic acid (PFHpA)	100	1.2 J	0.73 J	1.3 J	0.59 J	1.4 J	0.59 J	1.9	1.9	5.6	1.1 J	0.86 J	10	11	11
Perfluorohexanesulfonic acid (PFHxS)	100	0.97 J	1.4 J	1.0 J	0.93 J	1.0 J	1.2 J	1.1 J	1.3 J	1.5 J	3.4	1.7 J	2.0	2.3	1.9
Perfluorohexanoic acid (PFHxA)	100	1.8	1.2 J	2.2	0.83 J	2.7	1.4 J	3.9	4.1	15	2.6	2.4	11	11	11
Perfluorononanoic acid (PFNA)	100	0.48 J	< 1.9 U	0.31 J	< 1.9 U	0.38 J	< 2.0 U	0.33 J	0.38 J	< 1.9 U	0.41 J	< 1.9 U	1.8 J	1.8 J	1.7 J
Perfluorooctanesulfonamide (FOSA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoropentanoic acid (PFPeA)	100	2.8	1.2 J	3.4	0.89 J	4.2	1.6 J	6.3	6.4	30	2.7	2.3	14	15	13
Perfluorotetradecanoic acid (PFTeA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorotridecanoic acid (PFTriA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroundecanoic acid (PFUnA)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	100	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 2.0 U	< 1.9 U	< 1.8 U	1.9 UJ	< 1.8 U	< 1.9 U	< 1.9 U	1.9 UJ	< 1.9 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	100	< 4.6 U	< 4.7 U	< 4.7 U	< 4.7 U	< 4.9 U	< 4.9 U	2.7 J	2.6 J	33 J	< 4.6 U	< 4.6 U	< 4.6 U	4.7 UJ	< 4.9 U
Total Per- and Polyfluoroalkyl Substances (PFAS)	500	18.25	10.03	18.91	8.64	19.98	10.59	28.03	28.08	101.9	27.19	23.72	167.5	178.4	166

Notes:

Units: nanograms per liter or parts per trillion
U: Not Detected
J: Estimated Value
Duplicates: HFW Dup duplicate of HFW4 and DUP duplicate of LFW7
Bold Values: Detection above guidance values of 10 nanograms per liter for PFOS and PFOA or greater than 100 nanograms per liter for an individual analyte

Table 5 Continued
Norlite Area Investigation
Surface Water Per- and Polyfluoroalkyl Substances (PFAS) Results - October and November 2020

Location Sample ID Sample Date Flow Condition		WATER PC1 LFPCW1 11/6/2020 Low Flow	WATER PC2 10/30/2020 High Flow	WATER PC2 11/6/2020 Low Flow	WATER PC3 HFPCW3 10/30/2020 High Flow	WATER PC3 11/6/2020 Low Flow	WATER PC4 10/30/2020 High Flow	WATER PC4 LFPCW4 11/6/2020 Low Flow	WATER SC1 High Flow	WATER SC1 LFSCW1 11/6/2020 Low Flow	WATER SC2 HFSCW2 10/30/2020 High Flow	WATER SC2 LFSCW2 11/6/2020 Low Flow
CHEMICAL NAME	Part 375 GV	[redacted]										
Perfluorooctanesulfonic acid (PFOS)	10	4.7	4.8	**21**	4.5	6.7	4.5	5.8	1.1 J	1.7 J	0.95 J	< 1.9 U
Perfluorooctanoic acid (PFOA)	10	6.6	3.2	6.5	4.0	4.4	3.4	4.1	1.8 J	1.8 J	1.4 J	1.6 J
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	100	< 4.7 U	< 4.8 U	< 4.6 U	< 4.9 U	< 4.7 U	< 4.6 U	< 4.6 U	< 4.8 U	< 4.8 U	< 4.7 U	< 4.7 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	100	< 4.7 U	< 4.8 U	< 4.6 U	< 4.9 U	< 4.7 U	< 4.6 U	< 4.6 U	< 4.8 U	< 4.8 U	< 4.7 U	< 4.7 U
Perfluorobutanesulfonic acid (PFBS)	100	2.7	2.3	2.9	2.3	2.9	2.0	2.6	1.8 J	1.1 J	0.72 J	0.75 J
Perfluorobutanoic acid (PFBA)	100	14	7.8	10	7.1	7.7	6.5	6.8	2.9 J	< 4.8 U	2.7 J	< 4.7 U
Perfluorodecanesulfonic Acid (PFDS)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorodecanoic acid (PFDA)	100	< 1.9 U	< 1.9 U	< 1.9 U	0.35 J	< 1.9 U	0.35 J	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorododecanoic acid (PFDoA)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroheptanesulfonic acid (PFHpS)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroheptanoic acid (PFHpA)	100	3.8	2.3	3.2	2.3	2.5	2.4	2.7	0.80 J	1.1 J	0.83 J	0.55 J
Perfluorohexanesulfonic acid (PFHxS)	100	3.7	2.3	5.1	2.8	3.8	2.5	3.7	< 1.9 U	0.58 J	< 1.9 U	< 1.9 U
Perfluorohexanoic acid (PFHxA)	100	9.9	5.1	7.6	5.8	6.4	4.7	5.3	1.4 J	1.2 J	1.1 J	0.64 J
Perfluorononanoic acid (PFNA)	100	0.63 J	0.52 J	0.80 J	0.41 J	0.33 J	0.39 J	< 1.8 U	0.35 J	0.27 J	0.34 J	< 1.9 U
Perfluorooctanesulfonamide (FOSA)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoropentanoic acid (PFPeA)	100	8.6	5.1	7.5	5.2	6.7	5.1	5.9	1.9	1.3 J	1.4 J	0.80 J
Perfluorotetradecanoic acid (PFTeA)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluorotridecanoic acid (PFTriA)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
Perfluoroundecanoic acid (PFUnA)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	100	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	100	< 4.7 U	< 4.8 U	< 4.6 U	< 4.9 U	< 4.7 U	< 4.6 U	< 4.6 U	< 4.8 U	< 4.8 U	< 4.7 U	< 4.7 U
Total Per- and Polyfluoroalkyl Substances (PFAS)	500	54.63	33.42	64.6	34.76	41.43	31.84	36.9	12.05	9.05	9.44	4.34

Notes:

Units: nanograms per liter or parts per trillion
Not
U: Detected
J: Estimated Value
Duplicates: HFW Dup duplicate of HFW4 and DUP duplicate of LFW7
Bold Values: Detection above guidance values of 10 nanograms per liter for PFOS and PFOA or greater than 100 nanograms per liter for an individual analyte

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Table 6
Norlite Area Investigation
Water Per- and Polyfluoroalkyl Substances (PFAS) TOP Assay Results - November 2020

Location	WATER 4	WATER 4	WATER 7	WATER 7
Sample ID	LFW4	LFW4		
Sample Date	11/6/2020	11/6/2020	11/6/2020	
Flow Conditions	Low Flow	Low Flow	Low Flow	Low Flow
FRACTION	TOP_Post	TOP_Pre	TOP_Post	TOP_Pre
CHEMICAL_NAME				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	< 50 U	< 50 U	< 50 U	< 50 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	< 50 U	< 50 U	< 50 U	< 50 U
Perfluorobutanesulfonic acid (PFBS)	< 5.0 U	< 5.0 U	93	96
Perfluorobutanoic acid (PFBA)	27 B	8.9	58 B	21
Perfluorodecanesulfonic Acid (PFDS)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorodecanoic acid (PFDA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorododecanoic acid (PFDoA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluoroheptanesulfonic acid (PFHpS)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluoroheptanoic acid (PFHpA)	5.1	5.2	9.6	9.7
Perfluorohexanesulfonic acid (PFHxS)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorohexanoic acid (PFHxA)	18	15	13	11
Perfluorononanoic acid (PFNA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorooctanesulfonamide (FOSA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorooctanesulfonic acid (PFOS)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorooctanoic acid (PFOA)	< 5.0 U	5.0	6.1	5.8
Perfluoropentanoic acid (PFPeA)	31	26	16	14
Perfluorotetradecanoic acid (PFTeA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluorotridecanoic acid (PFTriA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Perfluoroundecanoic acid (PFUnA)	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	< 50 U	< 50 U	< 50 U	< 50 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	< 50 U	< 50 U	< 50 U	< 50 U

LFW7 11/6/2020 LFW7

Notes:

Units: micrograms per kilogram or parts per billion
U: Not Detected
J: Estimated Value

Appendix A – Field Sampling Logs

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Division of Environmental Remediation
Central Office

Field Log

Site Code #: 401041	Date: 10/21/2020

Site Name: Norlite
Location: Albany/Cohoes
DEC Project Manager: Lynn Winterberger

	AM	PM
Weather	~~50~~ cloudy	Sunny
Temperature	50	70
Wind Direction	~~to~~ west ~~northwest~~	Windy (Southern)

Objective: obtain soil samples

Field Staff: Brian Jankowskas, Gerry Pratt, Steve Malsan, Eric Hart, Meghan Meyer, Jewell Shepherd

Description of Inspection Activities and Discussions:

730 meet at SUNY East, discussed objectives, health and safety
830 at 6 mile ~~creek~~ Waterworks park to obtain background samples
130 Gerry, Jewell, and Eric went to Norlite to collect samples
Brian, Steve, and Meghan went to Saratoga Apts to collect samples.
700 Done for the day drive back to SUNY east

Health & Safety:
Level of protection: Level D, used nitrile gloves

Site Representative: Stephen Malsan **Date:** 10/21/20
Representative's Signature:

Date: 10/21/2020

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo	
PC1-soil-102120	42°41'49.565 42°41'49.565N N	73°49'51.751 W	PFAS	0-6"	brown	moist, silty clay ~~moist~~	✓	
PC2-soil-102120	42.685190 N	73.789829 W	PFAS	0-6"	brown	moisty silt some clay organics ~~moist~~	✓	
Soil 15 102120	42.7416 7322 N	73.71369 71 W	PFAS(TOP) Metals	0-6"	brown	Clay w/ silt ~~trace~~ sand moist	✓	
Soil 14 102120	42.74580 N	73.70931 W	PFAS metals	0-~~4~~5"	light brown	Silt w/ some clay (trace gravel + ~~fine~~ sand), dry refusal at ~~4~~5"	✓	
Soil 13 102120	42.7475/773 N	73.70768159 W	PFAS metals MS/MSD	0-6"	brown	silt w/ clay trace gravel dry organics	✓	
Soil 16 102120	42.76260021 N	73.70639562 N	PFAS metals	0-6"	brown	silt w/ clay trace gravel organics dry	✓	
Soil 2 102120	42.76100097 N	73.70422,33 W	PFAS metals Dup 1	0-6"	brown	clay w/ silt organics dry	✓	
Soil 12 102120	42.75173517 N	73.71282929 W	PFAS metals	0-6"	brown	silt w/ ~~some~~ some clay organics dry	✓	2:55pm collect
Soil 11 102120	42.75348835 N	73.71280382 W	PFAS metals	0-6"	brown	clay w/ trace silt organics dry	✓	
Soil 1 102120	42.75~~8~~605 N	73.71672987 N	PFAS metals	0-6"	brown	clay w/ silt Organics dry	✓	4:30pm collect

Date: 10/21/2020

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
Soil 3 102120	42.7572079 8N	73.70284793W	PFAS Metals	0-6"	Dark Brown	0-3" Dark Brown Gravel w/ silt trace clay Fill 3-6" Light Brown w/ Med Gravel Angular	✓
Soil 4 10 21 20	42.7553044 N	83 73.70223016 W	PFAS Metals Dup 2	0-6	Brown	Clay w/ silt + ~~Gravel~~ (some) organics, ~~stiff~~	✓

Date: 10-21-2020

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
Soil 8a 102120	N42° 45' 9.875"	W73° 42' 4.411"	PFAS, metals	0"-2"	Brown	silt, ~~some~~ trace sand, organics, dry	✓
Soil 8b 102120	↑	↑	PFAS top assay, metals	0"-6"	Brown	silt, trace sand, organics, dry top assay location	✓
Equipment Blank 102120	—	—	PFAS, metals	—	—	Stainless steel bowl and spoon	—
Soil 6a 102120	~~N 42° 45' 14.379" BFS~~ ~~W 73° 42' 4.494" BFS~~ N 42° 45' 14.379"	W 73° 42' 4.494"	PFAS, metals	0"-2"	Brown	silt, some clay, organics, dry	✓
Soil 6b 102120	↑	↑	PFAS, metals	0"-6"	Brown	silt, some clay, organics, dry	✓
Soil 7a 102120	~~N 42° 45' 11.674" BFS~~ ~~W 73° BFS~~	W 73° 42' 4.183"	PFAS, metals	0"-2"	Brown	silt, trace sand, trace clay, organics, dry	✓
Soil 7b 102120	↑	↑	PFAS, metals	0"-6"	Brown	silt, trace clay, trace sand, organics, dry	✓
Soil 9a 102120	N42° 45' 9.875"	W73° 42' 4.411"	PFAS, metals	0"-2"	Brown	silt, trace sand, trace clay, organics, dry	✓
Soil 9b 102120	↑	↑	PFAS, metals MS, MSD	0"-6"	Brown	silt, trace sand, trace clay organics, dry	✓
Field Blank 102120	—	—	PFAS	—	—	Saratoga Apts.	—

Date: 10/21/20

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
Soil 5 102120	N42°45'23.853"	W73°41'55.560"	PFAS, metals	0"-6"	Brown	silt with clay, some stones and brick chips, moist, organics	✓
Soil 10 102120	N42°44'58.897"	W73°41'57.81"	PFAS, metals	0"-6"	Brown	silt with stones and some sand, organics, dry	

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Division of Environmental Remediation
Central Office

Field Log

Site Code #: 40141	Date: 10/30/2020

Site Name: Norlite
Location: Various - Cohoes
DEC Project Manager: Gerald Pirth

	AM	PM
Weather	snow/freezing rain	overcast
Temperature	32°	45°
Wind Direction	North	

Objective: high flow water grab samples

Description of Inspection Activities and Discussions:

PFAS water sampling from various streams in Cohoes and Albany.

Health & Safety:
Level of protection: Level D, used nitrile gloves

Site Representative: Stephen Malson **Date:** 10/30/2020
Representative's Signature:

Date: 10/30/2020

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
HFRiv1-Water-10302020	42°41.1390 N	73°47.3680W	Water	surface	clear	high flow, grab	X
HF W2 10302020	42.758618N	73.706158581W	Water	surface	clear 15.8	shale tunnel/cave high flow grab MS/MSD generic point 1	X
HF W3 10302020	42.755228025N	73.705555 40W	Water	surface	clear 15.1	high flow grab upstream of sample out fall 75 ft 003 generic point 2	X
HF W4 10302020	42 ~~755228375~~ 75436525	73.7c1c8713 ~~73.70555~~	Water	Surface	Clear 14.3	high flow grab Water 41030 20 Stream reach between RR/Saratoga	X

Date: 10/30/2020

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
HFSCW2-Water-10302020	42°56'58.455" N	73°40'97.019" W	PFAS, Standard list	surface	slightly turbid	high flow, grab	X
HFSC2-Water-10302020	42°56'15.246" N	73°39'28.741" W	PFAS, Standard list	surface	very slightly turbid	high flow, grab, soap bubbles	X
HFW1-Water-10302020	42°45'56.039" N	73°43'53.867" W	PFAS, standard list	surface	very slightly turbid	highflow, grab, soap bubbles	X
HFPCW3-Water-10302020	42°40'17.218"N	73°45'30.603" W	PFAS, Standard list	surface	Clear	high flow, bottles in water	X
HFPCW1-Water-10302020	42°39'34.422" N	73°44'17.614" W	PFAS, Standard list	surface	slightly turbid	high flow, grab	X

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Division of Environmental Remediation
Central Office

Field Log

Site Code #: 401041	Date: 11-6-20

Site Name: Norlite
Location: Various Cohoes, Albany
DEC Project Manager: Steve Malsan

	AM	PM
Weather	Clear	
Temperature	50°	
Wind Direction	West	

Objective: Low Flow surface water sampling for PFAS analysis

Description of Inspection Activities and Discussions:

Note flow conditions, turbidity,

Health & Safety:
Level of protection: Level D, used nitrile gloves

Site Representative: Stephen Malsan **Date:** 11/6/20
Representative's Signature:

Date: 11-6-20 Nor'l.te

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
LF Water 2 11062020 1040			PFAS	Surface	Clear	outfall tunnel, Low flow Turb 2.76	✓
LF Water 3 11062020 1050			PFAS	Surface	Clear	Onsite Stream Location turb 2.9 Adjacent to Construction Rd	✓
LF Water 6 11062020: 10:35	42°45'17.935 N	73°42'24.740 W	PFAS	Surface	clear	Pond sample from pump platform Turb: 9.72 MS/MSD	✓
LF Water 5 11062020: 11:10am	42°45'14.370 N	73°42'22.831 W	PFAS	Surface	clear	Pond Sample South east corner pit adjacent to access road Turb: 1.28 Pull sample 10ft offshore	✓
LF Water 4 11062020: 11:40am			PFAS	Surface	clear	Onsite stream location adjacent to railroad Turb: 2.03 TOP	✓
LF Water 7 11062020: 12:15	~~42°45'16.533 N~~ 42°45'05.604 N	~~73°42'23.874 W~~ 73°42'11.856 W	PFAS	Surface	clear	North end of pond pull sample approximately 10 ft offshore Turb: 2.03	✓
LF Water 8 11062020: 12:50	42°44'57.485 N	73°42'12.233 W	PFAS	Surface	clear	South end of pond pull sample approximately 10ft offshore appears to be a fishing location	✓

Date: 11-6-20 Norlite

Sample Log

Sample ID	Latitude	Longitude	Analysis	Depth (in)	Color	Description	Photo
LFSCW2-Water-11062020	42°56'56.955" N	73°40'47.019" W	PFAS, Standard 21 list	surface	clear	grab sample, slow moving water, low flow	X
LFSCW3-water-11062020	42°56'15.246" N	73°39'26.791" W	PFAS, standard list	surface	clear	low flow, grab sample, bottles in water	X
LFW1-water 11062020	42°55'56.639" N	73°43'53.867" W	PFAS standard list	surface	clear	low flow, grab sample	X
LFPCW1-water-11062020	42.697222440° N	73.831317410° W	PFAS, standard list	surface	clear	low flow, grab sample	X
LFPCW2-water-11062020			PFAS, standard list	surface	clear	low flow, grab sample	X
LFPCW3-Water-11062020	42°40'17.218"N	73°45'30.603" W	PFAS, standard list	surface	clear	low flow, grab sample, bottles directly in water	X
LFPCW3-water-11062020	42°39'34.922" N	73°44'47.614" W	PFAS, standard list	surface	clear	low flow, grab sample	X

Appendix B – Photos



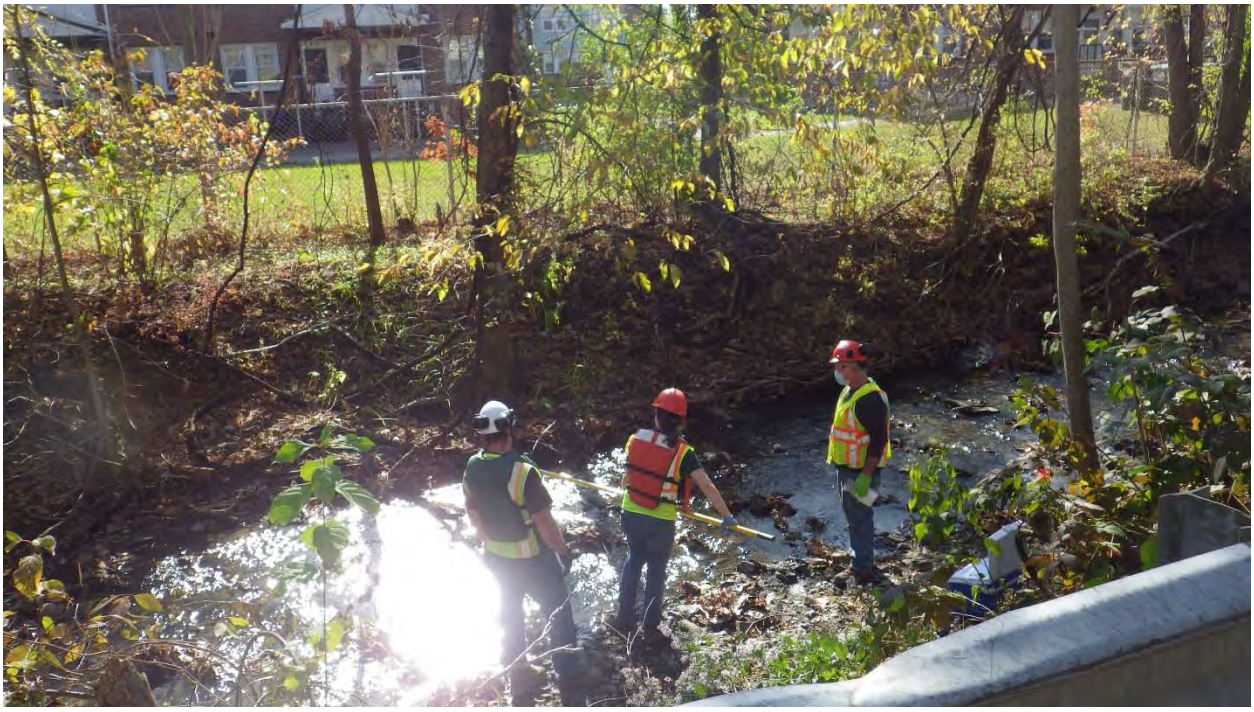
Sample W2 location – note proximity of small waterfall



Sample W2 location – note proximity of small waterfall



Sample W3 location



Sample W4 location



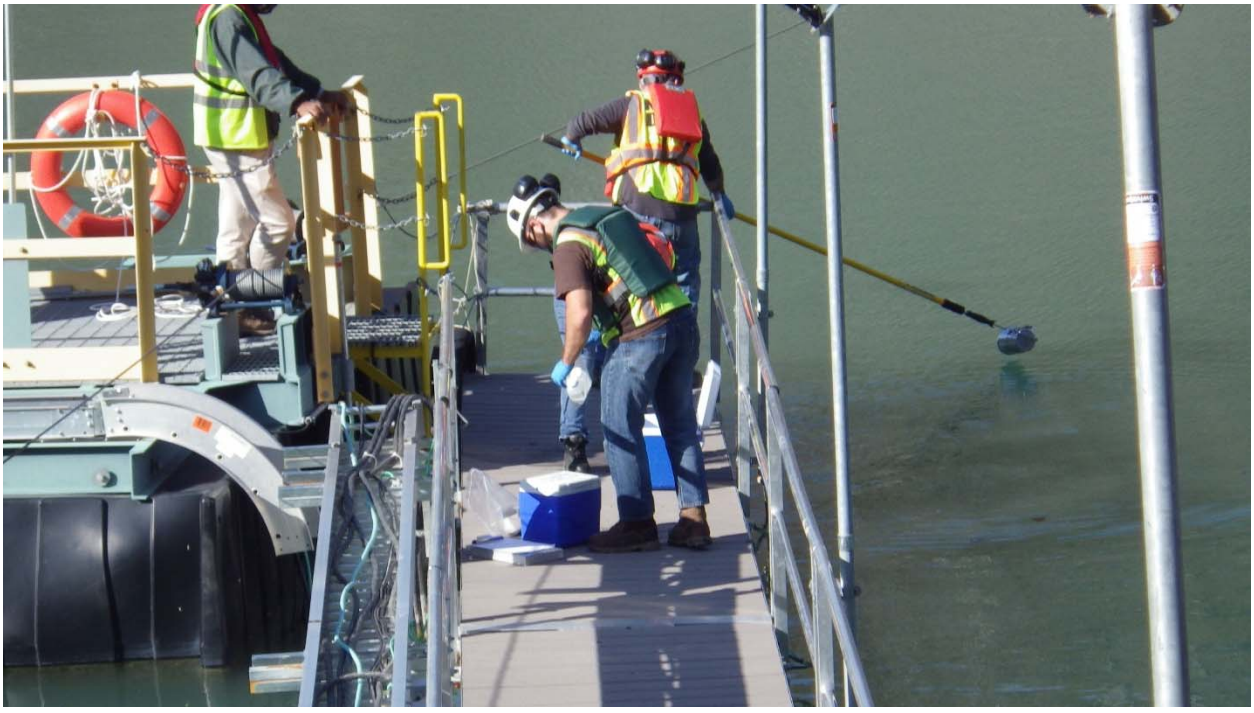
Sample W5 location



Sample W5 location – close up



Sample W6 location



Sample W6 location – close up



Sample W7 location



Sample W8 location



Sample PC2 Water location



Sample SC2 location



Sample SC1 location, pumpkins floating in water



Sample SC1 location – close up



Sample W1 location – low flow conditions



Sample W1 location - high flow conditions



Sample PC2 location



Sample PC3 location



Sample PC4 location



Sample PC4 location – close up



Soil 1 location



Soil 2 location



Soil 3 location



Soil 4 location



Soil 5 location



Soil 6a and 6b location



Soil 7a and 7b location



Soil 8a and 8b location



Soil 9a and 9b location



Soil 10 location



Soil 11 location



Soil 12 location



Soil 13 location



Soil 15 location



Soil 16 location



Soil PC1 location



Soil PC2 location

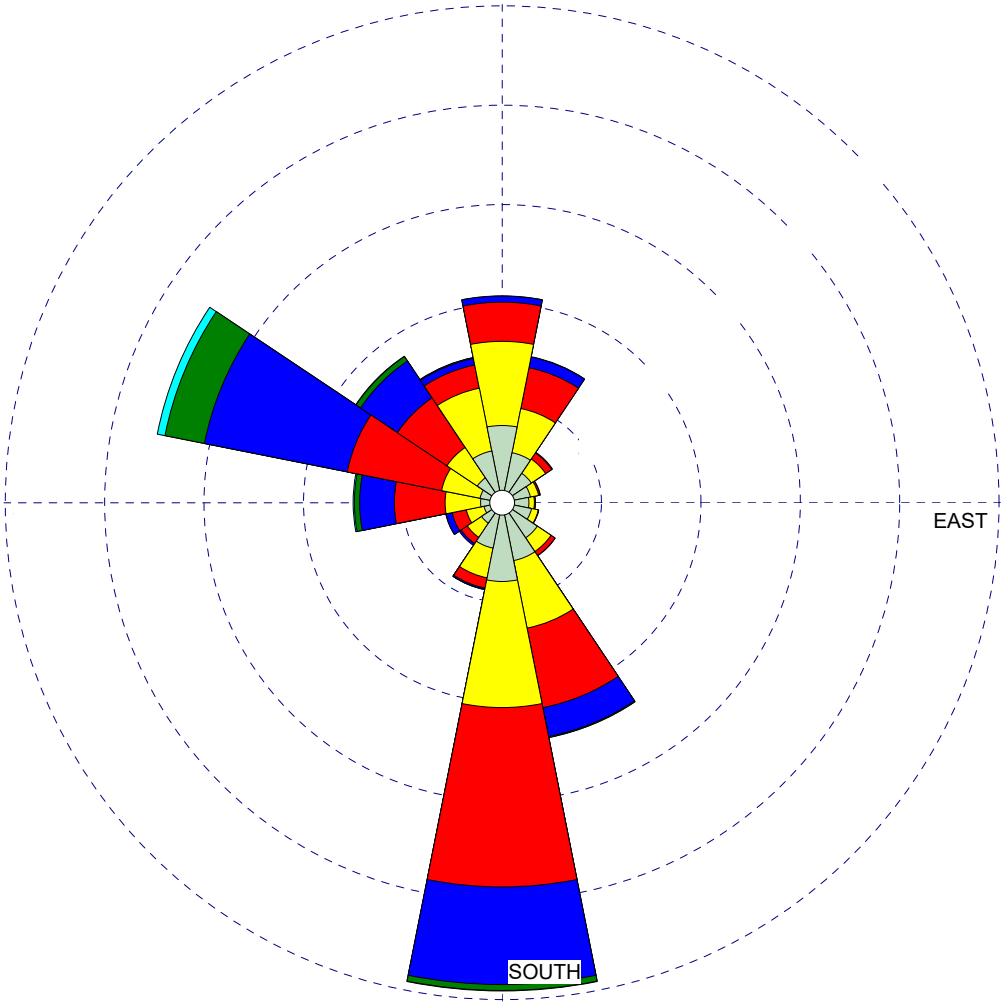
Appendix C – Meteorological Data

WIND ROSE PLOT:

KALB- Albany International Airport, Colonie, NY
2015-2019

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)

- >= 21.58
- 17.11 - 21.58
- 11.08 - 17.11
- 7.00 - 11.08
- 4.08 - 7.00
- 0.97 - 4.08

Calms: 0.58%

COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2015 - 00:00 **End Date: 12/31/2019 - 23:59**	MODELER:	
	CALM WINDS: **0.58%**	TOTAL COUNT: **43796 hrs.**	
	AVG. WIND SPEED: **7.29 Knots**	DATE: **8/21/2020**	PROJECT NO.:

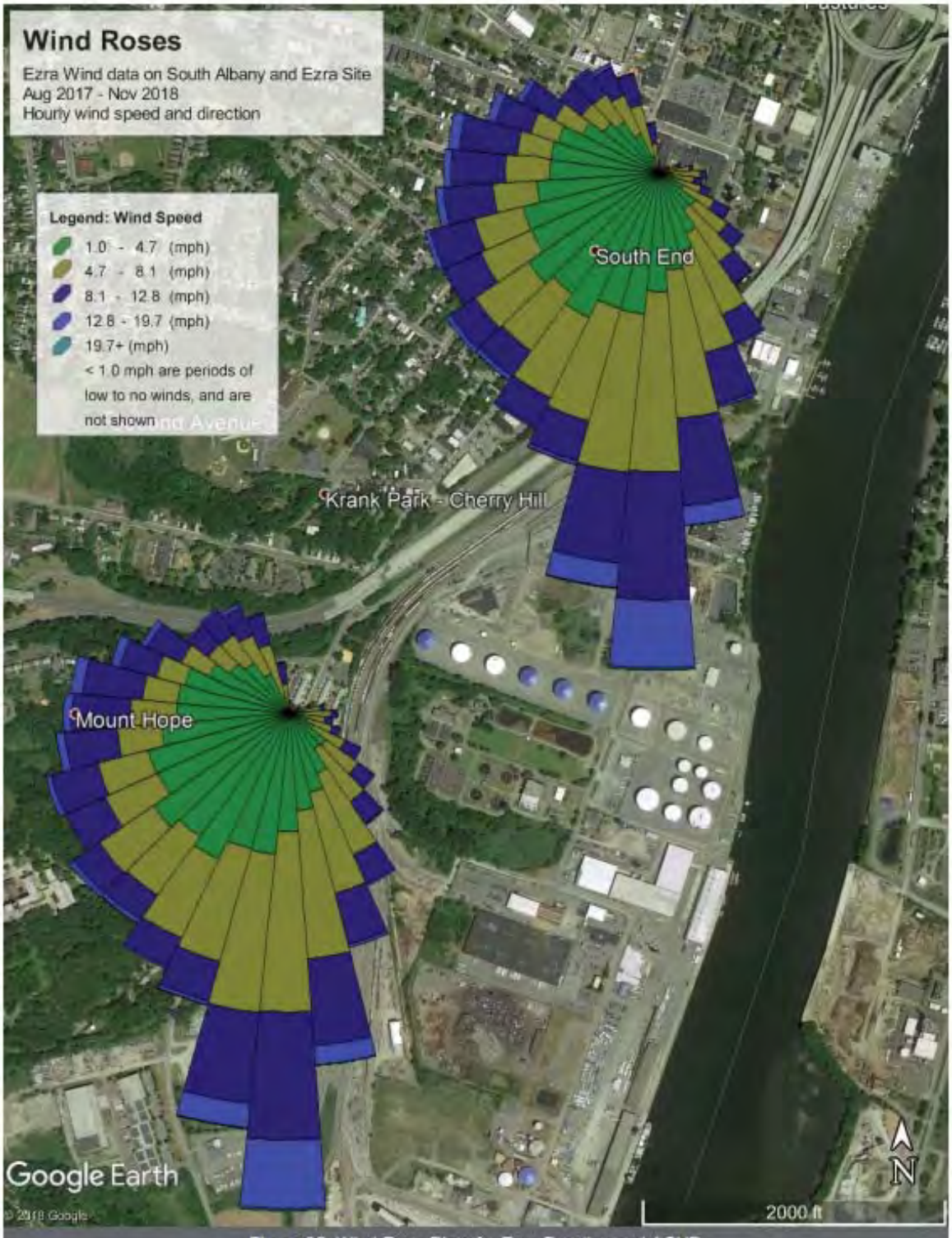


Figure 22. Wind Rose Plots for Ezra Prentice and ACHD

weather.gov

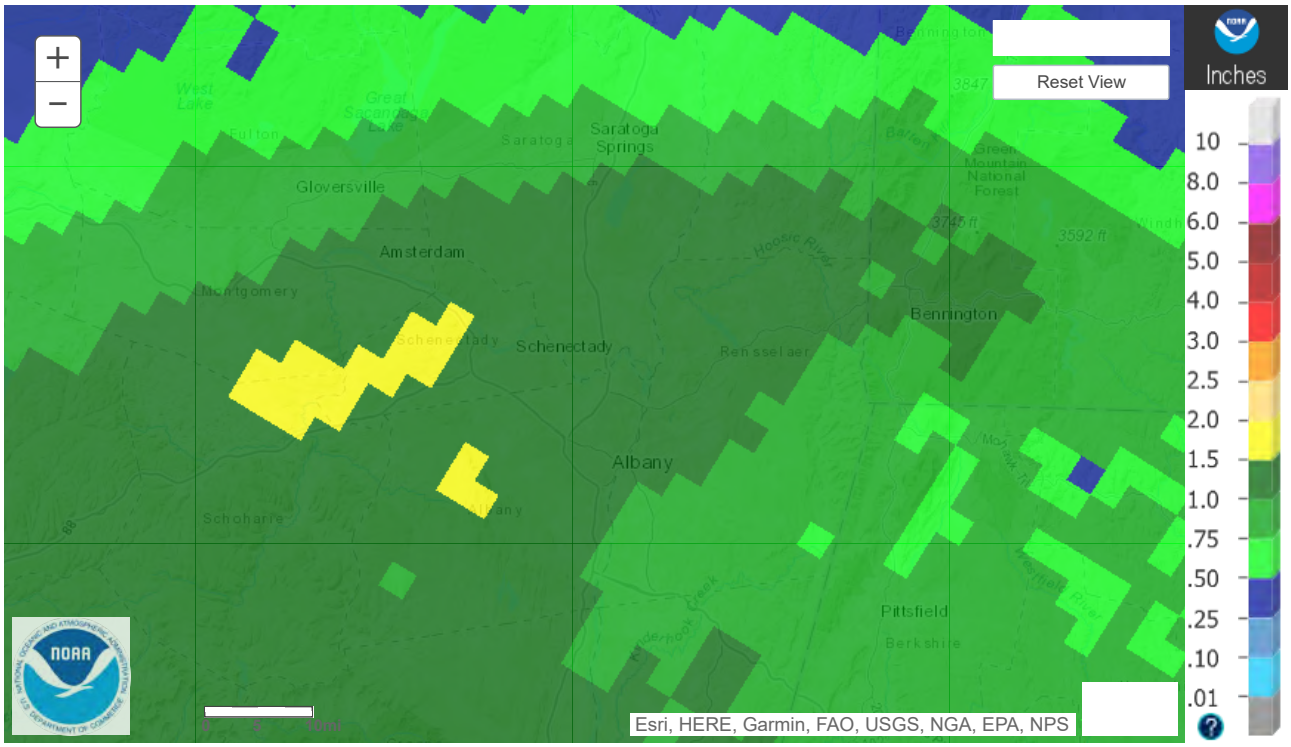
National Weather Service
Advanced Hydrologic Prediction Service

Displaying Current 1-Day Observed Precipitation
Valid on: October 30, 2020 12:00 UTC

What is UTC time? Map Help

Print this map Permalink BOOKMARK

Find address or location



Download the full resolution version of the current map for Current View (4000x2250 pixels) Generate Image

Timeframe

View Today's Analysis View Yesterday's Analysis

Archive Data:
- Yearly
- Monthly
- Daily

Time Range:
- October 30, 2020 - Today
- October 30, 2020 - Last 7 Days
- October 30, 2020 - Last 14 Days
- October 30, 2020 - Last 30 Days

Product

Observed

Units

- Imperial
- Metric

Mouse Location

Lat: 42.856
Lon: -73.490

Map Overlays

Precipitation
County
State
River Forecast Center
Weather Forecast Office

Location

Full Conus

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Data Availability

Data for the entire country are usually available by 12:30 pm Eastern Time (9:30 am Pacific Time).

Hourly Precipitation (East and Central US) - Data Documentation

Ask questions about the Precipitation Analysis website

NWS Information

US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
1325 East West Highway
Silver Spring, MD 20910
Page Author: NWS Internet Services Team
Page last modified: 1-Mar-2019 12:35 AM

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These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - http://www.ncdc.noaa.gov.

Climatological Report (Daily)

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560
CDUS41 KALY 302045
CLIALB

CLIMATE REPORT
NATIONAL WEATHER SERVICE ALBANY NY
445 PM EDT FRI OCT 30 2020

.....................................

...THE ALBANY NY CLIMATE SUMMARY FOR OCTOBER 30 2020...
VALID TODAY AS OF 0400 PM LOCAL TIME.

CLIMATE NORMAL PERIOD: 1981 TO 2010
CLIMATE RECORD PERIOD: 1874 TO 2020


WEATHER ITEM   OBSERVED TIME   RECORD YEAR NORMAL DEPARTURE LAST
        VALUE           (LST)  VALUE       VALUE  FROM      YEAR
                       NORMAL
.............................................................
TEMPERATURE (F)
 TODAY
  MAXIMUM         37  12:31 AM  80    1946  54    -17       63
  MINIMUM         29   9:09 AM  20    1969  36     -7       57
  AVERAGE         33                       45    -12       60

PRECIPITATION (IN)
  TODAY            0.21          1.67 1917   0.11   0.10     0.01
  MONTH TO DATE    3.13                      3.56  -0.43     6.72
  SINCE SEP 1      5.76                      6.86  -1.10     8.95
  SINCE JAN 1     29.67                     33.01  -3.34    37.93

SNOWFALL (IN)
  TODAY            1.2 R         0.1  1925   0.1    1.1      0.0
  MONTH TO DATE    1.2                       0.3    0.9      0.0
  SINCE SEP 1      1.2                       0.3    0.9      0.0
  SINCE JUL 1      1.2                       0.3    0.9      0.0
  SNOW DEPTH       1

DEGREE DAYS
 HEATING
  TODAY           32                        20     12        5
  MONTH TO DATE  456                       459     -3      355
  SINCE SEP 1    632                       603     29      430
  SINCE JUL 1    657                       626     31      432

 COOLING
  TODAY            0                         0      0        0
  MONTH TO DATE    0                         0      0        4
  SINCE SEP 1     25                        51    -26       48
```

```
  SINCE JAN 1     815                      594     221       771
.............................................................


WIND (MPH)
  HIGHEST WIND SPEED     18   HIGHEST WIND DIRECTION     N (360)
  HIGHEST GUST SPEED     26   HIGHEST GUST DIRECTION     N (360)
  AVERAGE WIND SPEED     11.0


SKY COVER
  AVERAGE SKY COVER 1.0


RELATIVE HUMIDITY (PERCENT)
 HIGHEST   100          12:00 AM
 LOWEST     82           3:00 PM
 AVERAGE    91

.....................................................


THE ALBANY NY CLIMATE NORMALS FOR TOMORROW
           NORMAL                  RECORD    YEAR
 MAXIMUM TEMPERATURE (F)   54        75      2019
 MINIMUM TEMPERATURE (F)   35        18      1988


SUNRISE AND SUNSET
OCTOBER 30 2020.......SUNRISE   7:27 AM EDT   SUNSET   5:50 PM EDT
OCTOBER 31 2020.......SUNRISE   7:29 AM EDT   SUNSET   5:48 PM EDT


-  INDICATES NEGATIVE NUMBERS.
R  INDICATES RECORD WAS SET OR TIED.
MM INDICATES DATA IS MISSING.
T  INDICATES TRACE AMOUNT.
```

The U.S. Naval Observatory (USNO) data is currently unavailable. The links provided are from other US Government sources. When USNO data is returned to service, the links will be updated.

Select Other Date

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Climatological Report (Daily)

```
324
CDUS41 KALY 292058
CLIALB

CLIMATE REPORT
NATIONAL WEATHER SERVICE ALBANY NY
458 PM EDT THU OCT 29 2020

.....................................

...THE ALBANY NY CLIMATE SUMMARY FOR OCTOBER 29 2020...
VALID TODAY AS OF 0400 PM LOCAL TIME.

CLIMATE NORMAL PERIOD: 1981 TO 2010
CLIMATE RECORD PERIOD: 1874 TO 2020


WEATHER ITEM   OBSERVED TIME   RECORD YEAR NORMAL DEPARTURE LAST
        VALUE           (LST)  VALUE       VALUE  FROM      YEAR
                       NORMAL
.............................................................
TEMPERATURE (F)
 TODAY
  MAXIMUM         44  11:15 AM  77    1918  55    -11       64
                 1946
  MINIMUM         39   5:14 AM  19    1940  36      3       53
                 1969
  AVERAGE         42                         45     -3       59

PRECIPITATION (IN)
  TODAY            0.58          1.59 2003   0.12   0.46      T
  MONTH TO DATE    2.47                      3.45  -0.98     6.71
  SINCE SEP 1      5.10                      6.75  -1.65     8.94
  SINCE JAN 1     29.01                     32.90  -3.89    37.92

SNOWFALL (IN)
  TODAY            0.0           3.8  2011   0.0    0.0      0.0
  MONTH TO DATE    0.0                       0.2   -0.2      0.0
  SINCE SEP 1      0.0                       0.2   -0.2      0.0
  SINCE JUL 1      0.0                       0.2   -0.2      0.0
  SNOW DEPTH       0

DEGREE DAYS
 HEATING
  TODAY           23                        20      3        6
  MONTH TO DATE  423                       439    -16      350
  SINCE SEP 1    599                       583     16      425
  SINCE JUL 1    624                       606     18      427

 COOLING
  TODAY            0                         0      0        0
```

```
 MONTH TO DATE     0                          0      0        4
  SINCE SEP 1     25                         51    -26       48
  SINCE JAN 1    815                        594    221      771
.............................................................


WIND (MPH)
  HIGHEST WIND SPEED      9   HIGHEST WIND DIRECTION     N (360)
  HIGHEST GUST SPEED     12   HIGHEST GUST DIRECTION     N (10)
  AVERAGE WIND SPEED      2.1


SKY COVER
  AVERAGE SKY COVER 1.0


RELATIVE HUMIDITY (PERCENT)
 HIGHEST   100          12:00 AM
 LOWEST     96          10:00 AM
 AVERAGE    98

.....................................................


THE ALBANY NY CLIMATE NORMALS FOR TOMORROW
           NORMAL                  RECORD    YEAR
 MAXIMUM TEMPERATURE (F)   54        80      1946
 MINIMUM TEMPERATURE (F)   36        20      1969


SUNRISE AND SUNSET
OCTOBER 29 2020.......SUNRISE   7:26 AM EDT   SUNSET   5:51 PM EDT
OCTOBER 30 2020.......SUNRISE   7:27 AM EDT   SUNSET   5:50 PM EDT


-  INDICATES NEGATIVE NUMBERS.
R  INDICATES RECORD WAS SET OR TIED.
MM INDICATES DATA IS MISSING.
T  INDICATES TRACE AMOUNT.
```

The U.S. Naval Observatory (USNO) data is currently unavailable. The links provided are from other US Government sources. When USNO data is returned to service, the links will be updated.

Select Other Date

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - http://www.ncdc.noaa.gov.

Climatological Report (Daily)

```
960
CDUS41 KALY 300625
CLIALB

CLIMATE REPORT
NATIONAL WEATHER SERVICE ALBANY NY
225 AM EDT FRI OCT 30 2020

.....................................

...THE ALBANY NY CLIMATE SUMMARY FOR OCTOBER 29 2020...

CLIMATE NORMAL PERIOD: 1981 TO 2010
CLIMATE RECORD PERIOD: 1874 TO 2020


WEATHER ITEM   OBSERVED TIME   RECORD YEAR NORMAL DEPARTURE LAST
        VALUE           (LST)  VALUE       VALUE  FROM      YEAR
                       NORMAL
...............................................................
TEMPERATURE (F)
 YESTERDAY
  MAXIMUM         44  11:15 AM  77    1918  55    -11       64
                 1946
  MINIMUM         37  11:59 PM  19    1940  36      1       53
                 1969
  AVERAGE         41                        45     -4       59

PRECIPITATION (IN)
  YESTERDAY        1.03          1.59 2003   0.12   0.91      T
  MONTH TO DATE    2.92                      3.45  -0.53     6.71
  SINCE SEP 1      5.55                      6.75  -1.20     8.94
  SINCE JAN 1     29.46                     32.90  -3.44    37.92

SNOWFALL (IN)
  YESTERDAY        0.0           3.8  2011   0.0    0.0      0.0
  MONTH TO DATE    0.0                       0.2   -0.2      0.0
  SINCE SEP 1      0.0                       0.2   -0.2      0.0
  SINCE JUL 1      0.0                       0.2   -0.2      0.0
  SNOW DEPTH       0

DEGREE DAYS
 HEATING
  YESTERDAY       24                        20      4        6
  MONTH TO DATE  424                       439    -15      350
  SINCE SEP 1    600                       583     17      425
  SINCE JUL 1    625                       606     19      427

 COOLING
  YESTERDAY        0                         0      0        0
  MONTH TO DATE    0                         0      0        4
```

```
 SINCE SEP 1      25                        51    -26       48
  SINCE JAN 1    815                       594    221      771
.............................................................


WIND (MPH)
  HIGHEST WIND SPEED     17   HIGHEST WIND DIRECTION     N (360)
  HIGHEST GUST SPEED     24   HIGHEST GUST DIRECTION     N (340)
  AVERAGE WIND SPEED      5.2


SKY COVER
  AVERAGE SKY COVER 1.0


RELATIVE HUMIDITY (PERCENT)
 HIGHEST   100          12:00 AM
 LOWEST     96          10:00 AM
 AVERAGE    98

.....................................................

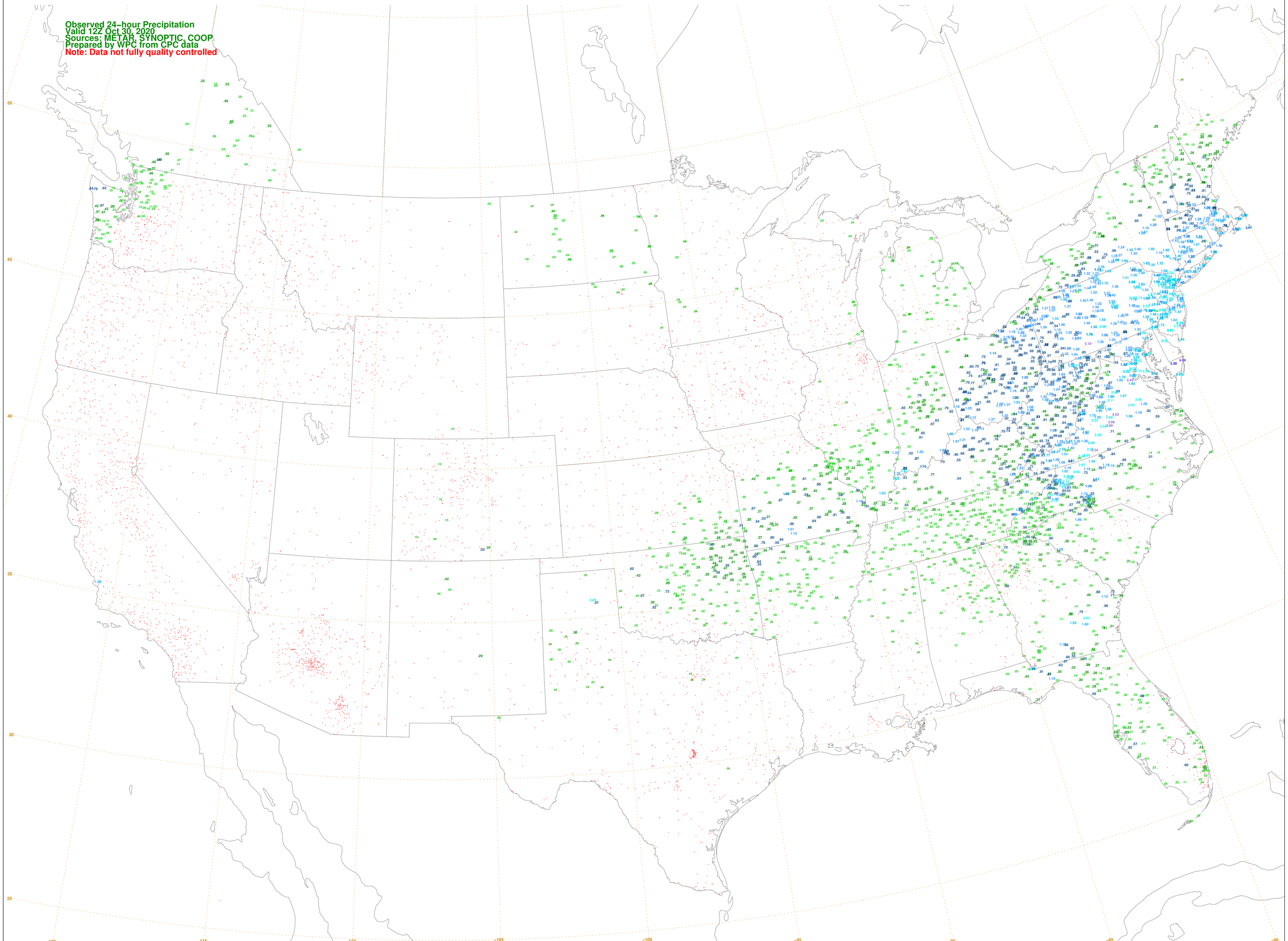

THE ALBANY NY CLIMATE NORMALS FOR TODAY
           NORMAL                  RECORD    YEAR
 MAXIMUM TEMPERATURE (F)   54        80      1946
 MINIMUM TEMPERATURE (F)   36        20      1969


SUNRISE AND SUNSET
OCTOBER 30 2020.......SUNRISE   7:27 AM EDT   SUNSET   5:50 PM EDT
OCTOBER 31 2020.......SUNRISE   7:29 AM EDT   SUNSET   5:48 PM EDT


-  INDICATES NEGATIVE NUMBERS.
R  INDICATES RECORD WAS SET OR TIED.
MM INDICATES DATA IS MISSING.
T  INDICATES TRACE AMOUNT.
```

The U.S. Naval Observatory (USNO) data is currently unavailable. The links provided are from other US Government sources. When USNO data is returned to service, the links will be updated.

Observed 24-hour Precipitation
Valid 12Z Oct 30, 2020
Sources: METAR, SYNOPTIC, COOP
Prepared by WPC from CPC data
Note: Data not fully quality controlled



Appendix D – Summary Statistics and Data

Comparison Figures

Appendix D – Summary Statistics Table and Data Comparison Figures

CONTAMINANT	SUBSET	MDL		RDL		OBS	QUAL	QUANT	DET FREQ (%)		CONC (ppb)	
		MIN	MAX	MIN	MAX				QUAL	QUANT	MIN	MAX
PFBA	FULL NL	0.034	0.040	0.240	0.290	16	16	7	100%	44%	0.270	0.900
	UW NL	0.034	0.038	0.240	0.270	6	6	3	100%	50%	0.270	0.900
	DW NL	0.034	0.040	0.240	0.290	10	10	4	100%	40%	0.340	0.590
	PC	0.033		0.240		2	2	***1***	100%	50%	0.540	
PFPeA	FULL NL	0.093	0.110	0.240	0.290	16	12	4	75%	25%	0.280	1.60
	UW NL	0.093		0.240		6	4	***1***	67%	17%	1.60	
	DW NL	0.093	0.110	0.240	0.290	10	8	3	80%	30%	0.280	0.370
	PC	NA				2	2	***0***	100%	0%	NA	
PFHxA	FULL NL	0.050	0.061	0.240	0.290	16	16	4	100%	25%	0.270	1.10
	UW NL	0.050	0.052	0.240	0.250	6	6	2	100%	33%	0.270	1.10
	DW NL	0.051	0.061	0.240	0.290	10	10	2	100%	20%	0.280	0.320
	PC	NA				2	2	***0***	100%	0%	NA	
PFHpA	FULL NL	0.035	0.042	0.240	0.290	16	16	3	100%	19%	0.290	1.00
	UW NL	0.035		0.240		6	6	***1***	100%	17%	1.00	
	DW NL	0.038	0.042	0.260	0.290	10	10	2	100%	20%	0.290	0.300
	PC	NA				2	2	***0***	100%	0%	NA	
PFOA	FULL NL	0.100	0.130	0.240	0.300	16	15	14	94%	88%	0.290	1.10
	UW NL	0.100	0.130	0.240	0.300	6	6	6	100%	100%	0.290	1.10
	DW NL	0.100	0.120	0.240	0.290	10	9	8	90%	80%	0.290	0.950
	PC	0.100	0.140	0.240	0.330	2	2	2	100%	100%	0.630	0.750
PFNA	FULL NL	0.043	0.055	0.240	0.300	16	15	9	94%	56%	0.290	2.40
	UW NL	0.043	0.055	0.240	0.300	6	6	4	100%	67%	0.350	1.20
	DW NL	0.043	0.052	0.240	0.290	10	9	5	90%	50%	0.290	2.40
	PC	0.043		0.240		2	2	***1***	100%	50%	0.250	
PFDA	FULL NL	0.026	0.033	0.240	0.300	16	15	8	94%	50%	0.270	2.10
	UW NL	0.026	0.033	0.240	0.300	6	6	3	100%	50%	0.270	2.10
	DW NL	0.027	0.032	0.240	0.290	10	9	5	90%	50%	0.270	0.880
	PC	0.036		0.330		2	2	***1***	100%	50%	0.370	
PFUnA	FULL NL	0.043	0.052	0.240	0.290	16	15	4	94%	25%	0.280	1.80
	UW NL	0.043		0.240		6	6	***1***	100%	17%	0.860	
	DW NL	0.043	0.052	0.240	0.290	10	9	3	90%	30%	0.280	1.80
	PC	NA				2	2	***0***	100%	0%	NA	
PFDoA	FULL NL	0.081	0.081	0.240	0.240	16	9	2	56%	13%	0.280	0.350
	UW NL	0.081		0.240		6	3	***1***	50%	17%	0.280	
	DW NL	0.081		0.240		10	6	***1***	60%	10%	0.350	
	PC	NA				2	***0***	***0***	0%	0%	NA	
PFTriA/PFTrDA	FULL NL	0.061		0.24		16	6	***1***	38%	6%	0.26	
	UW NL	NA				6	3	***0***	50%	0%	NA	
	DW NL	0.061		0.24		10	3	***1***	30%	10%	0.26	
	PC	NA				2	***0***	***0***	0%	0%	NA	

ABBREVIATIONS: MDL = Method Detection Limit; RDL = Reporting DL; OBS = # of Observations; QUANT = Quantitative detections; QUAL = Qualitative detections; DET FREQ = Detection Frequency; CONC (ppb) = Concentration (parts per billion); MIN = Minimum value; MAX = Maximum value; NL = Norlite; UW = Upwind; DW = Downwind; and PC = Patroon Creek

Table D1 – Summary Statistics

Appendix D – Summary Statistics Table and Data Comparison Figures

CONTAMINANT	SUBSET	MDL		RDL		OBS	QUAL	QUANT	DET FREQ (%)		CONC (ppb)	
		MIN	MAX	MIN	MAX				QUAL	QUANT	MIN	MAX
PFTA	FULL NL	NA				16	4	***0***	25%	0%	NA	
	UW NL	NA				6	***1***	***0***	17%	0%	NA	
	DW NL	NA				10	3	***0***	30%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	
PFBS	FULL NL	NA				16	10	***0***	63%	0%	NA	
	UW NL	NA				6	2	***0***	33%	0%	NA	
	DW NL	NA				10	8	***0***	80%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	
PFHxS	FULL NL	0.038		0.250		16	4	***1***	25%	6%	1.50	
	UW NL	0.038		0.250		6	***1***	***1***	17%	17%	1.50	
	DW NL	NA				10	3	***0***	30%	0%	NA	
	PC	NA				2	2	***0***	100%	0%	NA	
PFHpS	FULL NL	NA				16	***1***	***0***	6%	0%	NA	
	UW NL	NA				6	***1***	***0***	17%	0%	NA	
	DW NL	NA				10	***0***	***0***	0%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	
PFOS	FULL NL	0.240	0.300	0.600	0.760	16	15	5	94%	31%	0.650	9.80
	UW NL	0.240	0.300	0.600	0.760	6	6	3	100%	50%	0.650	9.80
	DW NL	0.240	0.290	0.600	0.720	10	9	2	90%	20%	0.650	1.40
	PC	0.240	0.330	0.590	0.830	2	2	2	100%	100%	1.30	6.00
PFDS	FULL NL	0.047		0.240		16	4	***1***	25%	6%	5.70	
	UW NL	NA				6	***0***	***0***	0%	0%	NA	
	DW NL	0.047		0.240		10	4	***1***	40%	10%	5.70	
	PC	NA				2	***1***	***0***	50%	0%	NA	
FOSA	NON DETECTIONS FOR ALL SAMPLE RESULTS											
MeFOSAA	NON DETECTIONS FOR ALL SAMPLE RESULTS											
NetFOSAA	FULL NL	NA				16	***1***	***0***	6%	0%	NA	
	UW NL	NA				6	***1***	***0***	17%	0%	NA	
	DW NL	NA				10	***0***	***0***	0%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	
6:2 FTS	FULL NL	NA				16	***1***	***0***	6%	0%	NA	
	UW NL	NA				6	***1***	***0***	17%	0%	NA	
	DW NL	NA				10	***0***	***0***	0%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	
8:2 FTS	FULL NL	NA				16	***1***	***0***	6%	0%	NA	
	UW NL	NA				6	***1***	***0***	17%	0%	NA	
	DW NL	NA				10	***0***	***0***	0%	0%	NA	
	PC	NA				2	***0***	***0***	0%	0%	NA	

ABBREVIATIONS: MDL = Method Detection Limit; RDL = Reporting DL; OBS = # of Observations; QUANT = Quantitative detections; QUAL = Qualitative detections; DET FREQ = Detection Frequency; CONC (ppb) = Concentration (parts per billion); MIN = Minimum value; MAX = Maximum value; NL = Norlite; UW = Upwind; DW = Downwind; and PC = Patroon Creek

Table D1 Continued – Summary Statistics

Upwind/Downwind Figures PFAS:

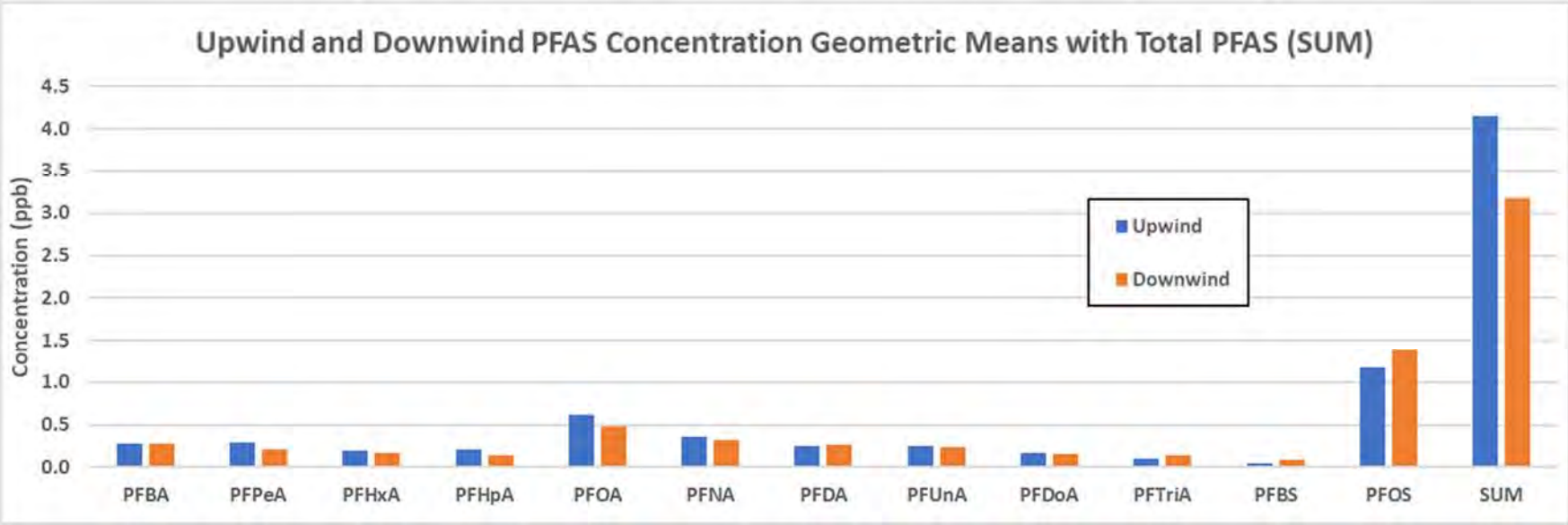


Figure D1. – Geometric means of all quantitative and qualitative PFAS samples detected including total PFAS (sum).

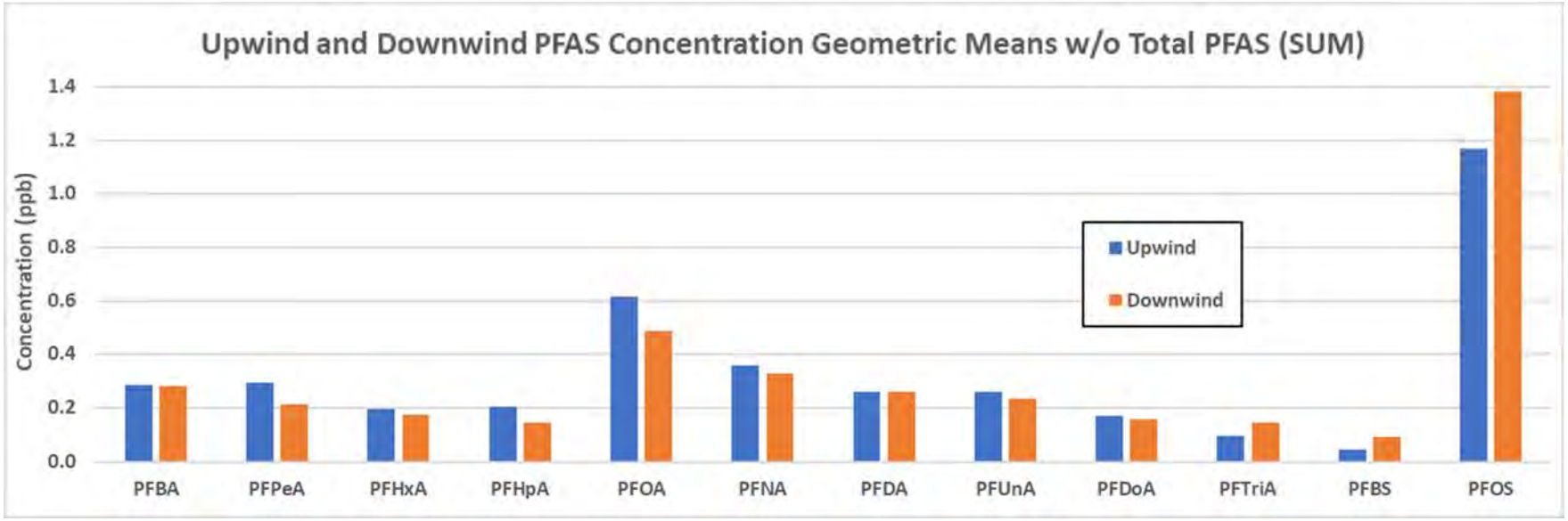


Figure D2 – Geometric means of all quantitative and qualitative PFAS samples detected without the total PFAS (sum).

Upwind/Downwind figures metals:

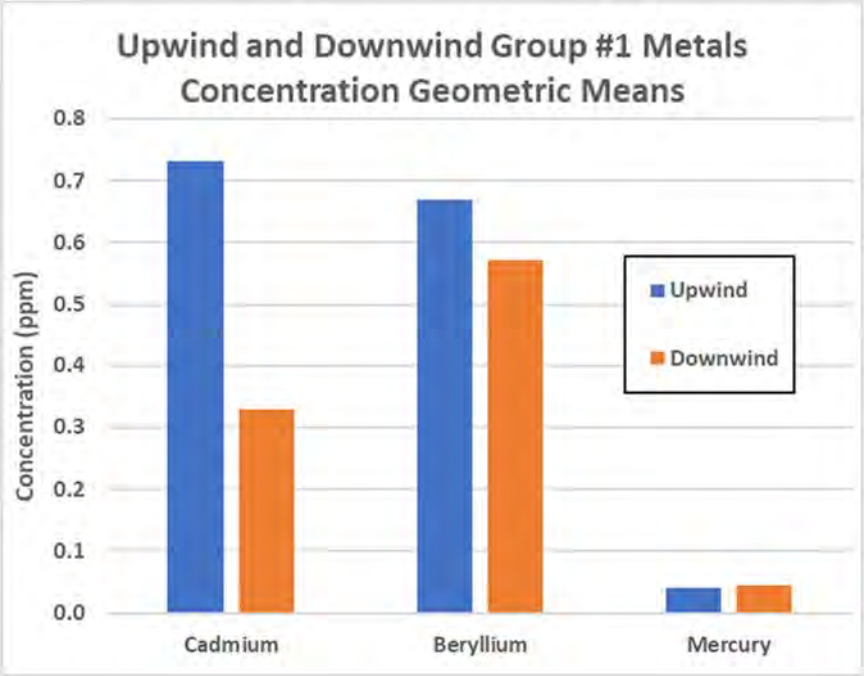


Figure D3 - Geometric means of all quantitative and qualitative metal samples (group 1).

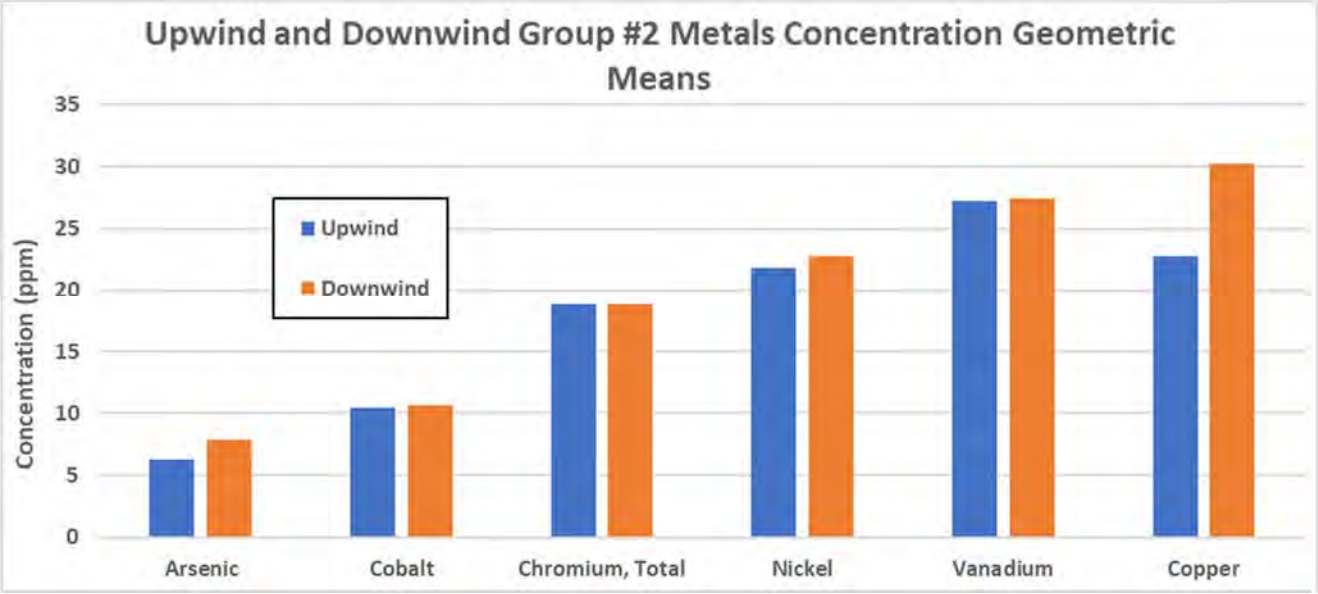


Figure D4 - Geometric means of all quantitative and qualitative metal samples (group 2).

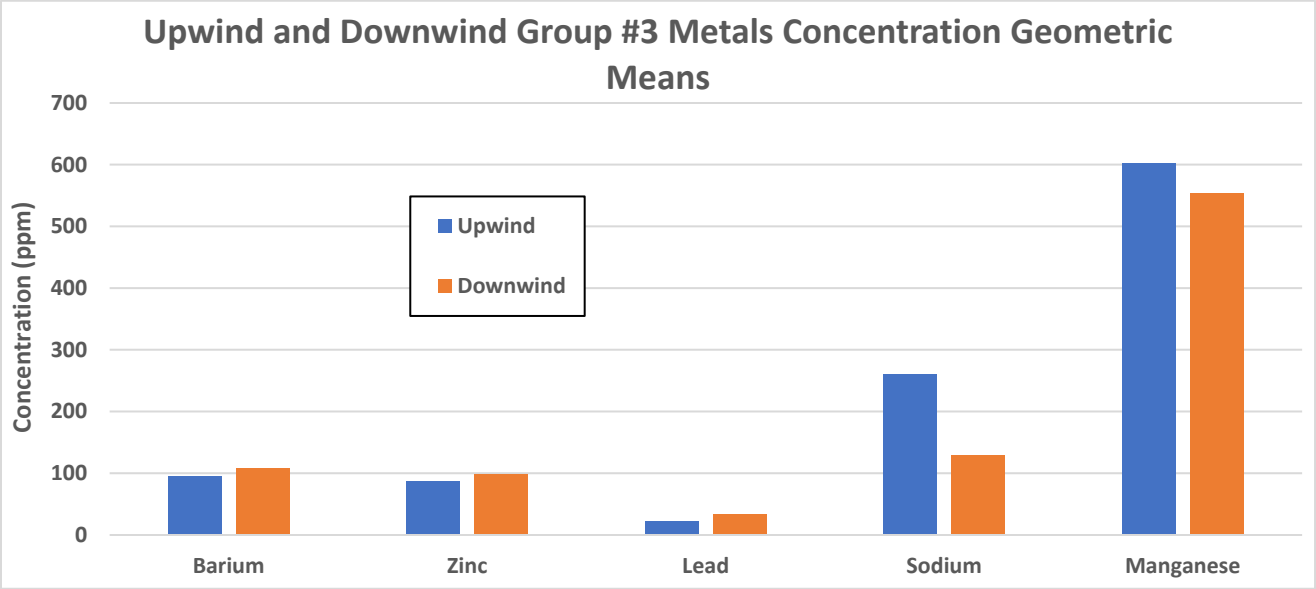


Figure D5 - Geometric means of all quantitative and qualitative metal samples (group 3).

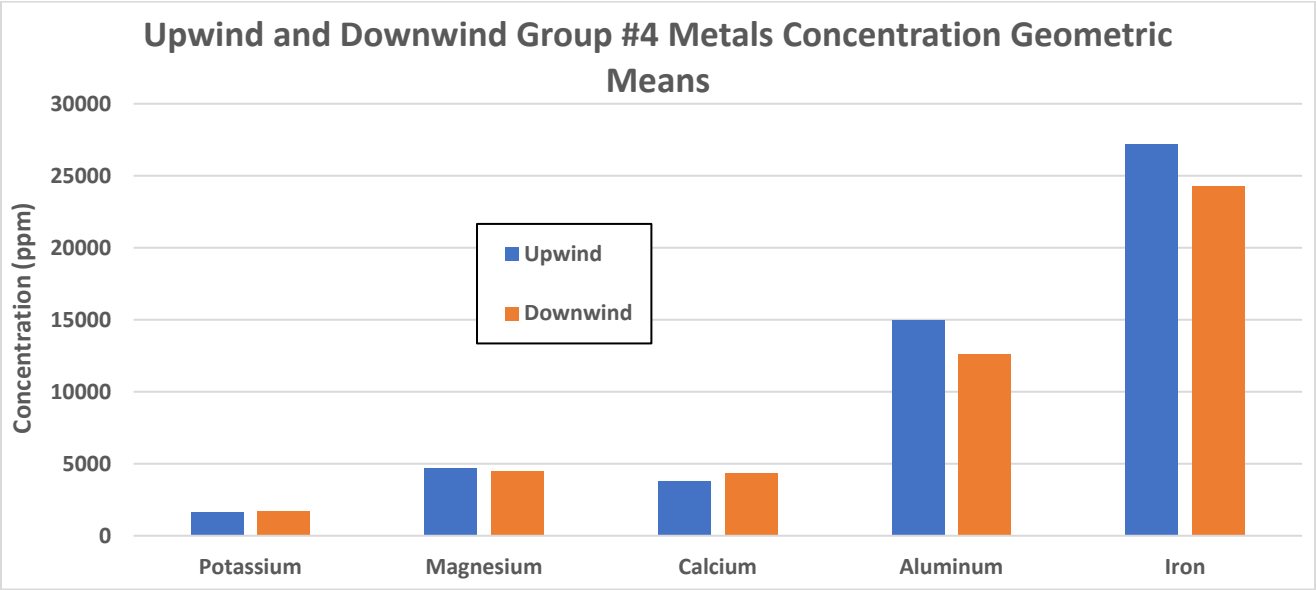


Figure D6 - Geometric means of all quantitative and qualitative metal samples (group 4).

Appendix E – Analytical Reports / Data Usability

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ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-66212-1
Client Project/Site: Norlite - Cohoes #401041

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Judy Stone

Authorized for release by:
11/11/2020 4:24:38 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

ID: 320-66212-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Narrative
320-66212-1

Receipt
The samples were received on 10/31/2020 9:45 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5º C and 0.7º C.

Receipt Exceptions
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): HFW2-Water-10302020 (320-66212-2[MS]) and HFW2-Water-10302020 (320-66212-2[MSD]). The container labels list HFW-Water-10302020, while the COC lists HFW2-Water-10302020. The samples were labeled according to the COC.

LCMS
Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgement was used to positively identify the analyte. HFW3-Water-10302020 (320-66212-3), HFSCW2-Water-10302020 (320-66212-8) and HFSCW1-Water-10302020 (320-66212-9)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3535: The following samples were beige prior to extraction: HFPCW2-Water-10302020 (320-66212-1), HFW2-Water-10302020 (320-66212-2), HFW2-Water-10302020 (320-66212-2[MS]), HFW2-Water-10302020 (320-66212-2[MSD]), HFW3-Water-10302020 (320-66212-3), HFW4-Water-10302020 (320-66212-4), HFW DUP 10302020 (320-66212-5), HFSCW2-Water-10302020 (320-66212-8), HFSCW1-Water-10302020 (320-66212-9), HFW1-Water-10302020 (320-66212-10), HFPCW3-Water-10302020 (320-66212-11) and HFPCW4-Water-10302020 (320-66212-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFPCW2-W ter-10302020 — Lab Sample ID: 320-66212-1

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.8		4.8	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.1		.9	.47	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.1		.9	.55	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.3		.9	.24	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.2		.9	.81	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.52	J	.9	.26	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.3		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.3		.9	.54	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.8		.9	.52	ng/L			537 (modified)	Total/NA

Client Sample ID: HFW2-W ter-10302020 — Lab Sample ID: 320-66212-2

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.3	J	4.7	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.4		.9	.46	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.2		.9	.54	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.3	J	.9	.23	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.9		.9	.80	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.31	J	.9	.25	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.7		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.0	J	.9	.54	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.8	J	.9	.51	ng/L			537 (modified)	Total/NA

Client Sample ID: HFW3-W ter-10302020 — Lab Sample ID: 320-66212-3

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.1	J	4.9	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.2		.9	.48	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.7		.9	.56	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.4	J	.9	.24	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.8	J	.9	.83	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.38	J I	.9	.26	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.2		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.0	J	.9	.55	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.2	I	.9	.52	ng/L			537 (modified)	Total/NA

Client Sample ID: HFW4-W ter-10302020 — Lab Sample ID: 320-66212-4

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.6		4.6	.2	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.4		.8	.45	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		.8	.54	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.9		.8	.23	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.1		.8	.79	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.38	J	.8	.25	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.5		.8	.18	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.3	J	.8	.53	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.2		.8	.50	ng/L			537 (modified)	Total/NA
:2 FTS	.6	J	4.6	.3	ng/L			537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW DUP 10302020 — Lab Sample ID: 320-66212-5

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.7	J	4.8	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.3		.9	.47	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.9		.9	.56	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.9		.9	.24	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.0		.9	.82	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.33	J	.9	.26	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.9		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.1	J	.9	.55	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.2		.9	.52	ng/L			537 (modified)	Total/NA
:2 FTS	.7	J	4.8	.4	ng/L			537 (modified)	Total/NA

Client Sample ID: HFW-Equipment Blank-10302020 — Lab Sample ID: 320-66212-6

No Detections.

Client Sample ID: HFW-Field Blank-10302020 — Lab Sample ID: 320-66212-7

No Detections.

Client Sample ID: HFSCW2-W ter-10302020 — Lab Sample ID: 320-66212-8

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.7	J	4.7	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.4	J	.9	.46	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.1	J	.9	.54	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.83	J	.9	.23	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.4	J	.9	.80	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.34	J	.9	.25	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.72	J	.9	.19	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.95	J I	.9	.51	ng/L			537 (modified)	Total/NA

Client Sample ID: HFSCW1-W ter-10302020 — Lab Sample ID: 320-66212-9

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.9	J	4.8	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.9		.9	.47	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.4	J	.9	.56	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.80	J	.9	.24	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.8	J	.9	.82	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.35	J	.9	.26	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.8	J I	.9	.19	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.1	J	.9	.52	ng/L			537 (modified)	Total/NA

Client Sample ID: HFW1-W ter-10302020 — Lab Sample ID: 320-66212-10

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.7	J	4.6	.2	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.8		.8	.45	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.8		.8	.53	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.2	J	.8	.23	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.8		.8	.78	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.48	J	.8	.25	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.6		.8	.18	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.97	J	.8	.52	ng/L			537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HFW1-W ter-10302020 (Continued) — Lab Sample ID: 320-66212-10

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.9		.8	.50	ng/L			537 (modified)	Total/NA

Client Sample ID: HFPCW3-W ter-10302020 — Lab Sample ID: 320-66212-11

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.1		4.9	.3	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.2		.9	.48	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.8		.9	.56	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.3		.9	.24	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		.9	.83	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.41	J	.9	.26	ng/L			537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.35	J	.9	.30	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.3		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.8		.9	.55	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		.9	.52	ng/L			537 (modified)	Total/NA

Client Sample ID: HFPCW4-W ter-10302020 — Lab Sample ID: 320-66212-12

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.5		4.6	.2	ng/L			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.1		.9	.45	ng/L			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.7		.9	.54	ng/L			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.4		.9	.23	ng/L			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.4		.9	.79	ng/L			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.39	J	.9	.25	ng/L			537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.35	J	.9	.29	ng/L			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.0		.9	.19	ng/L			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.5		.9	.53	ng/L			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		.9	.50	ng/L			537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFPCW2-W ter-10302020
Date Collected: 10/30/20 09:45
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-1
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.8**		4.8	.3	ng/L		19:24	4/20 06:1	
Perfluoropentanoic acid (PFPeA)	**5.1**		.9	.47	ng/L		19:24	4/20 06:1	
Perfluorohexanoic acid (PFHxA)	**5.1**		.9	.55	ng/L		19:24	4/20 06:1	
Perfluoroheptanoic acid (PFHpA)	**2.3**		.9	.24	ng/L		19:24	4/20 06:1	
Perfluorooctanoic acid (PFOA)	**3.2**		.9	.81	ng/L		19:24	4/20 06:1	
Perfluorononanoic acid (PFNA)	**0.52**	**J**	.9	.26	ng/L		19:24	4/20 06:1	
Perfluorodecanoic acid (PFDA)	ND		.9	.30	ng/L		19:24	4/20 06:1	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.1	ng/L		19:24	4/20 06:1	
Perfluorododecanoic acid (PFDoA)	ND		.9	.53	ng/L		19:24	4/20 06:1	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:24	4/20 06:1	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.70	ng/L		19:24	4/20 06:1	
Perfluorobutanesulfonic acid (PFBS)	**2.3**		.9	.19	ng/L		19:24	4/20 06:1	
Perfluorohexanesulfonic acid (PFHxS)	**2.3**		.9	.54	ng/L		19:24	4/20 06:1	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 06:1	
Perfluorooctanesulfonic acid (PFOS)	**4.8**		.9	.52	ng/L		19:24	4/20 06:1	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.31	ng/L		19:24	4/20 06:1	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.94	ng/L		19:24	4/20 06:1	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.8	.1	ng/L		19:24	4/20 06:1	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.8	.2	ng/L		19:24	4/20 06:1	
:2 FTS	ND		4.8	.4	ng/L		19:24	4/20 06:1	
8:2 FTS	ND		.9	.44	ng/L		19:24	4/20 06:1	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C5 PFPeA	*75*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C2 PFHxA			- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C4 PFHpA			- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C4 PFOA	*104*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C5 PFNA	*105*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C2 PFDA	*100*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C2 PFUnA	*103*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C2 PFDoA	*87*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C2 PFTeDA			- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C3 PFBS	*87*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
18O2 PFHxS	*8*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C4 PFOS	*101*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
13C8 FOSA	*104*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
d3-NMeFOSAA	*102*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
-NEtFOSAA	*7*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
M2-6:2 FTS	*114*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*
M2-8:2 FTS	*108*		- 150	*11/02/20 19:24*	*11/04/20 06:11*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW2-W ter-10302020
Date Collected: 10/30/20 11:30
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-2
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.3**	**J**	4.7	.3	ng/L		19:24	4/20 06:20	
Perfluoropentanoic acid (PFPeA)	**3.4**		.9	.46	ng/L		19:24	4/20 06:20	
Perfluorohexanoic acid (PFHxA)	**2.2**		.9	.54	ng/L		19:24	4/20 06:20	
Perfluoroheptanoic acid (PFHpA)	**1.3**	**J**	.9	.23	ng/L		19:24	4/20 06:20	
Perfluorooctanoic acid (PFOA)	**1.9**		.9	.80	ng/L		19:24	4/20 06:20	
Perfluorononanoic acid (PFNA)	**0.31**	**J**	.9	.25	ng/L		19:24	4/20 06:20	
Perfluorodecanoic acid (PFDA)	ND		.9	.29	ng/L		19:24	4/20 06:20	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.0	ng/L		19:24	4/20 06:20	
Perfluorododecanoic acid (PFDoA)	ND		.9	.52	ng/L		19:24	4/20 06:20	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:24	4/20 06:20	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.69	ng/L		19:24	4/20 06:20	
Perfluorobutanesulfonic acid (PFBS)	**2.7**		.9	.19	ng/L		19:24	4/20 06:20	
Perfluorohexanesulfonic acid (PFHxS)	**1.0**	**J**	.9	.54	ng/L		19:24	4/20 06:20	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 06:20	
Perfluorooctanesulfonic acid (PFOS)	**1.8**	**J**	.9	.51	ng/L		19:24	4/20 06:20	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.30	ng/L		19:24	4/20 06:20	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.92	ng/L		19:24	4/20 06:20	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.7	.1	ng/L		19:24	4/20 06:20	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.7	.2	ng/L		19:24	4/20 06:20	
:2 FTS	ND		4.7	.3	ng/L		19:24	4/20 06:20	
8:2 FTS	ND		.9	.43	ng/L		19:24	4/20 06:20	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C5 PFPeA			*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C2 PFHxA	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C4 PFHpA	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C4 PFOA	*112*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C5 PFNA	*112*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C2 PFDA	*106*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C2 PFUnA	*110*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C2 PFDoA	*84*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C2 PFTeDA	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C3 PFBS	*83*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
18O2 PFHxS	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C4 PFOS	*104*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
13C8 FOSA	*116*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
d3-NMeFOSAA	*101*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
-NEtFOSAA			*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
M2-6:2 FTS	*113*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*
M2-8:2 FTS	*115*		*- 150*	*11/02/20 19:24*	*11/04/20 06:20*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW3-W ter-10302020
Date Collected: 10/30/20 12:40
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-3
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.1**	**J**	4.9	.3	ng/L		19:24	4/20 06:48	
Perfluoropentanoic acid (PFPeA)	**4.2**		.9	.48	ng/L		19:24	4/20 06:48	
Perfluorohexanoic acid (PFHxA)	**2.7**		.9	.56	ng/L		19:24	4/20 06:48	
Perfluoroheptanoic acid (PFHpA)	**1.4**	**J**	.9	.24	ng/L		19:24	4/20 06:48	
Perfluorooctanoic acid (PFOA)	**1.8**	**J**	.9	.83	ng/L		19:24	4/20 06:48	
Perfluorononanoic acid (PFNA)	**0.38**	**J I**	.9	.26	ng/L		19:24	4/20 06:48	
Perfluorodecanoic acid (PFDA)	ND		.9	.30	ng/L		19:24	4/20 06:48	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.1	ng/L		19:24	4/20 06:48	
Perfluorododecanoic acid (PFDoA)	ND		.9	.53	ng/L		19:24	4/20 06:48	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.3	ng/L		19:24	4/20 06:48	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.71	ng/L		19:24	4/20 06:48	
Perfluorobutanesulfonic acid (PFBS)	**2.2**		.9	.19	ng/L		19:24	4/20 06:48	
Perfluorohexanesulfonic acid (PFHxS)	**1.0**	**J**	.9	.55	ng/L		19:24	4/20 06:48	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 06:48	
Perfluorooctanesulfonic acid (PFOS)	**2.2**	**I**	.9	.52	ng/L		19:24	4/20 06:48	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.31	ng/L		19:24	4/20 06:48	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.95	ng/L		19:24	4/20 06:48	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.9	.2	ng/L		19:24	4/20 06:48	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.9	.3	ng/L		19:24	4/20 06:48	
:2 FTS	ND		4.9	.4	ng/L		19:24	4/20 06:48	
8:2 FTS	ND		.9	.45	ng/L		19:24	4/20 06:48	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C5 PFPeA			*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C2 PFHxA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C4 PFHpA	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C4 PFOA	*107*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C5 PFNA	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C2 PFDA	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C2 PFUnA			*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C2 PFDoA	*79*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C3 PFBS	*83*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
18O2 PFHxS	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C4 PFOS	*103*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
13C8 FOSA	*114*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
d3-NMeFOSAA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
-NEtFOSAA			*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
M2-6:2 FTS	*110*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*
M2-8:2 FTS	*109*		*- 150*	*11/02/20 19:24*	*11/04/20 06:48*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW4-W ter-10302020
Date Collected: 10/30/20 13:05
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-4
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.6**		4.6	.2	ng/L		19:24	4/20 06:58	
Perfluoropentanoic acid (PFPeA)	**6.4**		.8	.45	ng/L		19:24	4/20 06:58	
Perfluorohexanoic acid (PFHxA)	**4.1**		.8	.54	ng/L		19:24	4/20 06:58	
Perfluoroheptanoic acid (PFHpA)	**1.9**		.8	.23	ng/L		19:24	4/20 06:58	
Perfluorooctanoic acid (PFOA)	**2.1**		.8	.79	ng/L		19:24	4/20 06:58	
Perfluorononanoic acid (PFNA)	**0.38**	**J**	.8	.25	ng/L		19:24	4/20 06:58	
Perfluorodecanoic acid (PFDA)	ND		.8	.29	ng/L		19:24	4/20 06:58	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.0	ng/L		19:24	4/20 06:58	
Perfluorododecanoic acid (PFDoA)	ND		.8	.51	ng/L		19:24	4/20 06:58	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		19:24	4/20 06:58	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.68	ng/L		19:24	4/20 06:58	
Perfluorobutanesulfonic acid (PFBS)	**2.5**		.8	.18	ng/L		19:24	4/20 06:58	
Perfluorohexanesulfonic acid (PFHxS)	**1.3**	**J**	.8	.53	ng/L		19:24	4/20 06:58	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.18	ng/L		19:24	4/20 06:58	
Perfluorooctanesulfonic acid (PFOS)	**2.2**		.8	.50	ng/L		19:24	4/20 06:58	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.30	ng/L		19:24	4/20 06:58	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.91	ng/L		19:24	4/20 06:58	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		19:24	4/20 06:58	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.6	.2	ng/L		19:24	4/20 06:58	
6:2 FTS	**2.6**	**J**	4.6	.3	ng/L		19:24	4/20 06:58	
8:2 FTS	ND		.8	.43	ng/L		19:24	4/20 06:58	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C5 PFPeA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C2 PFHxA	*87*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C4 PFHpA	*1*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C4 PFOA	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C5 PFNA			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C2 PFDA			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C2 PFUnA			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C2 PFDoA	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C2 PFTeDA	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C3 PFBS	*76*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
18O2 PFHxS	*0*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C4 PFOS			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
13C8 FOSA	*106*		*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
d3-NMeFOSAA			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
-NEtFOSAA			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
M2-6:2 FTS			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*
M2-8:2 FTS			*- 150*	*11/02/20 19:24*	*11/04/20 06:58*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW DUP 10302020

Date Collected: 10/30/20 00:00
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-5

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.7**	**J**	4.8	.3	ng/L		19:24	4/20 07:07	
Perfluoropentanoic acid (PFPeA)	**6.3**		.9	.47	ng/L		19:24	4/20 07:07	
Perfluorohexanoic acid (PFHxA)	**3.9**		.9	.56	ng/L		19:24	4/20 07:07	
Perfluoroheptanoic acid (PFHpA)	**1.9**		.9	.24	ng/L		19:24	4/20 07:07	
Perfluorooctanoic acid (PFOA)	**2.0**		.9	.82	ng/L		19:24	4/20 07:07	
Perfluorononanoic acid (PFNA)	**0.33**	**J**	.9	.26	ng/L		19:24	4/20 07:07	
Perfluorodecanoic acid (PFDA)	ND		.9	.30	ng/L		19:24	4/20 07:07	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.1	ng/L		19:24	4/20 07:07	
Perfluorododecanoic acid (PFDoA)	ND		.9	.53	ng/L		19:24	4/20 07:07	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:24	4/20 07:07	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.70	ng/L		19:24	4/20 07:07	
Perfluorobutanesulfonic acid (PFBS)	**2.9**		.9	.19	ng/L		19:24	4/20 07:07	
Perfluorohexanesulfonic acid (PFHxS)	**1.1**	**J**	.9	.55	ng/L		19:24	4/20 07:07	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 07:07	
Perfluorooctanesulfonic acid (PFOS)	**2.2**		.9	.52	ng/L		19:24	4/20 07:07	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.31	ng/L		19:24	4/20 07:07	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.94	ng/L		19:24	4/20 07:07	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.8	.2	ng/L		19:24	4/20 07:07	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.8	.2	ng/L		19:24	4/20 07:07	
6:2 FTS	**2.7**	**J**	4.8	.4	ng/L		19:24	4/20 07:07	
8:2 FTS	ND		.9	.44	ng/L		19:24	4/20 07:07	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C5 PFPeA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C2 PFHxA	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C4 PFHpA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C4 PFOA	*103*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C5 PFNA	*105*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C2 PFDA	*101*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C2 PFUnA	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C2 PFDoA	*86*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C3 PFBS	*74*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
18O2 PFHxS			*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C4 PFOS	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
13C8 FOSA	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
d3-NMeFOSAA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
-NEtFOSAA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
M2-6:2 FTS			*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*
M2-8:2 FTS	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 07:07*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW-Equipment Blank-10302020
Date Collected: 10/30/20 13:40
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-6
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7	.3	ng/L		19:24	4/20 07:17	
Perfluoropentanoic acid (PFPeA)	ND		.9	.46	ng/L		19:24	4/20 07:17	
Perfluorohexanoic acid (PFHxA)	ND		.9	.55	ng/L		19:24	4/20 07:17	
Perfluoroheptanoic acid (PFHpA)	ND		.9	.24	ng/L		19:24	4/20 07:17	
Perfluorooctanoic acid (PFOA)	ND		.9	.80	ng/L		19:24	4/20 07:17	
Perfluorononanoic acid (PFNA)	ND		.9	.25	ng/L		19:24	4/20 07:17	
Perfluorodecanoic acid (PFDA)	ND		.9	.29	ng/L		19:24	4/20 07:17	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.0	ng/L		19:24	4/20 07:17	
Perfluorododecanoic acid (PFDoA)	ND		.9	.52	ng/L		19:24	4/20 07:17	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:24	4/20 07:17	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.69	ng/L		19:24	4/20 07:17	
Perfluorobutanesulfonic acid (PFBS)	ND		.9	.19	ng/L		19:24	4/20 07:17	
Perfluorohexanesulfonic acid (PFHxS)	ND		.9	.54	ng/L		19:24	4/20 07:17	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 07:17	
Perfluorooctanesulfonic acid (PFOS)	ND		.9	.51	ng/L		19:24	4/20 07:17	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.30	ng/L		19:24	4/20 07:17	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.92	ng/L		19:24	4/20 07:17	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	.1	ng/L		19:24	4/20 07:17	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	.2	ng/L		19:24	4/20 07:17	
:2 FTS	ND		4.7	.4	ng/L		19:24	4/20 07:17	
8:2 FTS	ND		.9	.43	ng/L		19:24	4/20 07:17	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C5 PFPeA	*103*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C2 PFHxA	*103*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C4 PFHpA	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C4 PFOA	*109*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C5 PFNA	*107*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C2 PFDA	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C2 PFUnA	*114*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C2 PFDoA	*83*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C2 PFTeDA	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C3 PFBS	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
18O2 PFHxS	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C4 PFOS	*108*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
13C8 FOSA	*114*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
d3-NMeFOSAA			*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
-NEtFOSAA	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
M2-6:2 FTS	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*
M2-8:2 FTS	*100*		*- 150*	*11/02/20 19:24*	*11/04/20 07:17*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW-Field Blank-10302020
Date Collected: 10/30/20 13:45
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-7
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	.2	ng/L		19:24	4/20 07:45	
Perfluoropentanoic acid (PFPeA)	ND		.8	.45	ng/L		19:24	4/20 07:45	
Perfluorohexanoic acid (PFHxA)	ND		.8	.53	ng/L		19:24	4/20 07:45	
Perfluoroheptanoic acid (PFHpA)	ND		.8	.23	ng/L		19:24	4/20 07:45	
Perfluorooctanoic acid (PFOA)	ND		.8	.78	ng/L		19:24	4/20 07:45	
Perfluorononanoic acid (PFNA)	ND		.8	.25	ng/L		19:24	4/20 07:45	
Perfluorodecanoic acid (PFDA)	ND		.8	.28	ng/L		19:24	4/20 07:45	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.0	ng/L		19:24	4/20 07:45	
Perfluorododecanoic acid (PFDoA)	ND		.8	.50	ng/L		19:24	4/20 07:45	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		19:24	4/20 07:45	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.67	ng/L		19:24	4/20 07:45	
Perfluorobutanesulfonic acid (PFBS)	ND		.8	.18	ng/L		19:24	4/20 07:45	
Perfluorohexanesulfonic acid (PFHxS)	ND		.8	.52	ng/L		19:24	4/20 07:45	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.17	ng/L		19:24	4/20 07:45	
Perfluorooctanesulfonic acid (PFOS)	ND		.8	.49	ng/L		19:24	4/20 07:45	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.29	ng/L		19:24	4/20 07:45	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.90	ng/L		19:24	4/20 07:45	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		19:24	4/20 07:45	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	.2	ng/L		19:24	4/20 07:45	
:2 FTS	ND		4.6	.3	ng/L		19:24	4/20 07:45	
8:2 FTS	ND		.8	.42	ng/L		19:24	4/20 07:45	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C5 PFPeA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C2 PFHxA	*88*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C4 PFHpA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C4 PFOA	*101*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C5 PFNA	*1*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C2 PFDA	*87*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C2 PFUnA	*1*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C2 PFDoA	*77*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C3 PFBS	*88*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
18O2 PFHxS	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C4 PFOS	*8*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
13C8 FOSA			*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
d3-NMeFOSAA	*80*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
-NEtFOSAA	*82*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
M2-6:2 FTS	*84*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*
M2-8:2 FTS	*83*		*- 150*	*11/02/20 19:24*	*11/04/20 07:45*	*1*

Client Sample ID: HFSCW2-W ter-10302020
Date Collected: 10/30/20 11:20
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-8
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.7**	**J**	4.7	.3	ng/L		19:24	4/20 07:54	
Perfluoropentanoic acid (PFPeA)	**1.4**	**J**	.9	.46	ng/L		19:24	4/20 07:54	
Perfluorohexanoic acid (PFHxA)	**1.1**	**J**	.9	.54	ng/L		19:24	4/20 07:54	
Perfluoroheptanoic acid (PFHpA)	**0.83**	**J**	.9	.23	ng/L		19:24	4/20 07:54	
Perfluorooctanoic acid (PFOA)	**1.4**	**J**	.9	.80	ng/L		19:24	4/20 07:54	
Perfluorononanoic acid (PFNA)	**0.34**	**J**	.9	.25	ng/L		19:24	4/20 07:54	
Perfluorodecanoic acid (PFDA)	ND		.9	.29	ng/L		19:24	4/20 07:54	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.0	ng/L		19:24	4/20 07:54	
Perfluorododecanoic acid (PFDoA)	ND		.9	.52	ng/L		19:24	4/20 07:54	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:24	4/20 07:54	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.69	ng/L		19:24	4/20 07:54	
Perfluorobutanesulfonic acid (PFBS)	**0.72**	**J**	.9	.19	ng/L		19:24	4/20 07:54	
Perfluorohexanesulfonic acid (PFHxS)	ND		.9	.53	ng/L		19:24	4/20 07:54	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 07:54	
Perfluorooctanesulfonic acid (PFOS)	**0.95**	**J I**	.9	.51	ng/L		19:24	4/20 07:54	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.30	ng/L		19:24	4/20 07:54	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.92	ng/L		19:24	4/20 07:54	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	.1	ng/L		19:24	4/20 07:54	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	.2	ng/L		19:24	4/20 07:54	
:2 FTS	ND		4.7	.3	ng/L		19:24	4/20 07:54	
8:2 FTS	ND		.9	.43	ng/L		19:24	4/20 07:54	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C5 PFPeA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C2 PFHxA	*85*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C4 PFHpA	*0*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C4 PFOA			*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C5 PFNA			*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C2 PFDA	*1*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C2 PFUnA	*3*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C2 PFDoA	*75*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C3 PFBS	*78*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
18O2 PFHxS	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C4 PFOS	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
13C8 FOSA	*100*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
d3-NMeFOSAA	*87*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
-NEtFOSAA	*88*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
M2-6:2 FTS			*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*
M2-8:2 FTS	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 07:54*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFSCW1-W ter-10302020
Date Collected: 10/30/20 11:40
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-9
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.9**	**J**	4.8	.3	ng/L		19:24	4/20 08:04	
Perfluoropentanoic acid (PFPeA)	**1.9**		.9	.47	ng/L		19:24	4/20 08:04	
Perfluorohexanoic acid (PFHxA)	**1.4**	**J**	.9	.56	ng/L		19:24	4/20 08:04	
Perfluoroheptanoic acid (PFHpA)	**0.80**	**J**	.9	.24	ng/L		19:24	4/20 08:04	
Perfluorooctanoic acid (PFOA)	**1.8**	**J**	.9	.82	ng/L		19:24	4/20 08:04	
Perfluorononanoic acid (PFNA)	**0.35**	**J**	.9	.26	ng/L		19:24	4/20 08:04	
Perfluorodecanoic acid (PFDA)	ND		.9	.30	ng/L		19:24	4/20 08:04	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.1	ng/L		19:24	4/20 08:04	
Perfluorododecanoic acid (PFDoA)	ND		.9	.53	ng/L		19:24	4/20 08:04	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.3	ng/L		19:24	4/20 08:04	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.70	ng/L		19:24	4/20 08:04	
Perfluorobutanesulfonic acid (PFBS)	**1.8**	**J I**	.9	.19	ng/L		19:24	4/20 08:04	
Perfluorohexanesulfonic acid (PFHxS)	ND		.9	.55	ng/L		19:24	4/20 08:04	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:24	4/20 08:04	
Perfluorooctanesulfonic acid (PFOS)	**1.1**	**J**	.9	.52	ng/L		19:24	4/20 08:04	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.31	ng/L		19:24	4/20 08:04	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.94	ng/L		19:24	4/20 08:04	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	.2	ng/L		19:24	4/20 08:04	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	.3	ng/L		19:24	4/20 08:04	
:2 FTS	ND		4.8	.4	ng/L		19:24	4/20 08:04	
8:2 FTS	ND		.9	.44	ng/L		19:24	4/20 08:04	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C5 PFPeA			*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C2 PFHxA	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C4 PFHpA	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C4 PFOA	*105*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C5 PFNA	*103*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C2 PFDA	*100*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C2 PFUnA	*101*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C2 PFDoA	*75*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C3 PFBS	*76*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
18O2 PFHxS	*4*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C4 PFOS	*102*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
13C8 FOSA	*106*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
d3-NMeFOSAA	*89*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
-NEtFOSAA	*87*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
M2-6:2 FTS	*7*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*
M2-8:2 FTS	*100*		*- 150*	*11/02/20 19:24*	*11/04/20 08:04*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW1-W ter-10302020
Date Collected: 10/30/20 12:25
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-10
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.7**	**J**	4.6	.2	ng/L		19:25	4/20 08:13	
Perfluoropentanoic acid (PFPeA)	**2.8**		.8	.45	ng/L		19:25	4/20 08:13	
Perfluorohexanoic acid (PFHxA)	**1.8**		.8	.53	ng/L		19:25	4/20 08:13	
Perfluoroheptanoic acid (PFHpA)	**1.2**	**J**	.8	.23	ng/L		19:25	4/20 08:13	
Perfluorooctanoic acid (PFOA)	**1.8**		.8	.78	ng/L		19:25	4/20 08:13	
Perfluorononanoic acid (PFNA)	**0.48**	**J**	.8	.25	ng/L		19:25	4/20 08:13	
Perfluorodecanoic acid (PFDA)	ND		.8	.28	ng/L		19:25	4/20 08:13	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.0	ng/L		19:25	4/20 08:13	
Perfluorododecanoic acid (PFDoA)	ND		.8	.51	ng/L		19:25	4/20 08:13	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		19:25	4/20 08:13	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.67	ng/L		19:25	4/20 08:13	
Perfluorobutanesulfonic acid (PFBS)	**2.6**		.8	.18	ng/L		19:25	4/20 08:13	
Perfluorohexanesulfonic acid (PFHxS)	**0.97**	**J**	.8	.52	ng/L		19:25	4/20 08:13	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.17	ng/L		19:25	4/20 08:13	
Perfluorooctanesulfonic acid (PFOS)	**2.9**		.8	.50	ng/L		19:25	4/20 08:13	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.29	ng/L		19:25	4/20 08:13	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.90	ng/L		19:25	4/20 08:13	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		19:25	4/20 08:13	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.6	.2	ng/L		19:25	4/20 08:13	
:2 FTS	ND		4.6	.3	ng/L		19:25	4/20 08:13	
8:2 FTS	ND		.8	.42	ng/L		19:25	4/20 08:13	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C5 PFPeA	*3*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C2 PFHxA	*89*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C4 PFHpA	*3*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C4 PFOA	*103*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C5 PFNA	*100*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C2 PFDA	*8*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C2 PFUnA	*104*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C2 PFDoA	*86*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C2 PFTeDA	*71*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C3 PFBS	*77*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
18O2 PFHxS	*3*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C4 PFOS			*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
13C8 FOSA	*109*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
d3-NMeFOSAA	*89*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
-NEtFOSAA	*7*		*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
M2-6:2 FTS			*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*
M2-8:2 FTS			*- 150*	*11/02/20 19:25*	*11/04/20 08:13*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFPCW3-W ter-10302020
Date Collected: 10/30/20 13:00
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-11
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.1**		4.9	.3	ng/L		19:25	4/20 08:22	
Perfluoropentanoic acid (PFPeA)	**5.2**		.9	.48	ng/L		19:25	4/20 08:22	
Perfluorohexanoic acid (PFHxA)	**5.8**		.9	.56	ng/L		19:25	4/20 08:22	
Perfluoroheptanoic acid (PFHpA)	**2.3**		.9	.24	ng/L		19:25	4/20 08:22	
Perfluorooctanoic acid (PFOA)	**4.0**		.9	.83	ng/L		19:25	4/20 08:22	
Perfluorononanoic acid (PFNA)	**0.41**	**J**	.9	.26	ng/L		19:25	4/20 08:22	
Perfluorodecanoic acid (PFDA)	**0.35**	**J**	.9	.30	ng/L		19:25	4/20 08:22	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.1	ng/L		19:25	4/20 08:22	
Perfluorododecanoic acid (PFDoA)	ND		.9	.53	ng/L		19:25	4/20 08:22	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.3	ng/L		19:25	4/20 08:22	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.71	ng/L		19:25	4/20 08:22	
Perfluorobutanesulfonic acid (PFBS)	**2.3**		.9	.19	ng/L		19:25	4/20 08:22	
Perfluorohexanesulfonic acid (PFHxS)	**2.8**		.9	.55	ng/L		19:25	4/20 08:22	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:25	4/20 08:22	
Perfluorooctanesulfonic acid (PFOS)	**4.5**		.9	.52	ng/L		19:25	4/20 08:22	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.31	ng/L		19:25	4/20 08:22	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.95	ng/L		19:25	4/20 08:22	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.9	.2	ng/L		19:25	4/20 08:22	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.9	.3	ng/L		19:25	4/20 08:22	
:2 FTS	ND		4.9	.4	ng/L		19:25	4/20 08:22	
8:2 FTS	ND		.9	.45	ng/L		19:25	4/20 08:22	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*7*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C5 PFPeA	*71*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C2 PFHxA	*89*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C4 PFHpA	*3*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C4 PFOA			*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C5 PFNA			*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C2 PFDA			*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C2 PFUnA	*100*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C2 PFDoA	*4*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C2 PFTeDA	*70*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C3 PFBS	*83*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
18O2 PFHxS			*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C4 PFOS	*8*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
13C8 FOSA	*106*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
d3-NMeFOSAA			*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
-NEtFOSAA	*1*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
M2-6:2 FTS	*3*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*
M2-8:2 FTS	*88*		*- 150*	*11/02/20 19:25*	*11/04/20 08:22*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFPCW4-W ter-10302020
Date Collected: 10/30/20 13:30
Date Received: 10/31/20 09:45

Lab Sample ID: 320-66212-12
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.5**		4.6	.2	ng/L		19:25	4/20 08:32	
Perfluoropentanoic acid (PFPeA)	**5.1**		.9	.45	ng/L		19:25	4/20 08:32	
Perfluorohexanoic acid (PFHxA)	**4.7**		.9	.54	ng/L		19:25	4/20 08:32	
Perfluoroheptanoic acid (PFHpA)	**2.4**		.9	.23	ng/L		19:25	4/20 08:32	
Perfluorooctanoic acid (PFOA)	**3.4**		.9	.79	ng/L		19:25	4/20 08:32	
Perfluorononanoic acid (PFNA)	**0.39**	**J**	.9	.25	ng/L		19:25	4/20 08:32	
Perfluorodecanoic acid (PFDA)	**0.35**	**J**	.9	.29	ng/L		19:25	4/20 08:32	
Perfluoroundecanoic acid (PFUnA)	ND		.9	.0	ng/L		19:25	4/20 08:32	
Perfluorododecanoic acid (PFDoA)	ND		.9	.51	ng/L		19:25	4/20 08:32	
Perfluorotridecanoic acid (PFTriA)	ND		.9	.2	ng/L		19:25	4/20 08:32	
Perfluorotetradecanoic acid (PFTeA)	ND		.9	.68	ng/L		19:25	4/20 08:32	
Perfluorobutanesulfonic acid (PFBS)	**2.0**		.9	.19	ng/L		19:25	4/20 08:32	
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		.9	.53	ng/L		19:25	4/20 08:32	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.9	.18	ng/L		19:25	4/20 08:32	
Perfluorooctanesulfonic acid (PFOS)	**4.5**		.9	.50	ng/L		19:25	4/20 08:32	
Perfluorodecanesulfonic acid (PFDS)	ND		.9	.30	ng/L		19:25	4/20 08:32	
Perfluorooctanesulfonamide (FOSA)	ND		.9	.91	ng/L		19:25	4/20 08:32	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		19:25	4/20 08:32	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.6	.2	ng/L		19:25	4/20 08:32	
:2 FTS	ND		4.6	.3	ng/L		19:25	4/20 08:32	
8:2 FTS	ND		.9	.43	ng/L		19:25	4/20 08:32	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*1*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C5 PFPeA	*101*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C2 PFHxA	*120*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C4 PFHpA	*127*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C4 PFOA	*134*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C5 PFNA	*144*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C2 PFDA	*133*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C2 PFUnA	*133*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C2 PFDoA	*110*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C2 PFTeDA			*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C3 PFBS	*108*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
18O2 PFHxS	*125*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C4 PFOS	*123*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
13C8 FOSA	*140*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
d3-NMeFOSAA	*124*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
-NEtFOSAA	*122*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
M2-6:2 FTS	*134*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*
M2-8:2 FTS	*134*		*- 150*	*11/02/20 19:25*	*11/04/20 08:32*	*1*

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66212-1	HFPCW2-Water-10302020	9	75	92	96	4	5		3
320-66212-2	HFW2-Water-10302020	59	9	98					
320-66212-2 MS	HFW2-Water-10302020	58	8	89	93			8	
320-66212-2 MSD	HFW2-Water-10302020	54	3	88	92	96	3	97	7
320-66212-3	HFW3-Water-10302020	59	9	93		7	8		96
320-66212-4	HFW4-Water-10302020	54	3	87	91	98	95	95	95
320-66212-5	HFW DUP 10302020	57	4	89	94	3	5		
320-66212-6	HFW-Equipment Blank-10302020	98	3	3	8	9	7	8	4
320-66212-7	HFW-Field Blank-10302020	89	94	88	94		91	87	91
320-66212-8	HFSCW2-Water-10302020	54	3	85	90	95	95	91	93
320-66212-9	HFSCW1-Water-10302020	55		89	94	5	3		
320-66212-10	HFW1-Water-10302020	55	3	89	93	3		98	4
320-66212-1	HFPCW3-Water-10302020	7	71	89	93	96	96	99	
320-66212-12	HFPCW4-Water-10302020	91			7	34	44	33	33
LCS 320-427889/2-A	Lab Control Sample	89	95	89	92	97	89	94	92
MB 320-427889/1-A	Method Blank	88	90	89	90	94	91	87	92

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
320-66212-1	HFPCW2-Water-10302020	87	5	87	98		4		97
320-66212-2	HFW2-Water-10302020	84	7	83	97	4			95
320-66212-2 MS	HFW2-Water-10302020	80	76	80	99				96
320-66212-2 MSD	HFW2-Water-10302020	89	72	79	92			98	99
320-66212-3	HFW3-Water-10302020	79	5	83		3	4	93	95
320-66212-4	HFW4-Water-10302020	89	8	76	90	96		95	95
320-66212-5	HFW DUP 10302020	86	9	74	96	97	8	93	94
320-66212-6	HFW-Equipment Blank-10302020	83			8	8	4	96	97
320-66212-7	HFW-Field Blank-10302020	77	92	88	94	98	96	80	82
320-66212-8	HFSCW2-Water-10302020	75	59	78	89	94		87	88
320-66212-9	HFSCW1-Water-10302020	75	9	76	94			89	87
320-66212-10	HFW1-Water-10302020	86	71	77	93	99	9	89	97
320-66212-1	HFPCW3-Water-10302020	94	70	83	96	98		92	91
320-66212-12	HFPCW4-Water-10302020		95	8	5	3	40	4	
LCS 320-427889/2-A	Lab Control Sample	82	85	89	94	95	94	95	90
MB 320-427889/1-A	Method Blank	87	86	85	92	95	96	91	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)						
320-66212-1	HFPCW2-Water-10302020	4	8						
320-66212-2	HFW2-Water-10302020	3	5						
320-66212-2 MS	HFW2-Water-10302020								
320-66212-2 MSD	HFW2-Water-10302020	98	96						
320-66212-3	HFW3-Water-10302020		9						
320-66212-4	HFW4-Water-10302020	99	99						
320-66212-5	HFW DUP 10302020	96							
320-66212-6	HFW-Equipment Blank-10302020	98							
320-66212-7	HFW-Field Blank-10302020	84	83						

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 320-66212-1
Project/Site: Norlite - Cohoes #401041

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)								
320-66212-8	HFSCW2-Water-10302020	95	94								
320-66212-9	HFSCW1-Water-10302020	97									
320-66212-10	HFW1-Water-10302020	92	95								
320-66212-1	HFPCW3-Water-10302020	93	88								
320-66212-12	HFPCW4-Water-10302020	34	34								
LCS 320-427889/2-A	Lab Control Sample	84	86								
MB 320-427889/1-A	Method Blank	89	92								

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-427889/1-A
Matrix: Water
Analysis Batch: 428440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 427889

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Per8gorobgtanoic aciL 9P75f u	ND		d.0	.4	n(/F		1/02/20 1A:24	1/04/20 0d:d2	
Per8goro) entanoic aciL 9P7Pef u	ND		.0	.4A	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8goroheTanoic aciL 9P7p Tf u	ND		.0	.dU	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorohe) tanoic aciL 9P7p) f u	ND		.0	.2d	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorooctanoic aciL 9P7Hf u	ND		.0	.U d	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorononanoic aciL 9P7Nf u	ND		.0	.2m	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8goroLecanoic aciL 9P7Df u	ND		.0	.31	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorognLecanoic aciL 9P7Onf u	ND		.0	.1	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8goroLoLecanoic aciL 9P7Dof u	ND		.0	.dd	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorotriLecanoic aciL 9P7yrif u	ND		.0	.3	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorotetraLecanoic aciL 9P7yef u	ND		.0	0.m8	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorobgtanesgl8onic aciL 9P75Su	ND		.0	.20	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8goroheTanesgl8onic aciL 9P7p TSu	ND		.0	.dm	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorohe) tanesgl8onic f ciL 9P7p) Su	ND		.0	.1A	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorooctanesgl8onic aciL 9P7HSu	ND		.0	.d4	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8goroLecanesgl8onic aciL 9P7DSu	ND		.0	.32	n(/F		1/02/20 1A:24	4/20 0d:d2	
Per8gorooctanesgl8onaMiLe 97HSf u	ND		.0	0.AU	n(/F		1/02/20 1A:24	4/20 0d:d2	
N-Meth, l) er8gorooctanesgl8onaMiLoa cetic aciL 9NB e7HSf f u	ND		d.0	.2	n(/F		1/02/20 1A:24	4/20 0d:d2	
N-eth, l) er8gorooctanesgl8onaMiLoac etic aciL 9NEt7HSf f u	ND		d.0	.3	n(/F		1/02/20 1A:24	4/20 0d:d2	
6:2 7y S	ND		d.0	.d	n(/F		1/02/20 1A:24	4/20 0d:d2	
U: 7y S	ND		.0	.46	n(/F		1/02/20 1A:24	4/20 0d:d2	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA			*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C2 PFPeA	*: -*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C9 PF7 H	*:*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C4 PF7 x	*: -*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C4 PFp	*: 4*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C2 PFO	*: 1*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C9 PFDA	*N*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C9 PFUnA	*:9*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C9 PFDoA	*N*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C9 PFTeDA	*8*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C3 PFBS			*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
16p 9 PF7 HS	*:9*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C4 PFp S	*:2*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
13C6 Fp SA	*: 8*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
d35OMeFp SAA	*: 1*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
OEtFp SAA	*: 3*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
M958/9 FTS	*:*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*
M95/9 FTS	*:9*		*12-*	*110 90 9- 1: /94*	*110 40 9- - /29*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-427889/2-A
Matrix: Water
Analysis Batch: 428440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 427889

Analyte			Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Per8gorobgtanoic aciL 9P75f u			40.0	43.m		n(/F		A	m 36	
Per8goro) entanoic aciL 9P7Pef u			40.0	3m2		n(/F		A3	m 31	
Per8goroheTanoic aciL 9P7p Tf u			40.0	4d.4		n(/F		3	m8 33	
Per8gorohe) tanoic aciL 9P7p) f u			40.0	43.0		n(/F		m	m 32	
Per8gorooctanoic aciL 9P7Hf u			40.0	3U.3		n(/F		A	m 30	
Per8gorononanoic aciL 9P7Nf u			40.0	4m0		n(/F		m	md 3d	
Per8goroLecanoic aciL 9P7Df u			40.0	3A.6		n(/F		AA	m 36	
Per8gorognLecanoic aciL 9P7Onf u			40.0	3A.m		n(/F		AA	U U	
Per8goroLoLecanoic aciL 9P7Dof u			40.0	43.A		n(/F			m 31	
Per8gorotriLecanoic aciL 9P7yrif u			40.0	44.6		n(/F			m 31	
Per8gorotetraLecanoic aciL 9P7yef u			40.0	43.A		n(/F			m 30	
Per8gorobgtanesgl8onic aciL 9P75Su			3d.4	3U.0		n(/F		m	m m	
Per8goroheTanesgl8onic aciL 9P7p TSu			36.4	36.1		n(/F		AA	dA A	
Per8gorohe) tanesgl8onic f ciL 9P7p) Su			3U.1	3A.A		n(/F		d	m 36	
Per8gorooctanesgl8onic aciL 9P7HSu			3m1	3U.6		n(/F		4	m 30	
Per8goroLecanesgl8onic aciL 9P7DSu			3U.6	3U.6		n(/F			m 31	
Per8gorooctanesgl8onaMiLe 97HSf u			40.0	44.0		n(/F			m8 33	
N-Meth, l) er8gorooctanesgl8ona MiLoacetic aciL 9NB e7HSf f u			40.0	3A.3		n(/F		AU	m 36	
N-eth, l) er8gorooctanesgl8onaMi Loacetic aciL 9NEt7HSf f u			40.0	42.4		n(/F			m 36	
6:2 7yS			3mA	3mA		n(/F			dA md	
U: 7yS			3U.3	4 .3		n(F		d	md 3d	

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*:*		*12-*
13C2 PFPeA	*:2*		*12-*
13C9 PF7H	*:*		*12-*
13C4 PF7x	*:9*		*12-*
13C4 PFp	*: N*		*12-*
13C2 PFO	*:*		*12-*
13C9 PFDA	*: 4*		*12-*
13C9 PFUnA	*:9*		*12-*
13C9 PFDoA			*12-*
13C9 PFTeDA			*12-*
13C3 PFBS	*:*		*12-*
16p 9 PF7HS	*: 4*		*12-*
13C4 PFp S	*:2*		*12-*
13C6 Fp SA	*: 4*		*12-*
d35OMeFp SAA	*:2*		*12-*
OEtFp SAA	*: -*		*12-*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-427889/2-A
Matrix: Water
Analysis Batch: 428440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 427889

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M958/9 FTS	4		12-
M95/9 FTS	8		12-

Lab Sample ID: 320-66212-2 MS
Matrix: Water
Analysis Batch: 428440

Client Sample ID: HFW2-Water-10302020
Prep Type: Total/NA
Prep Batch: 427889

Analyte	Sample lt	Sample Qualifier	Spike Added	MS lt	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Per8gorobgtanoic aciL 9P75f u	4.3	J	3U.0	40.2		n(/F		A4	m	36
Per8goro) entanoic aciL 9P7Pef u	3.4		3U.0	3U.U		n(/F		A3	m	31
Per8goroheTanoic aciL 9P7p Tf u	.2		3U.0	43.m		n(/F		A	m8	33
Per8gorohe) tanoic aciL 9P7p) f u	.3	J	3U.0	43.6		n(/F			m	32
Per8gorooctanoic aciL 9P7Hf u	.A		3U.0	41.4		n(/F		4	m	30
Per8gorononanoic aciL 9P7Nf u	.31	J	3U.0	3A.U		n(/F		4	md	3d
Per8goroLecanoic aciL 9P7Df u	ND		3U.0	36.A		n(/F		Am	m	36
Per8gorognLecanoic aciL 9P7Onf u	ND		3U.0	3U.3		n(/F			U	U
Per8goroLoLecanoic aciL 9P7Dof u	ND		3U.0	46.d		n(/F			m	31
Per8gorotriLecanoic aciL 9P7yrif u	ND		3U.0	41.1		n(/F		U	m	31
Per8gorotetraLecanoic aciL 9P7yef u	ND		3U.0	42.m		n(/F			m	30
Per8gorobgtanesgl8onic aciL 9P75Su	.m		33.6	40.A		n(/F		4	m	m
Per8goroheTanesgl8onic aciL 9P7p TSu	.0	J	34.6	33.4		n(/F		A4	dA	A
Per8gorohe) tanesgl8onic f ciL 9P7p) Su	ND		36.2	3U.d		n(/F			m	36
Per8gorooctanesgl8onic aciL 9P7HSu	.U	J	3d.3	41.m		n(/F		3	m	30
Per8goroLecanesgl8onic aciL 9P7DSu	ND		36.6	33.m		n(/F		A	m	31
Per8gorooctanesgl8onaMiLe 97HSf u	ND		3U.0	42.d		n(/F			m8	33
N-Meth, l) er8gorooctanesgl8ona MiLoacetic aciL 9NB e7HSf f u	ND		3U.0	36.6		n(/F		A	m	36
N-eth, l) er8gorooctanesgl8onaMi Loacetic aciL 9NEt7HSf f u	ND		3U.0	42.4		n(/F			m	36
6:2 7yS	ND		36.0	36.6		n(/F			dA	md
U:2 7yS	ND		36.4	3A.1		n(/F		m	md	3d

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA			12-
13C2 PFPeA	86		12-
13C9 PF7 H	:		12-
13C4 PF7 x	: 3		12-
13C4 PFp	1- -		12-
13C2 PFO	1-		12-
13C9 PFDA	1-		12-
13C9 PFUnA	111		12-
13C9 PFDoA	-		12-

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 320-66212-2 MS
Matrix: Water
Analysis Batch: 428440

Client Sample ID: HFW2-Water-10302020
Prep Type: Total/NA
Prep Batch: 427889

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C9 PFTeDA	N8		12-
13C3 PFBS	-		12-
16p 9 PF7 HS	: :		12-
13C4 PFp S	1-		12-
13C6 Fp SA	1- 8		12-
d35OMeFp SAA	1-		12-
OEtFp SAA	: 8		12-
M958/9 FTS	1- 8		12-
M95/9 FTS	1- 8		12-

Lab Sample ID: 320-66212-2 MSD
Matrix: Water
Analysis Batch: 428440

Client Sample ID: HFW2-Water-10302020
Prep Type: Total/NA
Prep Batch: 427889

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	PD	PD Limit
Per8gorobgtanoic aciL 9P75f u	4.3	J	3mU	3A.m		n(/F		A4	m 36		3
Per8goro) entanoic aciL 9P7Pef u	3.4		3mU	3U.A		n(/F		A4	m 31		30
Per8goroheTanoic aciL 9P7p Tf u	.2		3mU	3A.U		n(/F		AA	m8 33		30
Per8gorohe) tanoic aciL 9P7p) f u	.3	J	3mU	43.1		n(/F			m 32		30
Per8gorooctanoic aciL 9P7Hf u	.A		3mU	3A.0		n(/F		AU	m 30		30
Per8gorononanoic aciL 9P7Nf u	.31	J	3mU	3A.U		n(/F		4	md 3d		30
Per8goroLecanoic aciL 9P7Df u	ND		3mU	43.d		n(/F		d	m 36		30
Per8gorognLecanoic aciL 9P7Onf u	ND		3mU	40.4		n(/F		m	U U	d	30
Per8goroLoLecanoic aciL 9P7Dof u	ND		3mU	41.0		n(/F		U	m 31		30
Per8gorotriLecanoic aciL 9P7yrif u	ND		3mU	3d.4		n(/F		A4	m 31	d	30
Per8gorotetraLecanoic aciL 9P7yef u	ND		3mU	3d.d		n(/F		A4	m 30	U	30
Per8gorobgtanesgl8onic aciL 9P75Su	.m		33.4	42.1		n(/F		U	m m	3	30
Per8goroheTanesgl8onic aciL 9P7p TSu	.0	J	34.4	34.3		n(/F		Am	dA A	3	3
Per8gorohe) tanesgl8onic f ciL 9P7p) Su	ND		36.0	36.6		n(/F			m 36	d	30
Per8gorooctanesgl8onic aciL 9P7HSu	.U	J	3d.1	3A.6		n(/F		U	m 30	d	30
Per8goroLecanesgl8onic aciL 9P7DSu	ND		36.d	36.U		n(/F			m 31	A	30
Per8gorooctanesgl8onaMiLe 97HSf u	ND		3mU	41.4		n(/F		A	m8 33	3	30
N-Meth, l) er8gorooctanesgl8ona MiLoacetic aciL 9NBe7HSf f u	ND		3mU	40.3		n(/F		m	m 36		30
N-eth, l) er8gorooctanesgl8onaMi Loacetic aciL 9NEt7HSf f u	ND		3mU	40.6		n(/F		m	m 36	d	30
6:2 7yS	ND		3d.A	36.3		n(/F			dA md1		3
U:2 7yS	ND		36.2	3A.4		n(/F		A	md 3d		30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	4		12-
13C2 PFPeA	83		12-

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 320-66212-2 MSD
Matrix: Water
Analysis Batch: 428440

Client Sample ID: HFW2-Water-10302020
Prep Type: Total/NA
Prep Batch: 427889

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C9 PF7 H			12-
13C4 PF7 x	:9		12-
13C4 PFp	: 8		12-
13C2 PFO	1- 3		12-
13C9 PFDA	: N		12-
13C9 PFUnA	1- N		12-
13C9 PFDoA	:		12-
13C9 PFTeDA	N9		12-
13C3 PFBS	N:		12-
16p 9 PF7 HS	:9		12-
13C4 PFp S	1- -		12-
13C6 Fp SA	1- 8		12-
d35OMeFp SAA	:6		12-
OEtFp SAA	: :		12-
M95B/9 FTS	:6		12-
M95/9 FTS	: 8		12-

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QC Association Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

LCMS

Prep Batch: 427889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66212-1	HFPCW2-Water-10302020	Total/NA	Water	3535	
320-66212-2	HFW2-Water-10302020	Total/NA	Water	3535	
320-66212-3	HFW3-Water-10302020	Total/NA	Water	3535	
320-66212-4	HFW4-Water-10302020	Total/NA	Water	3535	
320-66212-5	HFW DUP 10302020	Total/NA	Water	3535	
320-66212-6	HFW-Equipment Blank-10302020	Total/NA	Water	3535	
320-66212-7	HFW-Field Blank-10302020	Total/NA	Water	3535	
320-66212-8	HFSCW2-Water-10302020	Total/NA	Water	3535	
320-66212-9	HFSCW1-Water-10302020	Total/NA	Water	3535	
320-66212-10	HFW1-Water-10302020	Total/NA	Water	3535	
320-66212-1	HFPCW3-Water-10302020	Total/NA	Water	3535	
320-66212-12	HFPCW4-Water-10302020	Total/NA	Water	3535	
MB 320-427889/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-427889/2-A	Lab Control Sample	Total/NA	Water	3535	
320-66212-2 MS	HFW2-Water-10302020	Total/NA	Water	3535	
320-66212-2 MSD	HFW2-Water-10302020	Total/NA	Water	3535	

Analysis Batch: 428440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66212-1	HFPCW2-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-2	HFW2-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-3	HFW3-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-4	HFW4-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-5	HFW DUP 10302020	Total/NA	Water	537 (modified)	427889
320-66212-6	HFW-Equipment Blank-10302020	Total/NA	Water	537 (modified)	427889
320-66212-7	HFW-Field Blank-10302020	Total/NA	Water	537 (modified)	427889
320-66212-8	HFSCW2-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-9	HFSCW1-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-10	HFW1-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-1	HFPCW3-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-12	HFPCW4-Water-10302020	Total/NA	Water	537 (modified)	427889
MB 320-427889/1-A	Method Blank	Total/NA	Water	537 (modified)	427889
LCS 320-427889/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	427889
320-66212-2 MS	HFW2-Water-10302020	Total/NA	Water	537 (modified)	427889
320-66212-2 MSD	HFW2-Water-10302020	Total/NA	Water	537 (modified)	427889

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFPCW2-Water-10302020
Lab Sample ID: 320-66212-1
Date Collected: 10/30/20 09:45
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			261.5 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 06:11	K1S	TAL SAC

Client Sample ID: HFW2-Water-10302020
Lab Sample ID: 320-66212-2
Date Collected: 10/30/20 11:30
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			266.3 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 06:20	K1S	TAL SAC

Client Sample ID: HFW3-Water-10302020
Lab Sample ID: 320-66212-3
Date Collected: 10/30/20 12:40
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			257.2 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 06:48	K1S	TAL SAC

Client Sample ID: HFW4-Water-10302020
Lab Sample ID: 320-66212-4
Date Collected: 10/30/20 13:05
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			270.3 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 06:58	K1S	TAL SAC

Client Sample ID: HFW DUP 10302020
Lab Sample ID: 320-66212-5
Date Collected: 10/30/20 00:00
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			260.5 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 07:07	K1S	TAL SAC

Client Sample ID: HFW-Equipment Blank-10302020
Lab Sample ID: 320-66212-6
Date Collected: 10/30/20 13:40
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			265.9 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 07:17	K1S	TAL SAC

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Client Sample ID: HFW-Field Blank-10302020
Lab Sample ID: 320-66212-7
Date Collected: 10/30/20 13:45
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			273.3 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 07:45	K1S	TAL SAC

Client Sample ID: HFSCW2-Water-10302020
Lab Sample ID: 320-66212-8
Date Collected: 10/30/20 11:20
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			266.4 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 07:54	K1S	TAL SAC

Client Sample ID: HFSCW1-Water-10302020
Lab Sample ID: 320-66212-9
Date Collected: 10/30/20 11:40
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			259.6 mL	10.00 mL	427889	11/02/20 19:24	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 08:04	K1S	TAL SAC

Client Sample ID: HFW1-Water-10302020
Lab Sample ID: 320-66212-10
Date Collected: 10/30/20 12:25
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			272.1 mL	10.00 mL	427889	11/02/20 19:25	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 08:13	K1S	TAL SAC

Client Sample ID: HFPCW3-Water-10302020
Lab Sample ID: 320-66212-11
Date Collected: 10/30/20 13:00
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			257.3 mL	10.00 mL	427889	11/02/20 19:25	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 08:22	K1S	TAL SAC

Client Sample ID: HFPCW4-Water-10302020
Lab Sample ID: 320-66212-12
Date Collected: 10/30/20 13:30
Matrix: Water
Date Received: 10/31/20 09:45

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.8 mL	10.00 mL	427889	11/02/20 19:25	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			428440	11/04/20 08:32	K1S	TAL SAC

Laboratory References:
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 320-66212-1
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFT iA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66212-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-66212-1	HFPCW2-Water-10302020	Water	30/20 09:45	10/31/20 09:45	
320-66212-2	HFW2-Water-10302020	Water	30/20 1 :30	31/20 09:45	
320-66212-3	HFW3-Water-10302020	Water	30/20 12:40	31/20 09:45	
320-66212-4	HFW4-Water-10302020	Water	30/20 13:05	31/20 09:45	
320-66212-5	HFW DUP 10302020	Water	30/20 00:00	31/20 09:45	
320-66212-6	HFW-Equipment Blank-10302020	Water	30/20 13:40	31 0 09:45	
320-66212-7	HFW-Field Blank-10302020	Water	30/20 13:45	31/20 9:45	
320-66212-8	HFSCW2-Water-10302020	Water	30/20 1 :20	10/31/20 09:45	
320-66212-9	HFSCW1-Water-10302020	Water	30/20 1 :40	10/31/20 09:45	
320-66212-10	HFW1-Water-10302020	Water	30/20 12:25	10/31/20 09:45	
320-66212-1	HFPCW3-Water-10302020	Water	30/20 13:00	10/31/20 09:45	
320-66212-12	HFPCW4-Water-10302020	Water	30/20 13:30	10/31/20 09:45	

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: SM	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150122-33365.2
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page ~~2 of 4~~ 1 of 2
Company: New York State D.E.C.				Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

320-66212 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
HFPCW2-Water-10302020	10/30/2020	9:45am	G	Water			X	2	
HFW2-Water-10302020	10/30/2020	11:30am	G	Water		X	X	6	MS / MSD
HFW3-Water-10302020	10/30/2020	12:40pm	G	Water			X	2	
HFW4-Water-10302020	10/30/2020	1:05pm	G	Water			X	2	
~~DUP~~-HFW DUP10302020	10/30/2020		G	Water			X	2	
HFW-Equipment Blank-10302020	10/30/2020	1:40pm	G	Water			X	2	
HFW-Field Blank-10302020	10/30/2020	1:45pm	G	Water			X	2	
				Water					
				Water					
				Water					
				Water					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) NYSDEC Cat. B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/30/20 14:20	NYSDEC	[signature]	10/30/20 1420	Eurofins
[signature]	10/30/20 1700	Eurofins	[signature]	10/31/20 945	Eurofins

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 147852 / 147852	Cooler Temperature(s) °C and Other Remarks: 0.2/0.7 0.0/0.5

Ver: 01/16/2019

ms/msd ID HFW-Water-10302020 ST 10/31/20

Eurofins TestAmerica, Sacramento Albany #224
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: SM	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150122-33365.4
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page ~~4 of 4~~ 2 of 2
Company: New York State D.E.C.				Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Ww=water, Sl=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
HFSCW2 - Water - 10302020	10/30/2020	11:20am	G	Water			X	2	
HFSCW1 - Water - 10302020	10/30/2020	11:40am	G	Water			X	2	
HFW1 - Water - 10302020	10/30/2020	12:25pm	G	Water			X	2	
HFPCW3 - Water - 10302020	10/30/2020	1:00pm	G	water			X	2	
HFPCW4 - Water - 10302020	10/30/2020	1:30pm	G	Water			X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/30/20 1420	NYSDEC	[signature]	10/30/20 1420	Eurofins
2	[signature]	10/30/20 1700	Eurofins	[signature]	10/31/20 945	Eurofins
3						

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 1478521 / 1478520

Cooler Temperature(s) °C and Other Remarks: 0.2 / 0.2 0.0 / 0.5

Ver: 01/16/2019

11/11/2020

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 320-66212-1

Login Number: 66212 **List Source: Eurofins T stAmerica, Sacramento**
List Number: 1
Creator: Oropeza, Salvador

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1478521/1478520
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	: IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-66472-1
Client Project/Site: Norlite - Cohoes #401041
Revision: 1

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Authorized for release by:
1/18/2021 11:12:47 AM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

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Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5	Isotope dilution analyte is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

ID: 320-66472-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Narrative
320-66472-1

Revision (1)
The report has been revised at the request of the client on 1/15/21 to change the date for the Trip Blank (320-66472-11) to 11/6/20 like the field samples.

Receipt
The samples were received on 11/7/2020 9:25 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

Receipt Exceptions
Trip Blank 11062020 (320-66472-11) COC does not indicate date on COC for sample 11. Date on container was 9-3-2020. Sample was logged in and labeled according to date on sample container.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): LF Water 2 11062020 (320-66472-1), LF Water 3 11062020 (320-66472-2), LF Water 6 11062020 (320-66472-3), LF Water 6 11062020 (320-66472-3[MS]), LF Water 6 11062020 (320-66472-3[MSD]), LF Water 4 11062020 (320-66472-4), LF Water 5 11062020 (320-66472-5), LF Water 7 11062020 (320-66472-6), LF Water 8 11062020 (320-66472-7), DUP 11062020 (320-66472-8) and Trip Blank 11062020 (320-66472-11).

Samples 1-3, 5 & 7, there are two dashes on sample containers after LF and Water #. For eamples, sample 1 ID on container LF-Water 2-11062020.

Sample 4 has both 250 mL and 2 of 4 125 mL plastic containers there are two dashes on sample containers after LF and Water 4. The other 2 125 mL have only one dash which is after water 4.

Sample 6 has both 250 mL and all 125 mL plastic containers there are two dashes on sample containers after LF and Water 7.

Sample 8 has both containers with ID as DUP-11062020.

Sample 11 has both container IDs as PFAS TRIP BLANKS but coc has ID listed as Trip Blanks.

All samples were logged in and labeled according to COC.

The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Trip Blank 11062020 (320-66472-11). Sample 11 has sample collection date as 9-3-2020. Method 3535_PFC has 14 days HT. HT was up on 9/16/2020. Samples received on 11/7/2020. Based on the request to use 11/6/20 for the T ip Blank date, this sample was analyzed in hold.

LCMS
Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS of the following sample: LF Water 4 11062020 (320-66472-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for several IDA of the following sample: LF Water 7 11062020 (320-66472-6). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 2 11062020 — Lab Sample ID: 320-66472-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.3	J	.7	.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.89	J	1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.83	J	1.9	.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.59	J	1.9	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.1	J	1.9	.80	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.0		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.93	J	1.9	.54	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 3 11062020 — Lab Sample ID: 320-66472-2

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.3	J	.9	.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.6	J	.0	.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.4	J	.0	.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.59	J	.0	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.1	J	.0	.83	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.4		.0	.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.2	J	.0	.56	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 6 11062020 — Lab Sample ID: 320-66472-3

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.9	J	.6	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.3		1.9	.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.4		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.86	J	1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.0	J	1.9	.79	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.56	J	1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.7	J	1.9	.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	12		1.9	.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 4 11062020 — Lab Sample ID: 320-66472-4

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.6		.7	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	30		1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	15		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.6		1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		1.9	.79	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.4		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.5	J	1.9	.53	ng/L	1		537 (modified)	Total/NA
:2 FTS	33		.7	.3	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 5 11062020 — Lab Sample ID: 320-66472-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.3	J	.6	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.7		1.8	.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.6		1.8	.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.8	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.97	J	1.8	.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.41	J	1.8	.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.71	J	1.8	.18	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 5 11062020 (Continued) — Lab Sample ID: 320-66472-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.4		1.8	.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	12		1.8	.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 7 11062020 — Lab Sample ID: 320-66472-6

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3		.7	.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	15		1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	11		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11		1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.6		1.9	.80	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8	J	1.9	.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	100		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.3		1.9	.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.1		1.9	.51	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LF Water 8 11062020 — Lab Sample ID: 320-66472-7

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)			.9	.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	13		1.9	.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	11		1.9	.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11		1.9	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.3		1.9	.83	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.7	J	1.9	.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	100		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.9		1.9	.55	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.1		1.9	.53	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP 11062020 — Lab Sample ID: 320-66472-8

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1		.6	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	11		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10		1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.1		1.9	.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8	J	1.9	.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	100		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.0		1.9	.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.6		1.9	.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: Field Blank 11062020 — Lab Sample ID: 320-66472-9

No Detections.

Client Sample ID: Equipment Blank 11062020 — Lab Sample ID: 320-66472-10

No Detections.

Client Sample ID: Trip Blank 11062020 — Lab Sample ID: 320-66472-11

No Detections.

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 2 11062020

Date Collected: 11/06/20 09:40
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-1

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.3**	**J**	.7	.3	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluoropentanoic acid (PFPeA)	**0.89**	**J**	1.9	.46	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorohexanoic acid (PFHxA)	**0.83**	**J**	1.9	.55	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluoroheptanoic acid (PFHpA)	**0.59**	**J**	1.9	.24	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorooctanoic acid (PFOA)	**1.1**	**J**	1.9	.80	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorononanoic acid (PFNA)	ND		1.9	.25	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.69	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorobutanesulfonic acid (PFBS)	**2.0**		1.9	.19	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorohexanesulfonic acid (PFHxS)	**0.93**	**J**	1.9	.54	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	.51	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 16:31	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.92	ng/L		11/11/20 19:32	11/12/20 16:31	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/11/20 19:32	11/12/20 16:31	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/11/20 19:32	11/12/20 16:31	1
:2 FTS	ND		.7	.4	ng/L		11/11/20 19:32	11/12/20 16:31	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 16:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C5 PFPeA	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C2 PFHxA	*93*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C4 PFHpA	*107*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C4 PFOA	*102*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C5 PFNA	*96*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C2 PFDA	*97*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C2 PFUnA	*90*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C2 PFDoA	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C2 PFTeDA	*66*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C3 PFBS	*88*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
18O2 PFHxS	*104*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C4 PFOS	*101*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
13C8 FOSA	*95*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
d3-NMeFOSAA	*86*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
NEtFOSAA	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
M2-6:2 FTS	*130*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*
M2-8:2 FTS	*113*		*150*	*11/11/20 19:32*	*11/12/20 16:31*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 3 11062020

Date Collected: 11/06/20 10:00
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-2

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.3**	**J**	.9	.3	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluoropentanoic acid (PFPeA)	**1.6**	**J**	.0	.48	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorohexanoic acid (PFHxA)	**1.4**	**J**	.0	.57	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluoroheptanoic acid (PFHpA)	**0.59**	**J**	.0	.24	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorooctanoic acid (PFOA)	**1.1**	**J**	.0	.83	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorononanoic acid (PFNA)	ND		.0	.26	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorodecanoic acid (PFDA)	ND		.0	.30	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluoroundecanoic acid (PFUnA)	ND		.0	1.1	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorododecanoic acid (PFDoA)	ND		.0	.54	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorotridecanoic acid (PFTriA)	ND		.0	1.3	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		.0	.71	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorobutanesulfonic acid (PFBS)	**2.4**		.0	.20	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorohexanesulfonic acid (PFHxS)	**1.2**	**J**	.0	.56	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.0	.19	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		.0	.53	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		.0	.31	ng/L		11/11/20 19:32	11/12/20 16:40	1
Perfluorooctanesulfonamide (FOSA)	ND		.0	.96	ng/L		11/11/20 19:32	11/12/20 16:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.9	1.2	ng/L		11/11/20 19:32	11/12/20 16:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.9	1.3	ng/L		11/11/20 19:32	11/12/20 16:40	1
:2 FTS	ND		.9	.4	ng/L		11/11/20 19:32	11/12/20 16:40	1
8:2 FTS	ND		.0	.45	ng/L		11/11/20 19:32	11/12/20 16:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*6*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C5 PFPeA	*88*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C2 PFHxA	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C4 PFHpA	*98*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C4 PFOA	*98*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C5 PFNA	*95*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C2 PFDA	*98*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C2 PFUnA	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C2 PFDoA	*85*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C2 PFTeDA			*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C3 PFBS	*80*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
18O2 PFHxS	*90*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C4 PFOS	*92*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
13C8 FOSA	*90*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
d3-NMeFOSAA	*88*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
NEtFOSAA	*81*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
M2-6:2 FTS	*114*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*
M2-8:2 FTS	*112*		*150*	*11/11/20 19:32*	*11/12/20 16:40*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 6 11062020
Date Collected: 11/06/20 10:35
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-3
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.9**	**J**	.6	.2	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluoropentanoic acid (PFPeA)	**2.3**		1.9	.45	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorohexanoic acid (PFHxA)	**2.4**		1.9	.54	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluoroheptanoic acid (PFHpA)	**0.86**	**J**	1.9	.23	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorooctanoic acid (PFOA)	**1.0**	**J**	1.9	.79	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorononanoic acid (PFNA)	ND		1.9	.25	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.51	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorobutanesulfonic acid (PFBS)	**0.56**	**J**	1.9	.19	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorohexanesulfonic acid (PFHxS)	**1.7**	**J**	1.9	.53	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorooctanesulfonic acid (PFOS)	**12**		1.9	.50	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 16:49	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.91	ng/L		11/11/20 19:32	11/12/20 16:49	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/11/20 19:32	11/12/20 16:49	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/11/20 19:32	11/12/20 16:49	1
:2 FTS	ND		.6	.3	ng/L		11/11/20 19:32	11/12/20 16:49	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 16:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*107*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C5 PFPeA	*114*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C2 PFHxA	*119*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C4 PFHpA	*131*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C4 PFOA	*126*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C5 PFNA	*123*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C2 PFDA	*113*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C2 PFUnA	*98*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C2 PFDoA	*97*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C2 PFTeDA	*96*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C3 PFBS	*108*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
18O2 PFHxS	*121*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C4 PFOS	*112*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
13C8 FOSA	*114*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
d3-NMeFOSAA	*110*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
NEtFOSAA	*103*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
M2-6:2 FTS	*136*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*
M2-8:2 FTS	*130*		*150*	*11/11/20 19:32*	*11/12/20 16:49*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 4 11062020
Date Collected: 11/06/20 11:40
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.6**		.7	.2	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluoropentanoic acid (PFPeA)	**30**		1.9	.46	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorohexanoic acid (PFHxA)	**15**		1.9	.54	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluoroheptanoic acid (PFHpA)	**5.6**		1.9	.23	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorooctanoic acid (PFOA)	**3.9**		1.9	.79	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorononanoic acid (PFNA)	ND		1.9	.25	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.51	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorobutanesulfonic acid (PFBS)	**2.4**		1.9	.19	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorohexanesulfonic acid (PFHxS)	**1.5**	**J**	1.9	.53	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	.50	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 17:17	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.91	ng/L		11/11/20 19:32	11/12/20 17:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/11/20 19:32	11/12/20 17:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/11/20 19:32	11/12/20 17:17	1
6:2 FTS	**33**		.7	.3	ng/L		11/11/20 19:32	11/12/20 17:17	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 17:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C5 PFPeA	*114*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C2 PFHxA	*118*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C4 PFHpA	*131*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C4 PFOA	*129*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C5 PFNA	*130*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C2 PFDA	*126*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C2 PFUnA	*111*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C2 PFDoA	*115*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C2 PFTeDA	*101*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C3 PFBS	*103*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
18O2 PFHxS	*120*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C4 PFOS	*118*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
13C8 FOSA	*128*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
d3-NMeFOSAA	*109*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
NEtFOSAA	*108*		*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
M2-6:2 FTS	*163*	**5*	*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*
M2-8:2 FTS	*155*	**5*	*150*	*11/11/20 19:32*	*11/12/20 17:17*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 5 11062020
Date Collected: 11/06/20 11:10
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-5
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.3**	**J**	.6	.2	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluoropentanoic acid (PFPeA)	**2.7**		1.8	.45	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorohexanoic acid (PFHxA)	**2.6**		1.8	.53	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluoroheptanoic acid (PFHpA)	**1.1**	**J**	1.8	.23	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorooctanoic acid (PFOA)	**0.97**	**J**	1.8	.78	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorononanoic acid (PFNA)	**0.41**	**J**	1.8	.25	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorodecanoic acid (PFDA)	ND		1.8	.29	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	.51	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	.67	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorobutanesulfonic acid (PFBS)	**0.71**	**J**	1.8	.18	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorohexanesulfonic acid (PFHxS)	**3.4**		1.8	.52	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	.17	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorooctanesulfonic acid (PFOS)	**12**		1.8	.50	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	.29	ng/L		11/11/20 19:32	11/12/20 17:44	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	.90	ng/L		11/11/20 19:32	11/12/20 17:44	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/11/20 19:32	11/12/20 17:44	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/11/20 19:32	11/12/20 17:44	1
:2 FTS	ND		.6	.3	ng/L		11/11/20 19:32	11/12/20 17:44	1
8:2 FTS	ND		1.8	.42	ng/L		11/11/20 19:32	11/12/20 17:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*85*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C5 PFPeA	*89*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C2 PFHxA	*93*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C4 PFHpA	*100*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C4 PFOA	*99*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C5 PFNA	*97*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C2 PFDA	*89*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C2 PFUnA	*87*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C2 PFDoA	*82*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C2 PFTeDA	*1*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C3 PFBS	*82*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
18O2 PFHxS	*96*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C4 PFOS	*91*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
13C8 FOSA	*90*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
d3-NMeFOSAA	*84*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
NEtFOSAA	*88*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
M2-6:2 FTS	*106*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*
M2-8:2 FTS	*94*		*150*	*11/11/20 19:32*	*11/12/20 17:44*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 7 11062020
Date Collected: 11/06/20 12:15
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-6
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**23**		.7	.3	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluoropentanoic acid (PFPeA)	**15**		1.9	.46	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorohexanoic acid (PFHxA)	**11**		1.9	.54	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluoroheptanoic acid (PFHpA)	**11**		1.9	.23	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorooctanoic acid (PFOA)	**5.6**		1.9	.80	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorononanoic acid (PFNA)	**1.8**	**J**	1.9	.25	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorobutanesulfonic acid (PFBS)	**100**		1.9	.19	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorohexanesulfonic acid (PFHxS)	**2.3**		1.9	.53	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		1.9	.51	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 17:53	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.92	ng/L		11/11/20 19:32	11/12/20 17:53	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/11/20 19:32	11/12/20 17:53	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/11/20 19:32	11/12/20 17:53	1
:2 FTS	ND		.7	.3	ng/L		11/11/20 19:32	11/12/20 17:53	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 17:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C5 PFPeA	*118*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C2 PFHxA	*124*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C4 PFHpA	*133*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C4 PFOA	*126*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C5 PFNA	*129*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C2 PFDA	*137*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C2 PFUnA	*109*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C2 PFDoA	*102*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C2 PFTeDA			*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C3 PFBS	*107*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
18O2 PFHxS	*114*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C4 PFOS	*122*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
13C8 FOSA	*115*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
d3-NMeFOSAA	*120*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
NEtFOSAA	*98*		*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
M2-6:2 FTS	*166*	**5*	*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*
M2-8:2 FTS	*151*	**5*	*150*	*11/11/20 19:32*	*11/12/20 17:53*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 8 11062020

Date Collected: 11/06/20 12:50
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-7

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**20**		.9	.3	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluoropentanoic acid (PFPeA)	**13**		1.9	.48	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorohexanoic acid (PFHxA)	**11**		1.9	.56	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluoroheptanoic acid (PFHpA)	**11**		1.9	.24	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorooctanoic acid (PFOA)	**5.3**		1.9	.83	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorononanoic acid (PFNA)	**1.7**	**J**	1.9	.26	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.54	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.71	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorobutanesulfonic acid (PFBS)	**100**		1.9	.19	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorohexanesulfonic acid (PFHxS)	**1.9**		1.9	.55	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		1.9	.53	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.31	ng/L		11/11/20 19:32	11/12/20 18:02	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.95	ng/L		11/11/20 19:32	11/12/20 18:02	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.9	1.2	ng/L		11/11/20 19:32	11/12/20 18:02	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.9	1.3	ng/L		11/11/20 19:32	11/12/20 18:02	1
:2 FTS	ND		.9	.4	ng/L		11/11/20 19:32	11/12/20 18:02	1
8:2 FTS	ND		1.9	.45	ng/L		11/11/20 19:32	11/12/20 18:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*6*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C5 PFPeA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C2 PFHxA	*87*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C4 PFHpA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C4 PFOA	*93*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C5 PFNA	*92*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C2 PFDA	*90*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C2 PFUnA	*88*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C2 PFDoA	*6*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C2 PFTeDA	*48*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C3 PFBS			*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
18O2 PFHxS	*89*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C4 PFOS	*86*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
13C8 FOSA	*83*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
d3-NMeFOSAA	*92*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
NEtFOSAA	*82*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
M2-6:2 FTS	*122*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*
M2-8:2 FTS	*97*		*150*	*11/11/20 19:32*	*11/12/20 18:02*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: DUP 11062020
Date Collected: 11/06/20 00:00
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-8
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**21**		.6	.2	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluoropentanoic acid (PFPeA)	**14**		1.9	.46	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorohexanoic acid (PFHxA)	**11**		1.9	.54	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluoroheptanoic acid (PFHpA)	**10**		1.9	.23	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorooctanoic acid (PFOA)	**5.1**		1.9	.79	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorononanoic acid (PFNA)	**1.8**	**J**	1.9	.25	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.51	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorobutanesulfonic acid (PFBS)	**100**		1.9	.19	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorohexanesulfonic acid (PFHxS)	**2.0**		1.9	.53	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorooctanesulfonic acid (PFOS)	**2.6**		1.9	.50	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 18:11	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.91	ng/L		11/11/20 19:32	11/12/20 18:11	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/11/20 19:32	11/12/20 18:11	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/11/20 19:32	11/12/20 18:11	1
:2 FTS	ND		.6	.3	ng/L		11/11/20 19:32	11/12/20 18:11	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 18:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*85*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C5 PFPeA	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C2 PFHxA	*105*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C4 PFHpA	*120*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C4 PFOA	*115*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C5 PFNA	*106*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C2 PFDA	*107*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C2 PFUnA	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C2 PFDoA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C2 PFTeDA			*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C3 PFBS	*87*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
18O2 PFHxS	*111*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C4 PFOS	*105*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
13C8 FOSA	*102*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
d3-NMeFOSAA	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
NEtFOSAA	*93*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
M2-6:2 FTS	*147*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*
M2-8:2 FTS	*126*		*150*	*11/11/20 19:32*	*11/12/20 18:11*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: Field Blank 11062020
Date Collected: 11/06/20 13:10
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-9
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.6	.2	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	.45	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	.53	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	.23	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorooctanoic acid (PFOA)	ND		1.8	.77	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorononanoic acid (PFNA)	ND		1.8	.25	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorodecanoic acid (PFDA)	ND		1.8	.28	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	.50	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	.66	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	.18	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	.52	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	.17	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	.49	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	.29	ng/L		11/11/20 19:32	11/12/20 18:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	.89	ng/L		11/11/20 19:32	11/12/20 18:21	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/11/20 19:32	11/12/20 18:21	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/11/20 19:32	11/12/20 18:21	1
:2 FTS	ND		.6	.3	ng/L		11/11/20 19:32	11/12/20 18:21	1
8:2 FTS	ND		1.8	.42	ng/L		11/11/20 19:32	11/12/20 18:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C5 PFPeA	*97*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C2 PFHxA	*89*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C4 PFHpA	*97*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C4 PFOA	*95*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C5 PFNA	*93*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C2 PFDA	*99*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C2 PFUnA	*89*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C2 PFDoA	*97*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C2 PFTeDA	*90*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C3 PFBS	*90*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
18O2 PFHxS	*92*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C4 PFOS	*95*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
13C8 FOSA	*89*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
d3-NMeFOSAA	*100*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
NEtFOSAA	*95*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
M2-6:2 FTS	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*
M2-8:2 FTS	*113*		*150*	*11/11/20 19:32*	*11/12/20 18:21*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: Equipment Blank 11062020

Date Collected: 11/06/20 13:05
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-10

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.7	.3	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	.46	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	.55	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	.24	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorooctanoic acid (PFOA)	ND		1.9	.80	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorononanoic acid (PFNA)	ND		1.9	.26	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.69	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	.19	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	.54	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	.51	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 18:30	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.93	ng/L		11/11/20 19:32	11/12/20 18:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/11/20 19:32	11/12/20 18:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/11/20 19:32	11/12/20 18:30	1
:2 FTS	ND		.7	.4	ng/L		11/11/20 19:32	11/12/20 18:30	1
8:2 FTS	ND		1.9	.43	ng/L		11/11/20 19:32	11/12/20 18:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*107*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C5 PFPeA	*108*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C2 PFHxA	*115*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C4 PFHpA	*120*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C4 PFOA	*118*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C5 PFNA	*113*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C2 PFDA	*117*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C2 PFUnA	*114*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C2 PFDoA	*113*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C2 PFTeDA	*90*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C3 PFBS	*98*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
18O2 PFHxS	*107*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C4 PFOS	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
13C8 FOSA	*112*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
d3-NMeFOSAA	*118*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
NEtFOSAA	*120*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
M2-6:2 FTS	*124*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*
M2-8:2 FTS	*126*		*150*	*11/11/20 19:32*	*11/12/20 18:30*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: Trip Blank 11062020
Date Collected: 11/06/20 00:00
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-11
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.8	.3	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	.47	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	.55	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	.24	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorooctanoic acid (PFOA)	ND		1.9	.81	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorononanoic acid (PFNA)	ND		1.9	.26	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.30	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.53	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.70	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	.19	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	.54	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	.52	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.31	ng/L		11/11/20 19:32	11/12/20 18:39	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.94	ng/L		11/11/20 19:32	11/12/20 18:39	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.8	1.1	ng/L		11/11/20 19:32	11/12/20 18:39	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.8	1.2	ng/L		11/11/20 19:32	11/12/20 18:39	1
:2 FTS	ND		.8	.4	ng/L		11/11/20 19:32	11/12/20 18:39	1
8:2 FTS	ND		1.9	.44	ng/L		11/11/20 19:32	11/12/20 18:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C5 PFPeA	*90*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C2 PFHxA	*96*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C4 PFHpA	*96*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C4 PFOA	*98*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C5 PFNA	*98*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C2 PFDA	*102*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C2 PFUnA	*91*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C2 PFDoA	*93*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C2 PFTeDA	*82*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C3 PFBS	*88*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
18O2 PFHxS	*87*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C4 PFOS	*97*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
13C8 FOSA	*92*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
d3-NMeFOSAA	*103*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
NEtFOSAA	*85*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
M2-6:2 FTS	*117*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*
M2-8:2 FTS	*123*		*150*	*11/11/20 19:32*	*11/12/20 18:39*	*1*

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66472-1	LF Water 2 11062020	77	92	93	107	102	96	97	90
320-66472-2	LF Water 3 11062020	76	88	92	98	98	95	98	92
320-66472-3	LF Water 6 11062020	107	114	119	131	126	123	113	98
320-66472-3 MS	LF Water 6 11062020	86	92	93	102	97	101	100	80
320-66472-3 MSD	LF Water 6 11062020	93	99	99	107	106	105	98	93
320-66472-4	LF Water 4 11062020	100	114	118	131	129	130	126	111
320-66472-5	LF Water 5 11062020	85	89	93	100	99	97	89	87
320-66472-6	LF Water 7 11062020	100	118	124	133	126	129	137	109
320-66472-7	LF Water 8 11062020	76	91	87	91	93	92	90	88
320-66472-8	DUP 11062020	85	103	105	120	115	106	107	103
320-66472-9	Field Blank 11062020	91	97	89	97	95	93	99	89
320-66472-10	Equipment Blank 11062020	107	108	115	120	118	113	117	114
320-66472-11	Trip Blank 11062020	91	90	96	96	98	98	102	91
LCS 320-430854/2-A	Lab Control Sample	132	130	128	142	136	139	139	136
MB 320-430854/1-A	Method Blank	90	90	94	98	95	94	98	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
320-66472-1	LF Water 2 11062020	92		88	104	101	95	86	92
320-66472-2	LF Water 3 11062020	85	72	80	90	92	90	88	81
320-66472-3	LF Water 6 11062020	97	96	108	121	112	114	110	103
320-66472-3 MS	LF Water 6 11062020	88	71	82	92	92	91	90	83
320-66472-3 MSD	LF Water 6 11062020	82	85	96	101	100	99	96	88
320-66472-4	LF Water 4 11062020	115	101	103	120	118	128	109	108
320-66472-5	LF Water 5 11062020	82	71	82	96	91	90	84	88
320-66472-6	LF Water 7 11062020	102	57	107	114	122	115	120	98
320-66472-7	LF Water 8 11062020	76	8	77	89	86	83	92	82
320-66472-8	DUP 11062020	91	52	87	111	105	102	103	93
320-66472-9	Field Blank 11062020	97	90	90	92	95	89	100	95
320-66472-10	Equipment Blank 11062020	113	90	98	107	103	112	118	120
320-66472-11	Trip Blank 11062020	93	82	88	87	97	92	103	85
LCS 320-430854/2-A	Lab Control Sample	135	129	117	129	145	134	142	126
MB 320-430854/1-A	Method Blank	92	88	87	97	96	95	96	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)						
320-66472-1	LF Water 2 11062020	130	113						
320-66472-2	LF Water 3 11062020	11	11						
320-66472-3	LF Water 6 11062020	136	130						
320-66472-3 MS	LF Water 6 11062020	107	105						
320-66472-3 MSD	LF Water 6 11062020	114	100						
320-66472-4	LF Water 4 11062020	163 *5	155 *5						
320-66472-5	LF Water 5 11062020	106	94						
320-66472-6	LF Water 7 11062020	166 *5	151 *5						
320-66472-7	LF Water 8 11062020	122	97						
320-66472-8	DUP 11062020	147	126						
320-66472-9	Field Blank 11062020	103	113						
320-66472-10	Equipment Blank 11062020	124	126						
320-66472-11	Trip Blank 11062020	117	123						

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 320-66472-1
Project/Site: Norlite - Cohoes #401041

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)								
LCS 320-430854/2-A	Lab Control Sample	150	142								
MB 320-430854/1-A	Method Blank	108	105								

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-430854/1-A
Matrix: Water
Analysis Batch: 431537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 430854

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PergLorobLtanoic aci9 5P8f ud	ND		(.0	.4	nF/A		11/11/20 1) :32	11/12/20 1(:(4	1
PergLoroUentanoic aci9 5P8Peud	ND		.0	.4)	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorohepanoic aci9 5P8Hpud	ND		.0	0.(T	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoroheUtanoic aci9 5P8HUud	ND		.0	.2(	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorooctanoic aci9 5P8Oud	ND		.0	0.T(	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorononanoic aci9 5P8Nud	ND		.0	.27	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoro9ecanoic aci9 5P8Dud	ND		.0	.31	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoroLn9ecanoic aci9 5P8mnud	ND		.0	1.1	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoro9o9ecanoic aci9 5P8Doud	ND		.0	.((	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorotri9ecanoic aci9 5P8yriud	ND		.0	1.3	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorotetra9ecanoic aci9 5P8yeud	ND		.0	.73	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorobLtanesLlgonic aci9 5P8f Sd	ND		.0	.20	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorohepanesLlgonic aci9 5P8HpSd	ND		.0	0.(7	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoroheUtanesLlgonic uci9 5P8HUSd	ND		.0	.1)	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorooctanesLlgonic aci9 5P8OSd	ND		.0	.(	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLoro9ecanesLlgonic aci9 5P8DSd	ND		.0	.32	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
PergLorooctanesLlgonaMi9e 5BOSud	ND		.0	0.) T	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
N-Meth, lUergLorooctanesLlgonaMi9oacetic aci9 5NB e8OSuud	ND		(.0	1.2	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
N-eth, lUergLorooctanesLlgonaMi9oacetic aci9 5NEt8OSuud	ND		(.0	1.3	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
6:2 8yS	ND		(.0	.(	nF/A		11/11/20 1) :32	11/12/20 1(:(	1
T: 8yS	ND		.0	.46	nF/A		11/11/20 1) :32	11/12/20 1(:(	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA			*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C5 PFPeA			*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C2 PFHxA	*4*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C4 PFHpA	*8*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C4 PFOA			*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C5 PFNA	*4*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C2 PFDA	*8*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C2 PFUnA	*3*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C2 PFDoA			*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C2 PFTeDA	*88*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C3 PFBS	*87*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
18O2 PFHxS	*7*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C4 PFOS	*6*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
13C8 FOSA			*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
d3-NMeFOSAA	*6*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
-NEtFOSAA	*85*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
M2-6:2 FTS	*108*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*
M2-8:2 FTS	*105*		*- 150*	*11/11/20 19:32*	*11/12/20 15:54*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-430854/2-A
Matrix: Water
Analysis Batch: 431537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430854

Analyte			Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
PergLorobLtanoic aci9 5P8f ud			.0	.0		nF/A		110	76	136		
PergLoroUentanoic aci9 5P8Peud			.0	3T.7		nF/A		) 7	71	131		
PergLorohepanoic aci9 5P8Hpud			.0	(.6		nF/A		114	73	133		
PergLoroheUtanoic aci9 5P8HUud			.0	1.4		nF/A		103	72	132		
PergLorooctanoic aci9 5P8Oud			.0	.1		nF/A		10(	70	130		
PergLorononanoic aci9 5P8Nud			.0	.)		nF/A		107	7(	13(		
PergLoro9ecanoic aci9 5P8Dud			.0	.6		nF/A		106	76	136		
PergLoroLn9ecanoic aci9 5P8mnud			.0	3) .(		nF/A		))	T	12T		
PergLoro9o9ecanoic aci9 5P8Doud			.0	(.2		nF/A		113	71	131		
PergLorotri9ecanoic aci9 5P8yriud			.0	3.0		nF/A		107	71	131		
PergLorotetra9ecanoic aci9 5P8yeud			.0	(.0		nF/A		112	70	130		
PergLorobLtanesLlgonic aci9 5P8f Sd			3(.4	3) .7		nF/A		112	7	127		
PergLorohepanesLlgonic aci9 5P8HpSd			36.4	37.2		nF/A		102	( )	11)		
PergLoroheUtanesLlgonic uci9 5P8HUSd			3T.1	37.4		nF/A		) T	76	136		
PergLorooctanesLlgonic aci9 5P8OSd			37.1	3) .3		nF/A		106	70	130		
PergLoro9ecanesLlgonic aci9 5P8DSd			3T.6	3T.T		nF/A		101	71	131		
PergLorooctanesLlgonaMi9e 5BOSud			.0	(.1		nF/A		12(	73	133		
N-Meth, lUergLorooctanesLlgona Mi9oacetic aci9 5NBe8OSuud			.0	3.0		nF/A		10T	76	136		
N-eth, lUergLorooctanesLlgonaMi 9oacetic aci9 5NEt8OSuud			.0	.6		nF/A		107	76	136		
6:2 8yS			37.)	3T.2		nF/A		101	( )	17(		
T: 8yS			3T.3	.		nF/A		1	7(	13(		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*132*		*- 150*
13C5 PFPeA	*130*		*- 150*
13C2 PFHxA	*128*		*- 150*
13C4 PFHpA	*142*		*- 150*
13C4 PFOA	*136*		*- 150*
13C5 PFNA	*139*		*- 150*
13C2 PFDA	*139*		*- 150*
13C2 PFUnA	*136*		*- 150*
13C2 PFDoA	*135*		*- 150*
13C2 PFTeDA	*129*		*- 150*
13C3 PFBS	*117*		*- 150*
18O2 PFHxS	*129*		*- 150*
13C4 PFOS	*145*		*- 150*
13C8 FOSA	*134*		*- 150*
3-NMeFOSAA	*142*		*- 150*
-NEtFOSAA	*126*		*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-430854/2-A
Matrix: Water
Analysis Batch: 431537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 430854

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	150		- 150
M2-8:2 FTS	142		- 150

Lab Sample ID: 320-66472-3 MS
Matrix: Water
Analysis Batch: 431537

Client Sample ID: LF Water 6 11062020
Prep Type: Total/NA
Prep Batch: 430854

Analyte	Sample It	Sample Qualifier	Spike Added	MS It	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PergLorobLtanoic aci9 5P8f ud	.)	J	37.2	.4		nF/A		101	76 136
PergLoroUentanoic aci9 5P8Peud	.3		37.2	37.1		nF/A		)	71 131
PergLorohepanoic aci9 5P8Hpud	.4		37.2	.6		nF/A		103	73 133
PergLoroheUtanoic aci9 5P8HUud	.T	J	37.2	3T.7		nF/A		102	72 132
PergLorooctanoic aci9 5P8Oud	1.0	J	37.2	.T		nF/A		107	70 130
PergLorononanoic aci9 5P8Nud	ND		37.2	1.7		nF/A		112	7(13(
PergLoro9ecanoic aci9 5P8Dud	ND		37.2	37.7		nF/A		101	76 136
PergLoroLn9ecanoic aci9 5P8mnud	ND		37.2	.(		nF/A		10)	T 12T
PergLoro9o9ecanoic aci9 5P8Doud	ND		37.2	37.2		nF/A		100	71 131
PergLorotri9ecanoic aci9 5P8yriud	ND		37.2	36.1		nF/A		) 7	71 131
PergLorotetra9ecanoic aci9 5P8yeud	ND		37.2	3.1		nF/A		116	70 130
PergLorobLtanesLlgonic aci9 5P8f Sd	.(	J	32.)	36.1		nF/A		10T	7 127
PergLorohepanesLlgonic aci9 5P8HpSd	1.7	J	33.T	36.T		nF/A		104	( ) 11)
PergLoroheUtanesLlgonic uci9 5P8HUSd	ND		3(.4	3) .1		nF/A		110	76 136
PergLorooctanesLlgonic aci9 5P8OSd	12		34.(	(.)		nF/A		113	70 130
PergLoro9ecanesLlgonic aci9 5P8DSd	ND		3(.T	31.3		nF/A		TT	71 131
PergLorooctanesLlgonaMi9e 5BOSud	ND		37.2	1.7		nF/A		112	73 133
N-Meth, lUergLorooctanesLlgona Mi9oacetic aci9 5NBe8OSuud	ND		37.2	36.T		nF/A		))	76 136
N-eth, lUergLorooctanesLlgonaMi 9oacetic aci9 5NEt8OSuud	ND		37.2	36.7		nF/A		))	76 136
6:2 8yS	ND		3(.2	33.)		nF/A		)	( ) 17(
T:2 8yS	ND		3(.6	37.3		nF/A		10(	7(13(

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA	86		- 150
13C5 PFPeA			- 150
13C2 PFHxA	3		- 150
13C4 PFHpA	102		- 150
13C4 PFOA	7		- 150
13C5 PFNA	101		- 150
13C2 PFDA	100		- 150
13C2 PFUnA	80		- 150
13C2 PFDoA	88		- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 320-66472-3 MS
Matrix: Water
Analysis Batch: 431537

Client Sample ID: LF Water 6 11062020
Prep Type: Total/NA
Prep Batch: 430854

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFTeDA	71		- 150
13C3 PFBS	82		- 150
18O2 PFHxS			- 150
13C4 PFOS			- 150
13C8 FOSA	1		- 150
d3-NMeFOSAA			- 150
-NEtFOSAA	83		- 150
M2-6:2 FTS	107		- 150
M2-8:2 FTS	105		- 150

Lab Sample ID: 320-66472-3 MSD
Matrix: Water
Analysis Batch: 431537

Client Sample ID: LF Water 6 11062020
Prep Type: Total/NA
Prep Batch: 430854

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
PergLorobLtanoic aci9 5P8f ud	.)	J	37.7	.4		nF/A		10(	76	136	(	3
PergLoroUentanoic aci9 5P8Peud	.3		37.7	3(.3		nF/A		T7	71	131	(	30
PergLorohepanoic aci9 5P8Hpud	.4		37.7	3.4		nF/A		10)	73	133	7	30
PergLoroheUtanoic aci9 5P8HUud	.T	J	37.7	.3		nF/A		10(	72	132		30
PergLorooctanoic aci9 5P8Oud	1.0	J	37.7	3) .6		nF/A		102	70	130	3	30
PergLorononanoic aci9 5P8Nud	ND		37.7	.4		nF/A		11T	7(	13(		30
PergLoro9ecanoic aci9 5P8Dud	ND		37.7	1.)		nF/A		111	76	136	11	30
PergLoroLn9ecanoic aci9 5P8mnud	ND		37.7	36.2		nF/A		)	T	12T	11	30
PergLoro9o9ecanoic aci9 5P8Doud	ND		37.7	(.)		nF/A		122	71	131	1	30
PergLorotri9ecanoic aci9 5P8yriud	ND		37.7	(.3		nF/A		120	71	131	3	30
PergLorotetra9ecanoic aci9 5P8yeud	ND		37.7	.)		nF/A		114	70	130		30
PergLorobLtanesLlgonic aci9 5P8f Sd	.(	J	33.3	34.6		nF/A		102	7	127		30
PergLorohepanesLlgonic aci9 5P8HpSd	1.7	J	34.3	37.0		nF/A		103	( )	11)		3
PergLoroheUtanesLlgonic uci9 5P8HUSd	ND		3(.)	3) .(		nF/A		110	76	136	1	30
PergLorooctanesLlgonic aci9 5P8OSd	12		3(.0	4T.T		nF/A		106	70	130		30
PergLoro9ecanesLlgonic aci9 5P8DSd	ND		36.4	31.4		nF/A		T	71	131		30
PergLorooctanesLlgonaMi9e 5BOSud	ND		37.7	3.7		nF/A		116	73	133	(	30
N-Meth, lUergLorooctanesLlgona Mi9oacetic aci9 5NBe8OSuud	ND		37.7	3T.(		nF/A		102	76	136		30
N-eth, lUergLorooctanesLlgonaMi 9oacetic aci9 5NEt8OSuud	ND		37.7	3) .6		nF/A		10(	76	136	7	30
6:2 8yS	ND		3(.T	37.0		nF/A		103	( )	17(	)	30
T:2 8yS	ND		36.1	3T.(		nF/A		107	7(	13(	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	3		- 150
13C5 PFPeA			- 150

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Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 320-66472-3 MSD
Matrix: Water
Analysis Batch: 431537

Client Sample ID: LF Water 6 11062020
Prep Type: Total/NA
Prep Batch: 430854

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFHxA			- 150
13C4 PFHpA	107		- 150
13C4 PFOA	106		- 150
13C5 PFNA	105		- 150
13C2 PFDA	8		- 150
13C2 PFUnA	3		- 150
13C2 PFDoA	82		- 150
13C2 PFTeDA	85		- 150
13C3 PFBS	6		- 150
18O2 PFHxS	101		- 150
13C4 PFOS	100		- 150
13C8 FOSA			- 150
d3-NMeFOSAA	6		- 150
-NEtFOSAA	88		- 150
M2-6:2 FTS	114		- 150
M2-8:2 FTS	100		- 150

ELrogns yestu MericaxSacraMento

LCMS

Prep Batch: 430854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-1	LF Water 2 11062020	Total/NA	Water	3535	
320-66472-2	LF Water 3 11062020	Total/NA	Water	3535	
320-66472-3	LF Water 6 11062020	Total/NA	Water	3535	
320-66472-4	LF Water 4 11062020	Total/NA	Water	3535	
320-66472-5	LF Water 5 11062020	Total/NA	Water	3535	
320-66472-6	LF Water 7 11062020	Total/NA	Water	3535	
320-66472-7	LF Water 8 11062020	Total/NA	Water	3535	
320-66472-8	DUP 11062020	Total/NA	Water	3535	
320-66472-9	Field Blank 11062020	Total/NA	Water	3535	
320-66472-10	Equipment Blank 11062020	Total/NA	Water	3535	
320-66472-11	Trip Blank 11062020	Total/NA	Water	3535	
MB 320-430854/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-430854/2-A	Lab Control Sample	Total/NA	Water	3535	
320-66472-3 MS	LF Water 6 11062020	Total/NA	Water	3535	
320-66472-3 MSD	LF Water 6 11062020	Total/NA	Water	3535	

Analysis Batch: 431537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-1	LF Water 2 11062020	Total/NA	Water	537 (modified)	30854
320-66472-2	LF Water 3 11062020	Total/NA	Water	537 (modified)	30854
320-66472-3	LF Water 6 11062020	Total/NA	Water	537 (modified)	30854
320-66472-4	LF Water 4 11062020	Total/NA	Water	537 (modified)	30854
320-66472-5	LF Water 5 11062020	Total/NA	Water	537 (modified)	30854
320-66472-6	LF Water 7 11062020	Total/NA	Water	537 (modified)	30854
320-66472-7	LF Water 8 11062020	Total/NA	Water	537 (modified)	30854
320-66472-8	DUP 11062020	Total/NA	Water	537 (modified)	30854
320-66472-9	Field Blank 11062020	Total/NA	Water	537 (modified)	30854
320-66472-10	Equipment Blank 11062020	Total/NA	Water	537 (modified)	30854
320-66472-11	Trip Blank 11062020	Total/NA	Water	537 (modified)	30854
MB 320-430854/1-A	Method Blank	Total/NA	Water	537 (modified)	30854
LCS 320-430854/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	30854
320-66472-3 MS	LF Water 6 11062020	Total/NA	Water	537 (modified)	30854
320-66472-3 MSD	LF Water 6 11062020	Total/NA	Water	537 (modified)	30854

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 2 11062020
Lab Sample ID: 320-66472-1
Date Collected: 11/06/20 09:40
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			265.8 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 16:31	K1S	TAL SAC

Client Sample ID: LF Water 3 11062020
Lab Sample ID: 320-66472-2
Date Collected: 11/06/20 10:00
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			255.5 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 16:40	K1S	TAL SAC

Client Sample ID: LF Water 6 11062020
Lab Sample ID: 320-66472-3
Date Collected: 11/06/20 10:35
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.5 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 16:49	K1S	TAL SAC

Client Sample ID: LF Water 4 11062020
Lab Sample ID: 320-66472-4
Date Collected: 11/06/20 11:40
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			268.5 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 17:17	K1S	TAL SAC

Client Sample ID: LF Water 5 11062020
Lab Sample ID: 320-66472-5
Date Collected: 11/06/20 11:10
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			271.5 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 17:44	K1S	TAL SAC

Client Sample ID: LF Water 7 11062020
Lab Sample ID: 320-66472-6
Date Collected: 11/06/20 12:15
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			266.6 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 17:53	K1S	TAL SAC

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Client Sample ID: LF Water 8 11062020

Lab Sample ID: 320-66472-7
Date Collected: 11/06/20 12:50
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			256.9 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 18:02	K1S	TAL SAC

Client Sample ID: DUP 11062020

Lab Sample ID: 320-66472-8
Date Collected: 11/06/20 00:00
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 18:11	K1S	TAL SAC

Client Sample ID: Field Blank 11062020

Lab Sample ID: 320-66472-9
Date Collected: 11/06/20 13:10
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			274.6 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 18:21	K1S	TAL SAC

Client Sample ID: Equipment Blank 11062020

Lab Sample ID: 320-66472-10
Date Collected: 11/06/20 13:05
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			264.7 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 18:30	K1S	TAL SAC

Client Sample ID: Trip Blank 11062020

Lab Sample ID: 320-66472-11
Date Collected: 11/06/20 00:00
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			261.6 mL	10.00 mL	430854	11/11/20 19:32	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			431537	11/12/20 18:39	K1S	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 320-66472-1
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	ELAP	E87570	06-30-21
Georgia	State	4040	01-30-21
Hawaii	State	<cert No.>	01-29-21
Illinois	ELAP	200060	03-17-21
Kansas	ELAP	E-10375	02-01-21
Louisiana	ELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	08-03-23
evada	State	CA000442021-2	11-23-20
ew Hampshire	ELAP	2997	04-18-21
ew Jersey	ELAP	CA005	06-30-21
ew k	ELAP	11666	04-01-21
Oregon	ELAP	4040	01-29-21
Pennsylvania	ELAP	68-01272	03-31-21
Texas	ELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	ELAP	CA000442019-01	02-28-21
Vermont	State	VT-4040	04-16-21
Virginia	ELAP	460278	03-14-21
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-20
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-66472-1	LF Water 2 11062020	Water	11/06/20 09:40	11/07/20 09:25	
320-66472-2	LF Water 3 11062020	Water	11/06/20 10:00	11/07/20 09:25	
320-66472-3	LF Water 6 11062020	Water	11/06/20 10:35	11/07/20 09:25	
320-66472-4	LF Water 4 11062020	Water	11/06/20 11:40	11/07/20 09:25	
320-66472-5	LF Water 5 11062020	Water	11/06/20 11:10	11/07/20 09:25	
320-66472-6	LF Water 7 11062020	Water	11/06/20 12:15	11/07/20 09:25	
320-66472-7	LF Water 8 11062020	Water	11/06/20 12:50	11/07/20 09:25	
320-66472-8	DUP 11062020	Water	11/06/20 00:00	11/07/20 09:25	
320-66472-9	Field Blank 11062020	Water	11/06/20 13:10	11/07/20 09:25	
320-66472-10	Equipment Blank 11062020	Water	11/06/20 13:05	11/07/20 09:25	
320-66472-11	Trip Blank 11062020	Water	11/06/20 00:00	11/07/20 09:25	

Albany #224

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Brie Hart	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150125-33367.1
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: New York State D.E.C.				Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014	PO #: Call Out DMM R4 - 401041			
Phone: 518-402-9267(Tel)	WO #:			
Email: lynn.winterberger@dec.ny.gov	Project #: 48022694			
Project Name: Norlite - Cohoes #401041	SSOW#:			
Site:				

Analysis Requested

320-66472 Chain of Custody

Preservation Codes:
HCL, NaOH, Zn Acetate, Nitric Acid, NaHSO4, MeOH, Amchlor, Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - TOPS Assay	PFC Standard List (21)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N			
LF Water-2 11062020	11/06/2020	940 Am	G	Water				X	2	
LF Water 3 11062020	11/06/2020	1000 Am	G	Water				X	2	
LF Water 6 11062020	11/06/2020	1035 Am	G	Solid		X		X	6	MS/MSD
LF Water 4 11062020	11/06/2020	1140 Am	G	Solid			X	X	6	
LF Water 5 11062020	11/06/2020	1110	G	W				X	2	
LF Water 7 11062020	11/06/2020	1215	G	W			X	X	6	
LF Water 8 11062020	11/06/2020	1250	G	W				X	2	
DUP 11062020	11/06/2020		G	W				X	2	
Field Blank 11062020	11/06/2020	100 Pm	G	W				X	2	
Equipment Blank 11062020	11/06/2020	105 Pm	G	W				X	2	
Trip Blank			C	W				X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B and EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/6/2020 14.00	NYSDEC	Karl Zoehler	11/6/20 1400	Eurofins
Karl Zoehler	11/6/20 1700	Eurofins		11/7/20 925	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1478558

Cooler Temperature(s) °C and Other Remarks: 0.1/0.6

Ver: 01/16/2019

*MS/MSD 2 dashes (-) After LF ; water 2 (6) SO 11/7/20
- 4 of 4 125 mL only 1 dash after water 7 (-) SO 11/7/20
Δ 2 of 4 125mL only 1 dash after water 4 (-) SO 11/7/20
Δ Date 9[illegible] SO 11/7/20
☐ Dash after (-) Dup (-) SO 11/7/20
U) ID PFAS Trip Blank SO 11/7/20

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1/18/2021 (Rev. 1)

Login Sample Receipt Checklist

Client: New k State D.E.C.

Job Number: 320-66472-1

Login Number: 66472
List Number: 1
Creator: Oropeza, Salvador

List Source: Eurofins T stAmerica, Sacramento

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	ue	
The cooler's custody seal, if present, is intact.	ue	1428558
he cooler or samples do not appear to have been compromised or tampered with.	ue	
Samples were received on ice.	ue	
Cooler emperature is acceptable.	ue	
Cooler emperature is recorded.	ue	
COC is present.	ue	
COC is filled out in ink and legible.	ue	
COC is filled out with all pertinent information.	False	: No date or time on COC or containers
Is the Field Sampler's name present on COC?	ue	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to job narrative for details
Samples are received within Holding ime (Excluding tests with immediate HTs)..	False	Refer to job narrative for details
Sample containers have legible labels.	ue	
Containers are not broken or leaking.	ue	
Sample collection date/times are provided.	ue	
Appropriate sample containers are used.	ue	
Sample bottles are completely filled.	ue	
Sample Preservation Verified	ue	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	ue	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	ue	
If necessary, staff have been informed of any short hold time o quick A needs	ue	
Multiphasic samples are not present.	ue	
Samples do not require splitting or compositing.	ue	
Sampling Company provided.	ue	
Samples received within 48 hours of sampling.	ue	
Samples requiring field filtration have been filtered in the field.	ue	
Chlorine Residual checked.	ue	

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ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-66472-2
Client Project/Site: Norlite - Cohoes #401041

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Judy Stone

Authorized for release by:
11/23/2020 4:54:15 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5	Isotope dilution analyte is outside ac eptance limits.
B	Compound was found in the blank and sample.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

ID: 320-66472-2

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Narrative
320-66472-2

Receipt
The samples were received on 11/7/2020 9:25 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

LCMS
Method 537 (modified): Method(s) 537 (modified): The labeled analyte M2-4:2FTS is converted to PFBA during the oxidation step of the TOP assay. The PFBA result in the Post-Treatment Method Blank (MB) indicates how much of a field sample's Post-Treatment PFBA esult is contributed by the Reverse Surrogate, when adjusted f dilution factors. (MB 320-432348/1-A)

Method 537 (modified): Method(s) 537 (modified): Zero percent recovery of precursor analytes (4:2FTS, 6:2FTS, 8:2FTS, FOSA, NMeFOSAA, and NEtFOSAA) and enhanced recoveries of PFCAs is observed in the Post-Treatment Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) associated with these samples, consistent with the expected oxidation of precursor analytes. (LCS 320-432348/2-A) and (LCSD 320-432348/3-A)

Method 537 (modified): Method(s) 537 (modified): The labeled analyte M2-4:2FTS is employed in this analysis as a "Reverse Surr gate". It is used to monitor the oxidation efficiency of the TOP assay. This analyte is fortified into all sample fractions prior to any processing. The recovery of this analyte should be 0% in Post-T eatment fractions, indicating complete oxidation of the sample. LF Water 4 11062020 (320-66472-4), LF Water 7 11062020 (320-66472-6), (LCS 320-432333/2-A), (LCS 320-432348/2-A), (LCSD 320-432333/3-A), (LCSD 320-432348/3-A), (MB 320-432333/1-A) and (MB 320-432348/1-A)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS in the following sample: LF Water 7 11062020 (320-66472-6). This IDA is not actually used to quantify any target analyte in this analysis and is just used as a comparison for the POST oxidation analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method TOP Post Prep: Due to the matrix, the initial volume used for the following samples deviated from the standard procedure: LF Water 4 11062020 (320-66472-4) and LF Water 7 11062020 (320-66472-6). The reporting limits (RLs) have been adjusted proportionately.

Method TOP Pre - Prep: Due to the matrix, the initial volume used for the following samples deviated from the standard procedu e: LF Water 4 11062020 (320-66472-4) and LF Water 7 11062020 (320-66472-6). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Client Sample ID: LF Water 4 11062020

Lab Sample ID: 320-66472-4

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.9		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluoropentanoic acid (PFPeA)			5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorohexanoic acid (PFHxA)	15		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluoroheptanoic acid (PFHpA)	5.2		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorooctanoic acid (PFOA)	5.0		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorobutanoic acid (PFBA)	7	B	5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluoropentanoic acid (PFPeA)	31		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluorohexanoic acid (PFHxA)	18		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	5.1		5.0		ng/L	1		537 (modified)	Post-Treatment
PFBA	18				ng/L	1		Total PFCA-Dif	Total/NA
PFHpA	.00				ng/L	1		Total PFCA-Dif	Total/NA
PFHxA	.9				ng/L	1		Total PFCA-Dif	Total/NA
PFNA	.00				ng/L	1		Total PFCA-Dif	Total/NA
PFOA	.00				ng/L	1		Total PFCA-Dif	Total/NA
PFPA	.5				ng/L	1		Total PFCA-Dif	Total/NA
Total PFCA	1				ng/L	1		Total PFCA-Dif	Total/NA
Total PFCA					ng/L	1		Total PFCA-Sum	Pre-Treatment
Total PFCA	81				ng/L	1		Total PFCA-Sum	Post-Treatment

Client Sample ID: LF Water 7 11062020

Lab Sample ID: 320-66472-6

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluoropentanoic acid (PFPeA)	14		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorohexanoic acid (PFHxA)	11		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluoroheptanoic acid (PFHpA)	9.7		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorooctanoic acid (PFOA)	5.8		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorobutanesulfonic acid (PFBS)	96		5.0		ng/L	1		537 (modified)	Pre-Treatment
Perfluorobutanoic acid (PFBA)	58	B	5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluoropentanoic acid (PFPeA)	16		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluorohexanoic acid (PFHxA)	13		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	9.6		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluorooctanoic acid (PFOA)	.1		5.0		ng/L	1		537 (modified)	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	93		5.0		ng/L	1		537 (modified)	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF Water 7 11062020 (Continued)

Lab Sample ID: 320-66472-6

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
PFBA	37				ng/L	1		Total PFCA-Dif	Total/NA
PFHpA	.00				ng/L	1		Total PFCA-Dif	Total/NA
PFHxA	1.7				ng/L	1		Total PFCA-Dif	Total/NA
PFNA	.00				ng/L	1		Total PFCA-Dif	Total/NA
PFOA	.29				ng/L	1		Total PFCA-Dif	Total/NA
PFPA	1.4				ng/L	1		Total PFCA-Dif	Total/NA
Total PFCA	1				ng/L	1		Total PFCA-Dif	Total/NA
Total PFCA					ng/L	1		Total PFCA-Sum	Pre-Treatment
Total PFCA	100				ng/L	1		Total PFCA-Sum	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Client Sample ID: LF Water 4 11062020
Date Collected: 11/06/20 11:40
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-4
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.9**		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluoropentanoic acid (PFPeA)	**26**		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorohexanoic acid (PFHxA)	**15**		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluoroheptanoic acid (PFHpA)	**5.2**		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorooctanoic acid (PFOA)	**5.0**		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:48	1
N-methylperfluorooctanesulfonamidoa etic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:48	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:48	1
:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:48	1
8:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C5 PFPeA	*114*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C2 PFHxA	*110*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C4 PFHpA	*119*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C4 PFOA	*98*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C5 PFNA	*104*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C2 PFDA	*97*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C2 PFUnA	*93*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C2 PFDoA	*82*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C2 PFTeDA	*101*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C3 PFBS	*102*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
18O2 PFHxS	*112*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C4 PFOS	*111*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
13C8 FOSA	*111*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
d3-NMeFOSAA	*83*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
NEtFOSAA	*85*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
M2-6:2 FTS	*134*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
M2-8:2 FTS	*131*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*
M2-4:2 FTS	*146*		*150*	*11/16/20 18:43*	*11/18/20 11:48*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**27**	**B**	5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluoropentanoic acid (PFPeA)	**31**		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorohexanoic acid (PFHxA)	**18**		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Client Sample ID: LF Water 4 11062020
Date Collected: 11/06/20 11:40
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-4
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	**5.1**		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorooctanoic acid (PFOA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 13:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 13:12	1
:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 13:12	1
8:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 13:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*11*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C5 PFPeA	*118*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C2 PFHxA	*109*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C4 PFHpA	*123*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C4 PFOA	*102*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C5 PFNA	*102*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C2 PFDA	*103*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C2 PFUnA	*100*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C2 PFDoA	*99*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C2 PFTeDA	*86*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C3 PFBS	*106*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
18O2 PFHxS	*111*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C4 PFOS	*110*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
13C8 FOSA	*111*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
d3-NMeFOSAA	*88*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
NEtFOSAA	*91*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
M2-6:2 FTS	*128*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
M2-8:2 FTS	*137*		*150*	*11/16/20 18:54*	*11/18/20 13:12*	*1*
M2-4:2 FTS			*10*	*11/16/20 18:54*	*11/18/20 13:12*	*1*

Method: Total PFCA-Dif - Total PFCA (Treatment Difference)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PFBA	**18**				ng/L			11/22/20 06:34	1
PFHpA	**0.00**				ng/L			11/22/20 06:34	1
PFHxA	**2.9**				ng/L			11/22/20 06:34	1
PFNA	**0.00**				ng/L			11/22/20 06:34	1
PFOA	**0.00**				ng/L			11/22/20 06:34	1
PFPA	**4.5**				ng/L			11/22/20 06:34	1

Client Sample ID: LF Water 4 11062020

Lab Sample ID: 320-66472-4

Date Collected: 11/06/20 11:40
Matrix: W ter
Date Received: 11/07/20 09:25

Method: Total PFCA-Dif - Total PFCA (Treatment Difference) (Continued)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	21				ng/L			11/22/20 06:34	1

Method: Total PFCA-Sum - Total PFCA (Summary) - Pre-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	60				ng/L			11/22/20 06:30	1

Method: Total PFCA-Sum - Total PFCA (Summary) - Post-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	81				ng/L			11/22/20 06:32	1

Client Sample ID: LF Water 7 11062020

Lab Sample ID: 320-66472-6

Date Collected: 11/06/20 12:15
Matrix: W ter
Date Received: 11/07/20 09:25

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	21		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluoropentanoic acid (PFPeA)	14		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorohexanoic acid (PFHxA)	11		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluoroheptanoic acid (PFHpA)	9.7		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorooctanoic acid (PFOA)	5.8		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorobutanesulfonic acid (PFBS)	96		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:58	1
N-methylperfluorooctanesulfonamidoa etic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:58	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:58	1
:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:58	1
8:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C5 PFPeA	*113*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C2 PFHxA	*105*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C4 PFHpA	*119*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C4 PFOA	*101*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C5 PFNA	*100*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C2 PFDA	*95*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C2 PFUnA	*91*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*
13C2 PFDoA	*85*		*150*	*11/16/20 18:43*	*11/18/20 11:58*	*1*

Client Sample ID: LF Water 7 11062020
Date Collected: 11/06/20 12:15
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-6
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	65		150	11/16/20 18:43	11/18/20 11:58	1
13C3 PFBS	99		150	11/16/20 18:43	11/18/20 11:58	1
18O2 PFHxS	108		150	11/16/20 18:43	11/18/20 11:58	1
13C4 PFOS	107		150	11/16/20 18:43	11/18/20 11:58	1
13C8 FOSA	111		150	11/16/20 18:43	11/18/20 11:58	1
d3-NMeFOSAA	77		150	11/16/20 18:43	11/18/20 11:58	1
NEtFOSAA	80		150	11/16/20 18:43	11/18/20 11:58	1
M2-6:2 FTS	136		150	11/16/20 18:43	11/18/20 11:58	1
M2-8:2 FTS	128		150	11/16/20 18:43	11/18/20 11:58	1
M2-4:2 FTS	153	*5	150	11/16/20 18:43	11/18/20 11:58	1

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**58**	**B**	5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluoropentanoic acid (PFPeA)	**16**		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorohexanoic acid (PFHxA)	**13**		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluoroheptanoic acid (PFHpA)	**9.6**		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorooctanoic acid (PFOA)	**6.1**		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorobutanesulfonic acid (PFBS)	**93**		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 13:21	1
N-methylperfluorooctanesulfonamidoa etic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 13:21	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 13:21	1
:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 13:21	1
8:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 13:21	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	105		150	11/16/20 18:54	11/18/20 13:21	1
13C5 PFPeA	112		150	11/16/20 18:54	11/18/20 13:21	1
13C2 PFHxA	110		150	11/16/20 18:54	11/18/20 13:21	1
13C4 PFHpA	120		150	11/16/20 18:54	11/18/20 13:21	1
13C4 PFOA	101		150	11/16/20 18:54	11/18/20 13:21	1
13C5 PFNA	102		150	11/16/20 18:54	11/18/20 13:21	1
13C2 PFDA	91		150	11/16/20 18:54	11/18/20 13:21	1
13C2 PFUnA	98		150	11/16/20 18:54	11/18/20 13:21	1
13C2 PFDoA	79		150	11/16/20 18:54	11/18/20 13:21	1
13C2 PFTeDA	82		150	11/16/20 18:54	11/18/20 13:21	1
13C3 PFBS	100		150	11/16/20 18:54	11/18/20 13:21	1

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Client Sample ID: LF Water 7 11062020

Date Collected: 11/06/20 12:15
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66472-6

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*109*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
13C4 PFOS	*106*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
13C8 FOSA	*111*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
d3-NMeFOSAA	*88*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
NEtFOSAA	*87*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
M2-6:2 FTS	*131*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
M2-8:2 FTS	*134*		*150*	*11/16/20 18:54*	*11/18/20 13:21*	*1*
M2-4:2 FTS			*10*	*11/16/20 18:54*	*11/18/20 13:21*	*1*

Method: Total PFCA-Dif - Total PFCA (Treatment Difference)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PFBA	**37**				ng/L			11/22/20 06:34	1
PFHpA	**0.00**				ng/L			11/22/20 06:34	1
PFHxA	**1.7**				ng/L			11/22/20 06:34	1
PFNA	**0.00**				ng/L			11/22/20 06:34	1
PFOA	**0.29**				ng/L			11/22/20 06:34	1
PFPA	**1.4**				ng/L			11/22/20 06:34	1
Total PFCA	**41**				ng/L			11/22/20 06:34	1

Method: Total PFCA-Sum - Total PFCA (Summary) - Pre-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	**62**				ng/L			11/22/20 06:30	1

Method: Total PFCA-Sum - Total PFCA (Summary) - Post-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	**100**				ng/L			11/22/20 06:32	1

Total Oxidation Precursors

Client: New Y rk State D.E.C.
Project/Site: Norlite - Cohoes #401041

TestAmerica Job ID: 320-66472-2

Client Sample ID: LF Water 4 11062020

Lab Sample ID: 320-66472-4
Matrix: Water

	e-T eatment Method			ost-T eatment Method			Difference [1]	
	537 (modified)			537 (modified)				
Analyte	**Result**	**Qualifier**	**Unit**	**Result**	**Qualifier**	**Unit**	**Result**	**Unit**
Perfluorobutanoic acid (PFBA)	8.9		ng/L	27		ng/L	18	ng/L
Perfluoropentanoic acid (PFPeA)	26		ng/L	31		ng/L	4.5	ng/L
Perfluorohexanoic acid (PFHxA)	15		ng/L	18		ng/L	2.9	ng/L
Perfluoroheptanoic acid (PFHpA)	5.2		ng/L	5.1		ng/L	0.00	ng/L
Perfluorooctanoic acid (PFOA)	5.0		ng/L	ND		ng/L	0.00	ng/L
Perfluorononanoic acid (PFNA)	ND		ng/L	ND		ng/L	0.00	ng/L
T tal PFCA	60		ng/L	81		ng/L	21	ng/L

Client Sample ID: LF Water 7 11062020

Lab Sample ID: 320-66472-6
Matrix: Water

	e-T eatment Method			ost-T eatment Method			Difference [1]	
	537 (modified)			537 (modified)				
Analyte	**Result**	**Qualifier**	**Unit**	**Result**	**Qualifier**	**Unit**	**Result**	**Unit**
Perfluorobutanoic acid (PFBA)	21		ng/L	58		ng/L	37	ng/L
Perfluoropentanoic acid (PFPeA)	14		ng/L	16		ng/L	1.4	ng/L
Perfluorohexanoic acid (PFHxA)	11		ng/L	13		ng/L	1.7	ng/L
Perfluoroheptanoic acid (PFHpA)	9.7		ng/L	9.6		ng/L	0.00	ng/L
Perfluorooctanoic acid (PFOA)	5.8		ng/L	6.1		ng/L	0.29	ng/L
Perfluorononanoic acid (PFNA)	ND		ng/L	ND		ng/L	0.00	ng/L
T tal PFCA	62		ng/L	100		ng/L	41	ng/L

[1] Difference = Post-Treatment - Pre-Treament

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Pre-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66472-4	LF Water 4 11062020	102	114	110	119	98	104	97	93
320-66472-6	LF Water 7 11062020	98	113	105	119	101	100	95	91
LCS 320-432333/2-A	Lab Control Sample	114	124	108	121	103	106	96	95
LCSD 320-432333/3-A	Lab Control Sample Dup	111	120	105	118	101	99	101	89
MB 320-432333/1-A	Method Blank	107	116	102	11	96	9	9	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
320-66472-4	LF Water 4 11062020	82	101	102	112	111	111	83	85
320-66472-6	LF Water 7 11062020	85	5	99	108	107	111	77	80
LCS 320-432333/2-A	Lab Control Sample	87	80	109	109	112	104	90	92
LCSD 320-432333/3-A	Lab Control Sample Dup	93	95	105	110	107	105	90	88
MB 320-432333/1-A	Method Blank	80	101	101	105	104	99	86	85

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)
320-66472-4	LF Water 4 11062020	134	131	146
320-66472-6	LF Water 7 11062020	136	128	153 *5
LCS 320-432333/2-A	Lab Control Sample	125	125	129
LCSD 320-432333/3-A	Lab Control Sample Dup	119	1 5	119
MB 320-432333/1-A	Method Blank	115	11	11

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66472-4	LF Water 4 11062020	110	118	109	123	102	102	103	100

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 320-66472-2
Project/Site: Norlite - Cohoes #401041

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66472-6	LF Water 7 11062020	105	112	110	120	101	102	91	98
LCS 320-432348/2-A	Lab Control Sample	106	120	106	121	102	100	94	88
LCSD 320-432348/3-A	Lab Control Sample Dup	114	124	111	126	104	105	104	93
MB 320-432348/1-A	Method Blank	110	125	108	120	105	105	100	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
320-66472-4	LF Water 4 11062020	99	86	106	111	110	111	88	91
320-66472-6	LF Water 7 11062020	79	82	100	109	106	111	88	87
LCS 320-432348/2-A	Lab Control Sample	86	92	104	113	106	104	89	91
LCSD 320-432348/3-A	Lab Control Sample Dup	101	84	108	114	115	110	94	96
MB 320-432348/1-A	Method Blank	90	83	109	114	113	106	91	93

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (0-10)
320-66472-4	LF Water 4 11062020	128	137	
320-66472-6	LF Water 7 11062020	131	134	
LCS 320-432348/2-A	Lab Control Sample	118	1	
LCSD 320-432348/3-A	Lab Control Sample Dup	123	133	
MB 320-432348/1-A	Method Blank	122	121	

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-432333/1-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Method Blank
Prep Type: Pre-Treatment
Prep Batch: 432333

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluoropentanoic acid (PFPeA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorohexanoic acid (PFHxA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluoroheptanoic acid (PFHpA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorooctanoic acid (PFOA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:43	11/18/20 11:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:43	11/18/20 11:21	1
:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:21	1
8:2 FTS	ND		50		ng/L		11/16/20 18:43	11/18/20 11:21	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA	*107*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C5 PFPeA	*116*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C2 PFHxA	*102*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C4 PFHpA	*112*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C4 PFOA	*96*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C5 PFNA	*96*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C2 PFDA	*96*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C2 PFUnA	*93*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C2 PFDoA	*80*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C2 PFTeDA	*101*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C3 PFBS	*101*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
18O2 PFHxS	*105*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C4 PFOS	*104*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
13C8 FOSA	*99*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
d3-NMeFOSAA	*86*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
-NEtFOSAA	*85*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
M2-6:2 FTS	*115*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
M2-8:2 FTS	*112*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*
M2-4:2 FTS	*116*		*- 150*	*11/16/20 18:43*	*11/18/20 11:21*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-432333/2-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample
Prep Type: Pre-Treatment
Prep Batch: 432333

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	100	108		ng/L		108	76	136
Perfluoropentanoic acid (PFPeA)	100	85.6		ng/L		86	71	131
Perfluorohexanoic acid (PFHxA)	100	104		ng/L		104	73	133
Perfluoroheptanoic acid (PFHpA)	100	89.8		ng/L		90	72	132
Perfluorooctanoic acid (PFOA)	100	103		ng/L		103	70	130
Perfluorononanoic acid (PFNA)	100	100		ng/L		100	75	135
Perfluorodecanoic acid (PFDA)	100	114		ng/L		114	76	136
Perfluoroundecanoic acid (PFUnA)	100	112		ng/L		112	8	128
Perfluorododecanoic acid (PFDoA)	100	118		ng/L		118	71	131
Perfluorotridecanoic acid (PFTriA)	100	104		ng/L		104	71	131
Perfluorotetradecanoic acid (PFTeA)	100	110		ng/L		110	70	130
Perfluorobutanesulfonic acid (PFBS)	88.4	93.3		ng/L		106	7	127
Perfluorohexanesulfonic acid (PFHxS)	91.0	91.5		ng/L		101	59	119
Perfluoroheptanesulfonic Acid (PFHpS)	95.2	101		ng/L		106	76	136
Perfluorooctanesulfonic acid (PFOS)	92.8	97.6		ng/L		105	70	130
Perfluorodecanesulfonic acid (PFDS)	96.4	97.6		ng/L		101	71	131
Perfluorooctanesulfonamide (FOSA)	100	104		ng/L		104	73	133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	100	109		ng/L		109	76	136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	100	101		ng/L		101	76	136
:2 FTS	94.8	81.8		ng/L		86	59	175
8:2 FTS	95.8	92.4		ng/L		96	75	135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*114*		*- 150*
13C5 PFPeA	*124*		*- 150*
13C2 PFHxA	*108*		*- 150*
13C4 PFHpA	*121*		*- 150*
13C4 PFOA	*103*		*- 150*
13C5 PFNA	*106*		*- 150*
13C2 PFDA	*96*		*- 150*
13C2 PFUnA	*95*		*- 150*
13C2 PFDoA	*87*		*- 150*
13C2 PFTeDA	*80*		*- 150*
13C3 PFBS	*109*		*- 150*
18O2 PFHxS	*109*		*- 150*
13C4 PFOS	*11*		*- 150*
13C8 FOSA	*104*		*- 150*
3-NMeFOSAA	*90*		*- 150*
-NEtFOSAA	*92*		*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-432333/2-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample
Prep Type: Pre-Treatment
Prep Batch: 432333

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	125		- 150
M2-8:2 FTS	125		- 150
M2-4:2 FTS	129		- 150

Lab Sample ID: LCSD 320-432333/3-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample Dup
Prep Type: Pre-Treatment
Prep Batch: 432333

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)			100	108		ng/L		108	76	136		3
Perfluoropentanoic acid (PFPeA)			100	88.3		ng/L		88	71	131	3	30
Perfluorohexanoic acid (PFHxA)			100	102		ng/L		102	73	133	1	30
Perfluoroheptanoic acid (PFHpA)			100	92.2		ng/L		92	72	132	3	30
Perfluorooctanoic acid (PFOA)			100	108		ng/L		108	70	130		30
Perfluorononanoic acid (PFNA)			100	103		ng/L		103	75	135	3	30
Perfluorodecanoic acid (PFDA)			100	104		ng/L		104	76	136	9	30
Perfluoroundecanoic acid (PFUnA)			100	124		ng/L		124	8	128	11	30
Perfluorododecanoic acid (PFDoA)			100	98.7		ng/L		99	71	131	18	30
Perfluorotridecanoic acid (PFTriA)			100	102		ng/L		102	71	131	1	30
Perfluorotetradecanoic acid (PFTeA)			100	93.2		ng/L		93	70	130	16	30
Perfluorobutanesulfonic acid (PFBS)			88.4	94.0		ng/L		106	7	127	1	30
Perfluorohexanesulfonic acid (PFHxS)			91.0	90.5		ng/L		99	59	119	1	3
Perfluoroheptanesulfonic Acid (PFHpS)			95.2	105		ng/L		111	76	136		30
Perfluorooctanesulfonic acid (PFOS)			92.8	99.0		ng/L		107	70	130	1	30
Perfluorodecanesulfonic acid (PFDS)			96.4	103		ng/L		107	71	131		30
Perfluorooctanesulfonamide (FOSA)			100	102		ng/L		102	73	133		30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			100	111		ng/L		111	76	136	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			100	106		ng/L		106	76	136	5	30
:2 FTS			94.8	88.2		ng/L		93	59	175	7	30
8:2 FTS			95.8	97.0		ng/L		101	75	135	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	111		- 150
13C5 PFPeA	120		- 150
13C2 PFHxA	105		- 150
13C4 PFHpA	118		- 150
13C4 PFOA	101		- 150
13C5 PFNA	99		- 150
13C2 PFDA	101		- 150
13C2 PFUnA	89		- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-432333/3-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample Dup
Prep Type: Pre-Treatment
Prep Batch: 432333

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFDoA	93		- 150
13C2 PFTeDA	95		- 150
13C3 PFBS	105		- 150
18O2 PFHxS	11		- 150
13C4 PFOS	107		- 150
13C8 FOSA	105		- 150
d3-NMeFOSAA	90		- 150
-NEtFOSAA	88		- 150
M2-6:2 FTS	119		- 150
M2-8:2 FTS	125		- 150
M2-4:2 FTS	119		- 150

Lab Sample ID: MB 320-432348/1-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 432348

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	11.3		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluoropentanoic acid (PFPeA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorohexanoic acid (PFHxA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluoroheptanoic acid (PFHpA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorooctanoic acid (PFOA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorononanoic acid (PFNA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorodecanoic acid (PFDA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluoroundecanoic acid (PFUnA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorododecanoic acid (PFDoA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorotridecanoic acid (PFTriA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorooctanesulfonic acid (PFOS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
Perfluorooctanesulfonamide (FOSA)	ND		5.0		ng/L		11/16/20 18:54	11/18/20 12:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 12:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		50		ng/L		11/16/20 18:54	11/18/20 12:44	1
:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 12:44	1
8:2 FTS	ND		50		ng/L		11/16/20 18:54	11/18/20 12:44	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C4 PFBA	11		- 150	11/16/20 18:54	11/18/20 12:44	1
13C5 PFPeA	125		- 150	11/16/20 18:54	11/18/20 12:44	1
13C2 PFHxA	108		- 150	11/16/20 18:54	11/18/20 12:44	1
13C4 PFHpA	120		- 150	11/16/20 18:54	11/18/20 12:44	1
13C4 PFOA	105		- 150	11/16/20 18:54	11/18/20 12:44	1
13C5 PFNA	105		- 150	11/16/20 18:54	11/18/20 12:44	1
13C2 PFDA	100		- 150	11/16/20 18:54	11/18/20 12:44	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-432348/1-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 432348

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C2 PFUnA	94		- 150	11/16/20 18:54	11/18/20 12:44	1
13C2 PFDoA	90		- 150	11/16/20 18:54	11/18/20 12:44	1
13C2 PFTeDA	83		- 150	11/16/20 18:54	11/18/20 12:44	1
13C3 PFBS	109		- 150	11/16/20 18:54	11/18/20 12:44	1
18O2 PFHxS	114		- 150	11/16/20 18:54	11/18/20 12:44	1
13C4 PFOS	113		- 150	11/16/20 18:54	11/18/20 12:44	1
13C8 FOSA	106		- 150	11/16/20 18:54	11/18/20 12:44	1
d3-NMeFOSAA	91		- 150	11/16/20 18:54	11/18/20 12:44	1
-NEtFOSAA	93		- 150	11/16/20 18:54	11/18/20 12:44	1
M2-6:2 FTS	122		- 150	11/16/20 18:54	11/18/20 12:44	1
M2-8:2 FTS	121		- 150	11/16/20 18:54	11/18/20 12:44	1
M2-4:2 FTS			- 10	11/16/20 18:54	11/18/20 12:44	1

Lab Sample ID: LCS 320-432348/2-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 432348

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	100	129		ng/L		129	93	153
Perfluoropentanoic acid (PFPeA)	100	101		ng/L		101	85	145
Perfluorohexanoic acid (PFHxA)	100	114		ng/L		114	81	141
Perfluoroheptanoic acid (PFHpA)	100	117		ng/L		117	104	171
Perfluorooctanoic acid (PFOA)	100	322		ng/L		322	158	54
Perfluorononanoic acid (PFNA)	100	119		ng/L		119		126
Perfluorodecanoic acid (PFDA)	100	109		ng/L		109	5	125
Perfluoroundecanoic acid (PFUnA)	100	108		ng/L		108	57	117
Perfluorododecanoic acid (PFDoA)	100	97.2		ng/L		97		126
Perfluorotridecanoic acid (PFTriA)	100	95.8		ng/L		96	5	136
Perfluorotetradecanoic acid (PFTeA)	100	104		ng/L		104	3	123
Perfluorobutanesulfonic acid (PFBS)	88.4	93.5		ng/L		106	75	135
Perfluorohexanesulfonic acid (PFHxS)	91.0	87.0		ng/L		96		124
Perfluoroheptanesulfonic Acid (PFHpS)	95.2	97.1		ng/L		102	70	131
Perfluorooctanesulfonic acid (PFOS)	92.8	99.6		ng/L		107	8	128
Perfluorodecanesulfonic acid (PFDS)	96.4	90.6		ng/L		94		126
Perfluorooctanesulfonamide (FOSA)	100	ND		ng/L				10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	100	ND		ng/L				10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	100	ND		ng/L				10
:2 FTS	94.8	ND		ng/L				10
8:2 FTS	95.8	ND		ng/L				10

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	106		- 150
13C5 PFPeA	120		- 150
13C2 PFHxA	106		- 150
13C4 PFHpA	121		- 150
13C4 PFOA	102		- 150
13C5 PFNA	100		- 150
13C2 PFDA	94		- 150
13C2 PFUnA	88		- 150
13C2 PFDoA	86		- 150
13C2 PFTeDA	92		- 150
13C3 PFBS	104		- 150
18O2 PFHxS	113		- 150
13C4 PFOS	106		- 150
13C8 FOSA	104		- 150
d3-NMeFOSAA	89		- 150
-NEtFOSAA	91		- 150
M2-6:2 FTS	118		- 150
M2-8:2 FTS	122		- 150
M2-4:2 FTS			- 10

Lab Sample ID: LCSD 320-432348/3-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 432348

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)			100	124		ng/L		124	93	153		3
Perfluoropentanoic acid (PFPeA)			100	103		ng/L		103	85	145		30
Perfluorohexanoic acid (PFHxA)			100	112		ng/L		112	81	141		30
Perfluoroheptanoic acid (PFHpA)			100	127		ng/L		127	104	171	8	30
Perfluorooctanoic acid (PFOA)			100	9		ng/L		9	158	54	18	30
Perfluorononanoic acid (PFNA)			100	120		ng/L		120		126	1	30
Perfluorodecanoic acid (PFDA)			100	106		ng/L		106	5	125	3	30
Perfluoroundecanoic acid (PFUnA)			100	111		ng/L		111	57	117	3	3
Perfluorododecanoic acid (PFDoA)			100	90.2		ng/L		90		126	8	30
Perfluorotridecanoic acid (PFTriA)			100	95.7		ng/L		96	5	136		30
Perfluorotetradecanoic acid (PFTeA)			100	95.7		ng/L		96	3	123	9	30
Perfluorobutanesulfonic acid (PFBS)			88.4	91.5		ng/L		104	75	135		30
Perfluorohexanesulfonic acid (PFHxS)			91.0	87.7		ng/L		96		124	1	30
Perfluoroheptanesulfonic Acid (PFHpS)			95.2	96.4		ng/L		101	70	131	1	30
Perfluorooctanesulfonic acid (PFOS)			92.8	92.7		ng/L		100	8	128	7	30
Perfluorodecanesulfonic acid (PFDS)			96.4	86.7		ng/L		90		126		30
Perfluorooctanesulfonamide (FOSA)			100	ND		ng/L				10	NC	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			100	ND		ng/L				10	NC	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-432348/3-A
Matrix: Water
Analysis Batch: 432909

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 432348

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	PD	PD Limit
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			100	ND		ng/L			10	NC	30
:2 FTS			94.8	ND		ng/L			10	NC	30
8:2 FTS			95.8	ND		ng/L			10	NC	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*114*		*- 150*
13C5 PFPeA	*124*		*- 150*
13C2 PFHxA	*111*		*- 150*
13C4 PFHpA	*126*		*- 150*
13C4 PFOA	*104*		*- 150*
13C5 PFNA	*105*		*- 150*
13C2 PFDA	*104*		*- 150*
13C2 PFUnA	*93*		*- 150*
13C2 PFDoA	*101*		*- 150*
13C2 PFTeDA	*84*		*- 150*
13C3 PFBS	*108*		*- 150*
18O2 PFHxS	*114*		*- 150*
13C4 PFOS	*11*		*- 150*
13C8 FOSA	*11*		*- 150*
3-NMeFOSAA	*94*		*- 150*
-NEtFOSAA	*96*		*- 150*
M2-6:2 FTS	*123*		*- 150*
M2-8:2 FTS	*133*		*- 150*
M2-4:2 FTS			*- 10*

QC Association Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

LCMS

Prep Batch: 432333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Pre-Treatment	Water	TOP Pre - Prep	
320-66472-6	LF Water 7 11062020	Pre-Treatment	Water	TOP Pre - Prep	
MB 320-432333/1-A	Method Blank	Pre-Treatment	Water	TOP Pre - Prep	
LCS 320-432333/2-A	Lab Control Sample	Pre-Treatment	Water	TOP Pre - Prep	
LCSD 320-432333/3-A	Lab Control Sample Dup	Pre-Treatment	Water	TOP Pre - Prep	

Prep Batch: 432348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Post-Treatment	Water	TOP Post Prep	
320-66472-6	LF Water 7 11062020	Post-Treatment	Water	TOP Post Prep	
MB 320-432348/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 320-432348/2-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 320-432348/3-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 432909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Post-Treatment	Water	537 (modified)	32348
320-66472-4	LF Water 4 11062020	Pre-Treatment	Water	537 (modified)	32333
320-66472-6	LF Water 7 11062020	Post-Treatment	Water	537 (modified)	32348
320-66472-6	LF Water 7 11062020	Pre-Treatment	Water	537 (modified)	32333
MB 320-432333/1-A	Method Blank	Pre-Treatment	Water	537 (modified)	32333
MB 320-432348/1-A	Method Blank	Post-Treatment	Water	537 (modified)	32348
LCS 320-432333/2-A	Lab Control Sample	Pre-Treatment	Water	537 (modified)	32333
LCS 320-432348/2-A	Lab Control Sample	Post-Treatment	Water	537 (modified)	32348
LCSD 320-432333/3-A	Lab Control Sample Dup	Pre-Treatment	Water	537 (modified)	32333
LCSD 320-432348/3-A	Lab Control Sample Dup	Post-Treatment	Water	537 (modified)	32348

Analysis Batch: 434464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Pre-Treatment	Water	Total PFCA-Sum	
320-66472-6	LF Water 7 11062020	Pre-Treatment	Water	Total PFCA-Sum	

Analysis Batch: 434465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Post-Treatment	Water	Total PFCA-Sum	
320-66472-6	LF Water 7 11062020	Post-Treatment	Water	Total PFCA-Sum	

Analysis Batch: 434466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66472-4	LF Water 4 11062020	Total/NA	Water	Total PFCA-Dif	
320-66472-6	LF Water 7 11062020	Total/NA	Water	Total PFCA-Dif	

Lab Chronicle

Client: New k State D.E.C. Job ID: 320-66472-2
Project/Site: Norlite - Cohoes #401041

Client Sample ID: LF Water 4 11062020 — Lab Sample ID: 320-66472-4

Date Collected: 11/06/20 11:40 — **Matrix: Water**
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Post-T eatment	Prep	TOP Post Prep			100.00 mL	10.00 mL	432348	11/16/20 18:54	JER	TAL SAC
Post-T eatment	Analysis	537 (modified)		1			432909	11/18/20 13:12	JRB	TAL SAC
Pre-T eatment	Prep	TOP Pre - Prep			100.00 mL	10.00 mL	432333	11/16/20 18:43	JER	TAL SAC
Pre-T eatment	Analysis	537 (modified)		1			432909	11/18/20 11:48	JRB	TAL SAC
T tal/NA	Analysis	T tal PFCA-Dif		1			434466	11/22/20 06:34	MKW	TAL SAC
Post-T eatment	Analysis	T tal PFCA-Sum		1			434465	11/22/20 06:32	MKW	TAL SAC
Pre-T eatment	Analysis	T tal PFCA-Sum		1			434464	11/22/20 06:30	MKW	TAL SAC

Client Sample ID: LF Water 7 11062020 — Lab Sample ID: 320-66472-6

Date Collected: 11/06/20 12:15 — **Matrix: Water**
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Post-T eatment	Prep	TOP Post Prep			100.00 mL	10.00 mL	432348	11/16/20 18:54	JER	TAL SAC
Post-T eatment	Analysis	537 (modified)		1			432909	11/18/20 13:21	JRB	TAL SAC
Pre-T eatment	Prep	TOP Pre - Prep			100.00 mL	10.00 mL	432333	11/16/20 18:43	JER	TAL SAC
Pre-T eatment	Analysis	537 (modified)		1			432909	11/18/20 11:58	JRB	TAL SAC
T tal/NA	Analysis	T tal PFCA-Dif		1			434466	11/22/20 06:34	MKW	TAL SAC
Post-T eatment	Analysis	T tal PFCA-Sum		1			434465	11/22/20 06:32	MKW	TAL SAC
Pre-T eatment	Analysis	T tal PFCA-Sum		1			434464	11/22/20 06:30	MKW	TAL SAC

Laboratory References:
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 320-66472-2
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each ac reditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	TOP Post Prep	Water	6:2 FTS
537 (modified)	TOP Post Prep	Water	8:2 FTS
537 (modified)	TOP Post Prep	Water	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	TOP Post Prep	Water	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	TOP Post Prep	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 (modified)	TOP Post Prep	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	TOP Post Prep	Water	Perfluorotridecanoic acid (PFT iA)
537 (modified)	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)
537 (modified)	TOP Pre - Prep	Water	6:2 FTS
537 (modified)	TOP Pre - Prep	Water	8:2 FTS
537 (modified)	TOP Pre - Prep	Water	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	TOP Pre - Prep	Water	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	TOP Pre - Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	TOP Pre - Prep	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	TOP Pre - Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	TOP Pre - Prep	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	TOP Pre - Prep	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	TOP Pre - Prep	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	TOP Pre - Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	TOP Pre - Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	TOP Pre - Prep	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	TOP Pre - Prep	Water	Perfluorononanoic acid (PFNA)
537 (modified)	TOP Pre - Prep	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	TOP Pre - Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	TOP Pre - Prep	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	TOP Pre - Prep	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	TOP Pre - Prep	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	TOP Pre - Prep	Water	Perfluorotridecanoic acid (PFT iA)
537 (modified)	TOP Pre - Prep	Water	Perfluoroundecanoic acid (PFUnA)

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 320-66472-2
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each ac reditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21
Ttal PFCA-Dif	Water	PFBA	
Ttal PFCA-Dif	Water	PFHpA	
Ttal PFCA-Dif	Water	PFHxA	
Ttal PFCA-Dif	Water	PFNA	
Ttal PFCA-Dif	Water	PFOA	
Ttal PFCA-Dif	Water	PFPA	
Ttal PFCA-Dif	Water	Ttal PFCA	
Ttal PFCA-Sum	Water	Ttal PFCA	

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
Total PFCA-Dif	Total PFCA (Treatment Difference)	TAL SOP	TAL SAC
Total PFCA-Sum	Total PFCA (Summary)	TAL SOP	TAL SAC
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	TAL SAC
TOP Pre - Prep	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66472-2

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-66472-4	LF Water 4 11062020	Water	11/06/20 11:40	11/07/20 09:25	
320-66472-6	LF Water 7 11062020	Water	11/06/20 12:15	11/07/20 09:25	

Albany #224

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Brie Hart	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150125-33367.1
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: New York State D.E.C.				Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014	PO #: Call Out DMM R4 - 401041			
Phone: 518-402-9267(Tel)	WO #:			
Email: lynn.winterberger@dec.ny.gov	Project #: 48022694			
Project Name: Norlite - Cohoes #401041	SSOW#:			
Site:				

Analysis Requested

320-66472 Chain of Custody

Preservation Codes:
HCL, NaOH, Zn Acetate, Nitric Acid, NaHSO4, MeOH, Amchlor, Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - TOPS Assay	PFC Standard List (21)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N			
LF Water-2 11062020	11/06/2020	940 Am	G	Water				X	2	
LF Water 3 11062020	11/06/2020	1000 Am	G	Water				X	2	
LF Water 6 11062020	11/06/2020	1035 Am	G	~~Solid~~ Water		X		X	6	MS/MSD
LF Water 4 11062020	11/06/2020	1140 Am	G	~~Solid~~ Water			X	X	6	
LF Water 5 11062020	11/06/2020	1110	G	W				X	2	
LF Water 7 11062020	11/06/2020	1215	G	W			X	X	6	
LF Water 8 11062020	11/06/2020	1250	G	W				X	2	
DUP 11062020	11/06/2020		G	W				X	2	
Field Blank 11062020	11/06/2020	110 Pm	G	W				X	2	
Equipment Blank 11062020	11/06/2020	105 Pm	G	W				X	2	
Trip Blank			C	W				X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B and EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/6/2020 14.00	NYSDEC	Karl Zoehler	11/6/20 1400	Eurofins
Karl Zoehler	11/6/20 1700	Eurofins		11/7/20 925	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1478558

Cooler Temperature(s) °C and Other Remarks: 0.1/0.6

Ver: 01/16/2019

*MS/MSD 2 dashes (-) After LF ; water 2 (6) SO 11/7/20
- 4 of 4 125 mL only 1 dash after water 7 (-) SO 11/7/20
Δ 2 of 4 125mL only 1 dash after water 4 (-) SO 11/7/20
Δ Date 9[illegible] SO 11/7/20
☐ Dash after (-) Dup (-) SO 11/7/20
U) ID PFAS Trip Blank SO 11/7/20

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11/23/2020

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 320-66472-2

Login Number: 66472 **List Source: Eurofins T stAmerica, Sacramento**
List Number: 1
Creator: Oropeza, Salvador

Question	Answer	Comment
adioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1428558
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	: No date or time on COC or containers
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to job narrative for details
Samples are received within Holding Time (Excluding tests with immediate HTs)..	False	Refer to job narrative for details
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-66473-1
Client Project/Site: Norlite - Cohoes #401041

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Judy Stone

Authorized for release by:
11/18/2020 2:41:41 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

ID: 320-66473-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Narrative
320-66473-1

Receipt
The samples were received on 11/7/2020 9:25 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFSCW2-Water-11062020 — Lab Sample ID: 320-66473-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	.80	J	1.9	.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.64	J	1.9	.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.55	J	1.9	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.6	J	1.9	.81	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.75	J	1.9	.19	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFSCW1-Water-11062020 — Lab Sample ID: 320-66473-2

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.3	J	1.9	.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J	1.9	.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.9	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.8	J	1.9	.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.27	J	1.9	.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.58	J	1.9	.55	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.7	J	1.9	.52	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFW1-Water-11062020 — Lab Sample ID: 320-66473-3

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.2	J	1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J	1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.73	J	1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.7	J	1.9	.80	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.2		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.4	J	1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.6	J	1.9	.51	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFPCW1-Water-11062020 — Lab Sample ID: 320-66473-4

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	14		.7	.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.6		1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	9.9		1.9	.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.8		1.9	.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.6		1.9	.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.63	J	1.9	.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.7		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.7		1.9	.51	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFPCW2-Water-11062020 — Lab Sample ID: 320-66473-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10		.6	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	7.5		1.9	.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	7.6		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.2		1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.5		1.9	.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.80	J	1.9	.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.9		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.1		1.9	.53	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LFPCW2-Water-11062020 (Continued) — Lab Sample ID: 320-66473-5

Analyte	Result	Qualifier	L	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1		1.9	.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFPCW3-Water-11062020 — Lab Sample ID: 320-66473-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.7		.7	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.7		1.9	.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.4		1.9	.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.5		1.9	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.4		1.9	.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.33	J	1.9	.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.9		1.9	.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		1.9	.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.7		1.9	.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: LFPCW4-Water-11062020 — Lab Sample ID: 320-66473-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.8		.6	.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.9		1.8	.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.3		1.8	.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.7		1.8	.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.1		1.8	.78	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.6		1.8	.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		1.8	.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.8		1.8	.50	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFSCW2-Water-11062020
Date Collected: 11/06/20 09:40
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-1
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.7	.3	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluoropentanoic acid (PFPeA)	**0.80**	**J**	1.9	.47	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorohexanoic acid (PFHxA)	**0.64**	**J**	1.9	.55	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluoroheptanoic acid (PFHpA)	**0.55**	**J**	1.9	.24	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorooctanoic acid (PFOA)	**1.6**	**J**	1.9	.81	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorononanoic acid (PFNA)	ND		1.9	.26	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.69	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorobutanesulfonic acid (PFBS)	**0.75**	**J**	1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	.51	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:12	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.93	ng/L		11/13/20 04:55	11/14/20 05:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/13/20 04:55	11/14/20 05:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/13/20 04:55	11/14/20 05:12	1
:2 FTS	ND		.7	.4	ng/L		11/13/20 04:55	11/14/20 05:12	1
8:2 FTS	ND		1.9	.44	ng/L		11/13/20 04:55	11/14/20 05:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C5 PFPeA	*87*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C2 PFHxA	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C4 PFHpA	*98*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C4 PFOA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C5 PFNA	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C2 PFDA	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C2 PFUnA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C2 PFDoA	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C2 PFTeDA			*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C3 PFBS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
18O2 PFHxS	*100*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C4 PFOS	*105*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
13C8 FOSA	*99*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
d3-NMeFOSAA	*83*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
-NEtFOSAA	*1*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
M2-6:2 FTS	*99*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*
M2-8:2 FTS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:12*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFSCW1-Water-11062020
Date Collected: 11/06/20 09:55
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-2
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.8	.3	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluoropentanoic acid (PFPeA)	**1.3**	**J**	1.9	.47	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorohexanoic acid (PFHxA)	**1.2**	**J**	1.9	.56	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluoroheptanoic acid (PFHpA)	**1.1**	**J**	1.9	.24	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorooctanoic acid (PFOA)	**1.8**	**J**	1.9	.82	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorononanoic acid (PFNA)	**0.27**	**J**	1.9	.26	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.53	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.70	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorobutanesulfonic acid (PFBS)	**1.1**	**J**	1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorohexanesulfonic acid (PFHxS)	**0.58**	**J**	1.9	.55	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorooctanesulfonic acid (PFOS)	**1.7**	**J**	1.9	.52	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.31	ng/L		11/13/20 04:55	11/14/20 05:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.94	ng/L		11/13/20 04:55	11/14/20 05:21	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.8	1.2	ng/L		11/13/20 04:55	11/14/20 05:21	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.8	1.3	ng/L		11/13/20 04:55	11/14/20 05:21	1
:2 FTS	ND		.8	.4	ng/L		11/13/20 04:55	11/14/20 05:21	1
8:2 FTS	ND		1.9	.44	ng/L		11/13/20 04:55	11/14/20 05:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C5 PFPeA	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C2 PFHxA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C4 PFHpA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C4 PFOA	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C5 PFNA	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C2 PFDA	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C2 PFUnA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C2 PFDoA	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C2 PFTeDA	*80*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C3 PFBS	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
18O2 PFHxS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C4 PFOS	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
13C8 FOSA	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
d3-NMeFOSAA	*9*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
-NEtFOSAA	*82*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
M2-6:2 FTS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*
M2-8:2 FTS	*82*		*- 150*	*11/13/20 04:55*	*11/14/20 05:21*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFW1-Water-11062020
Date Collected: 11/06/20 10:55
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-3
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.7	.3	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluoropentanoic acid (PFPeA)	**1.2**	**J**	1.9	.46	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorohexanoic acid (PFHxA)	**1.2**	**J**	1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluoroheptanoic acid (PFHpA)	**0.73**	**J**	1.9	.23	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorooctanoic acid (PFOA)	**1.7**	**J**	1.9	.80	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorononanoic acid (PFNA)	ND		1.9	.25	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.69	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorobutanesulfonic acid (PFBS)	**2.2**		1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorohexanesulfonic acid (PFHxS)	**1.4**	**J**	1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorooctanesulfonic acid (PFOS)	**1.6**	**J**	1.9	.51	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:30	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.92	ng/L		11/13/20 04:55	11/14/20 05:30	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/13/20 04:55	11/14/20 05:30	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/13/20 04:55	11/14/20 05:30	1
:2 FTS	ND		.7	.3	ng/L		11/13/20 04:55	11/14/20 05:30	1
8:2 FTS	ND		1.9	.43	ng/L		11/13/20 04:55	11/14/20 05:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C5 PFPeA	*85*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C2 PFHxA	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C4 PFHpA	*97*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C4 PFOA	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C5 PFNA	*85*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C2 PFDA	*99*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C2 PFUnA	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C2 PFDoA	*85*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C2 PFTeDA	*83*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C3 PFBS	*91*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
18O2 PFHxS	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C4 PFOS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
13C8 FOSA	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
d3-NMeFOSAA	*84*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
-NEtFOSAA			*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
M2-6:2 FTS	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*
M2-8:2 FTS	*103*		*- 150*	*11/13/20 04:55*	*11/14/20 05:30*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFPCW1-Water-11062020
Date Collected: 11/06/20 11:30
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-4
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**14**		.7	.3	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluoropentanoic acid (PFPeA)	**8.6**		1.9	.46	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorohexanoic acid (PFHxA)	**9.9**		1.9	.55	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluoroheptanoic acid (PFHpA)	**3.8**		1.9	.24	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorooctanoic acid (PFOA)	**6.6**		1.9	.81	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorononanoic acid (PFNA)	**0.63**	**J**	1.9	.26	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.52	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.69	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorobutanesulfonic acid (PFBS)	**2.7**		1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorohexanesulfonic acid (PFHxS)	**3.7**		1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorooctanesulfonic acid (PFOS)	**4.7**		1.9	.51	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:39	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.93	ng/L		11/13/20 04:55	11/14/20 05:39	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/13/20 04:55	11/14/20 05:39	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/13/20 04:55	11/14/20 05:39	1
:2 FTS	ND		.7	.4	ng/L		11/13/20 04:55	11/14/20 05:39	1
8:2 FTS	ND		1.9	.44	ng/L		11/13/20 04:55	11/14/20 05:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*3*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C5 PFPeA	*84*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C2 PFHxA	*83*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C4 PFHpA	*85*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C4 PFOA	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C5 PFNA	*9*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C2 PFDA	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C2 PFUnA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C2 PFDoA	*81*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C2 PFTeDA	*9*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C3 PFBS	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
18O2 PFHxS	*91*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C4 PFOS	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
13C8 FOSA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
d3-NMeFOSAA	*82*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
-NEtFOSAA	*84*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
M2-6:2 FTS	*102*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*
M2-8:2 FTS	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:39*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFPCW2-Water-11062020
Date Collected: 11/06/20 12:10
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-5
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**10**		.6	.2	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluoropentanoic acid (PFPeA)	**7.5**		1.9	.45	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorohexanoic acid (PFHxA)	**7.6**		1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluoroheptanoic acid (PFHpA)	**3.2**		1.9	.23	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorooctanoic acid (PFOA)	**6.5**		1.9	.79	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorononanoic acid (PFNA)	**0.80**	**J**	1.9	.25	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.51	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorobutanesulfonic acid (PFBS)	**2.9**		1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorohexanesulfonic acid (PFHxS)	**5.1**		1.9	.53	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorooctanesulfonic acid (PFOS)	**21**		1.9	.50	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:49	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.91	ng/L		11/13/20 04:55	11/14/20 05:49	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/13/20 04:55	11/14/20 05:49	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/13/20 04:55	11/14/20 05:49	1
:2 FTS	ND		.6	.3	ng/L		11/13/20 04:55	11/14/20 05:49	1
8:2 FTS	ND		1.9	.43	ng/L		11/13/20 04:55	11/14/20 05:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*8*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C5 PFPeA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C2 PFHxA	*85*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C4 PFHpA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C4 PFOA	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C5 PFNA	*88*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C2 PFDA	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C2 PFUnA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C2 PFDoA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C2 PFTeDA	*80*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C3 PFBS	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
18O2 PFHxS	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C4 PFOS	*103*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
13C8 FOSA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
d3-NMeFOSAA			*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
-NEtFOSAA	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
M2-6:2 FTS	*106*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*
M2-8:2 FTS	*101*		*- 150*	*11/13/20 04:55*	*11/14/20 05:49*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFPCW3-Water-11062020
Date Collected: 11/06/20 12:50
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-6
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.7**		.7	.2	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluoropentanoic acid (PFPeA)	**6.7**		1.9	.46	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorohexanoic acid (PFHxA)	**6.4**		1.9	.54	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluoroheptanoic acid (PFHpA)	**2.5**		1.9	.23	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorooctanoic acid (PFOA)	**4.4**		1.9	.79	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorononanoic acid (PFNA)	**0.33**	**J**	1.9	.25	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorodecanoic acid (PFDA)	ND		1.9	.29	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	.51	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	.68	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorobutanesulfonic acid (PFBS)	**2.9**		1.9	.19	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorohexanesulfonic acid (PFHxS)	**3.8**		1.9	.53	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	.18	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorooctanesulfonic acid (PFOS)	**6.7**		1.9	.50	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	.30	ng/L		11/13/20 04:55	11/14/20 05:58	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	.92	ng/L		11/13/20 04:55	11/14/20 05:58	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.7	1.1	ng/L		11/13/20 04:55	11/14/20 05:58	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.7	1.2	ng/L		11/13/20 04:55	11/14/20 05:58	1
:2 FTS	ND		.7	.3	ng/L		11/13/20 04:55	11/14/20 05:58	1
8:2 FTS	ND		1.9	.43	ng/L		11/13/20 04:55	11/14/20 05:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C5 PFPeA	*87*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C2 PFHxA	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C4 PFHpA	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C4 PFOA	*98*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C5 PFNA	*92*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C2 PFDA	*93*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C2 PFUnA	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C2 PFDoA	*88*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C2 PFTeDA	*89*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C3 PFBS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
18O2 PFHxS	*95*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C4 PFOS	*105*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
13C8 FOSA	*104*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
d3-NMeFOSAA	*83*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
-NEtFOSAA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
M2-6:2 FTS	*98*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*
M2-8:2 FTS	*98*		*- 150*	*11/13/20 04:55*	*11/14/20 05:58*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFPCW4-Water-11062020
Date Collected: 11/06/20 13:20
Date Received: 11/07/20 09:25

Lab Sample ID: 320-66473-7
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.8**		.6	.2	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluoropentanoic acid (PFPeA)	**5.9**		1.8	.45	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorohexanoic acid (PFHxA)	**5.3**		1.8	.53	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluoroheptanoic acid (PFHpA)	**2.7**		1.8	.23	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorooctanoic acid (PFOA)	**4.1**		1.8	.78	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorononanoic acid (PFNA)	ND		1.8	.25	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorodecanoic acid (PFDA)	ND		1.8	.29	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	.51	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	1.2	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	.67	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorobutanesulfonic acid (PFBS)	**2.6**		1.8	.18	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorohexanesulfonic acid (PFHxS)	**3.7**		1.8	.52	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	.17	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorooctanesulfonic acid (PFOS)	**5.8**		1.8	.50	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	.29	ng/L		11/13/20 04:55	11/14/20 06:07	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8	.90	ng/L		11/13/20 04:55	11/14/20 06:07	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.6	1.1	ng/L		11/13/20 04:55	11/14/20 06:07	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.6	1.2	ng/L		11/13/20 04:55	11/14/20 06:07	1
:2 FTS	ND		.6	.3	ng/L		11/13/20 04:55	11/14/20 06:07	1
8:2 FTS	ND		1.8	.42	ng/L		11/13/20 04:55	11/14/20 06:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C5 PFPeA	*94*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C2 PFHxA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C4 PFHpA	*97*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C4 PFOA	*99*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C5 PFNA	*91*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C2 PFDA	*100*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C2 PFUnA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C2 PFDoA	*96*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C2 PFTeDA	*86*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C3 PFBS	*100*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
18O2 PFHxS	*102*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C4 PFOS	*102*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
13C8 FOSA	*108*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
d3-NMeFOSAA	*83*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
-NEtFOSAA	*90*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
M2-6:2 FTS	*108*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*
M2-8:2 FTS	*106*		*- 150*	*11/13/20 04:55*	*11/14/20 06:07*	*1*

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-66473-1	LFSCW2-Water-11062020	76	87	93	98	96	94	92	96
320-66473-2	LFSCW1-Water-11062020	75	86	89	89	93	86	90	96
320-66473-3	LFW1-Water-11062020	76	85	95	97	93	85	99	93
320-66473-4	LFPCW1-Water-11062020	73	84	83	85	92	79	92	89
320-66473-5	LFPCW2-Water-11062020	78	89	85	89	94	88	95	89
320-66473-6	LFPCW3-Water-11062020	86	87	90	92	98	92	93	94
320-66473-7	LFPCW4-Water-11062020	91	94	96	97	99	91	100	96
LCS 320-431326/2-A	Lab Control Sample	97	96	95	101	98	93	99	97
MB 320-431326/1-A	Method Blank	90	93	93	91	100	92	92	89

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
320-66473-1	LFSCW2-Water-11062020	90	77	95	100	105	99	83	71
320-66473-2	LFSCW1-Water-11062020	90	80	86	95	92	94	79	82
320-66473-3	LFW1-Water-11062020	85	83	91	94	95	95	84	77
320-66473-4	LFPCW1-Water-11062020	81	79	89	91	90	89	82	84
320-66473-5	LFPCW2-Water-11062020	89	80	90	93	103	96	76	86
320-66473-6	LFPCW3-Water-11062020	88	89	95	95	105	104	83	96
320-66473-7	LFPCW4-Water-11062020	96	86	100	102	102	108	83	90
LCS 320-431326/2-A	Lab Control Sample	108	105	95	102	102	102	88	90
MB 320-431326/1-A	Method Blank	91	104	92	96	104	97	89	104

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)
320-66473-1	LFSCW2-Water-11062020	99	95
320-66473-2	LFSCW1-Water-11062020	95	82
320-66473-3	LFW1-Water-11062020	92	103
320-66473-4	LFPCW1-Water-11062020	102	90
320-66473-5	LFPCW2-Water-11062020	106	101
320-66473-6	LFPCW3-Water-11062020	98	98
320-66473-7	LFPCW4-Water-11062020	108	106
LCS 320-431326/2-A	Lab Control Sample	88	106
MB 320-431326/1-A	Method Blank	89	92

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-431326/1-A
Matrix: Water
Analysis Batch: 431580

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431326

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		g.0	.4	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluoro8entanoic acid (PFPeA)	ND		.0	.49	nL/5		11/13/20 04:gg	11/14/20 03:04	1
PerfluoroheTanoic acid (PFx TA)	ND		.0	.gU	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorohe8tanoic acid (PFx 8A)	ND		.0	.2g	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorooctanoic acid (PFHA)	ND		.0	0.Ug	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorononanoic acid (PFNA)	ND		.0	.27	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorodecanoic acid (PFDA)	ND		.0	.31	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluoroundecanoic acid (PFp nA)	ND		.0	1.1	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorododecanoic acid (PFDoA)	ND		.0	.gg	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorotridecanoic acid (PFOriA)	ND		.0	1.3	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorotetradecanoic acid (PFOeA)	ND		.0	.73	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		.0	.20	nL/5		11/13/20 04:gg	11/14/20 03:04	1
PerfluoroheTanesulfonic acid (PFx TS)	ND		.0	.g7	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorohe8tanesulfonic Acid (PFx 8S)	ND		.0	.19	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorooctanesulfonic acid (PFHS)	ND		.0	.g4	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		.0	.32	nL/5		11/13/20 04:gg	11/14/20 03:04	1
Perfluorooctanesulfonamide (FHSA)	ND		.0	.9U	nL/5		11/13/20 04:gg	11/14/20 03:04	1
N-methyl8erfluorooctanesulfonamidoacetic acid (NMeFHSAA)	ND		g.0	1.2	nL/5		11/13/20 04:gg	11/14/20 03:04	1
N-ethyl8erfluorooctanesulfonamidoacetic acid (NEtFHSAA)	ND		g.0	1.3	nL/5		11/13/20 04:gg	11/14/20 03:04	1
6:2 FOS	ND		g.0	.g	nL/5		11/13/20 04:gg	11/14/20 03:04	1
U:2 FOS	ND		.0	.46	nL/5		11/13/20 04:gg	11/14/20 03:04	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA			*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C5 PFP:	*3*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C2 PFe 8	*3*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C4 PFe H	*1*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C4 PFx	*166*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C5 PF9			*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C2 PFp			*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C2 PFND	*O7*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C2 PFp U	*1*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C2 PFn: p	*164*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C3 PFBo			*- 156*	*110130 64/55*	*110140 63/64*	*1*
1Ox 2 PFe 8o	*T*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13C4 PFx o	*164*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
13COFx o	*S*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
d3-9 M: Fx o	*O7*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
d5-9 EtFx o	*164*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
M2-T/2 Fno	*O7*		*- 156*	*110130 64/55*	*110140 63/64*	*1*
M2-O'2 Fno			*- 156*	*110130 64/55*	*110140 63/64*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-431326/2-A
Matrix: Water
Analysis Batch: 431580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431326

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	.0	.2		nL/5		111	76 136
Perfluoro8entanoic acid (PFPeA)	.0	39.g		nL/5		99	71 131
PerfluoroheTanoic acid (PFx TA)	.0	.g		nL/5		111	73 133
Perfluorohe8tanoic acid (PFx 8A)	.0	.3		nL/5		106	72 132
Perfluorooctanoic acid (PFHA)	.0	39.0		nL/5		9U	70 130
Perfluorononanoic acid (PFNA)	.0	7.4		nL/5		119	7g 13g
Perfluorodecanoic acid (PFDA)	.0	3.0		nL/5		107	76 136
Perfluoroundecanoic acid (PFp nA)	.0	39.g		nL/5		99	U 12U
Perfluorododecanoic acid (PFDoA)	.0	39.3		nL/5		9U	71 131
Perfluorotridecanoic acid (PFOriA)	.0	.0		nL/5		10g	71 131
Perfluorotetradecanoic acid (PFOeA)	.0	g.9		nL/5		11g	70 130
Perfluorobutanesulfonic acid (PFBS)	3g.4	37.1		nL/5		10g	7 127
PerfluoroheTanesulfonic acid (PFx TS)	36.4	37.g		nL/5		103	g9 119
Perfluorohe8tanesulfonic Acid (PFx 8S)	3U.1	3.2		nL/5		113	76 136
Perfluorooctanesulfonic acid (PFHS)	37.1	1.6		nL/5		112	70 130
Perfluorodecanesulfonic acid (PFDS)	3U.6	.3		nL/5		10g	71 131
Perfluorooctanesulfonamide (FHSA)	.0	.3		nL/5		111	73 133
N-methyl8erfluorooctanesulfonamidoacetic acid (NMeFHSAA)	.0	.3		nL/5		101	76 136
N-ethyl8erfluorooctanesulfonamidoacetic acid (NEtFHSAA)	.0	.9		nL/5		107	76 136
6:2 FOS	37.9	37.3		nL/5		9U	g9 17g
U: FOS	3U.3	37.3		nL/5		97	7g 13g

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*S*		*- 156*
13C5 PFP:	*T*		*- 156*
13C2 PFe 8			*- 156*
13C4 PFe H	*161*		*- 156*
13C4 PFx	*O*		*- 156*
13C5 PF9	*3*		*- 156*
13C2 PFp			*- 156*
13C2 PFND	*S*		*- 156*
13C2 PFp U	*16O*		*- 156*
13C2 PFn: p	*165*		*- 156*
13C3 PFBo			*- 156*
1Ox 2 PFe 8o	*162*		*- 156*
13C4 PFx o	*162*		*- 156*
13COFx o	*162*		*- 156*
d3-9 M: Fx o	*OO*		*- 156*
d5-9 EtFx o			*- 156*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-431326/2-A
Matrix: Water
Analysis Batch: 431580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431326

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-T/2 Fno	CO		- 156
M2-O'2 Fno	16T		- 156

Client: New York State D.E.C.
Job ID: 320-66473-1
Project/Site: Norlite - Cohoes #401041

LCMS

Prep Batch: 431326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66473-1	LFSCW2-Water-11062020	Total/NA	Water	3535	
320-66473-2	LFSCW1-Water-11062020	Total/NA	Water	3535	
320-66473-3	LFW1-Water-11062020	Total/NA	Water	3535	
320-66473-4	LFPCW1-Water-11062020	Total/NA	Water	3535	
320-66473-5	LFPCW2-Water-11062020	Total/NA	Water	3535	
320-66473-6	LFPCW3-Water-11062020	Total/NA	Water	3535	
320-66473-7	LFPCW4-Water-11062020	Total/NA	Water	3535	
MB 320-431326/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-431326/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 431580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-66473-1	LFSCW2-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-2	LFSCW1-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-3	LFW1-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-4	LFPCW1-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-5	LFPCW2-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-6	LFPCW3-Water-11062020	Total/NA	Water	537 (modified)	31326
320-66473-7	LFPCW4-Water-11062020	Total/NA	Water	537 (modified)	31326
MB 320-431326/1-A	Method Blank	Total/NA	Water	537 (modified)	31326
LCS 320-431326/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	31326

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFSCW2-Water-11062020
Lab Sample ID: 320-66473-1
Date Collected: 11/06/20 09:40
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			263.4 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:12	RS1	TAL SAC

Client Sample ID: LFSCW1-Water-11062020
Lab Sample ID: 320-66473-2
Date Collected: 11/06/20 09:55
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			259.3 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:21	RS1	TAL SAC

Client Sample ID: LFW1-Water-11062020
Lab Sample ID: 320-66473-3
Date Collected: 11/06/20 10:55
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			266.3 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:30	RS1	TAL SAC

Client Sample ID: LFPCW1-Water-11062020
Lab Sample ID: 320-66473-4
Date Collected: 11/06/20 11:30
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			263.9 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:39	RS1	TAL SAC

Client Sample ID: LFPCW2-Water-11062020
Lab Sample ID: 320-66473-5
Date Collected: 11/06/20 12:10
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			270.2 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:49	RS1	TAL SAC

Client Sample ID: LFPCW3-Water-11062020
Lab Sample ID: 320-66473-6
Date Collected: 11/06/20 12:50
Matrix: Water
Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			267.7 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 05:58	RS1	TAL SAC

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Client Sample ID: LFPCW4-Water-11062020

Lab Sample ID: 320-66473-7

Date Collected: 11/06/20 13:20

Matrix: Water

Date Received: 11/07/20 09:25

Prep Type	Batch Typ	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			271.5 mL	10.0 mL	431326	11/13/20 04:55	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			431580	11/14/20 06:07	RS1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 320-66473-1
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFT iA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 320-66473-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-66473-1	LFSCW2-Water-11062020	Water	11/06/20 09:40	11/07/20 09: 5	
320-66473-2	LFSCW1-Water-11062020	Water	11/06/20 09:55	11/07/20 09: 5	
320-66473-3	LFW1-Water-11062020	Water	11/06/20 10:55	11/07/20 09:25	
320-66473-4	LFPCW1-Water-11062020	Water	11/06/20 11:30	11/07/20 09: 5	
320-66473-5	LFPCW2-Water-11062020	Water	11/06/20 12:10	11/07/20 09: 5	
320-66473-6	LFPCW3-Water-11062020	Water	11/06/20 12:50	11/07/20 09: 5	
320-66473-7	LFPCW4-Water-11062020	Water	11/06/20 13:20	11/07/20 09: 5	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Albany #224

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: JM	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.7
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 7 of 7
Company: New York State D.E.C.				Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010C - 7196A, 7471B	6010C - 7470A	7196A - Hexavalent Chromium - 7196	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	D	N		
LFSCW2-Water-110620 2020	11/6/2020	9:40am	G	Water			X				2	
LFSCW1-Water-11062020	11/6/2020	9:55am	G	Water			X				2	
LFW1-Water-11062020	11/6/2020	10:55am	G	water			X				2	
LFPCW1-Water-11062020	11/6/2020	11:30am	G	water			X				2	
LFPCW2-Water-11062020	11/6/2020	12:10pm	G	water			X				2	
LFPCW3-Water-11062020	11/6/2020	12:50pm	G	water			X				2	
LFPCW4-Water-11062020	11/6/2020	1:20pm	G	water			X				2	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): NYSDEC Cat B + EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/6/2020 14:00	NYSDEC	Karl Yoder	11/6/20 1700	Eurofins
Karl Yoder	11/6/20 1700	Eurofins		11/7/20 925	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 1425558

Cooler Temperature(s) °C and Other Remarks: 0.1/0.4

320-66473 Chain of Custody

Ver: 01/16/2019

11/18/2020

Login Sample Receipt Checklist

Client: New k State D.E.C.

Job Number: 320-66473-1

Login Number: 66473
List Number: 1
Creator: Oropeza, Salvador

List Source: Eurofins T stAmerica, Sacramento

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	ue	
he cooler's custody seal, if present, is intact.	ue	1478558
he cooler or samples do not appear to have been compromised or tampered with.	ue	
Samples were received on ice.	ue	
Cooler emperature is acceptable.	ue	
Cooler emperature is recorded.	ue	
COC is present.	ue	
COC is filled out in ink and legible.	ue	
COC is filled out with all pertinent information.	ue	
Is the Field Sampler's name present on COC?	ue	
There are no discrepancies between the sample IDs on the containers and the COC.	ue	
Samples are received within Holding ime (Excluding tests with immediate HTs)..	ue	
Sample containers have legible labels.	ue	
Containers are not broken or leaking.	ue	
Sample collection date/times are provided.	ue	
Appropriate sample containers are used.	ue	
Sample bottles are completely filled.	ue	
Sample Preservation Verified	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	ue	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	ue	
If necessary, staff have been informed of any short hold time o quick A needs	ue	
Multiphasic samples are not present.	ue	
Samples do not require splitting or compositing.	ue	
Sampling Company provided.	ue	
Samples received within 48 hours of sampling.	ue	
Samples requiring field filtration have been filtered in the field.	ue	
Chlorine Residual checked.	/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-221262-1
Client Project/Site: Norlite - Cohoes #401041
Revision: 1

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Authorized for release by:
1/22/2021 9:46:48 AM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*5	Isotope dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
H	Sample was prepped or analyzed beyond the specified holding time
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

eneral Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

ossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

ID: 460-221262-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Narrative
460-221262-1

Revision (1)
The report is being revised to add an NCM for Cr+6 soils. Since the first set of matrix spikes were outside limits, all samples in the batch ere rerun per the method.

Receipt
The samples were received on 10/23/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 4.5º C.

Receipt Exceptions
The following samples were received outside of holding time for Hexavalent Chromium: TB1-102120 (460-221262-2), Equipment Blank 102120 (460-221262-25) and Field Blank 102120 (460-221262-26).

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 537 (modified): The concentration of Perfluorooctanoic acid (PFOA) associated with the following samples exceeded the instrument calibration range: (460-221392-F-10-A), (460-221392-F-10-B MS) and (460-221392-F-10-C MSD). These analytes have been qualified; however, the peaks did not saturate the instrument detector. The samples were diluted within calibration range, and both sets of data were reported.

Method 537 (modified): Due to the high concentration of Perfluorooctanoic acid (PFOA), the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-426004 and analytical batch 320-426308 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): The method blank for preparation batch 320-426093 and analytical batch 320-427158 contained Perfluorooctanesulfonic acid (PFOS) above the reporting limit (RL). Associated sample was not re-extracted because results we e greater than 10X the value found in the method blank.

Method 537 (modified): The method blank for preparation batch 320-426093 contained Perfluorooctanesulfonic acid (PFOS) above the reporting limit (RL). The sample associated with this method blank did not contain the target compound; therefore, re-extraction of sample ere not performed.

Method 537 (modified): The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit for 13C2 PFTeDA: (460-221262-B-12-C MSD). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, hich is achieved f or all IDA in the sample.

Method 537 (modified): The matrix spike/ matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-426094 and analytical batch 320-427508 were outside control limits for Perfluoroundecanoic acid (PFUnA). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty. However, analyst judgment was used to positively identify the analytes.

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) recoveries for Perfluoroundecanoic acid (PFUnA)prepa ation batch 320-426801 and analytical batch 320-427738 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. (CCVL 320-428679/2)

ID: 460-221262-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS in the following samples: PC1-SOIL-102120 (460-221262-1), PC2-SOIL-102120 (460-221262-3) and S2-SOIL-102120 (460-221262-8). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-8:2 FTS in the following samples: S15-SOIL-102120 (460-221262-4), S13-SOIL-102120 (460-221262-6), S13-SOIL-102120 (460-221262-6[MS]) and S13-SOIL-102120 (460-221262-6[MSD]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification of the analyte(s) has/have some degree of uncertainty. However, analyst judgement was used to positively identify the analyte(s).
PC1-SOIL-102120 (460-221262-1)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for several IDA in the following sample: S2-SOIL-102120 (460-221262-8). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The following sample exhibited elevated noise or matrix interference for Perfluorobutanesulfonic acid (PFBS) causing elevation of the reporting limit. The reporting limit has been raised to be equal to the matrix and a "G" qualifier applied.
PC1-SOIL-102120 (460-221262-1)

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-426095 and analytical batch 320-427153 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The Isotope Dilution Analyte (IDA) recovery associated with the following laboratory control sample is below the method recommended limit for d5-NEtFOSAA: (LCS 320-426095/2-A). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, hich is achieved f or all IDA in the sample.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. S9A-SOIL-102120 (460-221262-23)

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 320-426095 and analytical batch 320-427153 recovered outside control limits for Perfluorodecanesulfonic acid (PFDS) and Perfluorooctanesulfonic acid (PFOS). The associated samples were re-extracted outside holding time. Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 7196A: The matrix spike soluble/matrix spike insoluble (MSS/MSI) recoveries for batch 736736, which was a re-prep of batch 736100, were outside control limits due to sample matrix. The associated laboratory control sample (LCSS/LCSI) recoveries met ac eptance criteria. Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method SHAKE: The following samples are light yellow color after final volume: PC1-SOIL-102120 (460-221262-1), PC2-SOIL-102120 (460-221262-3), S14-SOIL-102120 (460-221262-5), S13-SOIL-102120 (460-221262-6), S13-SOIL-102120 (460-221262-6[MS]), S13-SOIL-102120 (460-221262-6[MSD]) and S3-SOIL-102120 (460-221262-10).

Method SHAKE: The samples, S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-S il-102120 (460-221262-27) and S10-Soil-102120

ID: 460-221262-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

(460-221262-28), were yellow after extraction and final volume.

Method SHAKE: The following samples were yellow after extraction/final volume: S1-SOIL-102120 (460-221262-15), S6A-SOIL-102120 (460-221262-17), S6B-SOIL-102120 (460-221262-18), S7A-SOIL-102120 (460-221262-19), S7B-SOIL-102120 (460-221262-20), S8A-SOIL-102120 (460-221262-21) and S8B-SOIL-102120 (460-221262-22).

Method SHAKE: The following samples were yellow after final volume/extraction: PC1-SOIL-102120 (460-221262-1), PC2-SOIL-102120 (460-221262-3), S15-SOIL-102120 (460-221262-4), S14-SOIL-102120 (460-221262-5), S13-SOIL-102120 (460-221262-6), S13-SOIL-102120 (460-221262-6[MS]), S13-SOIL-102120 (460-221262-6[MSD]) and S3-SOIL-102120 (460-221262-10).

Method SHAKE: The following samples were yellow after final volume/extraction: S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-Soil-102120 (460-221262-27) and S10-Soil-102120 (460-221262-28).

Method SHAKE: The following samples were pale yellow after extraction/final volume: S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-Soil-102120 (460-221262-27) and S10-Soil-102120 (460-221262-28).

Method SHAKE: The following samples were re-prepared outside of preparation holding time due to very low %R in the MB and LCS and the QC re-injects did not match: S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-S il-102120 (460-221262-27) and S10-Soil-102120 (460-221262-28).

Method SHAKE: The following samples are yellow after final voluming:
S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-Soil-102120 (460-221262-27) and S10-Soil-102120 (460-221262-28).

Method SHAKE: The following samples were re-prepared outside of preparation holding time due to PFOS hit in the method blank and high LCS recoveries for several analytes: S9A-SOIL-102120 (460-221262-23), S9B-SOIL-102120 (460-221262-24), S9B-SOIL-102120 (460-221262-24[MS]), S9B-SOIL-102120 (460-221262-24[MSD]), S5-S il-102120 (460-221262-27) and S10-Soil-102120 (460-221262-28).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: PC1-SOIL-102120 — Lab Sample ID: 460-221262-1

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.26	J	.33	.046	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.20	J	.33	.13	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.27	J	.33	.069	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.18	J	.33	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.63		.33	.14	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.27	J	.33	.059	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.37		.33	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.18	J	.33	.059	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.21	J	.33	.051	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.0		.83	.33	ug/Kg		☼	537 (modified)	Total/NA

Client Sample ID: TB1-102120 — Lab Sample ID: 460-221262-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8	J	5000	83.8	ug/L			D	Total/NA
Zinc	.4	J	30.0	.2	ug/L			D	Total/NA

Client Sample ID: PC2-SOIL-102120 — Lab Sample ID: 460-221262-3

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.54		.24	.033	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.22	J	.24	.091	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.20	J	.24	.050	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.23	J	.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.75		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.25		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.15	J	.24	.026	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.1	J	.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.053	J	.24	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.3		.59	.24	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.078	J	.24	.046	ug/Kg		☼	537 (modified)	Total/NA

Client Sample ID: S15-SOIL-102120 — Lab Sample ID: 460-221262-4

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.28	J	.30	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.19	J	.30	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.27	J	.30	.064	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.26	J	.30	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.88		.30	.13	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.37		.30	.055	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.35		.30	.033	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.27	J	.30	.055	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.15	J	.30	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.089	J	.30	.077	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.046	J	.30	.038	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.2		.76	.30	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	300		.9	8.8	mg/Kg		☼	D	Total/NA
Arsenic	7.8		4.6	.95	mg/Kg		☼	D	Total/NA
Barium	52		.9	.0	mg/Kg		☼	D	Total/NA
Beryllium	.93		.62	.099	mg/Kg		☼	D	Total/NA
Cadmium	.90	J	.2	.1	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S15-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-4

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	5940		550	4	mg/Kg		☼	D	Total/NA
Chromium	.5		3.1	.2	mg/Kg		☼	D	Total/NA
Cobalt	.1		5.5	.86	mg/Kg		☼	D	Total/NA
Copper	34.3		7.7	.9	mg/Kg		☼	D	Total/NA
Iron	37800		46.4	31.9	mg/Kg		☼	D	Total/NA
Lead	35.8		3.1	.50	mg/Kg		☼	D	Total/NA
Magnesium	780		550	5	mg/Kg		☼	D	Total/NA
Manganese	775		4.6	.35	mg/Kg		☼	D	Total/NA
Nickel	34.1		.4	.81	mg/Kg		☼	D	Total/NA
Potassium	3490		550	95.0	mg/Kg		☼	D	Total/NA
Sodium	3	J	550	35	mg/Kg		☼	D	Total/NA
Vanadium	38.0		5.5	.4	mg/Kg		☼	D	Total/NA
Zinc	41		9.3	.7	mg/Kg		☼	D	Total/NA
Mercury	.032		.025	.0058	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S14-SOIL-102120

Lab Sample ID: 460-221262-5

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.45		.25	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.24	J	.25	.094	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.27		.25	.052	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.24	J	.25	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.1		.25	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.35		.25	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.27		.25	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.20	J	.25	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.1	J	.25	.082	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.090	J	.25	.063	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.044	J	.25	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.5		.25	.038	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	.047	J	.25	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.8		.61	.25	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	800		47.1	.7	mg/Kg		☼	D	Total/NA
Antimony	.7	J	4.7	.4	mg/Kg		☼	D	Total/NA
Arsenic	8.1		3.5	.72	mg/Kg		☼	D	Total/NA
Barium			47.1	4.5	mg/Kg		☼	D	Total/NA
Beryllium	.77		.47	.075	mg/Kg		☼	D	Total/NA
Cadmium	.88	J	.94	.081	mg/Kg		☼	D	Total/NA
Calcium	8900		80	87.1	mg/Kg		☼	D	Total/NA
Chromium	.7		.4	.7	mg/Kg		☼	D	Total/NA
Cobalt	3.1		.8	.65	mg/Kg		☼	D	Total/NA
Copper	41.2		5.9	.5	mg/Kg		☼	D	Total/NA
Iron	32400		35.4	4.3	mg/Kg		☼	D	Total/NA
Lead	46.5		.4	.38	mg/Kg		☼	D	Total/NA
Magnesium	5700		80	79.8	mg/Kg		☼	D	Total/NA
Manganese	98		3.5	.27	mg/Kg		☼	D	Total/NA
Nickel	.8		9.4	.62	mg/Kg		☼	D	Total/NA
Potassium	410		80	72.4	mg/Kg		☼	D	Total/NA
Vanadium	9.6		.8	.1	mg/Kg		☼	D	Total/NA
Zinc			7.1	.3	mg/Kg		☼	D	Total/NA
Mercury	.10		.021	.0049	mg/Kg		☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S13-SOIL-102120 — Lab Sample ID: 460-221262-6

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.90		.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.6		.24	.093	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.1		.24	.050	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.0		.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.1		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.2		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.1		.24	.026	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.86		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.28		.24	.081	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.1	J	.24	.061	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	.066	J	.24	.065	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.65		.60	.24	ug/Kg		☼	537 (modified)	Total/NA
:2 FTS	.23	J	.4	.18	ug/Kg		☼	537 (modified)	Total/NA
8:2 FTS	.70	J	.4	.30	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	3100		51.0	7.2	mg/Kg		☼	D	Total/NA
Arsenic	5.1		3.8	.78	mg/Kg		☼	D	Total/NA
Barium			51.0	4.9	mg/Kg		☼	D	Total/NA
Beryllium	.56		.51	.082	mg/Kg		☼	D	Total/NA
Cadmium	.57	J	.0	.088	mg/Kg		☼	D	Total/NA
Calcium			70	94.2	mg/Kg		☼	D	Total/NA
Chromium	.9		.5	.8	mg/Kg		☼	D	Total/NA
Cobalt	7.9	J	.7	.71	mg/Kg		☼	D	Total/NA
Copper	.2		.4	.6	mg/Kg		☼	D	Total/NA
Iron	3300		38.2	.3	mg/Kg		☼	D	Total/NA
Lead	.1		.5	.41	mg/Kg		☼	D	Total/NA
Magnesium	4330		70	86.3	mg/Kg		☼	D	Total/NA
Manganese	893		3.8	.29	mg/Kg		☼	D	Total/NA
Nickel	9.6		.2	.67	mg/Kg		☼	D	Total/NA
Potassium	70	J	70	78.3	mg/Kg		☼	D	Total/NA
Sodium	512	J	70		mg/Kg		☼	D	Total/NA
Vanadium	.2		.7	.2	mg/Kg		☼	D	Total/NA
Zinc			7.6	.4	mg/Kg		☼	D	Total/NA
Mercury	.039		.021	.0050	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S16-SOIL-102120 — Lab Sample ID: 460-221262-7

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.45		.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.17	J	.24	.092	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.19	J	.24	.050	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.19	J	.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.52		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.29		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.21	J	.24	.026	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.14	J	.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.089	J	.24	.080	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.1	J	.24	.030	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.65		.60	.24	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	5900		47.7	.8	mg/Kg		☼	D	Total/NA
Arsenic	.4		3.6	.73	mg/Kg		☼	D	Total/NA
Barium			47.7	4.6	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S16-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-7

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	.68		.48	.076	mg/Kg		☼	D	Total/NA
Cadmium	.52	J	.95	.082	mg/Kg		☼	D	Total/NA
Calcium	4010		90	88.2	mg/Kg		☼	D	Total/NA
Chromium	8.9		.4	.7	mg/Kg		☼	D	Total/NA
Cobalt	.7		.9	.66	mg/Kg		☼	D	Total/NA
Copper	4.4		.0	.5	mg/Kg		☼	D	Total/NA
Iron	8700		35.8	4.6	mg/Kg		☼	D	Total/NA
Lead	7.8		.4	.39	mg/Kg		☼	D	Total/NA
Magnesium	5120		90	80.8	mg/Kg		☼	D	Total/NA
Manganese	9		3.6	.27	mg/Kg		☼	D	Total/NA
Nickel	3.9		9.5	.63	mg/Kg		☼	D	Total/NA
Potassium	80		90	73.3	mg/Kg		☼	D	Total/NA
Vanadium	8.1		.9	.1	mg/Kg		☼	D	Total/NA
Zinc	79.2		7.2	.3	mg/Kg		☼	D	Total/NA
Mercury	.018	J	.020	.0048	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S2-SOIL-102120

Lab Sample ID: 460-221262-8

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.59		.29	.040	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.37		.29	0.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.32		.29	.061	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.30		.29	.042	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.95		.29	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.45		.29	.052	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.32		.29	.032	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.34		.29	.052	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.14	J	.29	.097	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.1	J	.29	.074	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	.079	J	.29	.078	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.25	J	.29	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.049	J	.29	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.4		.72	.29	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	8100		56.1	7.9	mg/Kg		☼	D	Total/NA
Arsenic	9.6		4.2	.86	mg/Kg		☼	D	Total/NA
Barium	46		56.1	5.4	mg/Kg		☼	D	Total/NA
Beryllium	.80		.56	.090	mg/Kg		☼	D	Total/NA
Cadmium	.86	J	.1	.097	mg/Kg		☼	D	Total/NA
Calcium	8480		400	4	mg/Kg		☼	D	Total/NA
Chromium	4.9		.8	.0	mg/Kg		☼	D	Total/NA
Cobalt	4.4		4.0	.78	mg/Kg		☼	D	Total/NA
Copper	37.8		7.0	.8	mg/Kg		☼	D	Total/NA
Iron	34400		42.1	8.9	mg/Kg		☼	D	Total/NA
Lead	43.2		.8	.45	mg/Kg		☼	D	Total/NA
Magnesium	740		400	95.0	mg/Kg		☼	D	Total/NA
Manganese	42		4.2	.32	mg/Kg		☼	D	Total/NA
Nickel	32.4		.2	.74	mg/Kg		☼	D	Total/NA
Potassium	3280		400	86.2	mg/Kg		☼	D	Total/NA
Sodium	44	J	400		mg/Kg		☼	D	Total/NA
Vanadium	36.2		4.0	.3	mg/Kg		☼	D	Total/NA
Zinc	32		8.4	.5	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S2-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-8

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	.074		.025	.0059	mg/Kg		☼	7471B	Total/NA

Client Sample ID: DUP1-SOIL-102120

Lab Sample ID: 460-221262-9

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.55		.28	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.29		.28	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.27	J	.28	.059	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.29		.28	.041	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.1		.28	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.43		.28	.050	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.24	J	.28	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.25	J F1	.28	.050	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.1	J	.28	.094	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.087	J	.28	.071	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.26	J	.28	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.052	J	.28	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.5		.70	.28	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	7400		55.5	7.9	mg/Kg		☼	D	Total/NA
Antimony	.7	J	5.6	.6	mg/Kg		☼	D	Total/NA
Arsenic	.1		4.2	.85	mg/Kg		☼	D	Total/NA
Barium	41		55.5	5.4	mg/Kg		☼	D	Total/NA
Beryllium	.80		.56	.089	mg/Kg		☼	D	Total/NA
Cadmium	.84	J	.1	.096	mg/Kg		☼	D	Total/NA
Calcium	890		390	3	mg/Kg		☼	D	Total/NA
Chromium	4.8		.8	.0	mg/Kg		☼	D	Total/NA
Cobalt	4.3		3.9	.77	mg/Kg		☼	D	Total/NA
Copper	37.8		.9	.7	mg/Kg		☼	D	Total/NA
Iron	33300		41.6	8.6	mg/Kg		☼	D	Total/NA
Lead	45.7		.8	.45	mg/Kg		☼	D	Total/NA
Magnesium	320		390	93.9	mg/Kg		☼	D	Total/NA
Manganese	47		4.2	.31	mg/Kg		☼	D	Total/NA
Nickel	32.1		.1	.73	mg/Kg		☼	D	Total/NA
Potassium	3270		390	85.2	mg/Kg		☼	D	Total/NA
Sodium	39	J	390		mg/Kg		☼	D	Total/NA
Vanadium	35.9		3.9	.3	mg/Kg		☼	D	Total/NA
Zinc	34		8.3	.5	mg/Kg		☼	D	Total/NA
Mercury	.078		.024	.0056	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S3-SOIL-102120

Lab Sample ID: 460-221262-10

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.10	J	.20	.028	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.079	J	.20	.077	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.080	J	.20	.042	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.063	J	.20	.029	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	5400		42.3	.0	mg/Kg		☼	D	Total/NA
Antimony	.3	J	4.2	.2	mg/Kg		☼	D	Total/NA
Arsenic	8.4		3.2	.65	mg/Kg		☼	D	Total/NA
Barium	50		42.3	4.1	mg/Kg		☼	D	Total/NA
Beryllium	.71		.42	.068	mg/Kg		☼	D	Total/NA
Cadmium	.66	J	.85	.073	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S3-SOIL-102120 (Continued) — Lab Sample ID: 460-221262-10

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	760			78.1	mg/Kg		☼	D	Total/NA
Chromium	3.1		.1	.5	mg/Kg		☼	D	Total/NA
Cobalt	5.9		.6	.59	mg/Kg		☼	D	Total/NA
Copper	44.3		5.3	.3	mg/Kg		☼	D	Total/NA
Iron	34200		31.7	.8	mg/Kg		☼	D	Total/NA
Lead	5.1		.1	.34	mg/Kg		☼	D	Total/NA
Magnesium	8480			71.5	mg/Kg		☼	D	Total/NA
Manganese	923		3.2	.24	mg/Kg		☼	D	Total/NA
Nickel	33.8		8.5	.56	mg/Kg		☼	D	Total/NA
Potassium				4.9	mg/Kg		☼	D	Total/NA
Vanadium	5.9		.6	.98	mg/Kg		☼	D	Total/NA
Zinc	85.3		.3	.2	mg/Kg		☼	D	Total/NA
Mercury	.017		.017	.0041	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S4-SOIL-102120 — Lab Sample ID: 460-221262-11

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.50		.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.20	J	.24	.094	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.20	J	.24	.051	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.17	J	.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.38		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.17	J	.24	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.089	J	.24	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.078	J	.24	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.050	J	.24	.030	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.26	J	.61	.24	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	400		50.8	7.2	mg/Kg		☼	D	Total/NA
Arsenic	.9		3.8	.78	mg/Kg		☼	D	Total/NA
Barium	5		50.8	4.9	mg/Kg		☼	D	Total/NA
Beryllium	.87		.51	.081	mg/Kg		☼	D	Total/NA
Cadmium	.66	J	.0	.088	mg/Kg		☼	D	Total/NA
Calcium	3510		70	93.9	mg/Kg		☼	D	Total/NA
Chromium	.4		.5	.8	mg/Kg		☼	D	Total/NA
Cobalt	5.5		.7	.70	mg/Kg		☼	D	Total/NA
Copper	4.8		.4	.6	mg/Kg		☼	D	Total/NA
Iron	34400		38.1	.2	mg/Kg		☼	D	Total/NA
Lead	5.1		.5	.41	mg/Kg		☼	D	Total/NA
Magnesium	5870		70	86.0	mg/Kg		☼	D	Total/NA
Manganese	596		3.8	.29	mg/Kg		☼	D	Total/NA
Nickel	8.1		.2	.67	mg/Kg		☼	D	Total/NA
Potassium	900		70	78.0	mg/Kg		☼	D	Total/NA
Sodium	5	J	70		mg/Kg		☼	D	Total/NA
Vanadium	33.7		.7	.2	mg/Kg		☼	D	Total/NA
Zinc	78.5		7.6	.4	mg/Kg		☼	D	Total/NA
Mercury	.022		.022	.0051	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S11-SOIL-102120 — Lab Sample ID: 460-221262-12

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.27		.27	.038	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.10	J	.27	.10	ug/Kg		☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S11-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-12

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	.13	J	.27	.056	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.18	J	.27	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.58		.27	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.41		.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.21	J	.27	.030	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.30	F1	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.78	B	.67	.27	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	7400		51.1	7.2	mg/Kg		☼	D	Total/NA
Arsenic	.2		3.8	.79	mg/Kg		☼	D	Total/NA
Barium			51.1	4.9	mg/Kg		☼	D	Total/NA
Beryllium	.71		.51	.082	mg/Kg		☼	D	Total/NA
Cadmium	.63	J	.0	.088	mg/Kg		☼	D	Total/NA
Calcium	500		80	94.4	mg/Kg		☼	D	Total/NA
Chromium	.5		.6	.8	mg/Kg		☼	D	Total/NA
Cobalt	4.1		.8	.71	mg/Kg		☼	D	Total/NA
Copper	.9		.4	.6	mg/Kg		☼	D	Total/NA
Iron	32400		38.3	.3	mg/Kg		☼	D	Total/NA
Lead	4.1		.6	.41	mg/Kg		☼	D	Total/NA
Magnesium	9160		80	86.4	mg/Kg		☼	D	Total/NA
Manganese	83		3.8	.29	mg/Kg		☼	D	Total/NA
Nickel	8.7		.2	.67	mg/Kg		☼	D	Total/NA
Potassium	3210		80	78.4	mg/Kg		☼	D	Total/NA
Sodium		J	80		mg/Kg		☼	D	Total/NA
Vanadium	30.3		.8	.2	mg/Kg		☼	D	Total/NA
Zinc	76.8		7.7	.4	mg/Kg		☼	D	Total/NA
Mercury	.017	J	.023	.0054	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S12-SOIL-102120

Lab Sample ID: 460-221262-13

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.089	J	.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.061	J I	.24	.051	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.065	J	.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.29		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.17	J	.24	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.073	J	.24	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.13	J	.24	.044	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.45	J B	.61	.24	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	500		37.0	5.2	mg/Kg		☼	D	Total/NA
Arsenic	.2		.8	.57	mg/Kg		☼	D	Total/NA
Barium	3.9		37.0	3.6	mg/Kg		☼	D	Total/NA
Beryllium	.58		.37	.059	mg/Kg		☼	D	Total/NA
Calcium	80		925	8.3	mg/Kg		☼	D	Total/NA
Chromium	4.0		.8	.3	mg/Kg		☼	D	Total/NA
Cobalt	8.1	J	9.2	.51	mg/Kg		☼	D	Total/NA
Copper	5.7		4.6	.2	mg/Kg		☼	D	Total/NA
Iron	3300		7.7	9.1	mg/Kg		☼	D	Total/NA
Lead	.4		.8	.30	mg/Kg		☼	D	Total/NA
Magnesium	3100		925	.6	mg/Kg		☼	D	Total/NA
Manganese	500		.8	.21	mg/Kg		☼	D	Total/NA
Nickel	5.4		7.4	.49	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S12-SOIL-102120 (Continued) — Lab Sample ID: 460-221262-13

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	40		925	56.8	mg/Kg		☼	D	Total/NA
Thallium	.86	J	3.7	.57	mg/Kg		☼	D	Total/NA
Vanadium	.5		9.2	.86	mg/Kg		☼	D	Total/NA
Zinc	47.5		5.5	.0	mg/Kg		☼	D	Total/NA
Mercury	.031		.020	.0046	mg/Kg		☼	7471B	Total/NA

Client Sample ID: DUP2-SOIL-102120 — Lab Sample ID: 460-221262-14

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.38		.25	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.16	J	.25	.096	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.15	J	.25	.052	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.16	J	.25	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.36		.25	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.17	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.066	J	.25	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.099	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.033	J	.25	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.32	J B	.62	.25	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	9200		39.3	5.6	mg/Kg		☼	D	Total/NA
Arsenic	7.7		3.0	.60	mg/Kg		☼	D	Total/NA
Barium	4		39.3	3.8	mg/Kg		☼	D	Total/NA
Beryllium	.93		.39	.063	mg/Kg		☼	D	Total/NA
Calcium	3160		984	72.7	mg/Kg		☼	D	Total/NA
Chromium	.0		.0	.4	mg/Kg		☼	D	Total/NA
Cobalt	4.6		9.8	.54	mg/Kg		☼	D	Total/NA
Copper	3.3		4.9	.2	mg/Kg		☼	D	Total/NA
Iron	32300		9.5	.3	mg/Kg		☼	D	Total/NA
Lead	.8		.0	.32	mg/Kg		☼	D	Total/NA
Magnesium	5380		984	.6	mg/Kg		☼	D	Total/NA
Manganese	500		3.0	.22	mg/Kg		☼	D	Total/NA
Nickel	.3		7.9	.52	mg/Kg		☼	D	Total/NA
Potassium	460		984	.4	mg/Kg		☼	D	Total/NA
Selenium	.1	J	3.9	.67	mg/Kg		☼	D	Total/NA
Sodium	90.6	J	984	85.6	mg/Kg		☼	D	Total/NA
Thallium	.91	J	3.9	.61	mg/Kg		☼	D	Total/NA
Vanadium	30.9		9.8	.91	mg/Kg		☼	D	Total/NA
Zinc	72.1		5.9	.1	mg/Kg		☼	D	Total/NA
Mercury	.022		.020	.0046	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S1-SOIL-102120 — Lab Sample ID: 460-221262-15

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.19	J	.27	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.084	J	.27	.056	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.10	J	.27	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.30		.27	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.19	J	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.092	J	.27	.029	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.16	J I	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.95	B	.66	.27	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	900		43.4	.1	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S1-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-15

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.9		3.3	.67	mg/Kg		☼	D	Total/NA
Barium	46.9		43.4	4.2	mg/Kg		☼	D	Total/NA
Beryllium	.54		.43	.069	mg/Kg		☼	D	Total/NA
Calcium	940	J	80	80.1	mg/Kg		☼	D	Total/NA
Chromium	4.8		.2	.5	mg/Kg		☼	D	Total/NA
Cobalt	.6	J	.8	.60	mg/Kg		☼	D	Total/NA
Copper	.4		5.4	.4	mg/Kg		☼	D	Total/NA
Iron	8700		32.5	.3	mg/Kg		☼	D	Total/NA
Lead	9.4		.2	.35	mg/Kg		☼	D	Total/NA
Magnesium	30		80	73.4	mg/Kg		☼	D	Total/NA
Manganese	88		3.3	.24	mg/Kg		☼	D	Total/NA
Nickel	3.9		8.7	.57	mg/Kg		☼	D	Total/NA
Potassium	40	J	80	.6	mg/Kg		☼	D	Total/NA
Vanadium	3.8		.8	.0	mg/Kg		☼	D	Total/NA
Zinc	45.4		.5	.2	mg/Kg		☼	D	Total/NA
Mercury	.048		.022	.0053	mg/Kg		☼	7471B	Total/NA

Client Sample ID: TB2-102120

Lab Sample ID: 460-221262-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	4	J	5000	83.8	ug/L			D	Total/NA
Zinc	.4	J	30.0	.2	ug/L			D	Total/NA

Client Sample ID: S6A-SOIL-102120

Lab Sample ID: 460-221262-17

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.22	J	.27	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.16	J	.27	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.13	J	.27	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.45		.27	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.32		.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.40		.27	.029	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.21	J	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.15	J	.27	.090	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.093	J	.27	.033	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.059	J I	.27	.041	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.8	B	.67	.27	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.15	J	.27	.052	ug/Kg		☼	537 (modified)	Total/NA
Aluminum			40.3	5.7	mg/Kg		☼	D	Total/NA
Arsenic	8.5		3.0	.62	mg/Kg		☼	D	Total/NA
Barium	5		40.3	3.9	mg/Kg		☼	D	Total/NA
Beryllium	.59		.40	.064	mg/Kg		☼	D	Total/NA
Cadmium	.091	J	.81	.069	mg/Kg		☼	D	Total/NA
Calcium	450			74.4	mg/Kg		☼	D	Total/NA
Chromium	7.0		.0	.4	mg/Kg		☼	D	Total/NA
Cobalt	.8		.1	.56	mg/Kg		☼	D	Total/NA
Copper	7.9		5.0	.3	mg/Kg		☼	D	Total/NA
Iron			30.2	.7	mg/Kg		☼	D	Total/NA
Lead	38.5		.0	.33	mg/Kg		☼	D	Total/NA
Magnesium	3740			8.1	mg/Kg		☼	D	Total/NA
Manganese	722		3.0	.23	mg/Kg		☼	D	Total/NA
Nickel	.7		8.1	.53	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S6A-SOIL-102120 (Continued) — Lab Sample ID: 460-221262-17

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	360			.8	mg/Kg		☼	D	Total/NA
Thallium	.1	J	4.0	.62	mg/Kg		☼	D	Total/NA
Vanadium	.2		.1	.94	mg/Kg		☼	D	Total/NA
Zinc	95.3		.0	.1	mg/Kg		☼	D	Total/NA
Mercury	.051		.022	.0052	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S6B-SOIL-102120 — Lab Sample ID: 460-221262-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.34		.26	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.23	J	.26	.098	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.16	J	.26	.054	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.17	J	.26	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.63		.26	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.31		.26	.046	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.34		.26	.028	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.17	J	.26	.046	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.14	J	.26	.085	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.089	J	.26	.032	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.064	J I	.26	.040	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.3	B	.64	.26	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.15	J	.26	.050	ug/Kg		☼	537 (modified)	Total/NA
Aluminum			41.9	5.9	mg/Kg		☼	D	Total/NA
Arsenic	8.6		3.1	.64	mg/Kg		☼	D	Total/NA
Barium	9		41.9	4.0	mg/Kg		☼	D	Total/NA
Beryllium	.62		.42	.067	mg/Kg		☼	D	Total/NA
Cadmium	.084	J	.84	.072	mg/Kg		☼	D	Total/NA
Calcium	470		50	77.4	mg/Kg		☼	D	Total/NA
Chromium	7.4		.1	.5	mg/Kg		☼	D	Total/NA
Cobalt	.7		.5	.58	mg/Kg		☼	D	Total/NA
Copper	.9		5.2	.3	mg/Kg		☼	D	Total/NA
Iron			31.4	.6	mg/Kg		☼	D	Total/NA
Lead	39.8		.1	.34	mg/Kg		☼	D	Total/NA
Magnesium	3670		50	70.9	mg/Kg		☼	D	Total/NA
Manganese	714		3.1	.24	mg/Kg		☼	D	Total/NA
Nickel	.7		8.4	.55	mg/Kg		☼	D	Total/NA
Potassium	40		50	4.3	mg/Kg		☼	D	Total/NA
Thallium	.0	J	4.2	.65	mg/Kg		☼	D	Total/NA
Vanadium	7.2		.5	.97	mg/Kg		☼	D	Total/NA
Zinc			.3	.1	mg/Kg		☼	D	Total/NA
Mercury	.053		.020	.0048	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S7A-SOIL-102120 — Lab Sample ID: 460-221262-19

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.21	J	.27	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.1	J	.27	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.13	J	.27	.056	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.1	J	.27	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.33		.27	.12	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.17	J	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.1	J	.27	.029	ug/Kg		☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S7A-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-19

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	.1	J	.27	.048	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.059	J	.27	.033	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.044	J I	.27	.041	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.2	B	.67	.27	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.067	J	.27	.052	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	9130		41.8	5.9	mg/Kg		☼	D	Total/NA
Arsenic	7.2		3.1	.64	mg/Kg		☼	D	Total/NA
Barium	81.6		41.8	4.0	mg/Kg		☼	D	Total/NA
Beryllium	.43		.42	.067	mg/Kg		☼	D	Total/NA
Cadmium	.31	J	.84	.072	mg/Kg		☼	D	Total/NA
Calcium	4370		50	77.3	mg/Kg		☼	D	Total/NA
Chromium	4.0		.1	.5	mg/Kg		☼	D	Total/NA
Cobalt	8.1	J	.5	.58	mg/Kg		☼	D	Total/NA
Copper	5.2		5.2	.3	mg/Kg		☼	D	Total/NA
Iron	8600		31.4	.6	mg/Kg		☼	D	Total/NA
Lead	3.0		.1	.34	mg/Kg		☼	D	Total/NA
Magnesium	3810		50	70.8	mg/Kg		☼	D	Total/NA
Manganese	447		3.1	.24	mg/Kg		☼	D	Total/NA
Nickel	7.7		8.4	.55	mg/Kg		☼	D	Total/NA
Potassium	470		50	4.2	mg/Kg		☼	D	Total/NA
Selenium	.3	J	4.2	.71	mg/Kg		☼	D	Total/NA
Vanadium	.1		.5	.97	mg/Kg		☼	D	Total/NA
Zinc	76.5		.3	.1	mg/Kg		☼	D	Total/NA
Mercury	.027		.023	.0054	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S7B-SOIL-102120

Lab Sample ID: 460-221262-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.16	J	.25	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.12	J	.25	.053	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.085	J	.25	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.29		.25	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.16	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.16	J	.25	.028	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.12	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.056	J	.25	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.1	B	.63	.25	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.075	J	.25	.049	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	9790		38.5	5.5	mg/Kg		☼	D	Total/NA
Arsenic	7.4		.9	.59	mg/Kg		☼	D	Total/NA
Barium	83.5		38.5	3.7	mg/Kg		☼	D	Total/NA
Beryllium	.43		.39	.062	mg/Kg		☼	D	Total/NA
Cadmium	.26	J	.77	.066	mg/Kg		☼	D	Total/NA
Calcium	5300		963	71.2	mg/Kg		☼	D	Total/NA
Chromium	5.8		.9	.4	mg/Kg		☼	D	Total/NA
Cobalt	8.7	J	9.6	.53	mg/Kg		☼	D	Total/NA
Copper	4.9		4.8	.2	mg/Kg		☼	D	Total/NA
Iron			8.9	9.8	mg/Kg		☼	D	Total/NA
Lead	5.7		.9	.31	mg/Kg		☼	D	Total/NA
Magnesium	4330		963	5.2	mg/Kg		☼	D	Total/NA
Manganese	491		.9	.22	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S7B-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-20

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	9.3		7.7	.51	mg/Kg		☼	D	Total/NA
Potassium	430		963	59.2	mg/Kg		☼	D	Total/NA
Thallium	.96	J	3.9	.60	mg/Kg		☼	D	Total/NA
Vanadium	.9		9.6	.90	mg/Kg		☼	D	Total/NA
Zinc	78.9		5.8	.1	mg/Kg		☼	D	Total/NA
Mercury	.034		.021	.0050	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S8A-SOIL-102120

Lab Sample ID: 460-221262-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.10	J	.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.20	J	.24	.093	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.24		.24	.051	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.090	J	.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.39		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.4		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.91		.24	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.8		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.47		.24	.081	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.31		.24	.062	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	.14	J	.24	.065	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.15	J	.24	.030	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.2	B	.60	.24	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	5.9		.24	.047	ug/Kg		☼	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	.4	J	.4	.45	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	7790		42.3	.0	mg/Kg		☼	D	Total/NA
Arsenic	.5		3.2	.65	mg/Kg		☼	D	Total/NA
Barium	88.2		42.3	4.1	mg/Kg		☼	D	Total/NA
Beryllium	.31	J	.42	.068	mg/Kg		☼	D	Total/NA
Cadmium	.23	J	.85	.073	mg/Kg		☼	D	Total/NA
Calcium	3320			78.2	mg/Kg		☼	D	Total/NA
Chromium	5.8		.1	.5	mg/Kg		☼	D	Total/NA
Cobalt	.1	J	.6	.59	mg/Kg		☼	D	Total/NA
Copper	32.6		5.3	.3	mg/Kg		☼	D	Total/NA
Iron	4200		31.7	.8	mg/Kg		☼	D	Total/NA
Lead	48.8		.1	.34	mg/Kg		☼	D	Total/NA
Magnesium	550			71.6	mg/Kg		☼	D	Total/NA
Manganese	332		3.2	.24	mg/Kg		☼	D	Total/NA
Nickel	5.6		8.5	.56	mg/Kg		☼	D	Total/NA
Potassium	960	J		5.0	mg/Kg		☼	D	Total/NA
Sodium	50	J		92.1	mg/Kg		☼	D	Total/NA
Vanadium	3.4		.6	.98	mg/Kg		☼	D	Total/NA
Zinc	96.9		.3	.2	mg/Kg		☼	D	Total/NA
Mercury	.076		.021	.0050	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S8B-SOIL-102120

Lab Sample ID: 460-221262-22

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.20	J	.24	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.28		.24	.093	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.28		.24	.051	ug/Kg		☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S8B-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-22

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	.13	J	.24	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.42		.24	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.4		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.88		.24	.027	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.8		.24	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.35		.24	.081	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.26		.24	.061	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	.13	J	.24	.065	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.12	J	.24	.030	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5	B	.60	.24	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	5.7		.24	.047	ug/Kg		☼	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	.5	J	.4	.45	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	7530		39.5	5.6	mg/Kg		☼	D	Total/NA
Arsenic	9.9		3.0	.61	mg/Kg		☼	D	Total/NA
Barium	86.8		39.5	3.8	mg/Kg		☼	D	Total/NA
Beryllium	.31	J	.40	.063	mg/Kg		☼	D	Total/NA
Cadmium	.23	J	.79	.068	mg/Kg		☼	D	Total/NA
Calcium	3120		989	73.1	mg/Kg		☼	D	Total/NA
Chromium	5.3		.0	.4	mg/Kg		☼	D	Total/NA
Cobalt	5.8	J	9.9	.55	mg/Kg		☼	D	Total/NA
Copper	32.6		4.9	.2	mg/Kg		☼	D	Total/NA
Iron	4200		9.7	.4	mg/Kg		☼	D	Total/NA
Lead	73.0		.0	.32	mg/Kg		☼	D	Total/NA
Magnesium	460		989	.9	mg/Kg		☼	D	Total/NA
Manganese	341		3.0	.22	mg/Kg		☼	D	Total/NA
Nickel	5.5		7.9	.52	mg/Kg		☼	D	Total/NA
Potassium	858	J	989	.7	mg/Kg		☼	D	Total/NA
Sodium	32	J	989	86.0	mg/Kg		☼	D	Total/NA
Vanadium	3.3		9.9	.92	mg/Kg		☼	D	Total/NA
Zinc	91.6		5.9	.1	mg/Kg		☼	D	Total/NA
Mercury	.080		.020	.0047	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S9A-SOIL-102120

Lab Sample ID: 460-221262-23

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.24	J B	.25	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.21	J	.25	.097	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.22	J	.25	.053	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.15	J	.25	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.54		.25	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.23	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.25		.25	.028	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.22	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.12	J	.25	.084	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.092	J	.25	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.075	J I	.25	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0	B *	.63	.25	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.19	J *	.25	.049	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	.7	H B	.64	.26	ug/Kg		☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S9A-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-23

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanesulfonic acid (PFDS) RE	.18	J H	.26	.050	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	9210		41.1	5.8	mg/Kg		☼	D	Total/NA
Arsenic	7.8		3.1	.63	mg/Kg		☼	D	Total/NA
Barium			41.1	4.0	mg/Kg		☼	D	Total/NA
Beryllium	.43		.41	.066	mg/Kg		☼	D	Total/NA
Cadmium	.18	J	.82	.071	mg/Kg		☼	D	Total/NA
Calcium	3930		30	76.0	mg/Kg		☼	D	Total/NA
Chromium	5.5		.1	.5	mg/Kg		☼	D	Total/NA
Cobalt	8.2	J	.3	.57	mg/Kg		☼	D	Total/NA
Copper	8.1		5.1	.3	mg/Kg		☼	D	Total/NA
Iron	8000		30.9	.2	mg/Kg		☼	D	Total/NA
Lead	34.2		.1	.33	mg/Kg		☼	D	Total/NA
Magnesium	3460		30	9.6	mg/Kg		☼	D	Total/NA
Manganese	432		3.1	.23	mg/Kg		☼	D	Total/NA
Nickel	8.9		8.2	.54	mg/Kg		☼	D	Total/NA
Potassium	300		30	3.2	mg/Kg		☼	D	Total/NA
Selenium	.92	J	4.1	.70	mg/Kg		☼	D	Total/NA
Sodium		J	30	89.5	mg/Kg		☼	D	Total/NA
Vanadium	4.2		.3	.96	mg/Kg		☼	D	Total/NA
Zinc	4		.2	.1	mg/Kg		☼	D	Total/NA
Mercury	.086		.022	.0052	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S9B-SOIL-102120

Lab Sample ID: 460-221262-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.19	J B	.25	.035	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.20	J	.25	.096	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.20	J	.25	.053	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.15	J	.25	.036	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.60		.25	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.24	J	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.27		.25	.028	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.22	J F1	.25	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.14	J	.25	.084	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.079	J	.25	.031	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	.073	J	.25	.039	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.9	B *	.63	.25	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	.16	J *	.25	.049	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	.9	H B	.64	.26	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS) RE	.20	J H	.26	.050	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	300		39.1	5.5	mg/Kg		☼	D	Total/NA
Arsenic	7.8		.9	.60	mg/Kg		☼	D	Total/NA
Barium	3		39.1	3.8	mg/Kg		☼	D	Total/NA
Beryllium	.45		.39	.062	mg/Kg		☼	D	Total/NA
Cadmium	.15	J	.78	.067	mg/Kg		☼	D	Total/NA
Calcium	4120		976	72.2	mg/Kg		☼	D	Total/NA
Chromium	.4		.0	.4	mg/Kg		☼	D	Total/NA
Cobalt	8.4	J	9.8	.54	mg/Kg		☼	D	Total/NA
Copper	9.1		4.9	.2	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S9B-SOIL-102120 (Continued) — Lab Sample ID: 460-221262-24

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	9700		9.3	.1	mg/Kg		☼	D	Total/NA
Lead	36.5		.0	.32	mg/Kg		☼	D	Total/NA
Magnesium	3630		976	.1	mg/Kg		☼	D	Total/NA
Manganese	441		.9	.22	mg/Kg		☼	D	Total/NA
Nickel	9.3		7.8	.51	mg/Kg		☼	D	Total/NA
Potassium	520		976	59.9	mg/Kg		☼	D	Total/NA
Selenium	.80	J	3.9	.66	mg/Kg		☼	D	Total/NA
Sodium	3	J	976	84.9	mg/Kg		☼	D	Total/NA
Thallium	.86	J	3.9	.61	mg/Kg		☼	D	Total/NA
Vanadium	.1		9.8	.91	mg/Kg		☼	D	Total/NA
Zinc			5.9	.1	mg/Kg		☼	D	Total/NA
Mercury	.068		.021	.0050	mg/Kg		☼	7471B	Total/NA

Client Sample ID: Equipment Blank 102120 — Lab Sample ID: 460-221262-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	94	J	5000	83.8	ug/L			D	Total/NA
Zinc	.2	J	30.0	.2	ug/L			D	Total/NA

Client Sample ID: Field Blank 102120 — Lab Sample ID: 460-221262-26

No Detections.

Client Sample ID: S5-Soil-102120 — Lab Sample ID: 460-221262-27

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.71	B	.26	.037	ug/Kg		☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	.31		.26	.10	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.23	J	.26	.055	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.29		.26	.038	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.93		.26	.1	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.49		.26	.047	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.35		.26	.029	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.28		.26	.047	ug/Kg		☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	.16	J	.26	.088	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	.10	J	.26	.067	ug/Kg		☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	.093	J	.26	.071	ug/Kg		☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	.075	J	.26	.033	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.7	B *	.66	.26	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	.4	H B	.68	.27	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	9780		45.5	.4	mg/Kg		☼	D	Total/NA
Arsenic	.5		3.4	.70	mg/Kg		☼	D	Total/NA
Barium	80.2		45.5	4.4	mg/Kg		☼	D	Total/NA
Beryllium	.52		.46	.073	mg/Kg		☼	D	Total/NA
Cadmium	.30	J	.91	.079	mg/Kg		☼	D	Total/NA
Calcium	4120		40	84.1	mg/Kg		☼	D	Total/NA
Chromium	7.5		.3	.6	mg/Kg		☼	D	Total/NA
Cobalt	8.7	J	.4	.63	mg/Kg		☼	D	Total/NA
Copper	32.5		5.7	.4	mg/Kg		☼	D	Total/NA
Iron			34.1	3.4	mg/Kg		☼	D	Total/NA
Lead	70.0		.3	.37	mg/Kg		☼	D	Total/NA
Magnesium	970		40	77.1	mg/Kg		☼	D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S5-Soil-102120 (Continued)

Lab Sample ID: 460-221262-27

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	425		3.4	.26	mg/Kg		☼	D	Total/NA
Nickel	8.7		9.1	.60	mg/Kg		☼	D	Total/NA
Potassium	410		40	9.9	mg/Kg		☼	D	Total/NA
Thallium	.80	J	4.6	.71	mg/Kg		☼	D	Total/NA
Vanadium	.2		.4	.1	mg/Kg		☼	D	Total/NA
Zinc	50		.8	.2	mg/Kg		☼	D	Total/NA
Mercury	.17		.023	.0055	mg/Kg		☼	7471B	Total/NA

Client Sample ID: S10-Soil-102120

Lab Sample ID: 460-221262-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.15	J B	.31	.043	ug/Kg		☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	.1	J	.31	.065	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	.071	J	.31	.045	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	.19	J	.31	.13	ug/Kg		☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	.13	J	.31	.056	ug/Kg		☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	.20	J	.31	.034	ug/Kg		☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	.22	J	.31	.056	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	.4	B *	.78	.31	ug/Kg		☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	.2	H B	.75	.30	ug/Kg		☼	537 (modified)	Total/NA
Aluminum	400		.6	8.7	mg/Kg		☼	D	Total/NA
Arsenic	7.4		4.6	.95	mg/Kg		☼	D	Total/NA
Barium	95.3		.6	5.9	mg/Kg		☼	D	Total/NA
Beryllium	.14	J	.62	.099	mg/Kg		☼	D	Total/NA
Cadmium	.34	J	.2	.1	mg/Kg		☼	D	Total/NA
Calcium	840		540	4	mg/Kg		☼	D	Total/NA
Chromium	.2		3.1	.2	mg/Kg		☼	D	Total/NA
Cobalt	9.8	J	5.4	.85	mg/Kg		☼	D	Total/NA
Copper	90.7		7.7	.9	mg/Kg		☼	D	Total/NA
Iron	3900		46.2	31.7	mg/Kg		☼	D	Total/NA
Lead	36		3.1	.50	mg/Kg		☼	D	Total/NA
Magnesium	3790		540	4	mg/Kg		☼	D	Total/NA
Manganese	547		4.6	.35	mg/Kg		☼	D	Total/NA
Nickel	5.6		.3	.81	mg/Kg		☼	D	Total/NA
Potassium			540	94.5	mg/Kg		☼	D	Total/NA
Vanadium	5.6		5.4	.4	mg/Kg		☼	D	Total/NA
Zinc			9.2	.7	mg/Kg		☼	D	Total/NA
Mercury	.6		.072	.017	mg/Kg	3	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: PC1-SOIL-102120
Date Collected: 10/21/20 08:45
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-1
Matrix: Solid
Percent Solids: 58.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.26**	**J**	.33	.046	ug/Kg	☼	12:18	5/20 15:43	
Perfluoropentanoic acid (PFPeA)	**0.20**	**J**	.33	.13	ug/Kg	☼	12:18	5/20 15:43	
Perfluorohexanoic acid (PFHxA)	**0.27**	**J**	.33	.069	ug/Kg	☼	12:18	5/20 15:43	
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	.33	.048	ug/Kg	☼	12:18	5/20 15:43	
Perfluorooctanoic acid (PFOA)	**0.63**		.33	.14	ug/Kg	☼	12:18	5/20 15:43	
Perfluorononanoic acid (PFNA)	**0.27**	**J**	.33	.059	ug/Kg	☼	12:18	5/20 15:43	
Perfluorodecanoic acid (PFDA)	**0.37**		.33	.036	ug/Kg	☼	12:18	5/20 15:43	
Perfluoroundecanoic acid (PFUnA)	**0.18**	**J**	.33	.059	ug/Kg	☼	12:18	5/20 15:43	
Perfluorododecanoic acid (PFDoA)	ND		.33	.1	ug/Kg	☼	12:18	5/20 15:43	
Perfluorotridecanoic acid (PFTriA)	ND		.33	.084	ug/Kg	☼	12:18	5/20 15:43	
Perfluorotetradecanoic acid (PFTeA)	ND		.33	.089	ug/Kg	☼	12:18	5/20 15:43	
Perfluorobutanesulfonic acid (PFBS)	ND	G	.51	.51	ug/Kg	☼	12:18	5/20 15:43	
Perfluorohexanesulfonic acid (PFHxS)	**0.21**	**J**	.33	.051	ug/Kg	☼	12:18	5/20 15:43	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.33	.058	ug/Kg	☼	12:18	5/20 15:43	
Perfluorooctanesulfonic acid (PFOS)	**6.0**		.83	.33	ug/Kg	☼	12:18	5/20 15:43	
Perfluorodecanesulfonic acid (PFDS)	ND		.33	.064	ug/Kg	☼	12:18	5/20 15:43	
Perfluorooctanesulfonamide (FOSA)	ND		.33	.14	ug/Kg	☼	12:18	5/20 15:43	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		3.3	.64	ug/Kg	☼	12:18	5/20 15:43	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		3.3	.61	ug/Kg	☼	12:18	5/20 15:43	
:2 FTS	ND		3.3	.25	ug/Kg	☼	12:18	5/20 15:43	
8:2 FTS	ND		3.3	.41	ug/Kg	☼	12:18	5/20 15:43	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*49*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C5 PFPeA	*8*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C2 PFHxA	*80*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C4 PFHpA	*80*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C4 PFOA	*83*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C5 PFNA	*83*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C2 PFDA	*82*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C2 PFUnA	*86*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C2 PFDoA	*83*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C2 PFTeDA	*74*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C3 PFBS	*74*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
18O2 PFHxS	*82*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C4 PFOS	*81*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
13C8 FOSA	*65*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
d3-NMeFOSAA	*72*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
NEtFOSAA	*74*		*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
M2-6:2 FTS	*188*	**5*	*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*
M2-8:2 FTS	*09*	**5*	*150*	*11/02/20 12:18*	*11/05/20 15:43*	*1*

General Chemistry

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**41.4**		.1	.1	%			8/20 13:1	
Percent Solids	**58.6**		.1	.1	%			8/20 13:1	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: TB1-102120
Date Collected: 10/21/20 00:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-2
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	.2	ng/L		7/20 18:39	8/20 23:33	
Perfluoropentanoic acid (PFPeA)	ND		.8	.45	ng/L		7/20 18:39	8/20 23:33	
Perfluorohexanoic acid (PFHxA)	ND		.8	.54	ng/L		7/20 18:39	8/20 23:33	
Perfluoroheptanoic acid (PFHpA)	ND		.8	.23	ng/L		7/20 18:39	8/20 23:33	
Perfluorooctanoic acid (PFOA)	ND		.8	.78	ng/L		7/20 18:39	8/20 23:33	
Perfluorononanoic acid (PFNA)	ND		.8	.25	ng/L		7/20 18:39	8/20 23:33	
Perfluorodecanoic acid (PFDA)	ND		.8	.29	ng/L		7/20 18:39	8/20 23:33	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.0	ng/L		7/20 18:39	8/20 23:33	
Perfluorododecanoic acid (PFDoA)	ND		.8	.51	ng/L		7/20 18:39	8/20 23:33	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		7/20 18:39	8/20 23:33	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.67	ng/L		7/20 18:39	8/20 23:33	
Perfluorobutanesulfonic acid (PFBS)	ND		.8	.18	ng/L		7/20 18:39	8/20 23:33	
Perfluorohexanesulfonic acid (PFHxS)	ND		.8	.53	ng/L		7/20 18:39	8/20 23:33	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.18	ng/L		7/20 18:39	8/20 23:33	
Perfluorooctanesulfonic acid (PFOS)	ND		.8	.50	ng/L		7/20 18:39	8/20 23:33	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.30	ng/L		7/20 18:39	8/20 23:33	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.90	ng/L		7/20 18:39	8/20 23:33	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		7/20 18:39	8/20 23:33	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.6	.2	ng/L		7/20 18:39	8/20 23:33	
:2 FTS	ND		4.6	.3	ng/L		7/20 18:39	8/20 23:33	
8:2 FTS	ND		.8	.42	ng/L		7/20 18:39	8/20 23:33	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C5 PFPeA	*82*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C2 PFHxA	*88*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C4 PFHpA	*88*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C4 PFOA	*6*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C5 PFNA	*4*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C2 PFDA	*0*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C2 PFUnA	*89*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C2 PFDoA			*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C2 PFTeDA	*1*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C3 PFBS	*83*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
18O2 PFHxS	*86*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C4 PFOS	*86*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
13C8 FOSA	*81*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
d3-NMeFOSAA	*76*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
NEtFOSAA	*4*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
M2-6:2 FTS	*70*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*
M2-8:2 FTS	*74*		*150*	*10/27/20 18:39*	*10/28/20 23:33*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND			76.9	ug/L		4/20 20:00	16:57	
Antimony	ND		.0	3.7	ug/L		4/20 20:00	16:57	
Arsenic	ND		5.0	3.3	ug/L		4/20 20:00	16:57	
Barium	ND			3.2	ug/L		4/20 20:00	16:57	

Client Sample ID: TB1-102120

Lab Sample ID: 460-221262-2

Date Collected: 10/21/20 00:00
Matrix: W ter
Date Received: 10/23/20 10:00

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		.0	.17	ug/L		4/20 20:00	16:57	
Cadmium	ND		4.0	.33	ug/L		4/20 20:00	16:57	
Calcium	ND		5000	52	ug/L		4/20 20:00	16:57	
Chromium	ND		.0	5.0	ug/L		4/20 20:00	16:57	
Cobalt	ND		50.0	.0	ug/L		4/20 20:00	16:57	
Copper	ND		5.0	.9	ug/L		4/20 20:00	16:57	
Iron	ND		50	80.8	ug/L		4/20 20:00	16:57	
Lead	ND		.0	.4	ug/L		4/20 20:00	16:57	
Magnesium	ND		5000	42	ug/L		4/20 20:00	16:57	
Manganese	ND		5.0	.76	ug/L		4/20 20:00	16:57	
Nickel	ND		40.0	4.1	ug/L		4/20 20:00	16:57	
Potassium	ND		5000	42	ug/L		4/20 20:00	16:57	
Selenium	ND		.0	5.9	ug/L		4/20 20:00	16:57	
Silver	ND		.0	5.8	ug/L		4/20 20:00	16:57	
Sodium	**168**	**J**	5000	83.8	ug/L		4/20 20:00	16:57	
Thallium	ND		.0	4.1	ug/L		4/20 20:00	16:57	
Vanadium	ND		50.0	7.2	ug/L		4/20 20:00	16:57	
Zinc	**1.4**	**J**	30.0	.2	ug/L		4/20 20:00	16:57	

Method: 7470A - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.20	.091	ug/L		8/20 12:28	8/20 14:19	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H H3	.0	8.1	ug/L			3/20 16:30	

Client Sample ID: PC2-SOIL-102120

Lab Sample ID: 460-221262-3

Date Collected: 10/21/20 09:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.8

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.54**		.24	.033	ug/Kg	☼	12:18	5/20 15:53	
Perfluoropentanoic acid (PFPeA)	**0.22**	**J**	.24	.091	ug/Kg	☼	12:18	5/20 15:53	
Perfluorohexanoic acid (PFHxA)	**0.20**	**J**	.24	.050	ug/Kg	☼	12:18	5/20 15:53	
Perfluoroheptanoic acid (PFHpA)	**0.23**	**J**	.24	.034	ug/Kg	☼	12:18	5/20 15:53	
Perfluorooctanoic acid (PFOA)	**0.75**		.24	.10	ug/Kg	☼	12:18	5/20 15:53	
Perfluorononanoic acid (PFNA)	**0.25**		.24	.043	ug/Kg	☼	12:18	5/20 15:53	
Perfluorodecanoic acid (PFDA)	**0.15**	**J**	.24	.026	ug/Kg	☼	12:18	5/20 15:53	
Perfluoroundecanoic acid (PFUnA)	**0.11**	**J**	.24	.043	ug/Kg	☼	12:18	5/20 15:53	
Perfluorododecanoic acid (PFDoA)	ND		.24	.079	ug/Kg	☼	12:18	5/20 15:53	
Perfluorotridecanoic acid (PFTriA)	ND		.24	.060	ug/Kg	☼	12:18	5/20 15:53	
Perfluorotetradecanoic acid (PFTeA)	ND		.24	.064	ug/Kg	☼	12:18	5/20 15:53	
Perfluorobutanesulfonic acid (PFBS)	ND		.24	.030	ug/Kg	☼	12:18	5/20 15:53	
Perfluorohexanesulfonic acid (PFHxS)	**0.053**	**J**	.24	.037	ug/Kg	☼	12:18	5/20 15:53	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.041	ug/Kg	☼	12:18	5/20 15:53	

Client Sample ID: PC2-SOIL-102120

Lab Sample ID: 460-221262-3

Date Collected: 10/21/20 09:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.8

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1.3		.59	.24	ug/Kg	☼	12:18	5/20 15:53	
Perfluorodecanesulfonic acid (PFDS)	0.078	J	.24	.046	ug/Kg	☼	12:18	5/20 15:53	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.097	ug/Kg	☼	12:18	5/20 15:53	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.46	ug/Kg	☼	12:18	5/20 15:53	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.4	.44	ug/Kg	☼	12:18	5/20 15:53	
:2 FTS	ND		.4	.18	ug/Kg	☼	12:18	5/20 15:53	
8:2 FTS	ND		.4	.30	ug/Kg	☼	12:18	5/20 15:53	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*8*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C5 PFPeA	*63*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C2 PFHxA	*84*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C4 PFHpA	*84*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C4 PFOA	*89*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C5 PFNA	*86*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C2 PFDA	*84*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C2 PFUnA	*86*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C2 PFDoA	*87*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C2 PFTeDA	*1*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C3 PFBS	*73*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
18O2 PFHxS	*85*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C4 PFOS	*83*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
13C8 FOSA	*78*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
d3-NMeFOSAA	*70*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
NEtFOSAA	*80*		*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
M2-6:2 FTS	*159*	*5	*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*
M2-8:2 FTS	*186*	*5	*150*	*11/02/20 12:18*	*11/05/20 15:53*	*1*

General Chemistry

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		.1	.1	%			8/20 13:1	
Percent Solids	79.8		.1	.1	%			8/20 13:1	

Client Sample ID: S15-SOIL-102120

Lab Sample ID: 460-221262-4

Date Collected: 10/21/20 10:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 62.7

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.28	J	.30	.043	ug/Kg	☼	12:18	5/20 16:02	
Perfluoropentanoic acid (PFPeA)	0.19	J	.30	.12	ug/Kg	☼	12:18	5/20 16:02	
Perfluorohexanoic acid (PFHxA)	0.27	J	.30	.064	ug/Kg	☼	12:18	5/20 16:02	
Perfluoroheptanoic acid (PFHpA)	0.26	J	.30	.044	ug/Kg	☼	12:18	5/20 16:02	
Perfluorooctanoic acid (PFOA)	0.88		.30	.13	ug/Kg	☼	12:18	5/20 16:02	
Perfluorononanoic acid (PFNA)	0.37		.30	.055	ug/Kg	☼	12:18	5/20 16:02	
Perfluorodecanoic acid (PFDA)	0.35		.30	.033	ug/Kg	☼	12:18	5/20 16:02	
Perfluoroundecanoic acid (PFUnA)	0.27	J	.30	.055	ug/Kg	☼	12:18	5/20 16:02	

Client Sample ID: S15-SOIL-102120
Date Collected: 10/21/20 10:35
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-4
Matrix: Solid
Percent Solids: 62.7

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	**0.15**	**J**	.30	.10	ug/Kg	☼	12:18	5/20 16:02	
Perfluorotridecanoic acid (PFTriA)	**0.089**	**J**	.30	.077	ug/Kg	☼	12:18	5/20 16:02	
Perfluorotetradecanoic acid (PFTeA)	ND		.30	.082	ug/Kg	☼	12:18	5/20 16:02	
Perfluorobutanesulfonic acid (PFBS)	**0.046**	**J**	.30	.038	ug/Kg	☼	12:18	5/20 16:02	
Perfluorohexanesulfonic acid (PFHxS)	ND		.30	.047	ug/Kg	☼	12:18	5/20 16:02	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.30	.053	ug/Kg	☼	12:18	5/20 16:02	
Perfluorooctanesulfonic acid (PFOS)	**1.2**		.76	.30	ug/Kg	☼	12:18	5/20 16:02	
Perfluorodecanesulfonic acid (PFDS)	ND		.30	.059	ug/Kg	☼	12:18	5/20 16:02	
Perfluorooctanesulfonamide (FOSA)	ND		.30	.12	ug/Kg	☼	12:18	5/20 16:02	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		3.0	.59	ug/Kg	☼	12:18	5/20 16:02	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		3.0	.56	ug/Kg	☼	12:18	5/20 16:02	
:2 FTS	ND		3.0	.23	ug/Kg	☼	12:18	5/20 16:02	
8:2 FTS	ND		3.0	.38	ug/Kg	☼	12:18	5/20 16:02	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C5 PFPeA	*7*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C2 PFHxA	*72*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C4 PFHpA	*74*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C4 PFOA	*81*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C5 PFNA	*77*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C2 PFDA	*78*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C2 PFUnA	*83*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C2 PFDoA	*76*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C2 PFTeDA	*80*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C3 PFBS	*65*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
18O2 PFHxS	*71*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C4 PFOS	*71*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
13C8 FOSA	*75*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
d3-NMeFOSAA	*70*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
NEtFOSAA	*77*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
M2-6:2 FTS	*144*		*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*
M2-8:2 FTS	*178*	**5*	*150*	*11/02/20 12:18*	*11/05/20 16:02*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21300**		.9	8.8	mg/Kg	☼	8/20 02:35	8/20 18:58	
Antimony	ND		.2	.8	mg/Kg	☼	8/20 02:35	8/20 18:58	
Arsenic	**7.8**		4.6	.95	mg/Kg	☼	8/20 02:35	8/20 18:58	
Barium	**152**		.9	.0	mg/Kg	☼	8/20 02:35	8/20 18:58	
Beryllium	**0.93**		.62	.099	mg/Kg	☼	8/20 02:35	8/20 18:58	
Cadmium	**0.90**	**J**	.2	.1	mg/Kg	☼	8/20 02:35	8/20 18:58	
Calcium	**5940**		550	4	mg/Kg	☼	8/20 02:35	8/20 18:58	
Chromium	**26.5**		3.1	.2	mg/Kg	☼	8/20 02:35	8/20 18:58	
Cobalt	**16.1**		5.5	.86	mg/Kg	☼	8/20 02:35	8/20 18:58	
Copper	**34.3**		7.7	.9	mg/Kg	☼	8/20 02:35	8/20 18:58	

Client Sample ID: S15-SOIL-102120

Date Collected: 10/21/20 10:35
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-4

Matrix: Solid
Percent Solids: 62.7

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	37800		46.4	31.9	mg/Kg	☼	8/20 02:35	8/20 18:58	
Lea	35.8		3.1	.50	mg/Kg	☼	8/20 02:35	8/20 18:58	
Magnesium	6780		550	5	mg/Kg	☼	8/20 02:35	8/20 18:58	
Manganese	775		4.6	.35	mg/Kg	☼	8/20 02:35	8/20 18:58	
Nickel	34.1		.4	.81	mg/Kg	☼	8/20 02:35	8/20 18:58	
Potassium	3490		550	95.0	mg/Kg	☼	8/20 02:35	8/20 18:58	
Selenium	ND		.2	.1	mg/Kg	☼	8/20 02:35	8/20 18:58	
Silver	ND		3.1	.7	mg/Kg	☼	8/20 02:35	8/20 18:58	
Sodium	163	J	550	35	mg/Kg	☼	8/20 02:35	8/20 18:58	
Thallium	ND		.2	.96	mg/Kg	☼	8/20 02:35	8/20 18:58	
V nadium	38.0		5.5	.4	mg/Kg	☼	8/20 02:35	8/20 18:58	
Zinc	141		9.3	.7	mg/Kg	☼	8/20 02:35	8/20 18:58	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		.025	.0058	mg/Kg	☼	8/20 03:49	8/20 08:28	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		3.2	.56	mg/Kg	☼	9/20 09:04	30/20 1 :13	
Chromium, hexavalent	ND		3.2	.55	mg/Kg	☼	12:08	13:13	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	37.3		.0	.0	%			7/20 13:18	
Percent Solids	62.7		.0	.0	%			7/20 13:18	

Client Sample ID: S14-SOIL-102120

Date Collected: 10/21/20 10:50
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-5

Matrix: Solid
Percent Solids: 79.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.45		.25	.034	ug/Kg	☼	12:18	5/20 16:1	
Perfluoropentanoic acid (PFPeA)	0.24	J	.25	.094	ug/Kg	☼	12:18	5/20 16:1	
Perfluorohexanoic acid (PFHxA)	0.27		.25	.052	ug/Kg	☼	12:18	5/20 16:1	
Perfluoroheptanoic acid (PFHpA)	0.24	J	.25	.036	ug/Kg	☼	12:18	5/20 16:1	
Perfluorooctanoic acid (PFOA)	1.1		.25	.1	ug/Kg	☼	12:18	5/20 16:1	
Perfluorononanoic acid (PFNA)	0.35		.25	.044	ug/Kg	☼	12:18	5/20 16:1	
Perfluorodecanoic acid (PFDA)	0.27		.25	.027	ug/Kg	☼	12:18	5/20 16:1	
Perfluoroundecanoic acid (PFUnA)	0.20	J	.25	.044	ug/Kg	☼	12:18	5/20 16:1	
Perfluorododecanoic acid (PFDoA)	0.11	J	.25	.082	ug/Kg	☼	12:18	5/20 16:1	
Perfluorotridecanoic acid (PFTriA)	0.090	J	.25	.063	ug/Kg	☼	12:18	5/20 16:1	
Perfluorotetradecanoic acid (PFTeA)	ND		.25	.066	ug/Kg	☼	12:18	5/20 16:1	
Perfluorobutanesulfonic acid (PFBS)	0.044	J	.25	.031	ug/Kg	☼	12:18	5/20 16:1	
Perfluorohexanesulfonic acid (PFHxS)	1.5		.25	.038	ug/Kg	☼	12:18	5/20 16:1	
Perfluoroheptanesulfonic Acid (PFHpS)	0.047	J	.25	.043	ug/Kg	☼	12:18	5/20 16:1	
Perfluorooctanesulfonic acid (PFOS)	9.8		.61	.25	ug/Kg	☼	12:18	5/20 16:1	

Client Sample ID: S14-SOIL-102120
Date Collected: 10/21/20 10:50
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-5
Matrix: Solid
Percent Solids: 79.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		.25	.048	ug/Kg	☼	12:18	5/20 16:1	
Perfluorooctanesulfonamide (FOSA)	ND		.25	.10	ug/Kg	☼	12:18	5/20 16:1	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.5	.48	ug/Kg	☼	12:18	5/20 16:1	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.5	.45	ug/Kg	☼	12:18	5/20 16:1	
:2 FTS	ND		.5	.18	ug/Kg	☼	12:18	5/20 16:1	
8:2 FTS	ND		.5	.31	ug/Kg	☼	12:18	5/20 16:1	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C5 PFPeA	*8*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C2 PFHxA	*77*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C4 PFHpA	*76*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C4 PFOA	*80*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C5 PFNA	*78*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C2 PFDA	*75*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C2 PFUnA	*69*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C2 PFDoA	*64*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C2 PFTeDA	*60*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C3 PFBS	*61*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
18O2 PFHxS	*69*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C4 PFOS	*67*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
13C8 FOSA	*7*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
d3-NMeFOSAA	*6*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
NEtFOSAA			*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
M2-6:2 FTS	*129*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*
M2-8:2 FTS	*147*		*150*	*11/02/20 12:18*	*11/05/20 16:11*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16800**		47.1	.7	mg/Kg	☼	8/20 02:35	8/20 19:02	
Antimony	**1.7**	**J**	4.7	.4	mg/Kg	☼	8/20 02:35	8/20 19:02	
Arsenic	**8.1**		3.5	.72	mg/Kg	☼	8/20 02:35	8/20 19:02	
Barium	**126**		47.1	4.5	mg/Kg	☼	8/20 02:35	8/20 19:02	
Beryllium	**0.77**		.47	.075	mg/Kg	☼	8/20 02:35	8/20 19:02	
Cadmium	**0.88**	**J**	.94	.081	mg/Kg	☼	8/20 02:35	8/20 19:02	
Calcium	**8900**		80	87.1	mg/Kg	☼	8/20 02:35	8/20 19:02	
Chromium	**22.7**		.4	.7	mg/Kg	☼	8/20 02:35	8/20 19:02	
Cobalt	**13.1**		.8	.65	mg/Kg	☼	8/20 02:35	8/20 19:02	
Copper	**41.2**		5.9	.5	mg/Kg	☼	8/20 02:35	8/20 19:02	
Iron	**32400**		35.4	4.3	mg/Kg	☼	8/20 02:35	8/20 19:02	
Lea	**46.5**		.4	.38	mg/Kg	☼	8/20 02:35	8/20 19:02	
Magnesium	**5700**		80	79.8	mg/Kg	☼	8/20 02:35	8/20 19:02	
Manganese	**698**		3.5	.27	mg/Kg	☼	8/20 02:35	8/20 19:02	
Nickel	**26.8**		9.4	.62	mg/Kg	☼	8/20 02:35	8/20 19:02	
Potassium	**2410**		80	72.4	mg/Kg	☼	8/20 02:35	8/20 19:02	
Selenium	ND		4.7	.80	mg/Kg	☼	8/20 02:35	8/20 19:02	
Silver	ND		.4	.3	mg/Kg	☼	8/20 02:35	8/20 19:02	
Sodium	ND		80	3	mg/Kg	☼	8/20 02:35	8/20 19:02	
Thallium	ND		4.7	.73	mg/Kg	☼	8/20 02:35	8/20 19:02	

Client Sample ID: S14-SOIL-102120

Lab Sample ID: 460-221262-5
Date Collected: 10/21/20 10:50
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.3

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
V nadium	29.6		.8	.	mg Kg	☼	8/20 02:35	8/20 19:02	
Zinc	160		7.1	.3	mg/Kg	☼	8/20 02:35	8/20 19:02	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		.021	.0049	mg/Kg	☼	8/20 03:49	8/20 08:30	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.5	.44	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.5	.43	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.7		.0	.0	%			7/20 13:18	
Percent Solids	79.3		.0	.0	%			7/20 13:18	

Client Sample ID: S13-SOIL-102120

Lab Sample ID: 460-221262-6
Date Collected: 10/21/20 11:05
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 78.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.90		.24	.034	ug/Kg	☼	12:18	5/20 16:39	
Perfluoropentanoic acid (PFPeA)	1.6		.24	.093	ug/Kg	☼	12:18	5/20 16:39	
Perfluorohexanoic acid (PFHxA)	1.1		.24	.050	ug/Kg	☼	12:18	5/20 16:39	
Perfluoroheptanoic acid (PFHpA)	1.0		.24	.035	ug/Kg	☼	12:18	5/20 16:39	
Perfluorooctanoic acid (PFOA)	1.1		.24	.10	ug/Kg	☼	12:18	5/20 16:39	
Perfluorononanoic acid (PFNA)	1.2		.24	.043	ug/Kg	☼	12:18	5/20 16:39	
Perfluorodecanoic acid (PFDA)	2.1		.24	.026	ug/Kg	☼	12:18	5/20 16:39	
Perfluoroundecanoic acid (PFUnA)	0.86		.24	.043	ug/Kg	☼	12:18	5/20 16:39	
Perfluorododecanoic acid (PFDoA)	0.28		.24	.081	ug/Kg	☼	12:18	5/20 16:39	
Perfluorotridecanoic acid (PFTriA)	0.11	J	.24	.061	ug/Kg	☼	12:18	5/20 16:39	
Perfluorotetradecanoic acid (PFTeA)	0.066	J	.24	.065	ug/Kg	☼	12:18	5/20 16:39	
Perfluorobutanesulfonic acid (PFBS)	ND		.24	.030	ug/Kg	☼	12:18	5/20 16:39	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.037	ug/Kg	☼	12:18	5/20 16:39	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.042	ug/Kg	☼	12:18	5/20 16:39	
Perfluorooctanesulfonic acid (PFOS)	0.65		.60	.24	ug/Kg	☼	12:18	5/20 16:39	
Perfluorodecanesulfonic acid (PFDS)	ND		.24	.047	ug/Kg	☼	12:18	5/20 16:39	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.099	ug/Kg	☼	12:18	5/20 16:39	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	12:18	5/20 16:39	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.4	.44	ug/Kg	☼	12:18	5/20 16:39	
6:2 FTS	0.23	J	.4	.18	ug/Kg	☼	12:18	5/20 16:39	
8:2 FTS	0.70	J	.4	.30	ug/Kg	☼	12:18	5/20 16:39	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*150*	*11/02/20 12:18*	*11/05/20 16:39*	*1*
13C5 PFPeA	*62*		*150*	*11/02/20 12:18*	*11/05/20 16:39*	*1*

Client Sample ID: S13-SOIL-102120

Date Collected: 10/21/20 11:05
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-6

Matrix: Solid
Percent Solids: 78.5

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	86		150	11/02/20 12:18	11/05/20 16:39	1
13C4 PFHpA	84		150	11/02/20 12:18	11/05/20 16:39	1
13C4 PFOA	87		150	11/02/20 12:18	11/05/20 16:39	1
13C5 PFNA	84		150	11/02/20 12:18	11/05/20 16:39	1
13C2 PFDA	83		150	11/02/20 12:18	11/05/20 16:39	1
13C2 PFUnA	84		150	11/02/20 12:18	11/05/20 16:39	1
13C2 PFDoA	86		150	11/02/20 12:18	11/05/20 16:39	1
13C2 PFTeDA	86		150	11/02/20 12:18	11/05/20 16:39	1
13C3 PFBS	72		150	11/02/20 12:18	11/05/20 16:39	1
18O2 PFHxS	80		150	11/02/20 12:18	11/05/20 16:39	1
13C4 PFOS	84		150	11/02/20 12:18	11/05/20 16:39	1
13C8 FOSA	72		150	11/02/20 12:18	11/05/20 16:39	1
d3-NMeFOSAA	69		150	11/02/20 12:18	11/05/20 16:39	1
NEtFOSAA	70		150	11/02/20 12:18	11/05/20 16:39	1
M2-6:2 FTS	145		150	11/02/20 12:18	11/05/20 16:39	1
M2-8:2 FTS	172	*5	150	11/02/20 12:18	11/05/20 16:39	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13100		51.0	7.2	mg/Kg	☼	8/20 02:35	8/20 18:14	
Antimony	ND	F1	5.1	.5	mg/Kg	☼	8/20 02:35	8/20 18:14	
Arsenic	5.1		3.8	.78	mg/Kg	☼	8/20 02:35	8/20 18:14	
Barium	112		51.0	4.9	mg/Kg	☼	8/20 02:35	8/20 18:14	
Beryllium	0.56		.51	.082	mg/Kg	☼	8/20 02:35	8/20 18:14	
Cadmium	0.57	J	.0	.088	mg/Kg	☼	8/20 02:35	8/20 18:14	
Calcium	2160		70	94.2	mg/Kg	☼	8/20 02:35	8/20 18:14	
Chromium	16.9		.5	.8	mg/Kg	☼	8/20 02:35	8/20 18:14	
Cobalt	7.9	J	.7	.71	mg/Kg	☼	8/20 02:35	8/20 18:14	
Copper	22.2		.4	.6	mg/Kg	☼	8/20 02:35	8/20 18:14	
Iron	23300		38.2	.3	mg/Kg	☼	8/20 02:35	8/20 18:14	
Lea	20.1		.5	.41	mg/Kg	☼	8/20 02:35	8/20 18:14	
Magnesium	4330		70	86.3	mg/Kg	☼	8/20 02:35	8/20 18:14	
Manganese	893		3.8	.29	mg/Kg	☼	8/20 02:35	8/20 18:14	
Nickel	19.6		.2	.67	mg/Kg	☼	8/20 02:35	8/20 18:14	
Potassium	1170	J	70	78.3	mg/Kg	☼	8/20 02:35	8/20 18:14	
Selenium	ND		5.1	.87	mg/Kg	☼	8/20 02:35	8/20 18:14	
Silver	ND		.5	.4	mg/Kg	☼	8/20 02:35	8/20 18:14	
Sodium	512	J	70		mg/Kg	☼	8/20 02:35	8/20 18:14	
Thallium	ND		5.1	.79	mg/Kg	☼	8/20 02:35	8/20 18:14	
V nadium	22.2		.7	.2	mg/Kg	☼	8/20 02:35	8/20 18:14	
Zinc	112		7.6	.4	mg/Kg	☼	8/20 02:35	8/20 18:14	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		.021	.0050	mg/Kg	☼	8/20 03:49	8/20 08:20	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	F1	.5	.44	mg/Kg	☼	9/20 09:04	30/20 1 :13	
Chromium, hexavalent	ND	F1	.5	.44	mg/Kg	☼	12:08	13:13	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S13-SOIL-102120

Lab Sample ID: 460-221262-6

Date Collected: 10/21/20 11:05
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 78.5

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.5		.0	.0	%			7/20 13:18	
Percent Solids	78.5		.0	.0	%			7/20 13:18	

Client Sample ID: S16-SOIL-102120

Lab Sample ID: 460-221262-7

Date Collected: 10/21/20 11:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.45		.24	.034	ug/Kg	☼	12:18	5/20 17:07	
Perfluoropentanoic acid (PFPeA)	0.17	J	.24	.092	ug/Kg	☼	12:18	5/20 17:07	
Perfluorohexanoic acid (PFHxA)	0.19	J	.24	.050	ug/Kg	☼	12:18	5/20 17:07	
Perfluoroheptanoic acid (PFHpA)	0.19	J	.24	.035	ug/Kg	☼	12:18	5/20 17:07	
Perfluorooctanoic acid (PFOA)	0.52		.24	.10	ug/Kg	☼	12:18	5/20 17:07	
Perfluorononanoic acid (PFNA)	0.29		.24	.043	ug/Kg	☼	12:18	5/20 17:07	
Perfluorodecanoic acid (PFDA)	0.21	J	.24	.026	ug/Kg	☼	12:18	5/20 17:07	
Perfluoroundecanoic acid (PFUnA)	0.14	J	.24	.043	ug/Kg	☼	12:18	5/20 17:07	
Perfluorododecanoic acid (PFDoA)	0.089	J	.24	.080	ug/Kg	☼	12:18	5/20 17:07	
Perfluorotridecanoic acid (PFTriA)	ND		.24	.061	ug/Kg	☼	12:18	5/20 17:07	
Perfluorotetradecanoic acid (PFTeA)	ND		.24	.065	ug/Kg	☼	12:18	5/20 17:07	
Perfluorobutanesulfonic acid (PFBS)	0.11	J	.24	.030	ug/Kg	☼	12:18	5/20 17:07	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.037	ug/Kg	☼	12:18	5/20 17:07	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.042	ug/Kg	☼	12:18	5/20 17:07	
Perfluorooctanesulfonic acid (PFOS)	0.65		.60	.24	ug/Kg	☼	12:18	5/20 17:07	
Perfluorodecanesulfonic acid (PFDS)	ND		.24	.047	ug/Kg	☼	12:18	5/20 17:07	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.098	ug/Kg	☼	12:18	5/20 17:07	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	12:18	5/20 17:07	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.4	.44	ug/Kg	☼	12:18	5/20 17:07	
:2 FTS	ND		.4	.18	ug/Kg	☼	12:18	5/20 17:07	
8:2 FTS	ND		.4	.30	ug/Kg	☼	12:18	5/20 17:07	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*49*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C5 PFPeA	*3*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C2 PFHxA	*74*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C4 PFHpA	*75*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C4 PFOA	*81*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C5 PFNA	*78*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C2 PFDA	*75*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C2 PFUnA	*69*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C2 PFDoA	*61*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C2 PFTeDA	*61*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C3 PFBS			*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
18O2 PFHxS	*66*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C4 PFOS	*65*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*
13C8 FOSA	*8*		*150*	*11/02/20 12:18*	*11/05/20 17:07*	*1*

Client Sample ID: S16-SOIL-102120

Lab Sample ID: 460-221262-7
Date Collected: 10/21/20 11:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA			150	11/02/20 12:18	11/05/20 17:07	1
NEtFOSAA	60		150	11/02/20 12:18	11/05/20 17:07	1
M2-6:2 FTS	127		150	11/02/20 12:18	11/05/20 17:07	1
M2-8:2 FTS	150		150	11/02/20 12:18	11/05/20 17:07	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15900		47.7	.8	mg/Kg	☼	8/20 02:35	8/20 19:06	
Antimony	ND		4.8	.4	mg/Kg	☼	8/20 02:35	8/20 19:06	
Arsenic	6.4		3.6	.73	mg/Kg	☼	8/20 02:35	8/20 19:06	
Barium	106		47.7	4.6	mg/Kg	☼	8/20 02:35	8/20 19:06	
Beryllium	0.68		.48	.076	mg/Kg	☼	8/20 02:35	8/20 19:06	
Cadmium	0.52	J	.95	.082	mg/Kg	☼	8/20 02:35	8/20 19:06	
Calcium	4010		90	88.2	mg/Kg	☼	8/20 02:35	8/20 19:06	
Chromium	18.9		.4	.7	mg/Kg	☼	8/20 02:35	8/20 19:06	
Cobalt	12.7		.9	.66	mg/Kg	☼	8/20 02:35	8/20 19:06	
Copper	24.4		.0	.5	mg/Kg	☼	8/20 02:35	8/20 19:06	
Iron	28700		35.8	4.6	mg/Kg	☼	8/20 02:35	8/20 19:06	
Lea	17.8		.4	.39	mg/Kg	☼	8/20 02:35	8/20 19:06	
Magnesium	5120		90	80.8	mg/Kg	☼	8/20 02:35	8/20 19:06	
Manganese	619		3.6	.27	mg/Kg	☼	8/20 02:35	8/20 19:06	
Nickel	23.9		9.5	.63	mg/Kg	☼	8/20 02:35	8/20 19:06	
Potassium	2280		90	73.3	mg/Kg	☼	8/20 02:35	8/20 19:06	
Selenium	ND		4.8	.81	mg/Kg	☼	8/20 02:35	8/20 19:06	
Silver	ND		.4	.3	mg/Kg	☼	8/20 02:35	8/20 19:06	
Sodium	ND		90	4	mg/Kg	☼	8/20 02:35	8/20 19:06	
Thallium	ND		4.8	.74	mg/Kg	☼	8/20 02:35	8/20 19:06	
V nadium	28.1		.9	.1	mg/Kg	☼	8/20 02:35	8/20 19:06	
Zinc	79.2		7.2	.3	mg/Kg	☼	8/20 02:35	8/20 19:06	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	.020	.0048	mg/Kg	☼	8/20 03:49	8/20 08:32	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.6	.46	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.4		.0	.0	%			7/20 13:18	
Percent Solids	77.6		.0	.0	%			7/20 13:18	

Client Sample ID: S2-SOIL-102120

Lab Sample ID: 460-221262-8
Date Collected: 10/21/20 11:55
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 67.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.59		.29	.040	ug/Kg	☼	12:18	5/20 17:17	
Perfluoropentanoic acid (PFPeA)	0.37		.29	.1	ug/Kg	☼	12:18	5/20 17:17	

Client Sample ID: S2-SOIL-102120

Date Collected: 10/21/20 11:55
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-8

Matrix: Soli
Percent Solids: 67.2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	**0.32**		.29	.061	ug/Kg	☼	12:18	5/20 17:17	
Perfluoroheptanoic acid (PFHpA)	**0.30**		.29	.042	ug/Kg	☼	12:18	5/20 17:17	
Perfluorooctanoic acid (PFOA)	**0.95**		.29	.12	ug/Kg	☼	12:18	5/20 17:17	
Perfluorononanoic acid (PFNA)	**0.45**		.29	.052	ug/Kg	☼	12:18	5/20 17:17	
Perfluorodecanoic acid (PFDA)	**0.32**		.29	.032	ug/Kg	☼	12:18	5/20 17:17	
Perfluoroundecanoic acid (PFUnA)	**0.34**		.29	.052	ug/Kg	☼	12:18	5/20 17:17	
Perfluorododecanoic acid (PFDoA)	**0.14**	**J**	.29	.097	ug/Kg	☼	12:18	5/20 17:17	
Perfluorotridecanoic acid (PFTriA)	**0.11**	**J**	.29	.074	ug/Kg	☼	12:18	5/20 17:17	
Perfluorotetradecanoic acid (PFTeA)	**0.079**	**J**	.29	.078	ug/Kg	☼	12:18	5/20 17:17	
Perfluorobutanesulfonic acid (PFBS)	**0.25**	**J**	.29	.036	ug/Kg	☼	12:18	5/20 17:17	
Perfluorohexanesulfonic acid (PFHxS)	**0.049**	**J**	.29	.045	ug/Kg	☼	12:18	5/20 17:17	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.29	.050	ug/Kg	☼	12:18	5/20 17:17	
Perfluorooctanesulfonic acid (PFOS)	**1.4**		.72	.29	ug/Kg	☼	12:18	5/20 17:17	
Perfluorodecanesulfonic acid (PFDS)	ND		.29	.056	ug/Kg	☼	12:18	5/20 17:17	
Perfluorooctanesulfonamide (FOSA)	ND		.29	.12	ug/Kg	☼	12:18	5/20 17:17	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.9	.56	ug/Kg	☼	12:18	5/20 17:17	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.9	.53	ug/Kg	☼	12:18	5/20 17:17	
:2 FTS	ND		.9	.22	ug/Kg	☼	12:18	5/20 17:17	
8:2 FTS	ND		.9	.36	ug/Kg	☼		5/20 17:17	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*4*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C5 PFPeA	*60*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C2 PFHxA	*80*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C4 PFHpA	*82*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C4 PFOA	*85*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C5 PFNA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C2 PFDA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C2 PFUnA	*87*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C2 PFDoA	*78*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C2 PFTeDA	*66*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C3 PFBS	*70*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
18O2 PFHxS	*79*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C4 PFOS	*78*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
13C8 FOSA	*77*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
d3-NMeFOSAA	*74*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
NEtFOSAA	*81*		*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
M2-6:2 FTS	*153*	**5*	*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*
M2-8:2 FTS	*191*	**5*	*150*	*11/02/20 12:18*	*11/05/20 17:17*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18100**		56.1	7.9	mg/Kg	☼	8/20 02:35	8/20 19:10	
Antimony	ND		5.6	.6	mg/Kg	☼	8/20 02:35	8/20 19:10	

Client Sample ID: S2-SOIL-102120

Lab Sample ID: 460-221262-8
Date Collected: 10/21/20 11:55
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 67.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.6		4.2	.86	mg/Kg	☼	8/20 02:35	8/20 19:10	
Barium	146		56.1	5.4	mg/Kg	☼	8/20 02:35	8/20 19:10	
Beryllium	0.80		.56	.090	mg/Kg	☼	8/20 02:35	8/20 19:10	
Cadmium	0.86	J	.1	.097	mg/Kg	☼	8/20 02:35	8/20 19:10	
Calcium	8480		400	4	mg/Kg	☼	8/20 02:35	8/20 19:10	
Chromium	24.9		.8	.0	mg/Kg	☼	8/20 02:35	8/20 19:10	
Cobalt	14.4		4.0	.78	mg/Kg	☼	8/20 02:35	8/20 19:10	
Copper	37.8		7.0	.8	mg/Kg	☼	8/20 02:35	8/20 19:10	
Iron	34400		42.1	8.9	mg/Kg	☼	8/20 02:35	8/20 19:10	
Lea	43.2		.8	.45	mg/Kg	☼	8/20 02:35	8/20 19:10	
Magnesium	6740		400	95.0	mg/Kg	☼	8/20 02:35	8/20 19:10	
Manganese	642		4.2	.32	mg/Kg	☼	8/20 02:35	8/20 19:10	
Nickel	32.4		.2	.74	mg/Kg	☼	8/20 02:35	8/20 19:10	
Potassium	3280		400	86.2	mg/Kg	☼	8/20 02:35	8/20 19:10	
Selenium	ND		5.6	.95	mg/Kg	☼	8/20 02:35	8/20 19:10	
Silver	ND		.8	.6	mg/Kg	☼	8/20 02:35	8/20 19:10	
Sodium	144	J	400		mg/Kg	☼	8/20 02:35	8/20 19:10	
Thallium	ND		5.6	.87	mg/Kg	☼	8/20 02:35	8/20 19:10	
V nadium	36.2		4.0	.3	mg/Kg	☼	8/20 02:35	8/20 19:10	
Zinc	132		8.4	.5	mg/Kg	☼	8/20 02:35	8/20 19:10	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.074		.025	.0059	mg/Kg	☼	8/20 03:49	8/20 08:34	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		3.0	.52	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		3.0	.52	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32.8		.0	.0	%			7/20 13:18	
Percent Solids	67.2		.0	.0	%			7/20 13:18	

Client Sample ID: DUP1-SOIL-102120

Lab Sample ID: 460-221262-9
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 68.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55		.28	.039	ug/Kg	☼	30/20 04:16	15:04	
Perfluoropentanoic acid (PFPeA)	0.29		.28	.1	ug/Kg	☼	30/20 04:16	15:04	
Perfluorohexanoic acid (PFHxA)	0.27	J	.28	.059	ug/Kg	☼	30/20 04:16	15:04	
Perfluoroheptanoic acid (PFHpA)	0.29		.28	.041	ug/Kg	☼	30/20 04:16	15:04	
Perfluorooctanoic acid (PFOA)	1.1		.28	.12	ug/Kg	☼	30/20 04:16	15:04	
Perfluorononanoic acid (PFNA)	0.43		.28	.050	ug/Kg	☼	30/20 04:16	15:04	
Perfluorodecanoic acid (PFDA)	0.24	J	.28	.031	ug/Kg	☼	30/20 04:16	15:04	
Perfluoroundecanoic acid (PFUnA)	0.25	J F1	.28	.050	ug/Kg	☼	30/20 04:16	15:04	
Perfluorododecanoic acid (PFDoA)	0.11	J	.28	.094	ug/Kg	☼	30/20 04:16	15:04	
Perfluorotridecanoic acid (PFTriA)	0.087	J	.28	.071	ug/Kg	☼	30/20 04:16	15:04	

Client Sample ID: DUP1-SOIL-102120

Date Collected: 10/21/20 00:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-9

Matrix: Solid
Percent Solids: 68.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	ND		.28	.076	ug/Kg	☼	30/20 04:16	15:04	
Perfluorobutanesulfonic acid (PFBS)	**0.26**	**J**	.28	.035	ug/Kg	☼	30/20 04:16	15:04	
Perfluorohexanesulfonic acid (PFHxS)	**0.052**	**J**	.28	.043	ug/Kg	☼	30/20 04:16	15:04	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.28	.049	ug/Kg	☼	30/20 04:16	15:04	
Perfluorooctanesulfonic acid (PFOS)	**1.5**		.70	.28	ug/Kg	☼	30/20 04:16	15:04	
Perfluorodecanesulfonic acid (PFDS)	ND		.28	.055	ug/Kg	☼	30/20 04:16	15:04	
Perfluorooctanesulfonamide (FOSA)	ND		.28	.1	ug/Kg	☼	30/20 04:16	15:04	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.8	.55	ug/Kg	☼	30/20 04:16	15:04	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.8	.52	ug/Kg	☼	30/20 04:16	15:04	
:2 FTS	ND		.8	.21	ug/Kg	☼	30/20 04:16	15:04	
8:2 FTS	ND		.8	.35	ug/Kg	☼	30/20 04:16	15:04	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C5 PFPeA	*68*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C2 PFHxA	*80*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C4 PFHpA	*81*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C4 PFOA	*80*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C5 PFNA	*78*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C2 PFDA	*80*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C2 PFUnA	*0*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C2 PFDoA	*80*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C2 PFTeDA	*65*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C3 PFBS	*76*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
18O2 PFHxS	*80*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C4 PFOS	*74*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
13C8 FOSA	*78*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
d3-NMeFOSAA	*86*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
NEtFOSAA	*0*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
M2-6:2 FTS	*123*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*
M2-8:2 FTS	*111*		*150*	*10/30/20 04:16*	*11/02/20 15:04*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17400**		55.5	7.9	mg/Kg	☼	8/20 02:35	8/20 19:14	
Antimony	**1.7**	**J**	5.6	.6	mg/Kg	☼	8/20 02:35	8/20 19:14	
Arsenic	**10.1**		4.2	.85	mg/Kg	☼	8/20 02:35	8/20 19:14	
Barium	**141**		55.5	5.4	mg/Kg	☼	8/20 02:35	8/20 19:14	
Beryllium	**0.80**		.56	.089	mg/Kg	☼	8/20 02:35	8/20 19:14	
Cadmium	**0.84**	**J**	.1	.096	mg/Kg	☼	8/20 02:35	8/20 19:14	
Calcium	**6890**		390	3	mg/Kg	☼	8/20 02:35	8/20 19:14	
Chromium	**24.8**		.8	.0	mg/Kg	☼	8/20 02:35	8/20 19:14	
Cobalt	**14.3**		3.9	.77	mg/Kg	☼	8/20 02:35	8/20 19:14	
Copper	**37.8**		.9	.7	mg/Kg	☼	8/20 02:35	8/20 19:14	
Iron	**33300**		41.6	8.6	mg/Kg	☼	8/20 02:35	8/20 19:14	
Lea	**45.7**		.8	.45	mg/Kg	☼	8/20 02:35	8/20 19:14	

Client Sample ID: DUP1-SOIL-102120

Lab Sample ID: 460-221262-9
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 68.6

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	6320		390	93.9	mg/Kg	☼	8/20 02:35	8/20 19:14	
Manganese	647		4.2	.31	mg/Kg	☼	8/20 02:35	8/20 19:14	
Nickel	32.1		.1	.73	mg/Kg	☼	8/20 02:35	8/20 19:14	
Potassium	3270		390	85.2	mg/Kg	☼	8/20 02:35	8/20 19:14	
Selenium	ND		5.6	.94	mg/Kg	☼	8/20 02:35	8/20 19:14	
Silver	ND		.8	.6	mg/Kg	☼	8/20 02:35	8/20 19:14	
Sodium	139	J	390		mg/Kg	☼	8/20 02:35	8/20 19:14	
Thallium	ND		5.6	.86	mg/Kg	☼	8/20 02:35	8/20 19:14	
V nadium	35.9		3.9	.3	mg/Kg	☼	8/20 02:35	8/20 19:14	
Zinc	134		8.3	.5	mg/Kg	☼	8/20 02:35	8/20 19:14	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		.024	.0056	mg/Kg	☼	8/20 03:49	8/20 08:40	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.9	.51	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.9	.50	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	31.4		.0	.0	%			7/20 13:18	
Percent Solids	68.6		.0	.0	%			7/20 13:18	

Client Sample ID: S3-SOIL-102120

Lab Sample ID: 460-221262-10
Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 91.0

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.10	J	.20	.028	ug/Kg	☼	12:18	5/20 17:26	
Perfluoropentanoic acid (PFPeA)	0.079	J	.20	.077	ug/Kg	☼	12:18	5/20 17:26	
Perfluorohexanoic acid (PFHxA)	0.080	J	.20	.042	ug/Kg	☼	12:18	5/20 17:26	
Perfluoroheptanoic acid (PFHpA)	0.063	J	.20	.029	ug/Kg	☼	12:18	5/20 17:26	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg	☼	12:18	5/20 17:26	
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg	☼	12:18	5/20 17:26	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg	☼	12:18	5/20 17:26	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg	☼	12:18	5/20 17:26	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg	☼	12:18	5/20 17:26	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg	☼	12:18	5/20 17:26	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg	☼	12:18	5/20 17:26	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg	☼	12:18	5/20 17:26	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg	☼	12:18	5/20 17:26	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg	☼	12:18	5/20 17:26	
Perfluorooctanesulfonic acid (PFOS)	ND		.50	.20	ug/Kg	☼	12:18	5/20 17:26	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg	☼	12:18	5/20 17:26	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg	☼	12:18	5/20 17:26	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg	☼	12:18	5/20 17:26	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg	☼	12:18	5/20 17:26	

Client Sample ID: S3-SOIL-102120
Date Collected: 10/21/20 17:15
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-10
Matrix: Solid
Percent Solids: 91.0

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
:2 FTS	ND		.0	.15	ug/Kg	☼	12:18	5/20 17:26	
8:2 FTS	ND		.0	.25	ug/Kg	☼	12:18	5/20 17:26	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*66*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C5 PFPeA	*68*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C2 PFHxA	*81*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C4 PFHpA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C4 PFOA	*87*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C5 PFNA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C2 PFDA	*88*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C2 PFUnA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C2 PFDoA	*87*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C2 PFTeDA			*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C3 PFBS	*64*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
18O2 PFHxS	*69*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C4 PFOS	*70*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
13C8 FOSA	*82*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
d3-NMeFOSAA	*84*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
NEtFOSAA	*69*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
M2-6:2 FTS	*101*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*
M2-8:2 FTS	*128*		*150*	*11/02/20 12:18*	*11/05/20 17:26*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15400**		42.3	.0	mg/Kg	☼	8/20 02:35	8/20 19:18	
Antimony	**1.3**	**J**	4.2	.2	mg/Kg	☼	8/20 02:35	8/20 19:18	
Arsenic	**8.4**		3.2	.65	mg/Kg	☼	8/20 02:35	8/20 19:18	
Barium	**150**		42.3	4.1	mg/Kg	☼	8/20 02:35	8/20 19:18	
Beryllium	**0.71**		.42	.068	mg/Kg	☼	8/20 02:35	8/20 19:18	
Cadmium	**0.66**	**J**	.85	.073	mg/Kg	☼	8/20 02:35	8/20 19:18	
Calcium	**6760**			78.1	mg/Kg	☼	8/20 02:35	8/20 19:18	
Chromium	**23.1**		.1	.5	mg/Kg	☼	8/20 02:35	8/20 19:18	
Cobalt	**15.9**		.6	.59	mg/Kg	☼	8/20 02:35	8/20 19:18	
Copper	**44.3**		5.3	.3	mg/Kg	☼	8/20 02:35	8/20 19:18	
Iron	**34200**		31.7	.8	mg/Kg	☼	8/20 02:35	8/20 19:18	
Lea	**25.1**		.1	.34	mg/Kg	☼	8/20 02:35	8/20 19:18	
Magnesium	**8480**			71.5	mg/Kg	☼	8/20 02:35	8/20 19:18	
Manganese	**923**		3.2	.24	mg/Kg	☼	8/20 02:35	8/20 19:18	
Nickel	**33.8**		8.5	.56	mg/Kg	☼	8/20 02:35	8/20 19:18	
Potassium	**1660**			4.9	mg/Kg	☼	8/20 02:35	8/20 19:18	
Selenium	ND		4.2	.72	mg/Kg	☼	8/20 02:35	8/20 19:18	
Silver	ND		.1	.2	mg/Kg	☼	8/20 02:35	8/20 19:18	
Sodium	ND			91.9	mg/Kg	☼	8/20 02:35	8/20 19:18	
Thallium	ND		4.2	.66	mg/Kg	☼	8/20 02:35	8/20 19:18	
V nadium	**25.9**		.6	.98	mg/Kg	☼	8/20 02:35	8/20 19:18	
Zinc	**85.3**		.3	.2	mg/Kg	☼	8/20 02:35	8/20 19:18	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**		.017	.0041	mg/Kg	☼	8/20 03:49	8/20 08:42	

Client Sample ID: S3-SOIL-102120

Lab Sample ID: 460-221262-10

Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 91.0

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.2	.39	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.2	.38	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**9.0**		.0	.0	%			7/20 13:18	
Percent Solids	**91.0**		.0	.0	%			7/20 13:18	

Client Sample ID: S4-SOIL-102120

Lab Sample ID: 460-221262-11

Date Collected: 10/21/20 17:49
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 76.4

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.50**		.24	.034	ug/Kg	☼	12:18	5/20 17:35	
Perfluoropentanoic acid (PFPeA)	**0.20**	**J**	.24	.094	ug/Kg	☼	12:18	5/20 17:35	
Perfluorohexanoic acid (PFHxA)	**0.20**	**J**	.24	.051	ug/Kg	☼	12:18	5/20 17:35	
Perfluoroheptanoic acid (PFHpA)	**0.17**	**J**	.24	.035	ug/Kg	☼	12:18	5/20 17:35	
Perfluorooctanoic acid (PFOA)	**0.38**		.24	.10	ug/Kg	☼	12:18	5/20 17:35	
Perfluorononanoic acid (PFNA)	**0.17**	**J**	.24	.044	ug/Kg	☼	12:18	5/20 17:35	
Perfluorodecanoic acid (PFDA)	**0.089**	**J**	.24	.027	ug/Kg	☼	12:18	5/20 17:35	
Perfluoroundecanoic acid (PFUnA)	**0.078**	**J**	.24	.044	ug/Kg	☼	12:18	5/20 17:35	
Perfluorododecanoic acid (PFDoA)	ND		.24	.081	ug/Kg	☼	12:18	5/20 17:35	
Perfluorotridecanoic acid (PFTriA)	ND		.24	.062	ug/Kg	☼	12:18	5/20 17:35	
Perfluorotetradecanoic acid (PFTeA)	ND		.24	.066	ug/Kg	☼	12:18	5/20 17:35	
Perfluorobutanesulfonic acid (PFBS)	**0.050**	**J**	.24	.030	ug/Kg	☼	12:18	5/20 17:35	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.038	ug/Kg	☼	12:18	5/20 17:35	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.043	ug/Kg	☼	12:18	5/20 17:35	
Perfluorooctanesulfonic acid (PFOS)	**0.26**	**J**	.61	.24	ug/Kg	☼	12:18	5/20 17:35	
Perfluorodecanesulfonic acid (PFDS)	ND		.24	.047	ug/Kg	☼	12:18	5/20 17:35	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.10	ug/Kg	☼	12:18	5/20 17:35	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	12:18	5/20 17:35	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.4	.45	ug/Kg	☼	12:18	5/20 17:35	
:2 FTS	ND		.4	.18	ug/Kg	☼	12:18	5/20 17:35	
8:2 FTS	ND		.4	.30	ug/Kg	☼	12:18	5/20 17:35	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA			*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C5 PFPeA	*60*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C2 PFHxA	*73*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C4 PFHpA	*76*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C4 PFOA	*74*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C5 PFNA	*76*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C2 PFDA	*78*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C2 PFUnA	*76*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C2 PFDoA	*79*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C2 PFTeDA	*82*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*
13C3 PFBS	*61*		*150*	*11/02/20 12:18*	*11/05/20 17:35*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S4-SOIL-102120
Date Collected: 10/21/20 17:49
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-11
Matrix: Solid
Percent Solids: 76.4

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	64		150	11/02/20 12:18	11/05/20 17:35	1
13C4 PFOS	66		150	11/02/20 12:18	11/05/20 17:35	1
13C8 FOSA	75		150	11/02/20 12:18	11/05/20 17:35	1
d3-NMeFOSAA	70		150	11/02/20 12:18	11/05/20 17:35	1
NEtFOSAA	71		150	11/02/20 12:18	11/05/20 17:35	1
M2-6:2 FTS	102		150	11/02/20 12:18	11/05/20 17:35	1
M2-8:2 FTS	130		150	11/02/20 12:18	11/05/20 17:35	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20400		50.8	7.2	mg/Kg	☼	8/20 02:35	8/20 19:30	
Antimony	ND		5.1	.5	mg/Kg	☼	8/20 02:35	8/20 19:30	
Arsenic	6.9		3.8	.78	mg/Kg	☼	8/20 02:35	8/20 19:30	
Barium	125		50.8	4.9	mg/Kg	☼	8/20 02:35	8/20 19:30	
Beryllium	0.87		.51	.081	mg/Kg	☼	8/20 02:35	8/20 19:30	
Cadmium	0.66	J	.0	.088	mg/Kg	☼	8/20 02:35	8/20 19:30	
Calcium	3510		70	93.9	mg/Kg	☼	8/20 02:35	8/20 19:30	
Chromium	22.4		.5	.8	mg/Kg	☼	8/20 02:35	8/20 19:30	
Cobalt	15.5		.7	.70	mg/Kg	☼	8/20 02:35	8/20 19:30	
Copper	24.8		.4	.6	mg/Kg	☼	8/20 02:35	8/20 19:30	
Iron	34400		38.1	.2	mg/Kg	☼	8/20 02:35	8/20 19:30	
Lea	15.1		.5	.41	mg/Kg	☼	8/20 02:35	8/20 19:30	
Magnesium	5870		70	86.0	mg/Kg	☼	8/20 02:35	8/20 19:30	
Manganese	596		3.8	.29	mg/Kg	☼	8/20 02:35	8/20 19:30	
Nickel	28.1		.2	.67	mg/Kg	☼	8/20 02:35	8/20 19:30	
Potassium	2900		70	78.0	mg/Kg	☼	8/20 02:35	8/20 19:30	
Selenium	ND		5.1	.86	mg/Kg	☼	8/20 02:35	8/20 19:30	
Silver	ND		.5	.4	mg/Kg	☼	8/20 02:35	8/20 19:30	
Sodium	125	J	70		mg/Kg	☼	8/20 02:35	8/20 19:30	
Thallium	ND		5.1	.79	mg/Kg	☼	8/20 02:35	8/20 19:30	
V nadium	33.7		.7	.2	mg/Kg	☼	8/20 02:35	8/20 19:30	
Zinc	78.5		7.6	.4	mg/Kg	☼	8/20 02:35	8/20 19:30	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		.022	.0051	mg/Kg	☼	8/20 03:49	8/20 08:44	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.6	.46	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.6	.46	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.6		.0	.0	%			7/20 13:18	
Percent Solids	76.4		.0	.0	%			7/20 13:18	

Client Sample ID: S11-SOIL-102120
Date Collected: 10/21/20 17:37
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-12
Matrix: Solid
Percent Solids: 72.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.27**		.27	.038	ug/Kg	☼	8/20 06:59	23:50	
Perfluoropentanoic acid (PFPeA)	**0.10**	**J**	.27	.10	ug/Kg	☼	8/20 06:59	23:50	
Perfluorohexanoic acid (PFHxA)	**0.13**	**J**	.27	.056	ug/Kg	☼	8/20 06:59	23:50	
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	.27	.039	ug/Kg	☼	8/20 06:59	23:50	
Perfluorooctanoic acid (PFOA)	**0.58**		.27	.12	ug/Kg	☼	8/20 06:59	23:50	
Perfluorononanoic acid (PFNA)	**0.41**		.27	.048	ug/Kg	☼	8/20 06:59	23:50	
Perfluorodecanoic acid (PFDA)	**0.21**	**J**	.27	.030	ug/Kg	☼	8/20 06:59	23:50	
Perfluoroundecanoic acid (PFUnA)	**0.30**	**F1**	.27	.048	ug/Kg	☼	8/20 06:59	23:50	
Perfluorododecanoic acid (PFDoA)	ND		.27	.090	ug/Kg	☼	8/20 06:59	23:50	
Perfluorotridecanoic acid (PFTriA)	ND		.27	.068	ug/Kg	☼	8/20 06:59	23:50	
Perfluorotetradecanoic acid (PFTeA)	ND		.27	.072	ug/Kg	☼	8/20 06:59	23:50	
Perfluorobutanesulfonic acid (PFBS)	ND		.27	.034	ug/Kg	☼	8/20 06:59	23:50	
Perfluorohexanesulfonic acid (PFHxS)	ND		.27	.042	ug/Kg	☼	8/20 06:59	23:50	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.27	.047	ug/Kg	☼	8/20 06:59	23:50	
Perfluorooctanesulfonic acid (PFOS)	**0.78**	**B**	.67	.27	ug/Kg	☼	8/20 06:59	23:50	
Perfluorodecanesulfonic acid (PFDS)	ND		.27	.052	ug/Kg	☼	8/20 06:59	23:50	
Perfluorooctanesulfonamide (FOSA)	ND		.27	.1	ug/Kg	☼	8/20 06:59	23:50	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	.52	ug/Kg	☼	8/20 06:59	23:50	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	.50	ug/Kg	☼	8/20 06:59	23:50	
:2 FTS	ND		.7	.20	ug/Kg	☼	8/20 06:59	23:50	
8:2 FTS	ND		.7	.34	ug/Kg	☼	8/20 06:59	23:50	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*8*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C5 PFPeA	*0*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C2 PFHxA	*60*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C4 PFHpA			*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C4 PFOA			*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C5 PFNA			*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C2 PFDA	*8*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C2 PFUnA	*6*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C2 PFDoA	*60*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C2 PFTeDA	*46*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C3 PFBS	*8*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
18O2 PFHxS			*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C4 PFOS	*0*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
13C8 FOSA	*45*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
d3-NMeFOSAA	*68*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
NEtFOSAA	*67*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
M2-6:2 FTS	*67*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*
M2-8:2 FTS	*63*		*150*	*10/28/20 06:59*	*11/01/20 23:50*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17400**		51.1	7.2	mg/Kg	☼	8/20 02:35	8/20 19:34	
Antimony	ND		5.1	.5	mg/Kg	☼	8/20 02:35	8/20 19:34	
Arsenic	**6.2**		3.8	.79	mg/Kg	☼	8/20 02:35	8/20 19:34	

Client Sample ID: S11-SOIL-102120

Lab Sample ID: 460-221262-12

Date Collected: 10/21/20 17:37
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 72.5

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	110		51.1	4.9	mg/Kg	☼	8/20 02:35	8/20 19:34	
Beryllium	0.71		.51	.082	mg/Kg	☼	8/20 02:35	8/20 19:34	
Cadmium	0.63	J	.0	.088	mg/Kg	☼	8/20 02:35	8/20 19:34	
Calcium	12500		80	94.4	mg/Kg	☼	8/20 02:35	8/20 19:34	
Chromium	21.5		.6	.8	mg/Kg	☼	8/20 02:35	8/20 19:34	
Cobalt	14.1		.8	.71	mg/Kg	☼	8/20 02:35	8/20 19:34	
Copper	22.9		.4	.6	mg/Kg	☼	8/20 02:35	8/20 19:34	
Iron	32400		38.3	.3	mg/Kg	☼	8/20 02:35	8/20 19:34	
Lea	14.1		.6	.41	mg/Kg	☼	8/20 02:35	8/20 19:34	
Magnesium	9160		80	86.4	mg/Kg	☼	8/20 02:35	8/20 19:34	
Manganese	683		3.8	.29	mg/Kg	☼	8/20 02:35	8/20 19:34	
Nickel	28.7		.2	.67	mg/Kg	☼	8/20 02:35	8/20 19:34	
Potassium	3210		80	78.4	mg/Kg	☼	8/20 02:35	8/20 19:34	
Selenium	ND		5.1	.87	mg/Kg	☼	8/20 02:35	8/20 19:34	
Silver	ND		.6	.4	mg/Kg	☼	8/20 02:35	8/20 19:34	
Sodium	211	J	80		mg/Kg	☼	8/20 02:35	8/20 19:34	
Thallium	ND		5.1	.79	mg/Kg	☼	8/20 02:35	8/20 19:34	
V nadium	30.3		.8	.2	mg/Kg	☼	8/20 02:35	8/20 19:34	
Zinc	76.8		7.7	.4	mg/Kg	☼	8/20 02:35	8/20 19:34	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	.023	.0054	mg/Kg	☼	8/20 03:49	8/20 08:46	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.8	.48	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.7	.48	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27.5		.0	.0	%			7/20 13:18	
Percent Solids	72.5		.0	.0	%			7/20 13:18	

Client Sample ID: S12-SOIL-102120

Lab Sample ID: 460-221262-13

Date Collected: 10/21/20 14:55
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 81.3

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.089	J	.24	.034	ug/Kg	☼	8/20 06:59	00:18	
Perfluoropentanoic acid (PFPeA)	ND		.24	.094	ug/Kg	☼	8/20 06:59	00:18	
Perfluorohexanoic acid (PFHxA)	0.061	J I	.24	.051	ug/Kg	☼	8/20 06:59	00:18	
Perfluoroheptanoic acid (PFHpA)	0.065	J	.24	.035	ug/Kg	☼	8/20 06:59	00:18	
Perfluorooctanoic acid (PFOA)	0.29		.24	.10	ug/Kg	☼	8/20 06:59	00:18	
Perfluorononanoic acid (PFNA)	0.17	J	.24	.044	ug/Kg	☼	8/20 06:59	00:18	
Perfluorodecanoic acid (PFDA)	0.073	J	.24	.027	ug/Kg	☼	8/20 06:59	00:18	
Perfluoroundecanoic acid (PFUnA)	0.13	J	.24	.044	ug/Kg	☼	8/20 06:59	00:18	
Perfluorododecanoic acid (PFDoA)	ND		.24	.082	ug/Kg	☼	8/20 06:59	00:18	
Perfluorotridecanoic acid (PFTriA)	ND		.24	.062	ug/Kg	☼	8/20 06:59	00:18	
Perfluorotetradecanoic acid (PFTeA)	ND		.24	.066	ug/Kg	☼	8/20 06:59	00:18	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S12-SOIL-102120
Date Collected: 10/21/20 14:55
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-13
Matrix: Solid
Percent Solids: 81.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		.24	.030	ug/Kg	☼	8/20 06:59	00:18	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.038	ug/Kg	☼	8/20 06:59	00:18	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.043	ug/Kg	☼	8/20 06:59	00:18	
Perfluorooctanesulfonic acid (PFOS)	**0.45**	**J B**	.61	.24	ug/Kg	☼	8/20 06:59	00:18	
Perfluorodecanesulfonic acid (PFDS)	ND		.24	.047	ug/Kg	☼	8/20 06:59	00:18	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.10	ug/Kg	☼	8/20 06:59	00:18	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	8/20 06:59	00:18	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.4	.45	ug/Kg	☼	8/20 06:59	00:18	
:2 FTS	ND		.4	.18	ug/Kg	☼	8/20 06:59	00:18	
8:2 FTS	ND		.4	.30	ug/Kg	☼	8/20 06:59	00:18	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C5 PFPeA			*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C2 PFHxA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C4 PFHpA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C4 PFOA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C5 PFNA	*60*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C2 PFDA	*62*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C2 PFUnA	*8*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C2 PFDoA	*4*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C2 PFTeDA	*46*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C3 PFBS	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
18O2 PFHxS	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C4 PFOS	*6*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
13C8 FOSA	*49*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
d3-NMeFOSAA	*66*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
NEtFOSAA	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
M2-6:2 FTS	*73*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*
M2-8:2 FTS	*71*		*150*	*10/28/20 06:59*	*11/02/20 00:18*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**11500**		37.0	5.2	mg/Kg	☼	9/20 15:00	30/20 12:34	
Antimony	ND		3.7	.1	mg/Kg	☼	9/20 15:00	30/20 12:34	
Arsenic	**6.2**		.8	.57	mg/Kg	☼	9/20 15:00	30/20 12:34	
Barium	**63.9**		37.0	3.6	mg/Kg	☼	9/20 15:00	30/20 12:34	
Beryllium	**0.58**		.37	.059	mg/Kg	☼	9/20 15:00	30/20 12:34	
Cadmium	ND		.74	.064	mg/Kg	☼	9/20 15:00	30/20 12:34	
Calcium	**2280**		925	8.3	mg/Kg	☼	9/20 15:00	30/20 12:34	
Chromium	**14.0**		.8	.3	mg/Kg	☼	9/20 15:00	30/20 12:34	
Cobalt	**8.1**	**J**	9.2	.51	mg/Kg	☼	9/20 15:00	30/20 12:34	
Copper	**15.7**		4.6	.2	mg/Kg	☼	9/20 15:00	30/20 12:34	
Iron	**23300**		7.7	9.1	mg/Kg	☼	9/20 15:00	30/20 12:34	
Lea	**12.4**		.8	.30	mg/Kg	☼	9/20 15:00	30/20 12:34	
Magnesium	**3100**		925	.6	mg/Kg	☼	9/20 15:00	30/20 12:34	
Manganese	**500**		.8	.21	mg/Kg	☼	9/20 15:00	30/20 12:34	

Client Sample ID: S12-SOIL-102120

Lab Sample ID: 460-221262-13
Date Collected: 10/21/20 14:55
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 81.3

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	15.4		7.4	.49	mg/Kg	☼	9/20 15:00	30/20 12:34	
Potassium	1040		925	56.8	mg/Kg	☼	9/20 15:00	30/20 12:34	
Selenium	ND		3.7	.63	mg/Kg	☼	9/20 15:00	30/20 12:34	
Silver	ND		.8	.0	mg/Kg	☼	9/20 15:00	30/20 12:34	
Sodium	ND		925	80.5	mg/Kg	☼	9/20 15:00	30/20 12:34	
Thallium	0.86	J	3.7	.57	mg/Kg	☼	9/20 15:00	30/20 12:34	
V nadium	22.5		9.2	.86	mg/Kg	☼	9/20 15:00	30/20 12:34	
Zinc	47.5		5.5	.0	mg/Kg	☼	9/20 15:00	30/20 12:34	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		.020	.0046	mg/Kg	☼	8/20 02:58	8/20 07:05	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.5	.43	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.5	.43	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.7		.0	.0	%			7/20 13:18	
Percent Solids	81.3		.0	.0	%			7/20 13:18	

Client Sample ID: DUP2-SOIL-102120

Lab Sample ID: 460-221262-14
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.38		.25	.035	ug/Kg	☼	8/20 06:59	00:28	
Perfluoropentanoic acid (PFPeA)	0.16	J	.25	.096	ug/Kg	☼	8/20 06:59	00:28	
Perfluorohexanoic acid (PFHxA)	0.15	J	.25	.052	ug/Kg	☼	8/20 06:59	00:28	
Perfluoroheptanoic acid (PFHpA)	0.16	J	.25	.036	ug/Kg	☼	8/20 06:59	00:28	
Perfluorooctanoic acid (PFOA)	0.36		.25	.1	ug/Kg	☼	8/20 06:59	00:28	
Perfluorononanoic acid (PFNA)	0.17	J	.25	.045	ug/Kg	☼	8/20 06:59	00:28	
Perfluorodecanoic acid (PFDA)	0.066	J	.25	.027	ug/Kg	☼	8/20 06:59	00:28	
Perfluoroundecanoic acid (PFUnA)	0.099	J	.25	.045	ug/Kg	☼	8/20 06:59	00:28	
Perfluorododecanoic acid (PFDoA)	ND		.25	.084	ug/Kg	☼	8/20 06:59	00:28	
Perfluorotridecanoic acid (PFTriA)	ND		.25	.064	ug/Kg	☼	8/20 06:59	00:28	
Perfluorotetradecanoic acid (PFTeA)	ND		.25	.067	ug/Kg	☼	8/20 06:59	00:28	
Perfluorobutanesulfonic acid (PFBS)	0.033	J	.25	.031	ug/Kg	☼	8/20 06:59	00:28	
Perfluorohexanesulfonic acid (PFHxS)	ND		.25	.039	ug/Kg	☼	8/20 06:59	00:28	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.25	.044	ug/Kg	☼	8/20 06:59	00:28	
Perfluorooctanesulfonic acid (PFOS)	0.32	J B	.62	.25	ug/Kg	☼	8/20 06:59	00:28	
Perfluorodecanesulfonic acid (PFDS)	ND		.25	.049	ug/Kg	☼	8/20 06:59	00:28	
Perfluorooctanesulfonamide (FOSA)	ND		.25	.10	ug/Kg	☼	8/20 06:59	00:28	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.5	.49	ug/Kg	☼	8/20 06:59	00:28	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.5	.46	ug/Kg	☼	8/20 06:59	00:28	

Client Sample ID: DUP2-SOIL-102120

Date Collected: 10/21/20 00:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-14

Matrix: Solid
Percent Solids: 77.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
:2 FTS	ND		.5	.19	ug/Kg	☼	8/20 06:59	00:28	
8:2 FTS	ND		.5	.31	ug/Kg	☼	8/20 06:59	00:28	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C5 PFPeA			*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C2 PFHxA	*67*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C4 PFHpA	*67*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C4 PFOA	*64*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C5 PFNA	*65*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C2 PFDA	*65*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C2 PFUnA	*66*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C2 PFDoA	*65*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C2 PFTeDA	*49*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C3 PFBS	*7*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
18O2 PFHxS	*8*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C4 PFOS	*3*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
13C8 FOSA	*4*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
d3-NMeFOSAA	*74*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
NEtFOSAA	*68*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
M2-6:2 FTS	*70*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*
M2-8:2 FTS	*68*		*150*	*10/28/20 06:59*	*11/02/20 00:28*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19200**		39.3	5.6	mg/Kg	☼	9/20 15:00	30/20 12:38	
Antimony	ND		3.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:38	
Arsenic	**7.7**		3.0	.60	mg/Kg	☼	9/20 15:00	30/20 12:38	
Barium	**114**		39.3	3.8	mg/Kg	☼	9/20 15:00	30/20 12:38	
Beryllium	**0.93**		.39	.063	mg/Kg	☼	9/20 15:00	30/20 12:38	
Cadmium	ND		.79	.068	mg/Kg	☼	9/20 15:00	30/20 12:38	
Calcium	**3160**		984	72.7	mg/Kg	☼	9/20 15:00	30/20 12:38	
Chromium	**21.0**		.0	.4	mg/Kg	☼	9/20 15:00	30/20 12:38	
Cobalt	**14.6**		9.8	.54	mg/Kg	☼	9/20 15:00	30/20 12:38	
Copper	**23.3**		4.9	.2	mg/Kg	☼	9/20 15:00	30/20 12:38	
Iron	**32300**		9.5	.3	mg/Kg	☼	9/20 15:00	30/20 12:38	
Lea	**12.8**		.0	.32	mg/Kg	☼	9/20 15:00	30/20 12:38	
Magnesium	**5380**		984	.6	mg/Kg	☼	9/20 15:00	30/20 12:38	
Manganese	**500**		3.0	.22	mg/Kg	☼	9/20 15:00	30/20 12:38	
Nickel	**26.3**		7.9	.52	mg/Kg	☼	9/20 15:00	30/20 12:38	
Potassium	**2460**		984	.4	mg/Kg	☼	9/20 15:00	30/20 12:38	
Selenium	**1.1**	**J**	3.9	.67	mg/Kg	☼	9/20 15:00	30/20 12:38	
Silver	ND		.0	.1	mg/Kg	☼	9/20 15:00	30/20 12:38	
Sodium	**90.6**	**J**	984	85.6	mg/Kg	☼	9/20 15:00	30/20 12:38	
Thallium	**0.91**	**J**	3.9	.61	mg/Kg	☼	9/20 15:00	30/20 12:38	
V nadium	**30.9**		9.8	.91	mg/Kg	☼	9/20 15:00	30/20 12:38	
Zinc	**72.1**		5.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:38	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		.020	.0046	mg/Kg	☼	8/20 02:58	8/20 07:07	

Client Sample ID: DUP2-SOIL-102120

Lab Sample ID: 460-221262-14

Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**22.4**		.0	.0	%			7/20 13:18	
Percent Solids	**77.6**		.0	.0	%			7/20 13:18	

Client Sample ID: S1-SOIL-102120

Lab Sample ID: 460-221262-15

Date Collected: 10/21/20 16:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 73.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.19**	**J**	.27	.037	ug/Kg	☼	8/20 06:59	00:37	
Perfluoropentanoic acid (PFPeA)	ND		.27	.10	ug/Kg	☼	8/20 06:59	00:37	
Perfluorohexanoic acid (PFHxA)	**0.084**	**J**	.27	.056	ug/Kg	☼	8/20 06:59	00:37	
Perfluoroheptanoic acid (PFHpA)	**0.10**	**J**	.27	.039	ug/Kg	☼	8/20 06:59	00:37	
Perfluorooctanoic acid (PFOA)	**0.30**		.27	.1	ug/Kg	☼	8/20 06:59	00:37	
Perfluorononanoic acid (PFNA)	**0.19**	**J**	.27	.048	ug/Kg	☼	8/20 06:59	00:37	
Perfluorodecanoic acid (PFDA)	**0.092**	**J**	.27	.029	ug/Kg	☼	8/20 06:59	00:37	
Perfluoroundecanoic acid (PFUnA)	**0.16**	**J I**	.27	.048	ug/Kg	☼	8/20 06:59	00:37	
Perfluorododecanoic acid (PFDoA)	ND		.27	.089	ug/Kg	☼	8/20 06:59	00:37	
Perfluorotridecanoic acid (PFTriA)	ND		.27	.068	ug/Kg	☼	8/20 06:59	00:37	
Perfluorotetradecanoic acid (PFTeA)	ND		.27	.072	ug/Kg	☼	8/20 06:59	00:37	
Perfluorobutanesulfonic acid (PFBS)	ND		.27	.033	ug/Kg	☼	8/20 06:59	00:37	
Perfluorohexanesulfonic acid (PFHxS)	ND		.27	.041	ug/Kg	☼	8/20 06:59	00:37	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.27	.047	ug/Kg	☼	8/20 06:59	00:37	
Perfluorooctanesulfonic acid (PFOS)	**0.95**	**B**	.66	.27	ug/Kg	☼	8/20 06:59	00:37	
Perfluorodecanesulfonic acid (PFDS)	ND		.27	.052	ug/Kg	☼	8/20 06:59	00:37	
Perfluorooctanesulfonamide (FOSA)	ND		.27	.1	ug/Kg	☼	8/20 06:59	00:37	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	.52	ug/Kg	☼	8/20 06:59	00:37	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	.49	ug/Kg	☼	8/20 06:59	00:37	
:2 FTS	ND		.7	.20	ug/Kg	☼	8/20 06:59	00:37	
8:2 FTS	ND		.7	.33	ug/Kg	☼	8/20 06:59	00:37	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*7*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C5 PFPeA	*0*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C2 PFHxA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C4 PFHpA	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C4 PFOA	*64*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C5 PFNA	*65*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C2 PFDA	*67*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C2 PFUnA	*60*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C2 PFDoA	*60*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C2 PFTeDA			*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
13C3 PFBS	*63*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*
18O2 PFHxS	*66*		*150*	*10/28/20 06:59*	*11/02/20 00:37*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S1-SOIL-102120

Date Collected: 10/21/20 16:30
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-15

Matrix: Solid
Percent Solids: 73.2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	65		150	10/28/20 06:59	11/02/20 00:37	1
13C8 FOSA	7		150	10/28/20 06:59	11/02/20 00:37	1
d3-NMeFOSAA	0		150	10/28/20 06:59	11/02/20 00:37	1
NEtFOSAA	44		150	10/28/20 06:59	11/02/20 00:37	1
M2-6:2 FTS	68		150	10/28/20 06:59	11/02/20 00:37	1
M2-8:2 FTS	73		150	10/28/20 06:59	11/02/20 00:37	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11900		43.4	.1	mg/Kg	☼	9/20 15:00	30/20 12:42	
Antimony	ND		4.3	.2	mg/Kg	☼	9/20 15:00	30/20 12:42	
Arsenic	4.9		3.3	.67	mg/Kg	☼	9/20 15:00	30/20 12:42	
Barium	46.9		43.4	4.2	mg/Kg	☼	9/20 15:00	30/20 12:42	
Beryllium	0.54		.43	.069	mg/Kg	☼	9/20 15:00	30/20 12:42	
Cadmium	ND		.87	.075	mg/Kg	☼	9/20 15:00	30/20 12:42	
Calcium	940	J	80	80.1	mg/Kg	☼	9/20 15:00	30/20 12:42	
Chromium	14.8		.2	.5	mg/Kg	☼	9/20 15:00	30/20 12:42	
Cobalt	6.6	J	.8	.60	mg/Kg	☼	9/20 15:00	30/20 12:42	
Copper	12.4		5.4	.4	mg/Kg	☼	9/20 15:00	30/20 12:42	
Iron	18700		32.5	.3	mg/Kg	☼	9/20 15:00	30/20 12:42	
Lea	19.4		.2	.35	mg/Kg	☼	9/20 15:00	30/20 12:42	
Magnesium	2230		80	73.4	mg/Kg	☼	9/20 15:00	30/20 12:42	
Manganese	288		3.3	.24	mg/Kg	☼	9/20 15:00	30/20 12:42	
Nickel	13.9		8.7	.57	mg/Kg	☼	9/20 15:00	30/20 12:42	
Potassium	640	J	80	.6	mg/Kg	☼	9/20 15:00	30/20 12:42	
Selenium	ND		4.3	.74	mg/Kg	☼	9/20 15:00	30/20 12:42	
Silver	ND		.2	.2	mg/Kg	☼	9/20 15:00	30/20 12:42	
Sodium	ND		80	94.3	mg/Kg	☼	9/20 15:00	30/20 12:42	
Thallium	ND		4.3	.67	mg/Kg	☼	9/20 15:00	30/20 12:42	
V nadium	23.8		.8	.0	mg/Kg	☼	9/20 15:00	30/20 12:42	
Zinc	45.4		.5	.2	mg/Kg	☼	9/20 15:00	30/20 12:42	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		.022	.0053	mg/Kg	☼	8/20 02:58	8/20 07:09	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.7	.48	mg/Kg	☼	9/20 09:04	30/20 12:09	
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	12:08	13:46	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.8		.0	.0	%			7/20 13:18	
Percent Solids	73.2		.0	.0	%			7/20 13:18	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: TB2-102120
Date Collected: 10/21/20 00:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-16
Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5	.1	ng/L		7/20 18:39	9/20 00:00	
Perfluoropentanoic acid (PFPeA)	ND		.8	.44	ng/L		7/20 18:39	9/20 00:00	
Perfluorohexanoic acid (PFHxA)	ND		.8	.52	ng/L		7/20 18:39	9/20 00:00	
Perfluoroheptanoic acid (PFHpA)	ND		.8	.22	ng/L		7/20 18:39	9/20 00:00	
Perfluorooctanoic acid (PFOA)	ND		.8	.76	ng/L		7/20 18:39	9/20 00:00	
Perfluorononanoic acid (PFNA)	ND		.8	.24	ng/L		7/20 18:39	9/20 00:00	
Perfluorodecanoic acid (PFDA)	ND		.8	.28	ng/L		7/20 18:39	9/20 00:00	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.98	ng/L		7/20 18:39	9/20 00:00	
Perfluorododecanoic acid (PFDoA)	ND		.8	.49	ng/L		7/20 18:39	9/20 00:00	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		7/20 18:39	9/20 00:00	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.65	ng/L		7/20 18:39	9/20 00:00	
Perfluorobutanesulfonic acid (PFBS)	ND		.8	.18	ng/L		7/20 18:39	9/20 00:00	
Perfluorohexanesulfonic acid (PFHxS)	ND		.8	.51	ng/L		7/20 18:39	9/20 00:00	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.17	ng/L		7/20 18:39	9/20 00:00	
Perfluorooctanesulfonic acid (PFOS)	ND		.8	.48	ng/L		7/20 18:39	9/20 00:00	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.29	ng/L		7/20 18:39	9/20 00:00	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.87	ng/L		7/20 18:39	9/20 00:00	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.5	.1	ng/L		7/20 18:39	9/20 00:00	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.5	.2	ng/L		7/20 18:39	9/20 00:00	
:2 FTS	ND		4.5	.2	ng/L		7/20 18:39	9/20 00:00	
8:2 FTS	ND		.8	.41	ng/L		7/20 18:39	9/20 00:00	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*68*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C5 PFPeA	*71*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C2 PFHxA	*75*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C4 PFHpA	*76*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C4 PFOA	*83*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C5 PFNA	*81*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C2 PFDA	*80*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C2 PFUnA	*87*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C2 PFDoA	*83*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C2 PFTeDA	*70*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C3 PFBS	*75*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
18O2 PFHxS	*77*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C4 PFOS	*78*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
13C8 FOSA	*70*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
d3-NMeFOSAA	*70*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
NEtFOSAA	*81*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
M2-6:2 FTS	*63*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*
M2-8:2 FTS	*66*		*150*	*10/27/20 18:39*	*10/29/20 00:00*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND			76.9	ug/L		4/20 20:00	17:01	
Antimony	ND		.0	3.7	ug/L		4/20 20:00	17:01	
Arsenic	ND		5.0	3.3	ug/L		4/20 20:00	17:01	
Barium	ND			3.2	ug/L		4/20 20:00	17:01	

Client Sample ID: TB2-102120

Date Collected: 10/21/20 00:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-16
Matrix: W ter

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		.0	.17	ug/L		4/20 20:00	17:01	
Cadmium	ND		4.0	.33	ug/L		4/20 20:00	17:01	
Calcium	ND		5000	52	ug/L		4/20 20:00	17:01	
Chromium	ND		.0	5.0	ug/L		4/20 20:00	17:01	
Cobalt	ND		50.0	.0	ug/L		4/20 20:00	17:01	
Copper	ND		5.0	.9	ug/L		4/20 20:00	17:01	
Iron	ND		50	80.8	ug/L		4/20 20:00	17:01	
Lead	ND		.0	.4	ug/L		4/20 20:00	17:01	
Magnesium	ND		5000	42	ug/L		4/20 20:00	17:01	
Manganese	ND		5.0	.76	ug/L		4/20 20:00	17:01	
Nickel	ND		40.0	4.1	ug/L		4/20 20:00	17:01	
Potassium	ND		5000	42	ug/L		4/20 20:00	17:01	
Selenium	ND		.0	5.9	ug/L		4/20 20:00	17:01	
Silver	ND		.0	5.8	ug/L		4/20 20:00	17:01	
Sodium	**104**	**J**	5000	83.8	ug/L		4/20 20:00	17:01	
Thallium	ND		.0	4.1	ug/L		4/20 20:00	17:01	
Vanadium	ND		50.0	7.2	ug/L		4/20 20:00	17:01	
Zinc	**2.4**	**J**	30.0	.2	ug/L		4/20 20:00	17:01	

Method: 7470A - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.20	.091	ug/L		8/20 12:28	8/20 14:21	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H H3	.0	8.1	ug/L			3/20 16:30	

Client Sample ID: S6A-SOIL-102120

Date Collected: 10/21/20 14:40
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-17
Matrix: Solid
Percent Solids: 74.1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.22**	**J**	.27	.037	ug/Kg	☼	8/20 06:59	00:47	
Perfluoropentanoic acid (PFPeA)	**0.16**	**J**	.27	.10	ug/Kg	☼	8/20 06:59	00:47	
Perfluorohexanoic acid (PFHxA)	ND		.27	.056	ug/Kg	☼	8/20 06:59	00:47	
Perfluoroheptanoic acid (PFHpA)	**0.13**	**J**	.27	.039	ug/Kg	☼	8/20 06:59	00:47	
Perfluorooctanoic acid (PFOA)	**0.45**		.27	.12	ug/Kg	☼	8/20 06:59	00:47	
Perfluorononanoic acid (PFNA)	**0.32**		.27	.048	ug/Kg	☼	8/20 06:59	00:47	
Perfluorodecanoic acid (PFDA)	**0.40**		.27	.029	ug/Kg	☼	8/20 06:59	00:47	
Perfluoroundecanoic acid (PFUnA)	**0.21**	**J**	.27	.048	ug/Kg	☼	8/20 06:59	00:47	
Perfluorododecanoic acid (PFDoA)	**0.15**	**J**	.27	.090	ug/Kg	☼	8/20 06:59	00:47	
Perfluorotridecanoic acid (PFTriA)	ND		.27	.068	ug/Kg	☼	8/20 06:59	00:47	
Perfluorotetradecanoic acid (PFTeA)	ND		.27	.072	ug/Kg	☼	8/20 06:59	00:47	
Perfluorobutanesulfonic acid (PFBS)	**0.093**	**J**	.27	.033	ug/Kg	☼	8/20 06:59	00:47	
Perfluorohexanesulfonic acid (PFHxS)	**0.059**	**J I**	.27	.041	ug/Kg	☼	8/20 06:59	00:47	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.27	.047	ug/Kg	☼	8/20 06:59	00:47	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S6A-SOIL-102120
Date Collected: 10/21/20 14:40
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-17
Matrix: Solid
Percent Solids: 74.1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**2.8**	**B**	.67	.27	ug/Kg	☼	8/20 06:59	00:47	
Perfluorodecanesulfonic acid (PFDS)	**0.15**	**J**	.27	.052	ug/Kg	☼	8/20 06:59	00:47	
Perfluorooctanesulfonamide (FOSA)	ND		.27	.1	ug/Kg	☼	8/20 06:59	00:47	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	.52	ug/Kg	☼	8/20 06:59	00:47	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	.50	ug/Kg	☼	8/20 06:59	00:47	
:2 FTS	ND		.7	.20	ug/Kg	☼	8/20 06:59	00:47	
8:2 FTS	ND		.7	.33	ug/Kg	☼	8/20 06:59	00:47	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*0*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C5 PFPeA	*41*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C2 PFHxA	*8*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C4 PFHpA	*8*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C4 PFOA			*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C5 PFNA	*3*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C2 PFDA	*7*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C2 PFUnA	*1*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C2 PFDoA	*46*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C2 PFTeDA	*32*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C3 PFBS			*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
18O2 PFHxS	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C4 PFOS	*6*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
13C8 FOSA	*45*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
d3-NMeFOSAA	*4*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
NEtFOSAA	*0*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
M2-6:2 FTS	*71*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*
M2-8:2 FTS	*67*		*150*	*10/28/20 06:59*	*11/02/20 00:47*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12000**		40.3	5.7	mg/Kg	☼	9/20 15:00	30/20 12:46	
Antimony	ND		4.0	.2	mg/Kg	☼	9/20 15:00	30/20 12:46	
Arsenic	**8.5**		3.0	.62	mg/Kg	☼	9/20 15:00	30/20 12:46	
Barium	**105**		40.3	3.9	mg/Kg	☼	9/20 15:00	30/20 12:46	
Beryllium	**0.59**		.40	.064	mg/Kg	☼	9/20 15:00	30/20 12:46	
Cadmium	**0.091**	**J**	.81	.069	mg/Kg	☼	9/20 15:00	30/20 12:46	
Calcium	**2450**			74.4	mg/Kg	☼	9/20 15:00	30/20 12:46	
Chromium	**17.0**		.0	.4	mg/Kg	☼	9/20 15:00	30/20 12:46	
Cobalt	**10.8**		.1	.56	mg/Kg	☼	9/20 15:00	30/20 12:46	
Copper	**27.9**		5.0	.3	mg/Kg	☼	9/20 15:00	30/20 12:46	
Iron	**22000**		30.2	.7	mg/Kg	☼	9/20 15:00	30/20 12:46	
Lea	**38.5**		.0	.33	mg/Kg	☼	9/20 15:00	30/20 12:46	
Magnesium	**3740**			8.1	mg/Kg	☼	9/20 15:00	30/20 12:46	
Manganese	**722**		3.0	.23	mg/Kg	☼	9/20 15:00	30/20 12:46	
Nickel	**20.7**		8.1	.53	mg/Kg	☼	9/20 15:00	30/20 12:46	
Potassium	**1360**			.8	mg/Kg	☼	9/20 15:00	30/20 12:46	
Selenium	ND		4.0	.68	mg/Kg	☼	9/20 15:00	30/20 12:46	

Client Sample ID: S6A-SOIL-102120

Lab Sample ID: 460-221262-17

Date Collected: 10/21/20 14:40
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 74.1

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		.0	.1	mg/Kg	☼	9/20 15:00	30/20 12:46	
Sodium	ND			87.6	mg/Kg	☼	9/20 15:00	30/20 12:46	
Thallium	**1.1**	**J**	4.0	.62	mg/Kg	☼	9/20 15:00	30/20 12:46	
V nadium	**26.2**		.1	.94	mg/Kg	☼	9/20 15:00	30/20 12:46	
Zinc	**95.3**		.0	.1	mg/Kg	☼	9/20 15:00	30/20 12:46	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.051**		.022	.0052	mg/Kg	☼	8/20 02:58	8/20 07:1	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**25.9**		.0	.0	%			7/20 13:18	
Percent Solids	**74.1**		.0	.0	%			7/20 13:18	

Client Sample ID: S6B-SOIL-102120

Lab Sample ID: 460-221262-18

Date Collected: 10/21/20 14:50
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.0

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.34**		.26	.036	ug/Kg	☼	8/20 06:59	00:56	
Perfluoropentanoic acid (PFPeA)	**0.23**	**J**	.26	.098	ug/Kg	☼	8/20 06:59	00:56	
Perfluorohexanoic acid (PFHxA)	**0.16**	**J**	.26	.054	ug/Kg	☼	8/20 06:59	00:56	
Perfluoroheptanoic acid (PFHpA)	**0.17**	**J**	.26	.037	ug/Kg	☼	8/20 06:59	00:56	
Perfluorooctanoic acid (PFOA)	**0.63**		.26	.1	ug/Kg	☼	8/20 06:59	00:56	
Perfluorononanoic acid (PFNA)	**0.31**		.26	.046	ug/Kg	☼	8/20 06:59	00:56	
Perfluorodecanoic acid (PFDA)	**0.34**		.26	.028	ug/Kg	☼	8/20 06:59	00:56	
Perfluoroundecanoic acid (PFUnA)	**0.17**	**J**	.26	.046	ug/Kg	☼	8/20 06:59	00:56	
Perfluorododecanoic acid (PFDoA)	**0.14**	**J**	.26	.085	ug/Kg	☼	8/20 06:59	00:56	
Perfluorotridecanoic acid (PFTriA)	ND		.26	.065	ug/Kg	☼	8/20 06:59	00:56	
Perfluorotetradecanoic acid (PFTeA)	ND		.26	.069	ug/Kg	☼	8/20 06:59	00:56	
Perfluorobutanesulfonic acid (PFBS)	**0.089**	**J**	.26	.032	ug/Kg	☼	8/20 06:59	00:56	
Perfluorohexanesulfonic acid (PFHxS)	**0.064**	**J I**	.26	.040	ug/Kg	☼	8/20 06:59	00:56	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.26	.045	ug/Kg	☼	8/20 06:59	00:56	
Perfluorooctanesulfonic acid (PFOS)	**2.3**	**B**	.64	.26	ug/Kg	☼	8/20 06:59	00:56	
Perfluorodecanesulfonic acid (PFDS)	**0.15**	**J**	.26	.050	ug/Kg	☼	8/20 06:59	00:56	
Perfluorooctanesulfonamide (FOSA)	ND		.26	.10	ug/Kg	☼	8/20 06:59	00:56	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.6	.50	ug/Kg	☼	8/20 06:59	00:56	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.6	.47	ug/Kg	☼	8/20 06:59	00:56	

Client Sample ID: S6B-SOIL-102120

Date Collected: 10/21/20 14:50
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-18

Matrix: Solid
Percent Solids: 77.0

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
:2 FTS	ND		.6	.19	ug/Kg	☼	8/20 06:59	00:56	
8:2 FTS	ND		.6	.32	ug/Kg	☼	8/20 06:59	00:56	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*71*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C5 PFPeA			*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C2 PFHxA	*79*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C4 PFHpA	*78*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C4 PFOA	*76*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C5 PFNA	*76*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C2 PFDA	*81*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C2 PFUnA	*77*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C2 PFDoA	*67*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C2 PFTeDA	*1*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C3 PFBS	*76*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
18O2 PFHxS	*78*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C4 PFOS	*76*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
13C8 FOSA	*61*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
d3-NMeFOSAA	*85*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
NEtFOSAA	*74*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
M2-6:2 FTS			*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*
M2-8:2 FTS	*8*		*150*	*10/28/20 06:59*	*11/02/20 00:56*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12200**		41.9	5.9	mg/Kg	☼	9/20 15:00	30/20 12:50	
Antimony	ND		4.2	.2	mg/Kg	☼	9/20 15:00	30/20 12:50	
Arsenic	**8.6**		3.1	.64	mg/Kg	☼	9/20 15:00	30/20 12:50	
Barium	**109**		41.9	4.0	mg/Kg	☼	9/20 15:00	30/20 12:50	
Beryllium	**0.62**		.42	.067	mg/Kg	☼	9/20 15:00	30/20 12:50	
Cadmium	**0.084**	**J**	.84	.072	mg/Kg	☼	9/20 15:00	30/20 12:50	
Calcium	**2470**		50	77.4	mg/Kg	☼	9/20 15:00	30/20 12:50	
Chromium	**17.4**		.1	.5	mg/Kg	☼	9/20 15:00	30/20 12:50	
Cobalt	**10.7**		.5	.58	mg/Kg	☼	9/20 15:00	30/20 12:50	
Copper	**26.9**		5.2	.3	mg/Kg	☼	9/20 15:00	30/20 12:50	
Iron	**22000**		31.4	.6	mg/Kg	☼	9/20 15:00	30/20 12:50	
Lea	**39.8**		.1	.34	mg/Kg	☼	9/20 15:00	30/20 12:50	
Magnesium	**3670**		50	70.9	mg/Kg	☼	9/20 15:00	30/20 12:50	
Manganese	**714**		3.1	.24	mg/Kg	☼	9/20 15:00	30/20 12:50	
Nickel	**20.7**		8.4	.55	mg/Kg	☼	9/20 15:00	30/20 12:50	
Potassium	**1240**		50	4.3	mg/Kg	☼	9/20 15:00	30/20 12:50	
Selenium	ND		4.2	.71	mg/Kg	☼	9/20 15:00	30/20 12:50	
Silver	ND		.1	.2	mg/Kg	☼	9/20 15:00	30/20 12:50	
Sodium	ND		50	91.1	mg/Kg	☼	9/20 15:00	30/20 12:50	
Thallium	**1.0**	**J**	4.2	.65	mg/Kg	☼	9/20 15:00	30/20 12:50	
V nadium	**27.2**		.5	.97	mg/Kg	☼	9/20 15:00	30/20 12:50	
Zinc	**101**		.3	.1	mg/Kg	☼	9/20 15:00	30/20 12:50	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.053**		.020	.0048	mg/Kg	☼	8/20 02:58	8/20 07:13	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S6B-SOIL-102120

Lab Sample ID: 460-221262-18

Date Collected: 10/21/20 14:50
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.0

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**23.0**		.0	.0	%			7/20 13:18	
Percent Solids	**77.0**		.0	.0	%			7/20 13:18	

Client Sample ID: S7A-SOIL-102120

Lab Sample ID: 460-221262-19

Date Collected: 10/21/20 15:05
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 73.5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.21**	**J**	.27	.037	ug/Kg	☼	8/20 06:59	01:24	
Perfluoropentanoic acid (PFPeA)	**0.11**	**J**	.27	.10	ug/Kg	☼	8/20 06:59	01:24	
Perfluorohexanoic acid (PFHxA)	**0.13**	**J**	.27	.056	ug/Kg	☼	8/20 06:59	01:24	
Perfluoroheptanoic acid (PFHpA)	**0.11**	**J**	.27	.039	ug/Kg	☼	8/20 06:59	01:24	
Perfluorooctanoic acid (PFOA)	**0.33**		.27	.12	ug/Kg	☼	8/20 06:59	01:24	
Perfluorononanoic acid (PFNA)	**0.17**	**J**	.27	.048	ug/Kg	☼	8/20 06:59	01:24	
Perfluorodecanoic acid (PFDA)	**0.11**	**J**	.27	.029	ug/Kg	☼	8/20 06:59	01:24	
Perfluoroundecanoic acid (PFUnA)	**0.11**	**J**	.27	.048	ug/Kg	☼	8/20 06:59	01:24	
Perfluorododecanoic acid (PFDoA)	ND		.27	.090	ug/Kg	☼	8/20 06:59	01:24	
Perfluorotridecanoic acid (PFTriA)	ND		.27	.068	ug/Kg	☼	8/20 06:59	01:24	
Perfluorotetradecanoic acid (PFTeA)	ND		.27	.072	ug/Kg	☼	8/20 06:59	01:24	
Perfluorobutanesulfonic acid (PFBS)	**0.059**	**J**	.27	.033	ug/Kg	☼	8/20 06:59	01:24	
Perfluorohexanesulfonic acid (PFHxS)	**0.044**	**J I**	.27	.041	ug/Kg	☼	8/20 06:59	01:24	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.27	.047	ug/Kg	☼	8/20 06:59	01:24	
Perfluorooctanesulfonic acid (PFOS)	**1.2**	**B**	.67	.27	ug/Kg	☼	8/20 06:59	01:24	
Perfluorodecanesulfonic acid (PFDS)	**0.067**	**J**	.27	.052	ug/Kg	☼	8/20 06:59	01:24	
Perfluorooctanesulfonamide (FOSA)	ND		.27	.1	ug/Kg	☼	8/20 06:59	01:24	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.7	.52	ug/Kg	☼	8/20 06:59	01:24	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.7	.50	ug/Kg	☼	8/20 06:59	01:24	
:2 FTS	ND		.7	.20	ug/Kg	☼	8/20 06:59	01:24	
8:2 FTS	ND		.7	.33	ug/Kg	☼	8/20 06:59	01:24	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*65*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C5 PFPeA	*6*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C2 PFHxA	*69*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C4 PFHpA	*68*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C4 PFOA	*68*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C5 PFNA	*65*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C2 PFDA	*70*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C2 PFUnA			*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*
13C2 PFDoA	*6*		*150*	*10/28/20 06:59*	*11/02/20 01:24*	*1*

Client Sample ID: S7A-SOIL-102120
Date Collected: 10/21/20 15:05
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-19
Matrix: Solid
Percent Solids: 73.5

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	35		150	10/28/20 06:59	11/02/20 01:24	1
13C3 PFBS	66		150	10/28/20 06:59	11/02/20 01:24	1
18O2 PFHxS	67		150	10/28/20 06:59	11/02/20 01:24	1
13C4 PFOS	62		150	10/28/20 06:59	11/02/20 01:24	1
13C8 FOSA	7		150	10/28/20 06:59	11/02/20 01:24	1
d3-NMeFOSAA	67		150	10/28/20 06:59	11/02/20 01:24	1
NEtFOSAA	69		150	10/28/20 06:59	11/02/20 01:24	1
M2-6:2 FTS	85		150	10/28/20 06:59	11/02/20 01:24	1
M2-8:2 FTS	86		150	10/28/20 06:59	11/02/20 01:24	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9130		41.8	5.9	mg/Kg	☼	9/20 15:00	30/20 12:54	
Antimony	ND		4.2	.2	mg/Kg	☼	9/20 15:00	30/20 12:54	
Arsenic	7.2		3.1	.64	mg/Kg	☼	9/20 15:00	30/20 12:54	
Barium	81.6		41.8	4.0	mg/Kg	☼	9/20 15:00	30/20 12:54	
Beryllium	0.43		.42	.067	mg/Kg	☼	9/20 15:00	30/20 12:54	
Cadmium	0.31	J	.84	.072	mg/Kg	☼	9/20 15:00	30/20 12:54	
Calcium	4370		50	77.3	mg/Kg	☼	9/20 15:00	30/20 12:54	
Chromium	14.0		.1	.5	mg/Kg	☼	9/20 15:00	30/20 12:54	
Cobalt	8.1	J	.5	.58	mg/Kg	☼	9/20 15:00	30/20 12:54	
Copper	25.2		5.2	.3	mg/Kg	☼	9/20 15:00	30/20 12:54	
Iron	18600		31.4	.6	mg/Kg	☼	9/20 15:00	30/20 12:54	
Lea	23.0		.1	.34	mg/Kg	☼	9/20 15:00	30/20 12:54	
Magnesium	3810		50	70.8	mg/Kg	☼	9/20 15:00	30/20 12:54	
Manganese	447		3.1	.24	mg/Kg	☼	9/20 15:00	30/20 12:54	
Nickel	17.7		8.4	.55	mg/Kg	☼	9/20 15:00	30/20 12:54	
Potassium	1470		50	4.2	mg/Kg	☼	9/20 15:00	30/20 12:54	
Selenium	1.3	J	4.2	.71	mg/Kg	☼	9/20 15:00	30/20 12:54	
Silver	ND		.1	.2	mg/Kg	☼	9/20 15:00	30/20 12:54	
Sodium	ND		50	91.0	mg/Kg	☼	9/20 15:00	30/20 12:54	
Thallium	ND		4.2	.65	mg/Kg	☼	9/20 15:00	30/20 12:54	
V nadium	22.1		.5	.97	mg/Kg	☼	9/20 15:00	30/20 12:54	
Zinc	76.5		.3	.1	mg/Kg	☼	9/20 15:00	30/20 12:54	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		.023	.0054	mg/Kg	☼	8/20 03:25	8/20 07:37	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.5		.0	.0	%			7/20 13:18	
Percent Solids	73.5		.0	.0	%			7/20 13:18	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S7B-SOIL-102120
Date Collected: 10/21/20 15:15
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-20
Matrix: Solid
Percent Solids: 79.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.16**	**J**	.25	.035	ug/Kg	☼	8/20 06:59	01:34	
Perfluoropentanoic acid (PFPeA)	ND		.25	.096	ug/Kg	☼	8/20 06:59	01:34	
Perfluorohexanoic acid (PFHxA)	**0.12**	**J**	.25	.053	ug/Kg	☼	8/20 06:59	01:34	
Perfluoroheptanoic acid (PFHpA)	**0.085**	**J**	.25	.036	ug/Kg	☼	8/20 06:59	01:34	
Perfluorooctanoic acid (PFOA)	**0.29**		.25	.1	ug/Kg	☼	8/20 06:59	01:34	
Perfluorononanoic acid (PFNA)	**0.16**	**J**	.25	.045	ug/Kg	☼	8/20 06:59	01:34	
Perfluorodecanoic acid (PFDA)	**0.16**	**J**	.25	.028	ug/Kg	☼	8/20 06:59	01:34	
Perfluoroundecanoic acid (PFUnA)	**0.12**	**J**	.25	.045	ug/Kg	☼	8/20 06:59	01:34	
Perfluorododecanoic acid (PFDoA)	ND		.25	.084	ug/Kg	☼	8/20 06:59	01:34	
Perfluorotridecanoic acid (PFTriA)	ND		.25	.064	ug/Kg	☼	8/20 06:59	01:34	
Perfluorotetradecanoic acid (PFTeA)	ND		.25	.068	ug/Kg	☼	8/20 06:59	01:34	
Perfluorobutanesulfonic acid (PFBS)	**0.056**	**J**	.25	.031	ug/Kg	☼	8/20 06:59	01:34	
Perfluorohexanesulfonic acid (PFHxS)	ND		.25	.039	ug/Kg	☼	8/20 06:59	01:34	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.25	.044	ug/Kg	☼	8/20 06:59	01:34	
Perfluorooctanesulfonic acid (PFOS)	**1.1**	**B**	.63	.25	ug/Kg	☼	8/20 06:59	01:34	
Perfluorodecanesulfonic acid (PFDS)	**0.075**	**J**	.25	.049	ug/Kg	☼	8/20 06:59	01:34	
Perfluorooctanesulfonamide (FOSA)	ND		.25	.10	ug/Kg	☼	8/20 06:59	01:34	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.5	.49	ug/Kg	☼	8/20 06:59	01:34	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.5	.46	ug/Kg	☼	8/20 06:59	01:34	
:2 FTS	ND		.5	.19	ug/Kg	☼	8/20 06:59	01:34	
8:2 FTS	ND		.5	.31	ug/Kg	☼	8/20 06:59	01:34	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*1*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C5 PFPeA	*43*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C2 PFHxA			*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C4 PFHpA	*8*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C4 PFOA			*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C5 PFNA	*60*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C2 PFDA	*8*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C2 PFUnA	*60*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C2 PFDoA	*48*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C2 PFTeDA			*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C3 PFBS	*6*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
18O2 PFHxS	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C4 PFOS	*60*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
13C8 FOSA	*43*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
d3-NMeFOSAA	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
NEtFOSAA	*7*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
M2-6:2 FTS	*79*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*
M2-8:2 FTS	*85*		*150*	*10/28/20 06:59*	*11/02/20 01:34*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9790**		38.5	5.5	mg/Kg	☼	9/20 15:00	30/20 12:58	

Client Sample ID: S7B-SOIL-102120

Lab Sample ID: 460-221262-20
Date Collected: 10/21/20 15:15
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:58	
Arsenic	**7.4**		.9	.59	mg/Kg	☼	9/20 15:00	30/20 12:58	
Barium	**83.5**		38.5	3.7	mg/Kg	☼	9/20 15:00	30/20 12:58	
Beryllium	**0.43**		.39	.062	mg/Kg	☼	9/20 15:00	30/20 12:58	
Cadmium	**0.26**	**J**	.77	.066	mg/Kg	☼	9/20 15:00	30/20 12:58	
Calcium	**5300**		963	71.2	mg/Kg	☼	9/20 15:00	30/20 12:58	
Chromium	**15.8**		.9	.4	mg/Kg	☼	9/20 15:00	30/20 12:58	
Cobalt	**8.7**	**J**	9.6	.53	mg/Kg	☼	9/20 15:00	30/20 12:58	
Copper	**24.9**		4.8	.2	mg/Kg	☼	9/20 15:00	30/20 12:58	
Iron	**20100**		8.9	9.8	mg/Kg	☼	9/20 15:00	30/20 12:58	
Lea	**25.7**		.9	.31	mg/Kg	☼	9/20 15:00	30/20 12:58	
Magnesium	**4330**		963	5.2	mg/Kg	☼	9/20 15:00	30/20 12:58	
Manganese	**491**		.9	.22	mg/Kg	☼	9/20 15:00	30/20 12:58	
Nickel	**19.3**		7.7	.51	mg/Kg	☼	9/20 15:00	30/20 12:58	
Potassium	**1430**		963	59.2	mg/Kg	☼	9/20 15:00	30/20 12:58	
Selenium	ND		3.9	.65	mg/Kg	☼	9/20 15:00	30/20 12:58	
Silver	ND		.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:58	
Sodium	ND		963	83.8	mg/Kg	☼	9/20 15:00	30/20 12:58	
Thallium	**0.96**	**J**	3.9	.60	mg/Kg	☼	9/20 15:00	30/20 12:58	
V nadium	**22.9**		9.6	.90	mg/Kg	☼	9/20 15:00	30/20 12:58	
Zinc	**78.9**		5.8	.1	mg/Kg	☼	9/20 15:00	30/20 12:58	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		.021	.0050	mg/Kg	☼	8/20 03:25	8/20 07:39	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.5	.44	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.5	.44	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**20.8**		.0	.0	%			7/20 13:18	
Percent Solids	**79.2**		.0	.0	%			7/20 13:18	

Client Sample ID: S8A-SOIL-102120

Lab Sample ID: 460-221262-21
Date Collected: 10/21/20 14:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 76.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.10**	**J**	.24	.034	ug/Kg	☼	8/20 06:59	01:43	
Perfluoropentanoic acid (PFPeA)	**0.20**	**J**	.24	.093	ug/Kg	☼	8/20 06:59	01:43	
Perfluorohexanoic acid (PFHxA)	**0.24**		.24	.051	ug/Kg	☼	8/20 06:59	01:43	
Perfluoroheptanoic acid (PFHpA)	**0.090**	**J**	.24	.035	ug/Kg	☼	8/20 06:59	01:43	
Perfluorooctanoic acid (PFOA)	**0.39**		.24	.10	ug/Kg	☼	8/20 06:59	01:43	
Perfluorononanoic acid (PFNA)	**2.4**		.24	.043	ug/Kg	☼	8/20 06:59	01:43	
Perfluorodecanoic acid (PFDA)	**0.91**		.24	.027	ug/Kg	☼	8/20 06:59	01:43	
Perfluoroundecanoic acid (PFUnA)	**1.8**		.24	.043	ug/Kg	☼	8/20 06:59	01:43	
Perfluorododecanoic acid (PFDoA)	**0.47**		.24	.081	ug/Kg	☼	8/20 06:59	01:43	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S8A-SOIL-102120
Date Collected: 10/21/20 14:00
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-21
Matrix: Solid
Percent Solids: 76.2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTriA)	**0.31**		.24	.062	ug/Kg	☼	8/20 06:59	01:43	
Perfluorotetradecanoic acid (PFTeA)	**0.14**	**J**	.24	.065	ug/Kg	☼	8/20 06:59	01:43	
Perfluorobutanesulfonic acid (PFBS)	**0.15**	**J**	.24	.030	ug/Kg	☼	8/20 06:59	01:43	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.037	ug/Kg	☼	8/20 06:59	01:43	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.042	ug/Kg	☼	8/20 06:59	01:43	
Perfluorooctanesulfonic acid (PFOS)	**4.2**	**B**	.60	.24	ug/Kg	☼	8/20 06:59	01:43	
Perfluorodecanesulfonic acid (PFDS)	**5.9**		.24	.047	ug/Kg	☼	8/20 06:59	01:43	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.099	ug/Kg	☼	8/20 06:59	01:43	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	8/20 06:59	01:43	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**1.4**	**J**	.4	.45	ug/Kg	☼	8/20 06:59	01:43	
:2 FTS	ND		.4	.18	ug/Kg	☼	8/20 06:59	01:43	
8:2 FTS	ND		.4	.30	ug/Kg	☼	8/20 06:59	01:43	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*1*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C5 PFPeA	*42*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C2 PFHxA	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C4 PFHpA	*63*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C4 PFOA	*63*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C5 PFNA	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C2 PFDA	*71*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C2 PFUnA	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C2 PFDoA	*4*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C2 PFTeDA	*40*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C3 PFBS	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
18O2 PFHxS	*70*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C4 PFOS	*65*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
13C8 FOSA	*0*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
d3-NMeFOSAA			*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
NEtFOSAA	*6*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
M2-6:2 FTS	*89*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*
M2-8:2 FTS	*87*		*150*	*10/28/20 06:59*	*11/02/20 01:43*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7790**		42.3	.0	mg/Kg	☼	9/20 15:00	30/20 13:02	
Antimony	ND		4.2	.2	mg/Kg	☼	9/20 15:00	30/20 13:02	
Arsenic	**10.5**		3.2	.65	mg/Kg	☼	9/20 15:00	30/20 13:02	
Barium	**88.2**		42.3	4.1	mg/Kg	☼	9/20 15:00	30/20 13:02	
Beryllium	**0.31**	**J**	.42	.068	mg/Kg	☼	9/20 15:00	30/20 13:02	
Cadmium	**0.23**	**J**	.85	.073	mg/Kg	☼	9/20 15:00	30/20 13:02	
Calcium	**3320**			78.2	mg/Kg	☼	9/20 15:00	30/20 13:02	
Chromium	**15.8**		.1	.5	mg/Kg	☼	9/20 15:00	30/20 13:02	
Cobalt	**6.1**	**J**	.6	.59	mg/Kg	☼	9/20 15:00	30/20 13:02	
Copper	**32.6**		5.3	.3	mg/Kg	☼	9/20 15:00	30/20 13:02	

Client Sample ID: S8A-SOIL-102120

Lab Sample ID: 460-221262-21
Date Collected: 10/21/20 14:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 76.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	14200		31.7	.8	mg/Kg	☼	9/20 15:00	30/20 13:02	
Lea	48.8		.1	.34	mg/Kg	☼	9/20 15:00	30/20 13:02	
Magnesium	2550			71.6	mg/Kg	☼	9/20 15:00	30/20 13:02	
Manganese	332		3.2	.24	mg/Kg	☼	9/20 15:00	30/20 13:02	
Nickel	15.6		8.5	.56	mg/Kg	☼	9/20 15:00	30/20 13:02	
Potassium	960	J		5.0	mg/Kg	☼	9/20 15:00	30/20 13:02	
Selenium	ND		4.2	.72	mg/Kg	☼	9/20 15:00	30/20 13:02	
Silver	ND		.1	.2	mg/Kg	☼	9/20 15:00	30/20 13:02	
Sodium	150	J		92.1	mg/Kg	☼	9/20 15:00	30/20 13:02	
Thallium	ND		4.2	.66	mg/Kg	☼	9/20 15:00	30/20 13:02	
V nadium	23.4		.6	.98	mg/Kg	☼	9/20 15:00	30/20 13:02	
Zinc	96.9		.3	.2	mg/Kg	☼	9/20 15:00	30/20 13:02	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.076		.021	.0050	mg/Kg	☼	8/20 03:25	8/20 07:41	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.6	.46	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.6	.45	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.8		.0	.0	%			7/20 13:19	
Percent Solids	76.2		.0	.0	%			7/20 13:19	

Client Sample ID: S8B-SOIL-102120

Lab Sample ID: 460-221262-22
Date Collected: 10/21/20 14:10
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.6

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.20	J	.24	.034	ug/Kg	☼	8/20 06:59	01:52	
Perfluoropentanoic acid (PFPeA)	0.28		.24	.093	ug/Kg	☼	8/20 06:59	01:52	
Perfluorohexanoic acid (PFHxA)	0.28		.24	.051	ug/Kg	☼	8/20 06:59	01:52	
Perfluoroheptanoic acid (PFHpA)	0.13	J	.24	.035	ug/Kg	☼	8/20 06:59	01:52	
Perfluorooctanoic acid (PFOA)	0.42		.24	.10	ug/Kg	☼	8/20 06:59	01:52	
Perfluorononanoic acid (PFNA)	2.4		.24	.043	ug/Kg	☼	8/20 06:59	01:52	
Perfluorodecanoic acid (PFDA)	0.88		.24	.027	ug/Kg	☼	8/20 06:59	01:52	
Perfluoroundecanoic acid (PFUnA)	1.8		.24	.043	ug/Kg	☼	8/20 06:59	01:52	
Perfluorododecanoic acid (PFDoA)	0.35		.24	.081	ug/Kg	☼	8/20 06:59	01:52	
Perfluorotridecanoic acid (PFTriA)	0.26		.24	.061	ug/Kg	☼	8/20 06:59	01:52	
Perfluorotetradecanoic acid (PFTeA)	0.13	J	.24	.065	ug/Kg	☼	8/20 06:59	01:52	
Perfluorobutanesulfonic acid (PFBS)	0.12	J	.24	.030	ug/Kg	☼	8/20 06:59	01:52	
Perfluorohexanesulfonic acid (PFHxS)	ND		.24	.037	ug/Kg	☼	8/20 06:59	01:52	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.24	.042	ug/Kg	☼	8/20 06:59	01:52	
Perfluorooctanesulfonic acid (PFOS)	4.5	B	.60	.24	ug/Kg	☼	8/20 06:59	01:52	

Client Sample ID: S8B-SOIL-102120
Date Collected: 10/21/20 14:10
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-22
Matrix: Solid
Percent Solids: 79.6

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	**5.7**		.24	.047	ug/Kg	☼	8/20 06:59	01:52	
Perfluorooctanesulfonamide (FOSA)	ND		.24	.099	ug/Kg	☼	8/20 06:59	01:52	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.4	.47	ug/Kg	☼	8/20 06:59	01:52	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**1.5**	**J**	.4	.45	ug/Kg	☼	8/20 06:59	01:52	
:2 FTS	ND		.4	.18	ug/Kg	☼	8/20 06:59	01:52	
8:2 FTS	ND		.4	.30	ug/Kg	☼	8/20 06:59	01:52	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*3*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C5 PFPeA	*44*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C2 PFHxA			*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C4 PFHpA	*61*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C4 PFOA			*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C5 PFNA	*7*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C2 PFDA	*60*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C2 PFUnA	*6*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C2 PFDoA	*4*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C2 PFTeDA	*38*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C3 PFBS	*7*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
18O2 PFHxS	*62*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C4 PFOS	*7*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
13C8 FOSA	*48*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
d3-NMeFOSAA	*8*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
NEtFOSAA	*49*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
M2-6:2 FTS	*81*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*
M2-8:2 FTS	*81*		*150*	*10/28/20 06:59*	*11/02/20 01:52*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7530**		39.5	5.6	mg/Kg	☼	9/20 15:00	30/20 13:06	
Antimony	ND		4.0	.1	mg/Kg	☼	9/20 15:00	30/20 13:06	
Arsenic	**9.9**		3.0	.61	mg/Kg	☼	9/20 15:00	30/20 13:06	
Barium	**86.8**		39.5	3.8	mg/Kg	☼	9/20 15:00	30/20 13:06	
Beryllium	**0.31**	**J**	.40	.063	mg/Kg	☼	9/20 15:00	30/20 13:06	
Cadmium	**0.23**	**J**	.79	.068	mg/Kg	☼	9/20 15:00	30/20 13:06	
Calcium	**3120**		989	73.1	mg/Kg	☼	9/20 15:00	30/20 13:06	
Chromium	**15.3**		.0	.4	mg/Kg	☼	9/20 15:00	30/20 13:06	
Cobalt	**5.8**	**J**	9.9	.55	mg/Kg	☼	9/20 15:00	30/20 13:06	
Copper	**32.6**		4.9	.2	mg/Kg	☼	9/20 15:00	30/20 13:06	
Iron	**14200**		9.7	.4	mg/Kg	☼	9/20 15:00	30/20 13:06	
Lea	**73.0**		.0	.32	mg/Kg	☼	9/20 15:00	30/20 13:06	
Magnesium	**2460**		989	.9	mg/Kg	☼	9/20 15:00	30/20 13:06	
Manganese	**341**		3.0	.22	mg/Kg	☼	9/20 15:00	30/20 13:06	
Nickel	**15.5**		7.9	.52	mg/Kg	☼	9/20 15:00	30/20 13:06	
Potassium	**858**	**J**	989	.7	mg/Kg	☼	9/20 15:00	30/20 13:06	
Selenium	ND		4.0	.67	mg/Kg	☼	9/20 15:00	30/20 13:06	
Silver	ND		.0	.1	mg/Kg	☼	9/20 15:00	30/20 13:06	
Sodium	**132**	**J**	989	86.0	mg/Kg	☼	9/20 15:00	30/20 13:06	

Client Sample ID: S8B-SOIL-102120

Lab Sample ID: 460-221262-22
Date Collected: 10/21/20 14:10
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.6

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		4.0	.61	mg/Kg	☼	9/20 15:00	30/20 13:06	
V nadium	**23.3**		9.9	.92	mg/Kg	☼	9/20 15:00	30/20 13:06	
Zinc	**91.6**		5.9	.1	mg/Kg	☼	9/20 15:00	30/20 13:06	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.080**		.020	.0047	mg/Kg	☼	8/20 03:25	8/20 07:43	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.5	.44	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.5	.43	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**20.4**		.0	.0	%			7/20 13:19	
Percent Solids	**79.6**		.0	.0	%			7/20 13:19	

Client Sample ID: S9A-SOIL-102120

Lab Sample ID: 460-221262-23
Date Collected: 10/21/20 15:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 74.8

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.24**	**J B**	.25	.035	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluoropentanoic acid (PFPeA)	**0.21**	**J**	.25	.097	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorohexanoic acid (PFHxA)	**0.22**	**J**	.25	.053	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluoroheptanoic acid (PFHpA)	**0.15**	**J**	.25	.036	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorooctanoic acid (PFOA)	**0.54**		.25	.1	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorononanoic acid (PFNA)	**0.23**	**J**	.25	.045	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorodecanoic acid (PFDA)	**0.25**		.25	.028	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluoroundecanoic acid (PFUnA)	**0.22**	**J**	.25	.045	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorododecanoic acid (PFDoA)	**0.12**	**J**	.25	.084	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorotridecanoic acid (PFTriA)	ND		.25	.064	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorotetradecanoic acid (PFTeA)	ND		.25	.068	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorobutanesulfonic acid (PFBS)	**0.092**	**J**	.25	.031	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorohexanesulfonic acid (PFHxS)	**0.075**	**J I**	.25	.039	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.25	.044	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorooctanesulfonic acid (PFOS)	**3.0**	**B ***	.63	.25	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorodecanesulfonic acid (PFDS)	**0.19**	**J ***	.25	.049	ug/Kg	☼	8/20 07:03	30/20 21:56	
Perfluorooctanesulfonamide (FOSA)	ND		.25	.10	ug/Kg	☼	8/20 07:03	30/20 21:56	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		.5	.49	ug/Kg	☼	8/20 07:03	30/20 21:56	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		.5	.46	ug/Kg	☼	8/20 07:03	30/20 21:56	
:2 FTS	ND		.5	.19	ug/Kg	☼	8/20 07:03	30/20 21:56	
8:2 FTS	ND		.5	.31	ug/Kg	☼	8/20 07:03	30/20 21:56	

Client Sample ID: S9A-SOIL-102120
Date Collected: 10/21/20 15:30
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-23
Matrix: Solid
Percent Solids: 74.8

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	80		150	10/28/20 07:03	10/30/20 21:56	1
13C5 PFPeA	71		150	10/28/20 07:03	10/30/20 21:56	1
13C2 PFHxA	89		150	10/28/20 07:03	10/30/20 21:56	1
13C4 PFHpA	0		150	10/28/20 07:03	10/30/20 21:56	1
13C4 PFOA	3		150	10/28/20 07:03	10/30/20 21:56	1
13C5 PFNA	84		150	10/28/20 07:03	10/30/20 21:56	1
13C2 PFDA	87		150	10/28/20 07:03	10/30/20 21:56	1
13C2 PFUnA	80		150	10/28/20 07:03	10/30/20 21:56	1
13C2 PFDoA	79		150	10/28/20 07:03	10/30/20 21:56	1
13C2 PFTeDA	74		150	10/28/20 07:03	10/30/20 21:56	1
13C3 PFBS	88		150	10/28/20 07:03	10/30/20 21:56	1
18O2 PFHxS	87		150	10/28/20 07:03	10/30/20 21:56	1
13C4 PFOS	85		150	10/28/20 07:03	10/30/20 21:56	1
13C8 FOSA	79		150	10/28/20 07:03	10/30/20 21:56	1
d3-NMeFOSAA	3		150	10/28/20 07:03	10/30/20 21:56	1
NEtFOSAA	4		150	10/28/20 07:03	10/30/20 21:56	1
M2-6:2 FTS	127		150	10/28/20 07:03	10/30/20 21:56	1
M2-8:2 FTS	133		150	10/28/20 07:03	10/30/20 21:56	1

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.7	H B	.64	.26	ug/Kg	☼	9/20 15:20	1 :06	
Perfluorodecanesulfonic acid (PFDS)	0.18	J H	.26	.050	ug/Kg	☼	9/20 15:20	1 :06	

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	83		150	11/09/20 15:20	11/11/20 11:06	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9210		41.1	5.8	mg/Kg	☼	9/20 15:00	30/20 13:18	
Antimony	ND		4.1	.2	mg/Kg	☼	9/20 15:00	30/20 13:18	
Arsenic	7.8		3.1	.63	mg/Kg	☼	9/20 15:00	30/20 13:18	
Barium	101		41.1	4.0	mg/Kg	☼	9/20 15:00	30/20 13:18	
Beryllium	0.43		.41	.066	mg/Kg	☼	9/20 15:00	30/20 13:18	
Cadmium	0.18	J	.82	.071	mg/Kg	☼	9/20 15:00	30/20 13:18	
Calcium	3930		30	76.0	mg/Kg	☼	9/20 15:00	30/20 13:18	
Chromium	15.5		.1	.5	mg/Kg	☼	9/20 15:00	30/20 13:18	
Cobalt	8.2	J	.3	.57	mg/Kg	☼	9/20 15:00	30/20 13:18	
Copper	28.1		5.1	.3	mg/Kg	☼	9/20 15:00	30/20 13:18	
Iron	18000		30.9	.2	mg/Kg	☼	9/20 15:00	30/20 13:18	
Lea	34.2		.1	.33	mg/Kg	☼	9/20 15:00	30/20 13:18	
Magnesium	3460		30	9.6	mg/Kg	☼	9/20 15:00	30/20 13:18	
Manganese	432		3.1	.23	mg/Kg	☼	9/20 15:00	30/20 13:18	
Nickel	18.9		8.2	.54	mg/Kg	☼	9/20 15:00	30/20 13:18	
Potassium	1300		30	3.2	mg/Kg	☼	9/20 15:00	30/20 13:18	
Selenium	0.92	J	4.1	.70	mg/Kg	☼	9/20 15:00	30/20 13:18	
Silver	ND		.1	.2	mg/Kg	☼	9/20 15:00	30/20 13:18	
Sodium	106	J	30	89.5	mg/Kg	☼	9/20 15:00	30/20 13:18	
Thallium	ND		4.1	.64	mg/Kg	☼	9/20 15:00	30/20 13:18	
V nadium	24.2		.3	.96	mg/Kg	☼	9/20 15:00	30/20 13:18	

Client Sample ID: S9A-SOIL-102120

Lab Sample ID: 460-221262-23

Date Collected: 10/21/20 15:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 74.8

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	104		.2	.1	mg/Kg	☼	9/20 15:00	30/20 13:18	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.086		.022	.0052	mg/Kg	☼	8/20 03:25	8/20 07:45	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	9/20 09:04	30/20 13:10	
Chromium, hexavalent	ND		.7	.47	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.2		.0	.0	%			7/20 13:49	
Percent Solids	74.8		.0	.0	%			7/20 13:49	

Client Sample ID: S9B-SOIL-102120

Lab Sample ID: 460-221262-24

Date Collected: 10/21/20 15:45
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.0

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.19	J B	.25	.035	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluoropentanoic acid (PFPeA)	0.20	J	.25	.096	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorohexanoic acid (PFHxA)	0.20	J	.25	.053	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluoroheptanoic acid (PFHpA)	0.15	J	.25	.036	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorooctanoic acid (PFOA)	0.60		.25	.1	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorononanoic acid (PFNA)	0.24	J	.25	.045	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorodecanoic acid (PFDA)	0.27		.25	.028	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluoroundecanoic acid (PFUnA)	0.22	J F1	.25	.045	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorododecanoic acid (PFDoA)	0.14	J	.25	.084	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorotridecanoic acid (PFTriA)	ND		.25	.064	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorotetradecanoic acid (PFTeA)	ND		.25	.068	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorobutanesulfonic acid (PFBS)	0.079	J	.25	.031	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorohexanesulfonic acid (PFHxS)	0.073	J	.25	.039	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.25	.044	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorooctanesulfonic acid (PFOS)	2.9	B *	.63	.25	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorodecanesulfonic acid (PFDS)	0.16	J *	.25	.049	ug/Kg	☼	8/20 07:03	30/20 22:06	
Perfluorooctanesulfonamide (FOSA)	ND		.25	.10	ug/Kg	☼	8/20 07:03	30/20 22:06	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.5	.49	ug/Kg	☼	8/20 07:03	30/20 22:06	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.5	.46	ug/Kg	☼	8/20 07:03	30/20 22:06	
:2 FTS	ND		.5	.19	ug/Kg	☼	8/20 07:03	30/20 22:06	
8:2 FTS	ND		.5	.31	ug/Kg	☼	8/20 07:03	30/20 22:06	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78*		*150*	*10/28/20 07:03*	*10/30/20 22:06*	*1*

Client Sample ID: S9B-SOIL-102120
Date Collected: 10/21/20 15:45
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-24
Matrix: Solid
Percent Solids: 77.0

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	65		150	10/28/20 07:03	10/30/20 22:06	1
13C2 PFHxA	88		150	10/28/20 07:03	10/30/20 22:06	1
13C4 PFHpA	88		150	10/28/20 07:03	10/30/20 22:06	1
13C4 PFOA	86		150	10/28/20 07:03	10/30/20 22:06	1
13C5 PFNA	89		150	10/28/20 07:03	10/30/20 22:06	1
13C2 PFDA	82		150	10/28/20 07:03	10/30/20 22:06	1
13C2 PFUnA	74		150	10/28/20 07:03	10/30/20 22:06	1
13C2 PFDoA	66		150	10/28/20 07:03	10/30/20 22:06	1
13C2 PFTeDA	64		150	10/28/20 07:03	10/30/20 22:06	1
13C3 PFBS	78		150	10/28/20 07:03	10/30/20 22:06	1
18O2 PFHxS	84		150	10/28/20 07:03	10/30/20 22:06	1
13C4 PFOS	84		150	10/28/20 07:03	10/30/20 22:06	1
13C8 FOSA	74		150	10/28/20 07:03	10/30/20 22:06	1
d3-NMeFOSAA	88		150	10/28/20 07:03	10/30/20 22:06	1
NEtFOSAA	0		150	10/28/20 07:03	10/30/20 22:06	1
M2-6:2 FTS	116		150	10/28/20 07:03	10/30/20 22:06	1
M2-8:2 FTS	124		150	10/28/20 07:03	10/30/20 22:06	1

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.9	H B	.64	.26	ug/Kg	☼	9/20 15:20	1 :15	
Perfluorodecanesulfonic acid (PFDS)	0.20	J H	.26	.050	ug/Kg	☼	9/20 15:20	1 :15	

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	83		150	11/09/20 15:20	11/11/20 11:15	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10300		39.1	5.5	mg/Kg	☼	9/20 15:00	30/20 12:03	
Antimony	ND	F1	3.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:03	
Arsenic	7.8		.9	.60	mg/Kg	☼	9/20 15:00	30/20 12:03	
Barium	103		39.1	3.8	mg/Kg	☼	9/20 15:00	30/20 12:03	
Beryllium	0.45		.39	.062	mg/Kg	☼	9/20 15:00	30/20 12:03	
Cadmium	0.15	J	.78	.067	mg/Kg	☼	9/20 15:00	30/20 12:03	
Calcium	4120		976	72.2	mg/Kg	☼	9/20 15:00	30/20 12:03	
Chromium	16.4		.0	.4	mg/Kg	☼	9/20 15:00	30/20 12:03	
Cobalt	8.4	J	9.8	.54	mg/Kg	☼	9/20 15:00	30/20 12:03	
Copper	29.1		4.9	.2	mg/Kg	☼	9/20 15:00	30/20 12:03	
Iron	19700		9.3	.1	mg/Kg	☼	9/20 15:00	30/20 12:03	
Lea	36.5		.0	.32	mg/Kg	☼	9/20 15:00	30/20 12:03	
Magnesium	3630		976	.1	mg/Kg	☼	9/20 15:00	30/20 12:03	
Manganese	441		.9	.22	mg/Kg	☼	9/20 15:00	30/20 12:03	
Nickel	19.3		7.8	.51	mg/Kg	☼	9/20 15:00	30/20 12:03	
Potassium	1520		976	59.9	mg/Kg	☼	9/20 15:00	30/20 12:03	
Selenium	0.80	J	3.9	.66	mg/Kg	☼	9/20 15:00	30/20 12:03	
Silver	ND		.0	.1	mg/Kg	☼	9/20 15:00	30/20 12:03	
Sodium	113	J	976	84.9	mg/Kg	☼	9/20 15:00	30/20 12:03	
Thallium	0.86	J	3.9	.61	mg/Kg	☼	9/20 15:00	30/20 12:03	
V nadium	26.1		9.8	.91	mg/Kg	☼	9/20 15:00	30/20 12:03	

Client Sample ID: S9B-SOIL-102120

Lab Sample ID: 460-221262-24

Date Collected: 10/21/20 15:45
Date Received: 10/23/20 10:00

Matrix: Solid
Percent Solids: 77.0

Method: 6010D - Metals (ICP) (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	112		5.9	.1	mg/Kg	☼	9/20 15:00	30/20 12:03	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.068		.021	.0050	mg/Kg	☼	8/20 02:58	8/20 06:21	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	F1	.6	.45	mg/Kg	☼	9/20 09:04	30/20 13:35	
Chromium, hexavalent	ND	F1	.6	.45	mg/Kg	☼	12:08	14:22	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.0		.0	.0	%			7/20 13:49	
Percent Solids	77.0		.0	.0	%			7/20 13:49	

Client Sample ID: Equipment Blank 102120

Lab Sample ID: 460-221262-25

Date Collected: 10/21/20 14:30
Date Received: 10/23/20 10:00

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	.2	ng/L		7/20 18:39	9/20 00:09	
Perfluoropentanoic acid (PFPeA)	ND		.8	.45	ng/L		7/20 18:39	9/20 00:09	
Perfluorohexanoic acid (PFHxA)	ND		.8	.53	ng/L		7/20 18:39	9/20 00:09	
Perfluoroheptanoic acid (PFHpA)	ND		.8	.23	ng/L		7/20 18:39	9/20 00:09	
Perfluorooctanoic acid (PFOA)	ND		.8	.78	ng/L		7/20 18:39	9/20 00:09	
Perfluorononanoic acid (PFNA)	ND		.8	.25	ng/L		7/20 18:39	9/20 00:09	
Perfluorodecanoic acid (PFDA)	ND		.8	.28	ng/L		7/20 18:39	9/20 00:09	
Perfluoroundecanoic acid (PFUnA)	ND		.8	.0	ng/L		7/20 18:39	9/20 00:09	
Perfluorododecanoic acid (PFDoA)	ND		.8	.50	ng/L		7/20 18:39	9/20 00:09	
Perfluorotridecanoic acid (PFTriA)	ND		.8	.2	ng/L		7/20 18:39	9/20 00:09	
Perfluorotetradecanoic acid (PFTeA)	ND		.8	.67	ng/L		7/20 18:39	9/20 00:09	
Perfluorobutanesulfonic acid (PFBS)	ND		.8	.18	ng/L		7/20 18:39	9/20 00:09	
Perfluorohexanesulfonic acid (PFHxS)	ND		.8	.52	ng/L		7/20 18:39	9/20 00:09	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.8	.17	ng/L		7/20 18:39	9/20 00:09	
Perfluorooctanesulfonic acid (PFOS)	ND		.8	.49	ng/L		7/20 18:39	9/20 00:09	
Perfluorodecanesulfonic acid (PFDS)	ND		.8	.29	ng/L		7/20 18:39	9/20 00:09	
Perfluorooctanesulfonamide (FOSA)	ND		.8	.90	ng/L		7/20 18:39	9/20 00:09	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.6	.1	ng/L		7/20 18:39	9/20 00:09	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.6	.2	ng/L		7/20 18:39	9/20 00:09	
:2 FTS	ND		4.6	.3	ng/L		7/20 18:39	9/20 00:09	
8:2 FTS	ND		.8	.42	ng/L		7/20 18:39	9/20 00:09	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78*		*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*
13C5 PFPeA	*83*		*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*
13C2 PFHxA	*0*		*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*
13C4 PFHpA	*89*		*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*
13C4 PFOA			*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*
13C5 PFNA	*102*		*150*	*10/27/20 18:39*	*10/29/20 00:09*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: Equipment Blank 102120

Date Collected: 10/21/20 14:30
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-25

Matrix: W ter

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	101		150	10/27/20 18:39	10/29/20 00:09	1
13C2 PFUnA	74		150	10/27/20 18:39	10/29/20 00:09	1
13C2 PFDoA	63		150	10/27/20 18:39	10/29/20 00:09	1
13C2 PFTeDA	73		150	10/27/20 18:39	10/29/20 00:09	1
13C3 PFBS	86		150	10/27/20 18:39	10/29/20 00:09	1
18O2 PFHxS	87		150	10/27/20 18:39	10/29/20 00:09	1
13C4 PFOS			150	10/27/20 18:39	10/29/20 00:09	1
13C8 FOSA	86		150	10/27/20 18:39	10/29/20 00:09	1
d3-NMeFOSAA	46		150	10/27/20 18:39	10/29/20 00:09	1
NEtFOSAA	64		150	10/27/20 18:39	10/29/20 00:09	1
M2-6:2 FTS	76		150	10/27/20 18:39	10/29/20 00:09	1
M2-8:2 FTS	0		150	10/27/20 18:39	10/29/20 00:09	1

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND			76.9	ug/L		4/20 20:00	17:05	
Antimony	ND		.0	3.7	ug/L		4/20 20:00	17:05	
Arsenic	ND		5.0	3.3	ug/L		4/20 20:00	17:05	
Barium	ND			3.2	ug/L		4/20 20:00	17:05	
Beryllium	ND		.0	.17	ug/L		4/20 20:00	17:05	
Cadmium	ND		4.0	.33	ug/L		4/20 20:00	17:05	
Calcium	ND		5000	52	ug/L		4/20 20:00	17:05	
Chromium	ND		.0	5.0	ug/L		4/20 20:00	17:05	
Cobalt	ND		50.0	.0	ug/L		4/20 20:00	17:05	
Copper	ND		5.0	.9	ug/L		4/20 20:00	17:05	
Iron	ND		50	80.8	ug/L		4/20 20:00	17:05	
Lead	ND		.0	.4	ug/L		4/20 20:00	17:05	
Magnesium	ND		5000	42	ug/L		4/20 20:00	17:05	
Manganese	ND		5.0	.76	ug/L		4/20 20:00	17:05	
Nickel	ND		40.0	4.1	ug/L		4/20 20:00	17:05	
Potassium	ND		5000	42	ug/L		4/20 20:00	17:05	
Selenium	ND		.0	5.9	ug/L		4/20 20:00	17:05	
Silver	ND		.0	5.8	ug/L		4/20 20:00	17:05	
Sodium	**194**	**J**	5000	83.8	ug/L		4/20 20:00	17:05	
Thallium	ND		.0	4.1	ug/L		4/20 20:00	17:05	
Vanadium	ND		50.0	7.2	ug/L		4/20 20:00	17:05	
Zinc	**2.2**	**J**	30.0	.2	ug/L		4/20 20:00	17:05	

Method: 7470A - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.20	.091	ug/L		8/20 12:28	8/20 14:22	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H H3	.0	8.1	ug/L			3/20 16:30	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: Field Blank 102120

Lab Sample ID: 460-221262-26

Date Collected: 10/21/20 16:30

Matrix: W ter

Date Received: 10/23/20 10:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3	.0	ng/L		7/20 18:39	9/20 00:19	
Perfluoropentanoic acid (PFPeA)	ND		.7	.42	ng/L		7/20 18:39	9/20 00:19	
Perfluorohexanoic acid (PFHxA)	ND		.7	.49	ng/L		7/20 18:39	9/20 00:19	
Perfluoroheptanoic acid (PFHpA)	ND		.7	.21	ng/L		7/20 18:39	9/20 00:19	
Perfluorooctanoic acid (PFOA)	ND		.7	.72	ng/L		7/20 18:39	9/20 00:19	
Perfluorononanoic acid (PFNA)	ND		.7	.23	ng/L		7/20 18:39	9/20 00:19	
Perfluorodecanoic acid (PFDA)	ND		.7	.26	ng/L		7/20 18:39	9/20 00:19	
Perfluoroundecanoic acid (PFUnA)	ND		.7	.94	ng/L		7/20 18:39	9/20 00:19	
Perfluorododecanoic acid (PFDoA)	ND		.7	.47	ng/L		7/20 18:39	9/20 00:19	
Perfluorotridecanoic acid (PFTriA)	ND		.7	.1	ng/L		7/20 18:39	9/20 00:19	
Perfluorotetradecanoic acid (PFTeA)	ND		.7	.62	ng/L		7/20 18:39	9/20 00:19	
Perfluorobutanesulfonic acid (PFBS)	ND		.7	.17	ng/L		7/20 18:39	9/20 00:19	
Perfluorohexanesulfonic acid (PFHxS)	ND		.7	.48	ng/L		7/20 18:39	9/20 00:19	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.7	.16	ng/L		7/20 18:39	9/20 00:19	
Perfluorooctanesulfonic acid (PFOS)	ND		.7	.46	ng/L		7/20 18:39	9/20 00:19	
Perfluorodecanesulfonic acid (PFDS)	ND		.7	.27	ng/L		7/20 18:39	9/20 00:19	
Perfluorooctanesulfonamide (FOSA)	ND		.7	.83	ng/L		7/20 18:39	9/20 00:19	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		4.3	.0	ng/L		7/20 18:39	9/20 00:19	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	ND		4.3	.1	ng/L		7/20 18:39	9/20 00:19	
:2 FTS	ND		4.3	.1	ng/L		7/20 18:39	9/20 00:19	
8:2 FTS	ND		.7	.39	ng/L		7/20 18:39	9/20 00:19	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*75*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C5 PFPeA	*78*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C2 PFHxA	*83*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C4 PFHpA	*88*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C4 PFOA	*0*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C5 PFNA			*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C2 PFDA			*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C2 PFUnA	*89*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C2 PFDoA	*100*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C2 PFTeDA	*85*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C3 PFBS	*79*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
18O2 PFHxS	*80*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C4 PFOS	*82*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
13C8 FOSA	*77*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
d3-NMeFOSAA	*75*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
NEtFOSAA	*0*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
M2-6:2 FTS	*66*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*
M2-8:2 FTS	*70*		*150*	*10/27/20 18:39*	*10/29/20 00:19*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S5-Soil-102120
Date Collected: 10/21/20 16:48
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-27
Matrix: Solid
Percent Solids: 69.7

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.71**	**B**	.26	.037	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluoropentanoic acid (PFPeA)	**0.31**		.26	.10	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorohexanoic acid (PFHxA)	**0.23**	**J**	.26	.055	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluoroheptanoic acid (PFHpA)	**0.29**		.26	.038	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorooctanoic acid (PFOA)	**0.93**		.26	.1	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorononanoic acid (PFNA)	**0.49**		.26	.047	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorodecanoic acid (PFDA)	**0.35**		.26	.029	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluoroundecanoic acid (PFUnA)	**0.28**		.26	.047	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorododecanoic acid (PFDoA)	**0.16**	**J**	.26	.088	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorotridecanoic acid (PFTriA)	**0.10**	**J**	.26	.067	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorotetradecanoic acid (PFTeA)	**0.093**	**J**	.26	.071	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorobutanesulfonic acid (PFBS)	**0.075**	**J**	.26	.033	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorohexanesulfonic acid (PFHxS)	ND		.26	.041	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.26	.046	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorooctanesulfonic acid (PFOS)	**1.7**	**B ***	.66	.26	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorodecanesulfonic acid (PFDS)	ND	*	.26	.051	ug/Kg	☼	8/20 07:03	30/20 22:34	
Perfluorooctanesulfonamide (FOSA)	ND		.26	.1	ug/Kg	☼	8/20 07:03	30/20 22:34	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.6	.51	ug/Kg	☼	8/20 07:03	30/20 22:34	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.6	.49	ug/Kg	☼	8/20 07:03	30/20 22:34	
:2 FTS	ND		.6	.20	ug/Kg	☼	8/20 07:03	30/20 22:34	
8:2 FTS	ND		.6	.33	ug/Kg	☼	8/20 07:03	30/20 22:34	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C5 PFPeA	*66*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C2 PFHxA	*87*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C4 PFHpA	*0*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C4 PFOA	*88*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C5 PFNA	*78*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C2 PFDA			*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C2 PFUnA	*87*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C2 PFDoA	*71*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C2 PFTeDA	*64*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C3 PFBS	*81*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
18O2 PFHxS	*89*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C4 PFOS	*85*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
13C8 FOSA	*77*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
d3-NMeFOSAA	*87*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
NEtFOSAA	*86*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
M2-6:2 FTS	*133*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*
M2-8:2 FTS	*127*		*150*	*10/28/20 07:03*	*10/30/20 22:34*	*1*

Client Sample ID: S5-Soil-102120

Lab Sample ID: 460-221262-27

Date Collected: 10/21/20 16:48
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 69.7

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1.4	H B	.68	.27	ug/Kg	☼	9/20 15:20	1 :43	
Perfluorodecanesulfonic acid (PFDS)	ND	H	.27	.053	ug/Kg	☼	9/20 15:20	1 :43	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*86*		*150*	*11/09/20 15:20*	*11/11/20 11:43*	*1*

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9780		45.5	.4	mg/Kg	☼	9/20 15:00	30/20 13:22	
Antimony	ND		4.6	.3	mg/Kg	☼	9/20 15:00	30/20 13:22	
Arsenic	6.5		3.4	.70	mg/Kg	☼	9/20 15:00	30/20 13:22	
Barium	80.2		45.5	4.4	mg/Kg	☼	9/20 15:00	30/20 13:22	
Beryllium	0.52		.46	.073	mg/Kg	☼	9/20 15:00	30/20 13:22	
Cadmium	0.30	J	.91	.079	mg/Kg	☼	9/20 15:00	30/20 13:22	
Calcium	4120		40	84.1	mg/Kg	☼	9/20 15:00	30/20 13:22	
Chromium	17.5		.3	.6	mg/Kg	☼	9/20 15:00	30/20 13:22	
Cobalt	8.7	J	.4	.63	mg/Kg	☼	9/20 15:00	30/20 13:22	
Copper	32.5		5.7	.4	mg/Kg	☼	9/20 15:00	30/20 13:22	
Iron	20200		34.1	3.4	mg/Kg	☼	9/20 15:00	30/20 13:22	
Lea	70.0		.3	.37	mg/Kg	☼	9/20 15:00	30/20 13:22	
Magnesium	2970		40	77.1	mg/Kg	☼	9/20 15:00	30/20 13:22	
Manganese	425		3.4	.26	mg/Kg	☼	9/20 15:00	30/20 13:22	
Nickel	18.7		9.1	.60	mg/Kg	☼	9/20 15:00	30/20 13:22	
Potassium	1410		40	9.9	mg/Kg	☼	9/20 15:00	30/20 13:22	
Selenium	ND		4.6	.77	mg/Kg	☼	9/20 15:00	30/20 13:22	
Silver	ND		.3	.3	mg/Kg	☼	9/20 15:00	30/20 13:22	
Sodium	ND		40	99.0	mg/Kg	☼	9/20 15:00	30/20 13:22	
Thallium	0.80	J	4.6	.71	mg/Kg	☼	9/20 15:00	30/20 13:22	
V nadium	26.2		.4	.1	mg/Kg	☼	9/20 15:00	30/20 13:22	
Zinc	150		.8	.2	mg/Kg	☼	9/20 15:00	30/20 13:22	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		.023	.0055	mg/Kg	☼	8/20 03:25	8/20 07:47	

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.9	.50	mg/Kg	☼	9/20 13:45	31/20 1 :52	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.3		.0	.0	%			7/20 13:49	
Percent Solids	69.7		.0	.0	%			7/20 13:49	

Client Sample ID: S10-Soil-102120

Lab Sample ID: 460-221262-28

Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 62.4

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.15	J B	.31	.043	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluoropentanoic acid (PFPeA)	ND		.31	.12	ug/Kg	☼	8/20 07:03	30/20 22:43	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S10-Soil-102120
Date Collected: 10/21/20 17:15
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-28
Matrix: Solid
Percent Solids: 62.4

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	**0.11**	**J**	.31	.065	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluoroheptanoic acid (PFHpA)	**0.071**	**J**	.31	.045	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorooctanoic acid (PFOA)	**0.19**	**J**	.31	.13	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorononanoic acid (PFNA)	**0.13**	**J**	.31	.056	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorodecanoic acid (PFDA)	**0.20**	**J**	.31	.034	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluoroundecanoic acid (PFUnA)	**0.22**	**J**	.31	.056	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorododecanoic acid (PFDoA)	ND		.31	.10	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorotridecanoic acid (PFTriA)	ND		.31	.079	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorotetradecanoic acid (PFTeA)	ND		.31	.084	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorobutanesulfonic acid (PFBS)	ND		.31	.039	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorohexanesulfonic acid (PFHxS)	ND		.31	.048	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.31	.054	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorooctanesulfonic acid (PFOS)	**1.4**	**B ***	.78	.31	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorodecanesulfonic acid (PFDS)	ND	*	.31	.061	ug/Kg	☼	8/20 07:03	30/20 22:43	
Perfluorooctanesulfonamide (FOSA)	ND		.31	.13	ug/Kg	☼	8/20 07:03	30/20 22:43	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		3.1	.61	ug/Kg	☼	8/20 07:03	30/20 22:43	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		3.1	.57	ug/Kg	☼	8/20 07:03	30/20 22:43	
:2 FTS	ND		3.1	.23	ug/Kg	☼	8/20 07:03	30/20 22:43	
8:2 FTS	ND		3.1	.39	ug/Kg	☼	8/20 07:03	30/20 22:43	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C5 PFPeA	*69*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C2 PFHxA	*1*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C4 PFHpA	*1*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C4 PFOA	*87*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C5 PFNA	*89*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C2 PFDA			*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C2 PFUnA			*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C2 PFDoA	*76*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C2 PFTeDA	*63*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C3 PFBS	*82*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
18O2 PFHxS	*88*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C4 PFOS	*86*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
13C8 FOSA	*76*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
d3-NMeFOSAA			*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
NEtFOSAA	*7*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
M2-6:2 FTS	*6*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*
M2-8:2 FTS	*102*		*150*	*10/28/20 07:03*	*10/30/20 22:43*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**1.2**	**H B**	.75	.30	ug/Kg	☼	9/20 15:20	1 :53	
Perfluorodecanesulfonic acid (PFDS)	ND	H	.30	.058	ug/Kg	☼	9/20 15:20	1 :53	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*89*		*150*	*11/09/20 15:20*	*11/11/20 11:53*	*1*

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S10-Soil-102120
Date Collected: 10/21/20 17:15
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-28
Matrix: Solid
Percent Solids: 62.4

Method: 6010D - Metals (ICP)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10400		.6	8.7	mg/Kg	☼	31/20 16:58	3/20 19:51	
Antimony	ND		.2	.8	mg/Kg	☼	31/20 16:58	3/20 19:51	
Arsenic	7.4		4.6	.95	mg/Kg	☼	31/20 16:58	3/20 19:51	
Barium	95.3		.6	5.9	mg/Kg	☼	31/20 16:58	3/20 19:51	
Beryllium	0.14	J	.62	.099	mg/Kg	☼	31/20 16:58	3/20 19:51	
Cadmium	0.34	J	.2	.1	mg/Kg	☼	31/20 16:58	3/20 19:51	
Calcium	2840		540	4	mg/Kg	☼	31/20 16:58	3/20 19:51	
Chromium	26.2		3.1	.2	mg/Kg	☼	31/20 16:58	3/20 19:51	
Cobalt	9.8	J	5.4	.85	mg/Kg	☼	31/20 16:58	3/20 19:51	
Copper	90.7		7.7	.9	mg/Kg	☼	31/20 16:58	3/20 19:51	
Iron	23900		46.2	31.7	mg/Kg	☼	31/20 16:58	3/20 19:51	
Lea	236		3.1	.50	mg/Kg	☼	31/20 16:58	3/20 19:51	
Magnesium	3790		540	4	mg/Kg	☼	31/20 16:58	3/20 19:51	
Manganese	547		4.6	.35	mg/Kg	☼	31/20 16:58	3/20 19:51	
Nickel	25.6		.3	.81	mg/Kg	☼	31/20 16:58	3/20 19:51	
Potassium	1620		540	94.5	mg/Kg	☼	31/20 16:58	3/20 19:51	
Selenium	ND		.2	.0	mg/Kg	☼	31/20 16:58	3/20 19:51	
Silver	ND		3.1	.7	mg/Kg	☼	31/20 16:58	3/20 19:51	
Sodium	ND		540	34	mg/Kg	☼	31/20 16:58	3/20 19:51	
Thallium	ND		.2	.95	mg/Kg	☼	31/20 16:58	3/20 19:51	
V nadium	25.6		5.4	.4	mg/Kg	☼	31/20 16:58	3/20 19:51	
Zinc	211		9.2	.7	mg/Kg	☼	31/20 16:58	3/20 19:51	

Method: 7471B - Mercury (CVAA)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.6		.072	.017	mg/Kg	☼	02:55	09:34	3

General Chemistry

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		3.2	.56	mg/Kg	☼	3/20 07:40	3/20 15:16	

Analyte	esult	Qualifier	L	L	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	37.6		.1	.1	%			8/20 13:1	
Percent Solids	62.4		.1	.1	%			8/20 13:1	

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
460-221262-1	PC1-SOIL-102120	49	58	80	80	83	83	82	86
460-221262-3	PC2-SOIL-102120	58	3	84	84	89	86	84	86
460-221262-4	S15-SOIL-102120	52	57	72	74	81	77	78	83
460-221262-5	S14-SOIL-102120	52	58	77	76	80	78	75	9
460-221262-6	S13-SOIL-102120	55		86	84	87	84	83	84
460-221262-6 MS	S13-SOIL-102120	58	5	88	88	91	88	80	85
460-221262-6 MSD	S13-SOIL-102120	56	4	85	85	91	87	85	94
460-221262-7	S16-SOIL-102120	49	53	74	75	81	78	75	9
460-221262-8	S2-SOIL-102120	54		80	82	85	84	84	87
460-221262-9	DUP1-SOIL-102120	77	8	80	81	80	78	80	90
460-221262-9 MS	DUP1-SOIL-102120	74		82	81	87	77	90	80
460-221262-9 MSD	DUP1-SOIL-102120	73		79	79	88	83	82	76
460-221262-10	S3-SOIL-102120		8	81	84	87	84	88	84
460-221262-1	S4-SOIL-102120	55		73	76	74	76	78	76
460-221262-12	S1 -SOIL-102120	58	50		59	55	59	58	56
460-221262-12 MS	S1 SOIL-102120		52	3		59			59
460-221262-12 MSD	S1 SOIL-102120	47	42	51	49	50	48	51	43
460-221262-13	S12-SOIL-102120		52	3	3	3			58
460-221262-14	DUP2-SOIL-102120	3	55	7	7	4	5	5	
460-221262-15	S1-SOIL-102120	57	50	3	3	4	5	7	
460-221262-17	S6A-SOIL-102120	50	41	58	58	55	53	57	51
460-221262-18	S6B-SOIL-102120	71	59	79	78	76	76	81	77
460-221262-19	S7A-SOIL-102120	5	56	9	8	8	5	70	59
460-221262-20	S7B-SOIL-102120	51	43	59	58	59		58	
460-221262-21	S8A-SOIL-102120	51	42		3	63		71	
460-221262-22	S8B-SOIL-102120	53	44	59		59	57		56
460-221262-23	S9A-SOIL-102120	80	71	89	90	93	84	87	80
460-221262-23 - RE	S9A-SOIL-102120								
460-221262-24	S9B-SOIL-102120	78	5	88	88	86	89	82	74
460-221262-24 - RE	S9B-SOIL-102120								
460-221262-24 MS	S9B-SOIL-102120	78	5	85	85	82	83	86	85
460-221262-24 MS - RE	S9B-SOIL-102120								
460-221262-24MSD	S9B-SOIL-102120	83	70	89	92	89	95	95	80
460-221262-24MSD - RE	S9B-SOIL-102120								
460-221262-27	S5-Soil-102120	78		87	90	88	78	95	87
460-221262-27 - RE	S5-Soil-102120								
460-221262-28	S10-Soil-102120	84	9	91	91	87	89	92	95
460-221262-28 - RE	S10-Soil-102120								
LCS 320-426094/2-A	Lab Control Sample	93	88	91	98	88	82	85	85
LCS 320-426095/2-A	Lab Control Sample	90	90	92	94	90	85	71	
LCS 320-426801/2-A	Lab Control Sample	83	83	87	87	91	90	85	78
LCS 320-427709/2-A	Lab Control Sample	78	84	90	92	94	90	94	89
LCS 320-429933/2-A	Lab Control Sample	74	79	89	95	92	87	88	90
MB 320-426094/1-A	Method Blank	82	77	80	88	80	79	73	77
MB 320-426095/1-A	Method Blank	93	94	91	96	93	86	75	4
MB 320-426801/1-A	Method Blank	83	82	84	86	95	87	89	91
MB 320-427709/1-A	Method Blank	74	78	84	86	94	90	88	87
MB 320-429933/1-A	Method Blank	76	82	88	99	93	89	89	88

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
460-221262-1	PC1-SOIL-102120	83	74	74	82	81	5	72	74
460-221262-3	PC2-SOIL-102120	87	91	73	85	83	78	70	80
460-221262-4	S15-SOIL-102120	76	80	5	71	71	75	70	77
460-221262-5	S14-SOIL-102120	4			9	7	57	56	59
460-221262-6	S13-SOIL-102120	86	86	72	80	84	72	9	70
460-221262-6 MS	S13-SOIL-102120	90	96	76	87	87	75	70	72
460-221262-6 MSD	S13-SOIL-102120	92	94	75	85	86	75	9	74
460-221262-7	S16-SOIL-102120			59		5	58	59	
460-221262-8	S2-SOIL-102120	78		70	79	78	77	74	81
460-221262-9	DUP1-SOIL-102120	80	5	76	80	74	78	86	90
460-221262-9 MS	DUP1-SOIL-102120	5	52	71	82	76	78	83	80
460-221262-9 MSD	DUP1-SOIL-102120	5	44	70	80	74	77	83	84
460-221262-10	S3-SOIL-102120	87	95	4	9	70	82	84	9
460-221262-1	S4-SOIL-102120	79	82		4		75	70	71
460-221262-12	S1 -SOIL-102120		46	58	52	50	45	68	67
460-221262-12 MS	S1 SOIL-102120	56	43	58	57	54	50	9	
460-221262-12 MSD	S1 SOIL-102120	44	4 *5	45	49	43	44	52	48
460-221262-13	S12-SOIL-102120	54	46			56	49		
460-221262-14	DUP2-SOIL-102120	5	49	57	58	53	54	74	8
460-221262-15	S1-SOIL-102120		59	3		5	57	50	44
460-221262-17	S6A-SOIL-102120	46	32	55		56	45	54	50
460-221262-18	S6B-SOIL-102120	7	51	76	78	76		85	74
460-221262-19	S7A-SOIL-102120	56	35		7		57	7	9
460-221262-20	S7B-SOIL-102120	48	9	56			43		57
460-221262-21	S8A-SOIL-102120	54	40		70	5	50	59	56
460-221262-22	S8B-SOIL-102120	54	38	57		57	48	58	49
460-221262-23	S9A-SOIL-102120	79	74	88	87	85	79	93	94
460-221262-23 - RE	S9A-SOIL-102120					83			
460-221262-24	S9B-SOIL-102120		4	78	84	84	74	88	90
460-221262-24 - RE	S9B-SOIL-102120					83			
460-221262-24 MS	S9B-SOIL-102120	79		74	82	78	77	80	80
460-221262-24 MS - RE	S9B-SOIL-102120					81			
460-221262-24MSD	S9B-SOIL-102120	78	5	82	95	84	76	90	85
460-221262-24MSD - RE	S9B-SOIL-102120					79			
460-221262-27	S5-Soil-102120	71	4	81	89	85	77	87	86
460-221262-27 - RE	S5-Soil-102120					86			
460-221262-28	S10-Soil-102120	76	3	82	88	86	76	59	57
460-221262-28 - RE	S10-Soil-102120					89			
LCS 320-426094/2-A	Lab Control Sample	87	91	98	99	92	77	84	86
LCS 320-426095/2-A	Lab Control Sample	46	46	97	97	81		8	3 *5
LCS 320-426801/2-A	Lab Control Sample	86	92	93	96	91	87	83	86
LCS 320-427709/2-A	Lab Control Sample	90	93	88	94	90	85	78	73
LCS 320-429933/2-A	Lab Control Sample	86	83	82	87	83	83	73	75
MB 320-426094/1-A	Method Blank	79	76	88	89	79	7	77	78
MB 320-426095/1-A	Method Blank	43	3 *5	92	93	81	53	31	8
MB 320-426801/1-A	Method Blank	87	87	91	93	92	92	86	90
MB 320-427709/1-A	Method Blank	86	93	84	90	88	80	76	70
MB 320-429933/1-A	Method Blank	91	88	86	90	88	85	8	75

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)
460-221262-1	PC1-SOIL-102120	88 *5	9 *5
460-221262-3	PC2-SOIL-102120	59 *5	86 *5
460-221262-4	S15-SOIL-102120	44	78 *5
460-221262-5	S14-SOIL-102120	9	47
460-221262-6	S13-SOIL-102120	45	72 *5
460-221262-6 MS	S13-SOIL-102120	37	7 *5
460-221262-6 MSD	S13-SOIL-102120	47	4 *5
460-221262-7	S16-SOIL-102120	7	50
460-221262-8	S2-SOIL-102120	53 *5	91 *5
460-221262-9	DUP1-SOIL-102120	3	
460-221262-9 MS	DUP1-SOIL-102120		
460-221262-9 MSD	DUP1-SOIL-102120	3	5
460-221262-10	S3-SOIL-102120		8
460-221262-1	S4-SOIL-102120		30
460-221262-12	S1 -SOIL-102120	7	3
460-221262-12 MS	S1 SOIL-102120	70	76
460-221262-12 MSD	S1 SOIL-102120	54	55
460-221262-13	S12-SOIL-102120	73	71
460-221262-14	DUP2-SOIL-102120	70	8
460-221262-15	S1-SOIL-102120	8	73
460-221262-17	S6A-SOIL-102120	71	7
460-221262-18	S6B-SOIL-102120	99	98
460-221262-19	S7A-SOIL-102120	85	86
460-221262-20	S7B-SOIL-102120	79	85
460-221262-21	S8A-SOIL-102120	89	87
460-221262-22	S8B-SOIL-102120	81	81
460-221262-23	S9A-SOIL-102120	7	33
460-221262-23 - RE	S9A-SOIL-102120		
460-221262-24	S9B-SOIL-102120		4
460-221262-24 - RE	S9B-SOIL-102120		
460-221262-24 MS	S9B-SOIL-102120	8	5
460-221262-24 MS - RE	S9B-SOIL-102120		
460-221262-24MSD	S9B-SOIL-102120		7
460-221262-24MSD - RE	S9B-SOIL-102120		
460-221262-27	S5-Soil-102120	33	7
460-221262-27 - RE	S5-Soil-102120		
460-221262-28	S10-Soil-102120	96	
460-221262-28 - RE	S10-Soil-102120		
LCS 320-426094/2-A	Lab Control Sample	99	88
LCS 320-426095/2-A	Lab Control Sample		41
LCS 320-426801/2-A	Lab Control Sample	98	83
LCS 320-427709/2-A	Lab Control Sample	90	85
LCS 320-429933/2-A	Lab Control Sample	86	77
MB 320-426094/1-A	Method Blank	82	87
MB 320-426095/1-A	Method Blank	58	40
MB 320-426801/1-A	Method Blank		92
MB 320-427709/1-A	Method Blank	86	77
MB 320-429933/1-A	Method Blank	84	81

rrogate Legend

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
460-221262-2	TB1-102120	77	82	88	88	96	94	90	89
460-221262-16	TB2-102120	8	71	75	76	83	81	80	87
460-221262-25	Equipment Blank 102120	78	83	90	89	95			74
460-221262-26	Field Blank 102120	75	78	83	88	90	92	92	89
LCS 320-426004/2-A	Lab Control Sample	77	80	86	87	88	97	95	89
MB 320-426004/1-A	Method Blank	7	70	73	72	78	81	76	81

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFO	d5NEFO
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
460-221262-2	TB1-102120	95	91	83	86	86	81	76	94
460-221262-16	TB2-102120	83	70	75	77	78	70	70	81
460-221262-25	Equipment Blank 102120	3	73	86	87	92	86	46	4
460-221262-26	Field Blank 102120		85	79	80	82	77	75	90
LCS 320-426004/2-A	Lab Control Sample	97	79	82	87	88	81	78	90
MB 320-426004/1-A	Method Blank	85	73	74	75	78	73	71	80

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)
460-221262-2	TB1-102120	70	74
460-221262-16	TB2-102120	3	
460-221262-25	Equipment Blank 102120	76	90
460-221262-26	Field Blank 102120		70
LCS 320-426004/2-A	Lab Control Sample	72	75
MB 320-426004/1-A	Method Blank	5	

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-426004/1-A
Matrix: Water
Analysis Batch: 426308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426004

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	.4	ng/L		7/20 18:22	8/20 19:46	
Perfluoropentanoic acid (PFPeA)	ND		.0	.49	ng/L		7/20 18:22	8/20 19:46	
Perfluorohexanoic acid (PFHxA)	ND		.0	.58	ng/L		7/20 18:22	8/20 19:46	
Perfluoroheptanoic acid (PFHpA)	ND		.0	.25	ng/L		7/20 18:22	8/20 19:46	
Perfluorooctanoic acid (PFOA)	ND		.0	.85	ng/L		7/20 18:22	8/20 19:46	
Perfluorononanoic acid (PFNA)	ND		.0	.27	ng/L		7/20 18:22	8/20 19:46	
Perfluorodecanoic acid (PFDA)	ND		.0	.31	ng/L		7/20 18:22	8/20 19:46	
Perfluoroundecanoic acid (PFUnA)	ND		.0	.1	ng/L		7/20 18:22	8/20 19:46	
Perfluorododecanoic acid (PFDoA)	ND		.0	.55	ng/L		7/20 18:22	8/20 19:46	
Perfluorotridecanoic acid (PFTriA)	ND		.0	.3	ng/L		7/20 18:22	8/20 19:46	
Perfluorotetradecanoic acid (PFTeA)	ND		.0	.73	ng/L		7/20 18:22	8/20 19:46	
Perfluorobutanesulfonic acid (PFBS)	ND		.0	.20	ng/L		7/20 18:22	8/20 19:46	
Perfluorohexanesulfonic acid (PFHxS)	ND		.0	.57	ng/L		7/20 18:22	8/20 19:46	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.0	.19	ng/L		7/20 18:22	8/20 19:46	
Perfluorooctanesulfonic acid (PFOS)	ND		.0	.54	ng/L		7/20 18:22	8/20 19:46	
Perfluorodecanesulfonic acid (PFDS)	ND		.0	.32	ng/L		7/20 18:22	8/20 19:46	
Perfluorooctanesulfonamide (FOSA)	ND		.0	.98	ng/L		7/20 18:22	8/20 19:46	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	.2	ng/L		7/20 18:22	8/20 19:46	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	.3	ng/L		7/20 18:22	8/20 19:46	
:2 FTS	ND		5.0	.5	ng/L		7/20 18:22	8/20 19:46	
8:2 FTS	ND		.0	.46	ng/L		7/20 18:22	8/20 19:46	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C5 PFPeA	*0*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C2 PFHxA	*3*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C4 PFHpA			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C4 PFOA	*8*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C5 PFNA	*81*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C2 PFDA			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C2 PFUnA	*81*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C2 PFDoA	*85*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C2 PFTeDA	*3*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C3 PFBS	*4*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
18O2 PFHxS			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C4 PFOS	*8*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
13C8 FOSA	*3*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
d3-NMeFOSAA	*1*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
-NEtFOSAA	*80*		*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
M2-6:2 FTS			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*
M2-8:2 FTS			*- 150*	*10/27/20 18:22*	*10/28/20 19:46*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426004/2-A
Matrix: Water
Analysis Batch: 426308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426004

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	40.0	41.0		ng/L		3	76	36
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	71	31
Perfluorohexanoic acid (PFHxA)	40.0	39.5		ng/L		99	73	33
Perfluoroheptanoic acid (PFHpA)	40.0	38.0		ng/L		95	72	32
Perfluorooctanoic acid (PFOA)	40.0	40.4		ng/L			70	30
Perfluorononanoic acid (PFNA)	40.0	37.3		ng/L		93	75	35
Perfluorodecanoic acid (PFDA)	40.0	39.5		ng/L		99	76	36
Perfluoroundecanoic acid (PFUnA)	40.0	45.1		ng/L		3	8	8
Perfluorododecanoic acid (PFDoA)	40.0	34.9		ng/L		87	71	31
Perfluorotridecanoic acid (PFTriA)	40.0	38.2		ng/L		96	71	31
Perfluorotetradecanoic acid (PFTeA)	40.0	40.3		ng/L			70	30
Perfluorobutanesulfonic acid (PFBS)	35.4	36.3		ng/L		3	7	7
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.4		ng/L		94	59	9
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.4		ng/L		4	76	36
Perfluorooctanesulfonic acid (PFOS)	37.1	35.2		ng/L		95	70	30
Perfluorodecanesulfonic acid (PFDS)	38.6	35.8		ng/L		93	71	31
Perfluorooctanesulfonamide (FOSA)	40.0	42.0		ng/L		5	73	33
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.8		ng/L		7	76	36
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.9		ng/L			76	36
:2 FTS	37.9	37.4		ng/L		99	59	75
8:2 FTS	38.3	40.6		ng/L			75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA			*- 150*
13C5 PFPeA	*80*		*- 150*
13C2 PFHxA	*86*		*- 150*
13C4 PFHpA	*87*		*- 150*
13C4 PFOA	*88*		*- 150*
13C5 PFNA	*97*		*- 150*
13C2 PFDA	*95*		*- 150*
13C2 PFUnA	*89*		*- 150*
13C2 PFDoA	*97*		*- 150*
13C2 PFTeDA	*9*		*- 150*
13C3 PFBS	*82*		*- 150*
18O2 PFHxS	*87*		*- 150*
13C4 PFOS	*88*		*- 150*
13C8 FOSA	*81*		*- 150*
3-NMeFOSAA	*8*		*- 150*
-NEtFOSAA	*90*		*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426004/2-A
Matrix: Water
Analysis Batch: 426308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426004

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS			- 150
M2-8:2 FTS			- 150

Lab Sample ID: MB 320-426094/1-A
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426094

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.20	.028	ug/Kg		8/20 06:59	23:31	
Perfluoropentanoic acid (PFPeA)	ND		.20	.077	ug/Kg		8/20 06:59	23:31	
Perfluorohexanoic acid (PFHxA)	ND		.20	.042	ug/Kg		8/20 06:59	23:31	
Perfluoroheptanoic acid (PFHpA)	ND		.20	.029	ug/Kg		8/20 06:59	23:31	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg		8/20 06:59	23:31	
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg		8/20 06:59	23:31	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg		8/20 06:59	23:31	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg		8/20 06:59	23:31	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg		8/20 06:59	23:31	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg		8/20 06:59	23:31	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg		8/20 06:59	23:31	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg		8/20 06:59	23:31	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg		8/20 06:59	23:31	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg		8/20 06:59	23:31	
Perfluorooctanesulfonic acid (PFOS)	.327	J	.50	.20	ug/Kg		8/20 06:59	23:31	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg		8/20 06:59	23:31	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg		8/20 06:59	23:31	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg		8/20 06:59	23:31	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg		8/20 06:59	23:31	
:2 FTS	ND		.0	.15	ug/Kg		8/20 06:59	23:31	
8:2 FTS	ND		.0	.25	ug/Kg		8/20 06:59	23:31	

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C4 PFBA	82		- 150	10/28/20 06:59	11/01/20 23:31	1
13C5 PFPeA			- 150	10/28/20 06:59	11/01/20 23:31	1
13C2 PFHxA	80		- 150	10/28/20 06:59	11/01/20 23:31	1
13C4 PFHpA	88		- 150	10/28/20 06:59	11/01/20 23:31	1
13C4 PFOA	80		- 150	10/28/20 06:59	11/01/20 23:31	1
13C5 PFNA	9		- 150	10/28/20 06:59	11/01/20 23:31	1
13C2 PFDA	3		- 150	10/28/20 06:59	11/01/20 23:31	1
13C2 PFUnA			- 150	10/28/20 06:59	11/01/20 23:31	1
13C2 PFDoA	9		- 150	10/28/20 06:59	11/01/20 23:31	1
13C2 PFTeDA			- 150	10/28/20 06:59	11/01/20 23:31	1
13C3 PFBS	88		- 150	10/28/20 06:59	11/01/20 23:31	1
18O2 PFHxS	89		- 150	10/28/20 06:59	11/01/20 23:31	1
13C4 PFOS	9		- 150	10/28/20 06:59	11/01/20 23:31	1
13C8 FOSA			- 150	10/28/20 06:59	11/01/20 23:31	1
d3-NMeFOSAA			- 150	10/28/20 06:59	11/01/20 23:31	1
-NEtFOSAA	8		- 150	10/28/20 06:59	11/01/20 23:31	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-426094/1-A
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426094

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
M2-6:2 FTS	82		- 150	10/28/20 06:59	11/01/20 23:31	1
M2-8:2 FTS	87		- 150	10/28/20 06:59	11/01/20 23:31	1

Lab Sample ID: LCS 320-426094/2-A
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426094

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.00	.97		ug/Kg		99	76	36
Perfluoropentanoic acid (PFPeA)	.00	.93		ug/Kg		97	9	9
Perfluorohexanoic acid (PFHxA)	.00	.13		ug/Kg			71	31
Perfluoroheptanoic acid (PFHpA)	.00	.16		ug/Kg		8	71	31
Perfluorooctanoic acid (PFOA)	.00	.08		ug/Kg		4	72	32
Perfluorononanoic acid (PFNA)	.00	.43		ug/Kg			73	33
Perfluorodecanoic acid (PFDA)	.00	.02		ug/Kg			72	32
Perfluoroundecanoic acid (PFUnA)	.00	.27		ug/Kg		4		
Perfluorododecanoic acid (PFDoA)	.00	.1		ug/Kg		5	71	31
Perfluorotridecanoic acid (PFTriA)	.00	.08		ug/Kg		4	71	31
Perfluorotetradecanoic acid (PFTeA)	.00	.12		ug/Kg			7	7
Perfluorobutanesulfonic acid (PFBS)	.77	.76		ug/Kg			9	9
Perfluorohexanesulfonic acid (PFHxS)	.82	.79		ug/Kg		98		
Perfluoroheptanesulfonic Acid (PFHpS)	.90	.08		ug/Kg		9	76	36
Perfluorooctanesulfonic acid (PFOS)	.86	.04		ug/Kg			8	41
Perfluorodecanesulfonic acid (PFDS)	.93	.1		ug/Kg		9	71	31
Perfluorooctanesulfonamide (FOSA)	.00	.12		ug/Kg			77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	.00	.00		ug/Kg			72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	.00	.04		ug/Kg			72	132
:2 FTS	.90	.74	J	ug/Kg		92	73	39
8:2 FTS	.92	.98	J	ug/Kg		3	75	35

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	93		- 150
13C5 PFPeA	88		- 150
13C2 PFHxA	91		- 150
13C4 PFHpA	98		- 150
13C4 PFOA	88		- 150
13C5 PFNA	82		- 150
13C2 PFDA	85		- 150
13C2 PFUnA	85		- 150
13C2 PFDoA	87		- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426094/2-A
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426094

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFTeDA	91		- 150
13C3 PFBS	98		- 150
18O2 PFHxS	99		- 150
13C4 PFOS	92		- 150
13C8 FOSA			- 150
d3-NMeFOSAA	84		- 150
-NEtFOSAA	86		- 150
M2-6:2 FTS	99		- 150
M2-8:2 FTS	88		- 150

Lab Sample ID: 460-221262-12 MS
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: S11-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.27		.73	.70		ug/Kg	☼	89	76	36
Perfluoropentanoic acid (PFPeA)	.10	J	.73	.75		ug/Kg	☼	97	9	9
Perfluorohexanoic acid (PFHxA)	.13	J	.73	3.04		ug/Kg	☼	7	71	31
Perfluoroheptanoic acid (PFHpA)	.18	J	.73	3.17		ug/Kg	☼		71	31
Perfluorooctanoic acid (PFOA)	.58		.73	3.32		ug/Kg	☼		72	32
Perfluorononanoic acid (PFNA)	.41		.73	3.37		ug/Kg	☼	9	73	33
Perfluorodecanoic acid (PFDA)	.21	J	.73	3.1		ug/Kg	☼	7	72	32
Perfluoroundecanoic acid (PFUnA)	.30	F1	.73	3.93	F1	ug/Kg	☼	33		
Perfluorododecanoic acid (PFDoA)	ND		.73	3.42		ug/Kg	☼		71	31
Perfluorotridecanoic acid (PFTriA)	ND		.73	.84		ug/Kg	☼	4	71	31
Perfluorotetradecanoic acid (PFTeA)	ND		.73	.87		ug/Kg	☼	5	7	7
Perfluorobutanesulfonic acid (PFBS)	ND		.41	.49		ug/Kg	☼	3	9	9
Perfluorohexanesulfonic acid (PFHxS)	ND		.48	.69		ug/Kg	☼	8		
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.59	.81		ug/Kg	☼	8	76	36
Perfluorooctanesulfonic acid (PFOS)	.78	B	.53	3.30		ug/Kg	☼	99	8	41
Perfluorodecanesulfonic acid (PFDS)	ND		.63	.84		ug/Kg	☼	8	71	31
Perfluorooctanesulfonamide (FOSA)	ND		.73	3.06		ug/Kg	☼		77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.73	.93		ug/Kg	☼	7	72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.73	3.12		ug/Kg	☼	5	72	32
:2 FTS	ND		.58	.83		ug/Kg	☼	9	73	39
8:2 FTS	ND		.61	.90		ug/Kg	☼		75	35

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA	0		- 150
13C5 PFPeA			- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-12 MS
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: S11-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426094

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C2 PFHxA	*3*		*- 150*
13C4 PFHpA	*0*		*- 150*
13C4 PFOA	*9*		*- 150*
13C5 PFNA	*1*		*- 150*
13C2 PFDA	*0*		*- 150*
13C2 PFUnA	*9*		*- 150*
13C2 PFDoA			*- 150*
13C2 PFTeDA	*43*		*- 150*
13C3 PFBS	*8*		*- 150*
18O2 PFHxS			*- 150*
13C4 PFOS	*4*		*- 150*
13C8 FOSA	*0*		*- 150*
d3-NMeFOSAA	*9*		*- 150*
-NEtFOSAA	*1*		*- 150*
M2-6:2 FTS	*0*		*- 150*
M2-8:2 FTS			*- 150*

Lab Sample ID: 460-221262-12 MSD
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: S11-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)	.27		.59	.64		ug/Kg	☼	91	76	36		3
Perfluoropentanoic acid (PFPeA)	.10	J	.59	.63		ug/Kg	☼	98	9	9	4	30
Perfluorohexanoic acid (PFHxA)	.13	J	.59	.77		ug/Kg	☼		71	31		30
Perfluoroheptanoic acid (PFHpA)	.18	J	.59	3.03		ug/Kg	☼		71	31	5	30
Perfluorooctanoic acid (PFOA)	.58		.59	3.04		ug/Kg	☼	95	72	32	9	30
Perfluorononanoic acid (PFNA)	.41		.59	3.40		ug/Kg	☼		73	33		30
Perfluorodecanoic acid (PFDA)	.21	J	.59	.75		ug/Kg	☼	98	72	32		30
Perfluoroundecanoic acid (PFUnA)	.30	F1	.59	4.04	F1	ug/Kg	☼	45			3	30
Perfluorododecanoic acid (PFDoA)	ND		.59	.69		ug/Kg	☼	4	71	31	4	30
Perfluorotridecanoic acid (PFTriA)	ND		.59	.24		ug/Kg	☼	87	71	31	3	30
Perfluorotetradecanoic acid (PFTeA)	ND		.59	.66		ug/Kg	☼	3	7	7	8	30
Perfluorobutanesulfonic acid (PFBS)	ND		.29	.34		ug/Kg	☼		9	9		30
Perfluorohexanesulfonic acid (PFHxS)	ND		.35	.33		ug/Kg	☼	99			4	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.46	.66		ug/Kg	☼	8	76	36	5	30
Perfluorooctanesulfonic acid (PFOS)	.78	B	.40	3.29		ug/Kg	☼	4	8	41		30
Perfluorodecanesulfonic acid (PFDS)	ND		.49	.64		ug/Kg	☼		71	31	7	30
Perfluorooctanesulfonamide (FOSA)	ND		.59	.89		ug/Kg	☼		77	37		30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.59	.78		ug/Kg	☼	7	72	32	5	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-12 MSD
Matrix: Solid
Analysis Batch: 427508

Client Sample ID: S11-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426094

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	PD	PD Limit
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.59	.89		ug/Kg	☼		72 32	8	3
:2 FTS	ND		.45	.66		ug/Kg	☼	8	73 39		30
8:2 FTS	ND		.48	.73		ug/Kg	☼		75 35		30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*47*		*- 150*
13C5 PFPeA	*42*		*- 150*
13C2 PFHxA	*1*		*- 150*
13C4 PFHpA	*49*		*- 150*
13C4 PFOA	*0*		*- 150*
13C5 PFNA	*48*		*- 150*
13C2 PFDA	*1*		*- 150*
13C2 PFUnA	*43*		*- 150*
13C2 PFDoA	*44*		*- 150*
13C2 PFTeDA	*4*	*5	*- 150*
13C3 PFBS	*45*		*- 150*
18O2 PFHxS	*49*		*- 150*
13C4 PFOS	*43*		*- 150*
13C8 FOSA	*44*		*- 150*
d3-NMeFOSAA			*- 150*
-NEtFOSAA	*48*		*- 150*
M2-6:2 FTS	*4*		*- 150*
M2-8:2 FTS			*- 150*

Lab Sample ID: MB 320-426095/1-A
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426095

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	.0389	J	.20	.028	ug/Kg		8/20 07:0 3	30/20 21:37	
Perfluoropentanoic acid (PFPeA)	ND		.20	.077	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorohexanoic acid (PFHxA)	ND		.20	.042	ug/Kg		8/20 07:03	30/20 21:37	
Perfluoroheptanoic acid (PFHpA)	ND		.20	.029	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg		8/20 07:03	30/20 21:37	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg		8/20 07:03	30/20 21:37	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorooctanesulfonic acid (PFOS)	.479	J	.50	.20	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg		8/20 07:03	30/20 21:37	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg		8/20 07:03	30/20 21:37	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg		8/20 07:03	30/20 21:37	

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-426095/1-A
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426095

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg		8/20 07:03	30/20 21:37	
:2 FTS	ND		.0	.15	ug/Kg		8/20 07:03	30/20 21:37	
8:2 FTS	ND		.0	.25	ug/Kg		8/20 07:03	30/20 21:37	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA	*93*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C5 PFPeA	*94*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C2 PFHxA	*91*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C4 PFHpA	*96*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C4 PFOA	*93*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C5 PFNA	*86*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C2 PFDA			*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C2 PFUnA	*4*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C2 PFDoA	*43*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C2 PFTeDA	*3*	**5*	*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C3 PFBS	*92*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
18O2 PFHxS	*93*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C4 PFOS	*81*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
13C8 FOSA	*3*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
d3-NMeFOSAA	*31*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
-NEtFOSAA	*8*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
M2-6:2 FTS	*8*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*
M2-8:2 FTS	*40*		*- 150*	*10/28/20 07:03*	*10/30/20 21:37*	*1*

Lab Sample ID: LCS 320-426095/2-A
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426095

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.00	.17		ug/Kg		9	76	36
Perfluoropentanoic acid (PFPeA)	.00	.02		ug/Kg			9	9
Perfluorohexanoic acid (PFHxA)	.00	.14		ug/Kg		7	71	31
Perfluoroheptanoic acid (PFHpA)	.00	.21		ug/Kg			71	31
Perfluorooctanoic acid (PFOA)	.00	.98		ug/Kg		99	72	32
Perfluorononanoic acid (PFNA)	.00	.18		ug/Kg		9	73	33
Perfluorodecanoic acid (PFDA)	.00	.37		ug/Kg		9	72	32
Perfluoroundecanoic acid (PFUnA)	.00	.07		ug/Kg		4		
Perfluorododecanoic acid (PFDoA)	.00	.20		ug/Kg			71	31
Perfluorotridecanoic acid (PFTriA)	.00	.88		ug/Kg		94	71	31
Perfluorotetradecanoic acid (PFTeA)	.00	.06		ug/Kg		3	7	7
Perfluorobutanesulfonic acid (PFBS)	.77	.78		ug/Kg			9	9
Perfluorohexanesulfonic acid (PFHxS)	.82	.77		ug/Kg		97		
Perfluoroheptanesulfonic Acid (PFHpS)	.90	.29		ug/Kg			76	36

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426095/2-A
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426095

Analyte			Spike Added	LCS It	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorooctanesulfonic acid (PFOS)			.86	3.09	*	ug/Kg			8	41
Perfluorodecanesulfonic acid (PFDS)			.93	.19	*	ug/Kg			71	31
Perfluorooctanesulfonamide (FOSA)			.00	.23		ug/Kg			77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			.00	.01		ug/Kg			72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			.00	.03		ug/Kg			72	32
:2 FTS			.90	.88	J	ug/Kg		99	73	39
8:2 FTS			.92	.12		ug/Kg			75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*90*		*- 150*
13C5 PFPeA	*90*		*- 150*
13C2 PFHxA	*92*		*- 150*
13C4 PFHpA	*94*		*- 150*
13C4 PFOA	*90*		*- 150*
13C5 PFNA	*85*		*- 150*
13C2 PFDA	*1*		*- 150*
13C2 PFUnA			*- 150*
13C2 PFDoA	*46*		*- 150*
13C2 PFTeDA	*46*		*- 150*
13C3 PFBS	*97*		*- 150*
18O2 PFHxS	*97*		*- 150*
13C4 PFOS	*81*		*- 150*
13C8 FOSA	*1*		*- 150*
d3-NMeFOSAA	*8*		*- 150*
-NEtFOSAA	*3*	**5*	*- 150*
M2-6:2 FTS			*- 150*
M2-8:2 FTS	*41*		*- 150*

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426095

Analyte	Sample It	Sample Qualifier	Spike Added	MS It	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.19	J B	.51	.53		ug/Kg	☼	93	76	36
Perfluoropentanoic acid (PFPeA)	.20	J	.51	.60		ug/Kg	☼	96	9	9
Perfluorohexanoic acid (PFHxA)	.20	J	.51	.74		ug/Kg	☼		71	31
Perfluoroheptanoic acid (PFHpA)	.15	J	.51	.89		ug/Kg	☼	9	71	31
Perfluorooctanoic acid (PFOA)	.60		.51	3.23		ug/Kg	☼	5	72	32
Perfluorononanoic acid (PFNA)	.24	J	.51	3.00		ug/Kg	☼		73	33
Perfluorodecanoic acid (PFDA)	.27		.51	.80		ug/Kg	☼		72	32
Perfluoroundecanoic acid (PFUnA)	.22	J F1	.51	3.55	F1	ug/Kg	☼	33		
Perfluorododecanoic acid (PFDoA)	.14	J	.51	.90		ug/Kg	☼		71	31
Perfluorotridecanoic acid (PFTriA)	ND		.51	.31		ug/Kg	☼	92	71	31

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426095

Analyte	Sample It	Sample Qualifier	Spike Added	MS It	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorotetradecanoic acid (PFTeA)	ND		.51	.87		ug/Kg	☼	5	7	7
Perfluorobutanesulfonic acid (PFBS)	.079	J	.22	.48		ug/Kg	☼	8	9	9
Perfluorohexanesulfonic acid (PFHxS)	.073	J	.28	.41		ug/Kg	☼	3		
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.39	.76		ug/Kg	☼		76	36
Perfluorooctanesulfonic acid (PFOS)	.9	B *	.33	5.42		ug/Kg	☼	7	8	41
Perfluorodecanesulfonic acid (PFDS)	.16	J *	.42	.72		ug/Kg	☼		71	31
Perfluorooctanesulfonamide (FOSA)	ND		.51	.87		ug/Kg	☼	4	77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.51	.79		ug/Kg	☼		72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.51	.80		ug/Kg	☼		72	32
:2 FTS	ND		.38	.47	J	ug/Kg	☼	4	73	39
8:2 FTS	ND		.40	.69		ug/Kg	☼		75	35

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*8*		*- 150*
13C5 PFPeA			*- 150*
13C2 PFHxA	*85*		*- 150*
13C4 PFHpA	*85*		*- 150*
13C4 PFOA	*82*		*- 150*
13C5 PFNA	*83*		*- 150*
13C2 PFDA	*86*		*- 150*
13C2 PFUnA	*85*		*- 150*
13C2 PFDoA	*9*		*- 150*
13C2 PFTeDA	*0*		*- 150*
13C3 PFBS	*4*		*- 150*
18O2 PFHxS	*82*		*- 150*
13C4 PFOS	*8*		*- 150*
13C8 FOSA			*- 150*
d3-NMeFOSAA	*80*		*- 150*
-NEtFOSAA	*80*		*- 150*
M2-6:2 FTS	*108*		*- 150*
M2-8:2 FTS	*11*		*- 150*

Lab Sample ID: 460-221262-24MSD
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426095

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)	.19	J B	.41	.52		ug/Kg	☼	97	76	36		3
Perfluoropentanoic acid (PFPeA)	.20	J	.41	.58		ug/Kg	☼	99	9	9		30
Perfluorohexanoic acid (PFHxA)	.20	J	.41	.87		ug/Kg	☼		71	31	4	30
Perfluoroheptanoic acid (PFHpA)	.15	J	.41	.68		ug/Kg	☼	5	71	31	7	30
Perfluorooctanoic acid (PFOA)	.60		.41	3.07		ug/Kg	☼	3	72	32	5	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-24MSD
Matrix: Solid
Analysis Batch: 427153

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426095

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorononanoic acid (PFNA)	.24	J	.41	.72		ug/Kg	☼	3	73	33		30
Perfluorodecanoic acid (PFDA)	.27		.41	.63		ug/Kg	☼	98	72	32		30
Perfluoroundecanoic acid (PFUnA)	.22	J F1	.41	3.70	F1	ug/Kg	☼	45			4	30
Perfluorododecanoic acid (PFDoA)	.14	J	.41	.88		ug/Kg	☼	4	71	31		30
Perfluorotridecanoic acid (PFTriA)	ND		.41	.40		ug/Kg	☼	99	71	31	4	30
Perfluorotetradecanoic acid (PFTeA)	ND		.41	.71		ug/Kg	☼		7	7		30
Perfluorobutanesulfonic acid (PFBS)	.079	J	.13	.38		ug/Kg	☼	8	9	9	4	30
Perfluorohexanesulfonic acid (PFHxS)	.073	J	.19	.15		ug/Kg	☼	95				30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.29	.56		ug/Kg	☼		76	36	8	30
Perfluorooctanesulfonic acid (PFOS)	.9	B *	.24	5.32		ug/Kg	☼	7	8	41		30
Perfluorodecanesulfonic acid (PFDS)	.16	J *	.32	.72		ug/Kg	☼		71	31		30
Perfluorooctanesulfonamide (FOSA)	ND		.41	.85		ug/Kg	☼	8	77	37		30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.41	.63		ug/Kg	☼	9	72	32		30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.41	.86		ug/Kg	☼	9	72	32		30
:2 FTS	ND		.28	.54		ug/Kg	☼		73	39	3	30
8:2 FTS	ND		.31	.46		ug/Kg	☼	7	75	35	9	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*83*		*- 150*
13C5 PFPeA	*0*		*- 150*
13C2 PFHxA	*89*		*- 150*
13C4 PFHpA	*92*		*- 150*
13C4 PFOA	*89*		*- 150*
13C5 PFNA	*95*		*- 150*
13C2 PFDA	*95*		*- 150*
13C2 PFUnA	*80*		*- 150*
13C2 PFDoA	*8*		*- 150*
13C2 PFTeDA			*- 150*
13C3 PFBS	*82*		*- 150*
18O2 PFHxS	*95*		*- 150*
13C4 PFOS	*84*		*- 150*
13C8 FOSA			*- 150*
d3-NMeFOSAA	*90*		*- 150*
-NEtFOSAA	*85*		*- 150*
M2-6:2 FTS	*120*		*- 150*
M2-8:2 FTS	*11*		*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-426801/1-A
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426801

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.20	.028	ug/Kg		30/20 04:16	14:26	
Perfluoropentanoic acid (PFPeA)	ND		.20	.077	ug/Kg		30/20 04:16	14:26	
Perfluorohexanoic acid (PFHxA)	ND		.20	.042	ug/Kg		30/20 04:16	14:26	
Perfluoroheptanoic acid (PFHpA)	ND		.20	.029	ug/Kg		30/20 04:16	14:26	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg		30/20 04:16	14:26	
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg		30/20 04:16	14:26	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg		30/20 04:16	14:26	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg		30/20 04:16	14:26	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg		30/20 04:16	14:26	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg		30/20 04:16	14:26	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg		30/20 04:16	14:26	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg		30/20 04:16	14:26	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg		30/20 04:16	14:26	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg		30/20 04:16	14:26	
Perfluorooctanesulfonic acid (PFOS)	ND		.50	.20	ug/Kg		30/20 04:16	14:26	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg		30/20 04:16	14:26	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg		30/20 04:16	14:26	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg		30/20 04:16	14:26	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg		30/20 04:16	14:26	
:2 FTS	ND		.0	.15	ug/Kg		30/20 04:16	14:26	
8:2 FTS	ND		.0	.25	ug/Kg		30/20 04:16	14:26	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA	*83*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C5 PFPeA	*82*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C2 PFHxA	*84*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C4 PFHpA	*86*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C4 PFOA	*95*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C5 PFNA	*87*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C2 PFDA	*89*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C2 PFUnA	*91*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C2 PFDoA	*87*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C2 PFTeDA	*87*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C3 PFBS	*91*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
18O2 PFHxS	*93*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C4 PFOS	*92*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
13C8 FOSA	*92*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
d3-NMeFOSAA	*86*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
-NEtFOSAA	*90*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
M2-6:2 FTS	*106*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*
M2-8:2 FTS	*92*		*- 150*	*10/30/20 04:16*	*11/02/20 14:26*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426801/2-A
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426801

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.00	.13		ug/Kg		7	76	36
Perfluoropentanoic acid (PFPeA)	.00	.03		ug/Kg			9	9
Perfluorohexanoic acid (PFHxA)	.00	.07		ug/Kg		4	71	31
Perfluoroheptanoic acid (PFHpA)	.00	.23		ug/Kg			71	31
Perfluorooctanoic acid (PFOA)	.00	.92		ug/Kg		96	72	32
Perfluorononanoic acid (PFNA)	.00	.01		ug/Kg			73	33
Perfluorodecanoic acid (PFDA)	.00	.12		ug/Kg			72	32
Perfluoroundecanoic acid (PFUnA)	.00	.29		ug/Kg		5		
Perfluorododecanoic acid (PFDoA)	.00	.37		ug/Kg		9	71	31
Perfluorotridecanoic acid (PFTriA)	.00	.06		ug/Kg		3	71	31
Perfluorotetradecanoic acid (PFTeA)	.00	.05		ug/Kg		3	7	7
Perfluorobutanesulfonic acid (PFBS)	.77	.87		ug/Kg			9	9
Perfluorohexanesulfonic acid (PFHxS)	.82	.76		ug/Kg		97		
Perfluoroheptanesulfonic Acid (PFHpS)	.90	.07		ug/Kg		9	76	36
Perfluorooctanesulfonic acid (PFOS)	.86	.13		ug/Kg		5	8	41
Perfluorodecanesulfonic acid (PFDS)	.93	.09		ug/Kg		8	71	31
Perfluorooctanesulfonamide (FOSA)	.00	.21		ug/Kg			77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	.00	.06		ug/Kg		3	72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	.00	.1		ug/Kg		5	72	32
:2 FTS	.90	.90	J	ug/Kg			73	39
8:2 FTS	.92	.1		ug/Kg			75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*83*		*- 150*
13C5 PFPeA	*83*		*- 150*
13C2 PFHxA	*87*		*- 150*
13C4 PFHpA	*87*		*- 150*
13C4 PFOA	*91*		*- 150*
13C5 PFNA	*90*		*- 150*
13C2 PFDA	*85*		*- 150*
13C2 PFUnA	*8*		*- 150*
13C2 PFDoA	*86*		*- 150*
13C2 PFTeDA	*92*		*- 150*
13C3 PFBS	*93*		*- 150*
18O2 PFHxS	*96*		*- 150*
13C4 PFOS	*91*		*- 150*
13C8 FOSA	*87*		*- 150*
3-NMeFOSAA	*83*		*- 150*
-NEtFOSAA	*86*		*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426801/2-A
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426801

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	98		- 150
M2-8:2 FTS	83		- 150

Lab Sample ID: 460-221262-9 MS
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: DUP1-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.55		.68	3.1		ug/Kg	☼	95	76	36
Perfluoropentanoic acid (PFPeA)	.29		.68	.89		ug/Kg	☼	97	9	9
Perfluorohexanoic acid (PFHxA)	.27	J	.68	3.06		ug/Kg	☼	4	71	31
Perfluoroheptanoic acid (PFHpA)	.29		.68	3.30		ug/Kg	☼		71	31
Perfluorooctanoic acid (PFOA)	.1		.68	3.47		ug/Kg	☼	89	72	32
Perfluorononanoic acid (PFNA)	.43		.68	3.57		ug/Kg	☼	7	73	33
Perfluorodecanoic acid (PFDA)	.24	J	.68	.98		ug/Kg	☼		72	32
Perfluoroundecanoic acid (PFUnA)	.25	J F1	.68	4.22	F1	ug/Kg	☼	48		
Perfluorododecanoic acid (PFDoA)	.1	J	.68	3.59		ug/Kg	☼	9	71	31
Perfluorotridecanoic acid (PFTriA)	.087	J	.68	.83		ug/Kg	☼		71	31
Perfluorotetradecanoic acid (PFTeA)	ND		.68	.97		ug/Kg	☼		7	7
Perfluorobutanesulfonic acid (PFBS)	.26	J	.37	.91		ug/Kg	☼		9	9
Perfluorohexanesulfonic acid (PFHxS)	.052	J	.44	.64		ug/Kg	☼			
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.55	.87		ug/Kg	☼	3	76	36
Perfluorooctanesulfonic acid (PFOS)	.5		.49	4.05		ug/Kg	☼	4	8	41
Perfluorodecanesulfonic acid (PFDS)	ND		.59	.71		ug/Kg	☼	5	71	31
Perfluorooctanesulfonamide (FOSA)	ND		.68	3.03		ug/Kg	☼	3	77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.68	3.20		ug/Kg	☼	9	72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.68	3.16		ug/Kg	☼	8	72	32
:2 FTS	ND		.54	.71		ug/Kg	☼	7	73	39
8:2 FTS	ND		.57	.76		ug/Kg	☼	7	75	35

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA	4		- 150
13C5 PFPeA			- 150
13C2 PFHxA	82		- 150
13C4 PFHpA	81		- 150
13C4 PFOA	87		- 150
13C5 PFNA			- 150
13C2 PFDA	90		- 150
13C2 PFUnA	80		- 150
13C2 PFDoA			- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-9 MS
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: DUP1-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426801

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFTeDA			- 150
13C3 PFBS	1		- 150
18O2 PFHxS	82		- 150
13C4 PFOS			- 150
13C8 FOSA	8		- 150
d3-NMeFOSAA	83		- 150
-NEtFOSAA	80		- 150
M2-6:2 FTS	121		- 150
M2-8:2 FTS	11		- 150

Lab Sample ID: 460-221262-9 MSD
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: DUP1-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426801

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)	.55		.67	.98		ug/Kg	☼	91	76	36	4	3
Perfluoropentanoic acid (PFPeA)	.29		.67	.87		ug/Kg	☼	97	9	9		30
Perfluorohexanoic acid (PFHxA)	.27	J	.67	3.18		ug/Kg	☼	9	71	31	4	30
Perfluoroheptanoic acid (PFHpA)	.29		.67	3.22		ug/Kg	☼		71	31	3	30
Perfluorooctanoic acid (PFOA)	.1		.67	3.44		ug/Kg	☼	88	72	32		30
Perfluorononanoic acid (PFNA)	.43		.67	3.41		ug/Kg	☼		73	33	5	30
Perfluorodecanoic acid (PFDA)	.24	J	.67	3.09		ug/Kg	☼	7	72	32	4	30
Perfluoroundecanoic acid (PFUnA)	.25	J F1	.67	4.27	F1	ug/Kg	☼	51				30
Perfluorododecanoic acid (PFDoA)	.1	J	.67	3.33		ug/Kg	☼		71	31	7	30
Perfluorotridecanoic acid (PFTriA)	.087	J	.67	.67		ug/Kg	☼	97	71	31		30
Perfluorotetradecanoic acid (PFTeA)	ND		.67	3.1		ug/Kg	☼	7	7	7	5	30
Perfluorobutanesulfonic acid (PFBS)	.26	J	.36	3.02		ug/Kg	☼	7	9	9	4	30
Perfluorohexanesulfonic acid (PFHxS)	.052	J	.43	.57		ug/Kg	☼	4			3	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.54	.99		ug/Kg	☼	8	76	36	4	30
Perfluorooctanesulfonic acid (PFOS)	.5		.48	4.16		ug/Kg	☼	8	8	41	3	30
Perfluorodecanesulfonic acid (PFDS)	ND		.57	3.02		ug/Kg	☼	7	71	31		30
Perfluorooctanesulfonamide (FOSA)	ND		.67	.79		ug/Kg	☼	5	77	37	8	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.67	3.05		ug/Kg	☼	4	72	32	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.67	3.09		ug/Kg	☼		72	32		30
:2 FTS	ND		.53	.85		ug/Kg	☼	3	73	139	5	30
8:2 FTS	ND		.56	.81		ug/Kg	☼		75	35		30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	3		- 150
13C5 PFPeA			- 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-9 MSD
Matrix: Solid
Analysis Batch: 427738

Client Sample ID: DUP1-SOIL-102120
Prep Type: Total/NA
Prep Batch: 426801

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFHxA	9		- 150
13C4 PFHpA	9		- 150
13C4 PFOA	88		- 150
13C5 PFNA	83		- 150
13C2 PFDA	82		- 150
13C2 PFUnA			- 150
13C2 PFDoA			- 150
13C2 PFTeDA	44		- 150
13C3 PFBS	0		- 150
18O2 PFHxS	80		- 150
13C4 PFOS	4		- 150
13C8 FOSA			- 150
3-NMeFOSAA	83		- 150
-NEtFOSAA	84		- 150
M2-6:2 FTS	123		- 150
M2-8:2 FTS	11		- 150

Lab Sample ID: MB 320-427709/1-A
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 427709

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.20	.028	ug/Kg		12:18	5/20 15:24	
Perfluoropentanoic acid (PFPeA)	ND		.20	.077	ug/Kg		12:18	5/20 15:24	
Perfluorohexanoic acid (PFHxA)	ND		.20	.042	ug/Kg		12:18	5/20 15:24	
Perfluoroheptanoic acid (PFHpA)	ND		.20	.029	ug/Kg		12:18	5/20 15:24	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg		12:18	5/20 15:24	
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg		12:18	5/20 15:24	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg		12:18	5/20 15:24	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg		12:18	5/20 15:24	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg		12:18	5/20 15:24	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg		12:18	5/20 15:24	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg		12:18	5/20 15:24	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg		12:18	5/20 15:24	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg		12:18	5/20 15:24	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg		12:18	5/20 15:24	
Perfluorooctanesulfonic acid (PFOS)	ND		.50	.20	ug/Kg		12:18	5/20 15:24	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg		12:18	5/20 15:24	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg		12:18	5/20 15:24	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg		12:18	5/20 15:24	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg		12:18	5/20 15:24	
:2 FTS	ND		.0	.15	ug/Kg		12:18	5/20 15:24	
8:2 FTS	ND		.0	.25	ug/Kg		12:18	5/20 15:24	

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C4 PFBA	4		- 150	11/02/20 12:18	11/05/20 15:24	1
13C5 PFPeA	8		- 150	11/02/20 12:18	11/05/20 15:24	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-427709/1-A
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 427709

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C2 PFHxA	84		- 150	11/02/20 12:18	11/05/20 15:24	1
13C4 PFHpA	86		- 150	11/02/20 12:18	11/05/20 15:24	1
13C4 PFOA	94		- 150	11/02/20 12:18	11/05/20 15:24	1
13C5 PFNA	90		- 150	11/02/20 12:18	11/05/20 15:24	1
13C2 PFDA	88		- 150	11/02/20 12:18	11/05/20 15:24	1
13C2 PFUnA	87		- 150	11/02/20 12:18	11/05/20 15:24	1
13C2 PFDoA	86		- 150	11/02/20 12:18	11/05/20 15:24	1
13C2 PFTeDA	93		- 150	11/02/20 12:18	11/05/20 15:24	1
13C3 PFBS	84		- 150	11/02/20 12:18	11/05/20 15:24	1
18O2 PFHxS	90		- 150	11/02/20 12:18	11/05/20 15:24	1
13C4 PFOS	88		- 150	11/02/20 12:18	11/05/20 15:24	1
13C8 FOSA	80		- 150	11/02/20 12:18	11/05/20 15:24	1
d3-NMeFOSAA			- 150	11/02/20 12:18	11/05/20 15:24	1
-NEtFOSAA	0		- 150	11/02/20 12:18	11/05/20 15:24	1
M2-6:2 FTS	86		- 150	11/02/20 12:18	11/05/20 15:24	1
M2-8:2 FTS			- 150	11/02/20 12:18	11/05/20 15:24	1

Lab Sample ID: LCS 320-427709/2-A
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 427709

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.00	.06		ug/Kg		3	76	36
Perfluoropentanoic acid (PFPeA)	.00	.83		ug/Kg		92	9	9
Perfluorohexanoic acid (PFHxA)	.00	.97		ug/Kg		99	71	31
Perfluoroheptanoic acid (PFHpA)	.00	.99		ug/Kg			71	31
Perfluorooctanoic acid (PFOA)	.00	.89		ug/Kg		95	72	32
Perfluorononanoic acid (PFNA)	.00	.99		ug/Kg		99	73	33
Perfluorodecanoic acid (PFDA)	.00	.03		ug/Kg			72	32
Perfluoroundecanoic acid (PFUnA)	.00	.99		ug/Kg				
Perfluorododecanoic acid (PFDoA)	.00	.96		ug/Kg		98	71	31
Perfluorotridecanoic acid (PFTriA)	.00	.02		ug/Kg			71	31
Perfluorotetradecanoic acid (PFTeA)	.00	.02		ug/Kg			7	7
Perfluorobutanesulfonic acid (PFBS)	.77	.80		ug/Kg			9	9
Perfluorohexanesulfonic acid (PFHxS)	.82	.63		ug/Kg		90		
Perfluoroheptanesulfonic Acid (PFHpS)	.90	.84		ug/Kg		97	76	36
Perfluorooctanesulfonic acid (PFOS)	.86	.87		ug/Kg			8	41
Perfluorodecanesulfonic acid (PFDS)	.93	.82		ug/Kg		95	71	31
Perfluorooctanesulfonamide (FOSA)	.00	.05		ug/Kg		3	77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	.00	.88	J	ug/Kg		94	72	32

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-427709/2-A
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 427709

Analyte			Spike Added	LCS It	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			.00	.96	J	ug/Kg		98	72	32
:2 FTS			.90	.47	J	ug/Kg		78	73	39
8:2 FTS			.92	.74	J	ug/Kg		91	75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*8*		*- 150*
13C5 PFPeA	*84*		*- 150*
13C2 PFHxA	*90*		*- 150*
13C4 PFHpA	*92*		*- 150*
13C4 PFOA	*94*		*- 150*
13C5 PFNA	*90*		*- 150*
13C2 PFDA	*94*		*- 150*
13C2 PFUnA	*89*		*- 150*
13C2 PFDoA	*90*		*- 150*
13C2 PFTeDA	*93*		*- 150*
13C3 PFBS	*88*		*- 150*
18O2 PFHxS	*94*		*- 150*
13C4 PFOS	*90*		*- 150*
13C8 FOSA	*85*		*- 150*
3-NMeFOSAA	*8*		*- 150*
-NEtFOSAA	*3*		*- 150*
M2-6:2 FTS	*90*		*- 150*
M2-8:2 FTS	*85*		*- 150*

Lab Sample ID: 460-221262-6 MS
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 427709

Analyte	Sample It	Sample Qualifier	Spike Added	MS It	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.90		.45	3.52		ug/Kg	☼	7	76	36
Perfluoropentanoic acid (PFPeA)	.6		.45	3.83		ug/Kg	☼	93	9	9
Perfluorohexanoic acid (PFHxA)	.1		.45	3.75		ug/Kg	☼		71	31
Perfluoroheptanoic acid (PFHpA)	.0		.45	3.61		ug/Kg	☼	5	71	31
Perfluorooctanoic acid (PFOA)	.1		.45	3.34		ug/Kg	☼	90	72	32
Perfluorononanoic acid (PFNA)	.2		.45	3.75		ug/Kg	☼	5	73	33
Perfluorodecanoic acid (PFDA)	.1		.45	4.95		ug/Kg	☼	5	72	32
Perfluoroundecanoic acid (PFUnA)	.86		.45	3.62		ug/Kg	☼	3		
Perfluorododecanoic acid (PFDoA)	.28		.45	.70		ug/Kg	☼	99	71	31
Perfluorotridecanoic acid (PFTriA)	.1	J	.45	.59		ug/Kg	☼		71	31
Perfluorotetradecanoic acid (PFTeA)	.066	J	.45	.66		ug/Kg	☼		7	7
Perfluorobutanesulfonic acid (PFBS)	ND		.17	.38		ug/Kg	☼		9	9
Perfluorohexanesulfonic acid (PFHxS)	ND		.23	.13		ug/Kg	☼	96		
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.33	.37		ug/Kg	☼		76	36

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-6 MS
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 427709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorooctanesulfonic acid (PFOS)	.65		.27	3.10		ug/Kg	☼	8	8	41
Perfluorodecanesulfonic acid (PFDS)	ND		.36	.62		ug/Kg	☼		71	31
Perfluorooctanesulfonamide (FOSA)	ND		.45	.70		ug/Kg	☼		77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.45	.73		ug/Kg	☼		72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.45	.80		ug/Kg	☼	4	72	32
:2 FTS	.23	J	.32	.26	J	ug/Kg	☼	87	73	39
8:2 FTS	.70	J	.35	3.1		ug/Kg	☼	3	75	35

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*8*		*- 150*
13C5 PFPeA			*- 150*
13C2 PFHxA	*88*		*- 150*
13C4 PFHpA	*88*		*- 150*
13C4 PFOA	*91*		*- 150*
13C5 PFNA	*88*		*- 150*
13C2 PFDA	*80*		*- 150*
13C2 PFUnA	*85*		*- 150*
13C2 PFDoA	*90*		*- 150*
13C2 PFTeDA	*96*		*- 150*
13C3 PFBS			*- 150*
18O2 PFHxS	*87*		*- 150*
13C4 PFOS	*87*		*- 150*
13C8 FOSA			*- 150*
3-NMeFOSAA	*0*		*- 150*
-NEtFOSAA			*- 150*
M2-6:2 FTS	*137*		*- 150*
M2-8:2 FTS	*167*	*5	*- 150*

Lab Sample ID: 460-221262-6 MSD
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 427709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)	.90		.45	3.50		ug/Kg	☼		76	36		3
Perfluoropentanoic acid (PFPeA)	.6		.45	3.84		ug/Kg	☼	93	9	9		30
Perfluorohexanoic acid (PFHxA)	.1		.45	3.88		ug/Kg	☼	5	71	31	3	30
Perfluoroheptanoic acid (PFHpA)	.0		.45	3.85		ug/Kg	☼	5	71	31		30
Perfluorooctanoic acid (PFOA)	.1		.45	3.30		ug/Kg	☼	89	72	32		30
Perfluorononanoic acid (PFNA)	.2		.45	3.76		ug/Kg	☼		73	33		30
Perfluorodecanoic acid (PFDA)	.1		.45	4.80		ug/Kg	☼	9	72	32	3	30
Perfluoroundecanoic acid (PFUnA)	.86		.45	3.43		ug/Kg	☼	5			5	30
Perfluorododecanoic acid (PFDoA)	.28		.45	.68		ug/Kg	☼	98	71	31		30
Perfluorotridecanoic acid (PFTriA)	.1	J	.45	.43		ug/Kg	☼	95	71	31	7	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-221262-6 MSD
Matrix: Solid
Analysis Batch: 428856

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 427709

Analyte	Sample It	Sample Qualifier	Spike Added	MSD It	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorotetradecanoic acid (PFTeA)	.066	J	.45	.64		ug/Kg	☼	5	7	7		3
Perfluorobutanesulfonic acid (PFBS)	ND		.16	.42		ug/Kg	☼		9	9		30
Perfluorohexanesulfonic acid (PFHxS)	ND		.23	.20		ug/Kg	☼	99			3	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.33	.53		ug/Kg	☼	8	76	36		30
Perfluorooctanesulfonic acid (PFOS)	.65		.27	.93		ug/Kg	☼		8	41	5	30
Perfluorodecanesulfonic acid (PFDS)	ND		.36	.76		ug/Kg	☼	7	71	31	5	30
Perfluorooctanesulfonamide (FOSA)	ND		.45	.88		ug/Kg	☼	8	77	37		30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.45	.77		ug/Kg	☼	3	72	32		30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.45	.73		ug/Kg	☼		72	32	3	30
:2 FTS	.23	J	.32	.34	J	ug/Kg	☼	91	73	39	4	30
8:2 FTS	.70	J	.34	3.26		ug/Kg	☼	9	75	35	5	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA			*- 150*
13C5 PFPeA	*4*		*- 150*
13C2 PFHxA	*85*		*- 150*
13C4 PFHpA	*85*		*- 150*
13C4 PFOA	*91*		*- 150*
13C5 PFNA	*87*		*- 150*
13C2 PFDA	*85*		*- 150*
13C2 PFUnA	*94*		*- 150*
13C2 PFDoA	*92*		*- 150*
13C2 PFTeDA	*94*		*- 150*
13C3 PFBS			*- 150*
18O2 PFHxS	*85*		*- 150*
13C4 PFOS	*86*		*- 150*
13C8 FOSA			*- 150*
3-NMeFOSAA	*9*		*- 150*
-NEtFOSAA	*4*		*- 150*
M2-6:2 FTS	*147*		*- 150*
M2-8:2 FTS	*164*	**5*	*- 150*

Lab Sample ID: MB 320-429933/1-A
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 429933

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.20	.028	ug/Kg		9/20 15:20	10:29	
Perfluoropentanoic acid (PFPeA)	ND		.20	.077	ug/Kg		9/20 15:20	10:29	
Perfluorohexanoic acid (PFHxA)	ND		.20	.042	ug/Kg		9/20 15:20	10:29	
Perfluoroheptanoic acid (PFHpA)	ND		.20	.029	ug/Kg		9/20 15:20	10:29	
Perfluorooctanoic acid (PFOA)	ND		.20	.086	ug/Kg		9/20 15:20	10:29	

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-429933/1-A
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 429933

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		.20	.036	ug/Kg		9/20 15:20	10:29	
Perfluorodecanoic acid (PFDA)	ND		.20	.022	ug/Kg		9/20 15:20	10:29	
Perfluoroundecanoic acid (PFUnA)	ND		.20	.036	ug/Kg		9/20 15:20	10:29	
Perfluorododecanoic acid (PFDoA)	ND		.20	.067	ug/Kg		9/20 15:20	10:29	
Perfluorotridecanoic acid (PFTriA)	ND		.20	.051	ug/Kg		9/20 15:20	10:29	
Perfluorotetradecanoic acid (PFTeA)	ND		.20	.054	ug/Kg		9/20 15:20	10:29	
Perfluorobutanesulfonic acid (PFBS)	ND		.20	.025	ug/Kg		9/20 15:20	10:29	
Perfluorohexanesulfonic acid (PFHxS)	ND		.20	.031	ug/Kg		9/20 15:20	10:29	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.20	.035	ug/Kg		9/20 15:20	10:29	
Perfluorooctanesulfonic acid (PFOS)	.347	J	.50	.20	ug/Kg		9/20 15:20	10:29	
Perfluorodecanesulfonic acid (PFDS)	ND		.20	.039	ug/Kg		9/20 15:20	10:29	
Perfluorooctanesulfonamide (FOSA)	ND		.20	.082	ug/Kg		9/20 15:20	10:29	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.0	.39	ug/Kg		9/20 15:20	10:29	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.0	.37	ug/Kg		9/20 15:20	10:29	
:2 FTS	ND		.0	.15	ug/Kg		9/20 15:20	10:29	
8:2 FTS	ND		.0	.25	ug/Kg		9/20 15:20	10:29	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA			*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C5 PFPeA	*82*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C2 PFHxA	*88*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C4 PFHpA	*99*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C4 PFOA	*93*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C5 PFNA	*89*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C2 PFDA	*89*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C2 PFUnA	*88*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C2 PFDoA	*91*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C2 PFTeDA	*88*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C3 PFBS	*86*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
18O2 PFHxS	*90*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C4 PFOS	*88*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
13C8 FOSA	*85*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
d3-NMeFOSAA	*8*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
-NEtFOSAA			*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
M2-6:2 FTS	*84*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*
M2-8:2 FTS	*81*		*- 150*	*11/09/20 15:20*	*11/11/20 10:29*	*1*

Lab Sample ID: LCS 320-429933/2-A
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 429933

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	.00	.31		ug/Kg		5	76	36
Perfluoropentanoic acid (PFPeA)	.00	.10		ug/Kg		5	9	9
Perfluorohexanoic acid (PFHxA)	.00	.20		ug/Kg			71	31
Perfluoroheptanoic acid (PFHpA)	.00	.12		ug/Kg			71	31
Perfluorooctanoic acid (PFOA)	.00	.02		ug/Kg			72	32

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-429933/2-A
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 429933

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorononanoic acid (PFNA)	.00	.30		ug/Kg		5	73	33
Perfluorodecanoic acid (PFDA)	.00	.27		ug/Kg		4	72	32
Perfluoroundecanoic acid (PFUnA)	.00	.28		ug/Kg		4		
Perfluorododecanoic acid (PFDoA)	.00	.22		ug/Kg			71	31
Perfluorotridecanoic acid (PFTriA)	.00	.25		ug/Kg			71	31
Perfluorotetradecanoic acid (PFTeA)	.00	.32		ug/Kg			7	7
Perfluorobutanesulfonic acid (PFBS)	.77	.04		ug/Kg		5	9	9
Perfluorohexanesulfonic acid (PFHxS)	.82	.88		ug/Kg		3		
Perfluoroheptanesulfonic Acid (PFHpS)	.90	.17		ug/Kg		4	76	36
Perfluorooctanesulfonic acid (PFOS)	.86	.47		ug/Kg		33	8	41
Perfluorodecanesulfonic acid (PFDS)	.93	.20		ug/Kg		4	71	31
Perfluorooctanesulfonamide (FOSA)	.00	.30		ug/Kg		5	77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	.00	.17		ug/Kg		8	72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	.00	.28		ug/Kg		4	72	32
:2 FTS	.90	.87	J	ug/Kg		99	73	39
8:2 FTS	.92	.29		ug/Kg		9	75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*4*		*- 150*
13C5 PFPeA	*9*		*- 150*
13C2 PFHxA	*89*		*- 150*
13C4 PFHpA	*95*		*- 150*
13C4 PFOA	*92*		*- 150*
13C5 PFNA	*87*		*- 150*
13C2 PFDA	*88*		*- 150*
13C2 PFUnA	*90*		*- 150*
13C2 PFDoA	*86*		*- 150*
13C2 PFTeDA	*83*		*- 150*
13C3 PFBS	*82*		*- 150*
18O2 PFHxS	*87*		*- 150*
13C4 PFOS	*83*		*- 150*
13C8 FOSA	*83*		*- 150*
d3-NMeFOSAA	*3*		*- 150*
-NEtFOSAA			*- 150*
M2-6:2 FTS	*86*		*- 150*
M2-8:2 FTS			*- 150*

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 429933

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorooctanesulfonic acid (PFOS) - RE	.9	H B	.26	5.61	H B	ug/Kg	☼		8	141
Perfluorodecanesulfonic acid (PFDS) - RE	.20	J H	.35	.98	H	ug/Kg	☼	8	71	31

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*	
13C4 PFOS - RE	*81*		*- 150*	

Lab Sample ID: 460-221262-24MSD
Matrix: Solid
Analysis Batch: 430542

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 429933

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorooctanesulfonic acid (PFOS) - RE	.9	H B	.28	5.70	H B	ug/Kg	☼	23	68	141		3
Perfluorodecanesulfonic acid (PFDS) - RE	.20	J H	.37	.92	H	ug/Kg	☼	15	71	131		30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*	
13C4 PFOS - RE	*9*		*- 150*	

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-734596/1-A
Matrix: Water
Analysis Batch: 734898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 734596

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND			76.9	ug/L		4/20 20:00	16:09	
Antimony	ND		.0	3.7	ug/L		4/20 20:00	16:09	
Arsenic	ND		5.0	3.3	ug/L		4/20 20:00	16:09	
Barium	ND			3.2	ug/L		4/20 20:00	16:09	
Beryllium	ND		.0	.17	ug/L		4/20 20:00	16:09	
Cadmium	ND		4.0	.33	ug/L		4/20 20:00	16:09	
Calcium	ND		5000	52	ug/L		4/20 20:00	16:09	
Chromium	ND		.0	5.0	ug/L		4/20 20:00	16:09	
Cobalt	ND		50.0	.0	ug/L		4/20 20:00	16:09	
Copper	ND		5.0	.9	ug/L		4/20 20:00	16:09	
Iron	ND		50	80.8	ug/L		4/20 20:00	16:09	
Lead	ND		.0	.4	ug/L		4/20 20:00	16:09	
Magnesium	ND		5000	42	ug/L		4/20 20:00	16:09	
Manganese	ND		5.0	.76	ug/L		4/20 20:00	16:09	
Nickel	ND		40.0	4.1	ug/L		4/20 20:00	16:09	
Potassium	ND		5000	42	ug/L		4/20 20:00	16:09	
Selenium	ND		.0	5.9	ug/L		4/20 20:00	16:09	
Silver	ND		.0	5.8	ug/L		4/20 20:00	16:09	
Sodium	ND		5000	83.8	ug/L		4/20 20:00	16:09	
Thallium	ND		.0	4.1	ug/L		4/20 20:00	16:09	
Vanadium	ND		50.0	7.2	ug/L		4/20 20:00	16:09	
Zinc	ND		30.0	.2	ug/L		4/20 20:00	16:09	

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 460-734596/2-A
Matrix: Water
Analysis Batch: 734898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 734596

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum				ug/L			80
Antimony	500	473.7		ug/L		95	80
Arsenic		85		ug/L		4	80
Barium		33		ug/L			80
Beryllium	50.0	49.74		ug/L		99	80
Cadmium	50.0	52.05		ug/L		4	80
Calcium		80		ug/L			80
Chromium		8.3		ug/L		4	80
Cobalt	500	522.5		ug/L		5	80
Copper	50	54.6		ug/L			80
Iron		47		ug/L		5	80
Lead	500	519.4		ug/L		4	80
Magnesium		510		ug/L		3	80
Manganese	500	516.4		ug/L		3	80
Nickel	500	520.1		ug/L		4	80
Potassium		9230		ug/L		96	80
Selenium				ug/L			80
Silver	50.0	51.99		ug/L		4	80
Sodium		9290		ug/L		96	80
Thallium		9		ug/L		3	80
Vanadium	500	521.1		ug/L		4	80
Zinc	500	518.6		ug/L		4	80

Lab Sample ID: MB 460-735373/1-A ^2
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735373

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40.0	5.7	mg/Kg		8/20 02:35	8/20 17:54	
Antimony	ND		4.0	.2	mg/Kg		8/20 02:35	8/20 17:54	
Arsenic	ND		3.0	.62	mg/Kg		8/20 02:35	8/20 17:54	
Barium	ND		40.0	3.9	mg/Kg		8/20 02:35	8/20 17:54	
Beryllium	ND		.40	.064	mg/Kg		8/20 02:35	8/20 17:54	
Cadmium	ND		.80	.069	mg/Kg		8/20 02:35	8/20 17:54	
Calcium	ND			73.9	mg/Kg		8/20 02:35	8/20 17:54	
Chromium	ND		.0	.4	mg/Kg		8/20 02:35	8/20 17:54	
Cobalt	ND		.0	.55	mg/Kg		8/20 02:35	8/20 17:54	
Copper	ND		5.0	.3	mg/Kg		8/20 02:35	8/20 17:54	
Iron	ND		30.0	.6	mg/Kg		8/20 02:35	8/20 17:54	
Lead	ND		.0	.32	mg/Kg		8/20 02:35	8/20 17:54	
Magnesium	ND			7.7	mg/Kg		8/20 02:35	8/20 17:54	
Manganese	ND		3.0	.23	mg/Kg		8/20 02:35	8/20 17:54	
Nickel	ND		8.0	.53	mg/Kg		8/20 02:35	8/20 17:54	
Potassium	ND			.4	mg/Kg		8/20 02:35	8/20 17:54	
Selenium	ND		4.0	.68	mg/Kg		8/20 02:35	8/20 17:54	
Silver	ND		.0	.1	mg/Kg		8/20 02:35	8/20 17:54	
Sodium	ND			87.0	mg/Kg		8/20 02:35	8/20 17:54	
Thallium	ND		4.0	.62	mg/Kg		8/20 02:35	8/20 17:54	
Vanadium	ND		.0	.93	mg/Kg		8/20 02:35	8/20 17:54	

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 460-735373/1-A ^2
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735373

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		.0	.1	mg/Kg		8/20 02:35	8/20 17:54	

Lab Sample ID: LCSSRM 460-735373/2-A ^2
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735373

Analyte	Spike Added	LCSSRM lt	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Aluminum	8460	7406		mg/Kg		87.5	50.4	50.
Antimony		78.50		mg/Kg		5.4	4.8	95.
Arsenic	95.5	93.84		mg/Kg		98.3	82.8	7. 3
Barium	300	95.0		mg/Kg		98.3	82.3	7. 7
Beryllium	3	.2		mg/Kg		97.3	82.8	. 5
Cadmium	35	32.8		mg/Kg		98.4	83.0	7. 8
Calcium	4720	4520		mg/Kg		95.8	81.6	8.
Chromium	47	42.7		mg/Kg		97.1	82.3	7. 7
Cobalt	43.2	43.48		mg/Kg		.6	83.8	.
Copper	50	48.4		mg/Kg		99.0	84.0	.
Iron	4400	4030		mg/Kg		97.4	.3	38. 9
Lead	92.3	92.38		mg/Kg		.1	83.1	7.
Magnesium	300	70		mg/Kg		94.3	75.7	4. 3
Manganese	77	59.4		mg/Kg		97.4	82.0	8.
Nickel	59.8	59.86		mg/Kg		.1	82.6	7.
Potassium	30	946		mg/Kg		95.9	70.0	30.
Selenium	42.0	41.04		mg/Kg		97.7	79.5	. 5
Silver	40.3	37.72		mg/Kg		93.6	80.6	9. 4
Sodium	39	32.8	J	mg/Kg		95.5	71.9	7. 3
Thallium	83.1	85.54		mg/Kg		.9	81.0	9.
Vanadium	96.9	94.72		mg/Kg		97.8	79.2	. 7
Zinc	369	357.6		mg/Kg		96.9	80.8	9.

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 460-221262-6 MS
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735373

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Aluminum	3100		55	5950	4	mg/Kg	☼	36	75	5
Antimony	ND	F1	3.7	8.42	F1	mg/Kg	☼	45	75	5
Arsenic	5.1		55	47.1		mg/Kg	☼	95	75	5
Barium			55	379.8		mg/Kg	☼	5	75	5
Beryllium	.56		.37	.80		mg/Kg	☼	98	75	5
Cadmium	.57	J	.37	.70		mg/Kg	☼	96	75	5
Calcium			550	4583		mg/Kg	☼	95	75	5
Chromium	.9		5.5	42.70		mg/Kg	☼		75	5
Cobalt	7.9	J	3.7	70.66		mg/Kg	☼	98	75	5
Copper	.2		31.9	51.87		mg/Kg	☼	93	75	5
Iron	3300		7	4580	4	mg/Kg	☼	972	75	5
Lead	.1		3.7	84.07		mg/Kg	☼		75	5
Magnesium	4330		550	783		mg/Kg	☼	96	75	5
Manganese	893		3.7		4	mg/Kg	☼	579	75	5
Nickel	9.6		3.7	83.12		mg/Kg	☼		75	5
Potassium	70	J	550	3678		mg/Kg	☼	99	75	5
Selenium	ND		55	35.2		mg/Kg	☼	92	75	5
Silver	ND		.37	5.90		mg/Kg	☼	93	75	5
Sodium	512	J	550	3069		mg/Kg	☼		75	5
Thallium	ND		55	50.6		mg/Kg	☼	98	75	5
Vanadium	.2		3.7	86.54		mg/Kg	☼		75	5
Zinc			3.7	77.4		mg/Kg	☼		75	5

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735373

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	PD	PD Limit
Aluminum	3100		3320		mg/Kg	☼		
Antimony	ND	F1	ND		mg/Kg	☼	NC	
Arsenic	5.1		4.87		mg/Kg	☼	5	
Barium			4.9		mg/Kg	☼		
Beryllium	.56		.61		mg/Kg	☼	8	
Cadmium	.57	J	.546	J	mg/Kg	☼	4	
Calcium			876		mg/Kg	☼	4	
Chromium	.9		.43		mg/Kg	☼	3	
Cobalt	7.9	J	8.28	J	mg/Kg	☼	4	
Copper	.2		3.86		mg/Kg	☼	7	
Iron	3300		590		mg/Kg	☼	3	
Lead	.1		3.23		mg/Kg	☼	4	
Magnesium	4330		3984		mg/Kg	☼	8	
Manganese	893		99	F3	mg/Kg	☼		
Nickel	9.6		9.90		mg/Kg	☼		
Potassium	70	J	3	J	mg/Kg	☼	3	
Selenium	ND		ND		mg/Kg	☼	NC	
Silver	ND		ND		mg/Kg	☼	NC	
Sodium	512	J	536.8	J	mg/Kg	☼	5	
Thallium	ND		ND		mg/Kg	☼	NC	
Vanadium	.2		.29		mg/Kg	☼	.5	

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 735504

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735373

Analyte	Sample It	Sample Qualifier		DU It	DU Qualifier	Unit	D			PD	PD Limit
Zinc				5.1		mg/Kg	☼			72	

Lab Sample ID: MB 460-735879/1-A ^2
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735879

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40.0	5.7	mg/Kg		9/20 15:00	30/20 1 :43	
Antimony	ND		4.0	.2	mg/Kg		9/20 15:00	30/20 1 :43	
Arsenic	ND		3.0	.62	mg/Kg		9/20 15:00	30/20 1 :43	
Barium	ND		40.0	3.9	mg/Kg		9/20 15:00	30/20 1 :43	
Beryllium	ND		.40	.064	mg/Kg		9/20 15:00	30/20 1 :43	
Cadmium	ND		.80	.069	mg/Kg		9/20 15:00	30/20 1 :43	
Calcium	ND			73.9	mg/Kg		9/20 15:00	30/20 1 :43	
Chromium	ND		.0	.4	mg/Kg		9/20 15:00	30/20 1 :43	
Cobalt	ND		.0	.55	mg/Kg		9/20 15:00	30/20 1 :43	
Copper	ND		5.0	.3	mg/Kg		9/20 15:00	30/20 1 :43	
Iron	ND		30.0	.6	mg/Kg		9/20 15:00	30/20 1 :43	
Lead	ND		.0	.32	mg/Kg		9/20 15:00	30/20 1 :43	
Magnesium	ND			7.7	mg/Kg		9/20 15:00	30/20 1 :43	
Manganese	ND		3.0	.23	mg/Kg		9/20 15:00	30/20 1 :43	
Nickel	ND		8.0	.53	mg/Kg		9/20 15:00	30/20 1 :43	
Potassium	ND			.4	mg/Kg		9/20 15:00	30/20 1 :43	
Selenium	ND		4.0	.68	mg/Kg		9/20 15:00	30/20 1 :43	
Silver	ND		.0	.1	mg/Kg		9/20 15:00	30/20 1 :43	
Sodium	ND			87.0	mg/Kg		9/20 15:00	30/20 1 :43	
Thallium	ND		4.0	.62	mg/Kg		9/20 15:00	30/20 1 :43	
Vanadium	ND		.0	.93	mg/Kg		9/20 15:00	30/20 1 :43	
Zinc	ND		.0	.1	mg/Kg		9/20 15:00	30/20 1 :43	

Lab Sample ID: LCSSRM 460-735879/2-A ^2
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735879

Analyte			Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits			
Aluminum			8460	7294		mg/Kg		86.2	50.4	50.		
Antimony				77.36		mg/Kg		4.5	4.8	95.		
Arsenic			95.5	91.58		mg/Kg		95.9	82.8	7.3		
Barium			300	81.2		mg/Kg		93.7	82.3	7.7		
Beryllium			3	96.96		mg/Kg		94.1	82.8	.5		
Cadmium			35	31.1		mg/Kg		97.1	83.0	7.8		
Calcium			4720	4578		mg/Kg		97.0	81.6	8.		
Chromium			47	38.5		mg/Kg		94.2	82.3	7.7		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-735879/2-A ^2
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735879

Analyte	Spike Added	LCSSRM lt	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	43.2	42.16		mg/Kg		97.6	83.8 .
Copper	50	45.6		mg/Kg		97.1	84.0 .
Iron	4400	4200		mg/Kg		98.6	.3 38. 9
Lead	92.3	89.12		mg/Kg		96.6	83.1 7.
Magnesium	300	34		mg/Kg		92.8	75.7 4. 3
Manganese	77	71.2		mg/Kg		99.1	82.0 8.
Nickel	59.8	59.70		mg/Kg		99.8	82.6 7.
Potassium	30	868		mg/Kg		92.0	70.0 30.
Selenium	42.0	41.16		mg/Kg		98.0	79.5 . 5
Silver	40.3	36.60		mg/Kg		90.8	80.6 9. 4
Sodium	39	9.9	J	mg/Kg		86.2	71.9 7. 3
Thallium	83.1	85.18		mg/Kg		.5	81.0 9.
Vanadium	96.9	91.90		mg/Kg		94.8	79.2 . 7
Zinc	369	358.8		mg/Kg		97.2	80.8 9.

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735879

Analyte	Sample lt	Sample Qualifier	Spike Added	MS lt	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	300		91	70	4	mg/Kg	☼	389	75 5
Antimony	ND	F1	47.7	5.48	F1	mg/Kg	☼	32	75 5
Arsenic	7.8		91	86.5		mg/Kg	☼	94	75 5
Barium	3		91	75.0		mg/Kg	☼	90	75 5
Beryllium	.45		4.77	4.89		mg/Kg	☼	93	75 5
Cadmium	.15	J	4.77	4.67		mg/Kg	☼	95	75 5
Calcium	4120		910	5729		mg/Kg	☼	84	75 5
Chromium	.4		9.1	36.55		mg/Kg	☼	5	75 5
Cobalt	8.4	J	47.7	53.18		mg/Kg	☼	94	75 5
Copper	9.1		3.9	51.26		mg/Kg	☼	93	75 5
Iron	9700		95.5	9340	4	mg/Kg	☼	334	75 5
Lead	36.5		47.7	88.70		mg/Kg	☼	9	75 5
Magnesium	3630		910	5446		mg/Kg	☼	95	75 5
Manganese	441		47.7	474.4	4	mg/Kg	☼	9	75 5
Nickel	9.3		47.7	4.95		mg/Kg	☼	96	75 5
Potassium	520		910	3199		mg/Kg	☼	88	75 5
Selenium	.80	J	91	75.9		mg/Kg	☼	92	75 5
Silver	ND		4.77	4.29		mg/Kg	☼	90	75 5

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735879

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Sodium	3	J	910	903		mg/Kg	☼	94	75	5
Thallium	.86	J	91	85.4		mg/Kg	☼	97	75	5
Vanadium	.1		47.7	70.54		mg/Kg	☼	93	75	5
Zinc			47.7	54.3		mg/Kg	☼	89	75	5

Lab Sample ID: 460-221262-24 DU
Matrix: Solid
Analysis Batch: 736162

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735879

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	PD	PD Limit
Aluminum	300		510		mg/Kg	☼		
Antimony	ND	F1	ND		mg/Kg	☼	NC	
Arsenic	7.8		7.66		mg/Kg	☼		
Barium	3		99.58		mg/Kg	☼	3	
Beryllium	.45		.456		mg/Kg	☼		
Cadmium	.15	J	.159	J	mg/Kg	☼	3	
Calcium	4120		4024		mg/Kg	☼		
Chromium	.4		.22		mg/Kg	☼		
Cobalt	8.4	J	8.39	J	mg/Kg	☼	.2	
Copper	9.1		8.41		mg/Kg	☼		
Iron	9700		9750		mg/Kg	☼	.4	
Lead	36.5		37.66		mg/Kg	☼	3	
Magnesium	3630		3799		mg/Kg	☼	5	
Manganese	441		426.6		mg/Kg	☼	3	
Nickel	9.3		9.48		mg/Kg	☼	.8	
Potassium	520		480		mg/Kg	☼	3	
Selenium	.80	J	.01	J F5	mg/Kg	☼	3	
Silver	ND		ND		mg/Kg	☼	NC	
Sodium	3	J	9.9	J	mg/Kg	☼	3	
Thallium	.86	J	ND		mg/Kg	☼	NC	
Vanadium	.1		.1		mg/Kg	☼	.07	
Zinc			.5		mg/Kg	☼	.5	

Lab Sample ID: MB 460-736461/1-A ^2
Matrix: Solid
Analysis Batch: 737066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 736461

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40.0	5.7	mg/Kg		31/20 16:58	3/20 17:58	
Antimony	ND		4.0	.2	mg/Kg		31/20 16:58	3/20 17:58	
Arsenic	ND		3.0	.62	mg/Kg		31/20 16:58	3/20 17:58	
Barium	ND		40.0	3.9	mg/Kg		31/20 16:58	3/20 17:58	
Beryllium	ND		.40	.064	mg/Kg		31/20 16:58	3/20 17:58	
Cadmium	ND		.80	.069	mg/Kg		31/20 16:58	3/20 17:58	
Calcium	ND			73.9	mg/Kg		31/20 16:58	3/20 17:58	
Chromium	ND		.0	.4	mg/Kg		31/20 16:58	3/20 17:58	
Cobalt	ND		.0	.55	mg/Kg		31/20 16:58	3/20 17:58	
Copper	ND		5.0	.3	mg/Kg		31/20 16:58	3/20 17:58	
Iron	ND		30.0	.6	mg/Kg		31/20 16:58	3/20 17:58	

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 460-736461/1-A ^2
Matrix: Solid
Analysis Batch: 737066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 736461

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		.0	.32	mg/Kg		31/20 16:58	3/20 17:58	
Magnesium	ND			7.7	mg/Kg		31/20 16:58	3/20 17:58	
Manganese	ND		3.0	.23	mg/Kg		31/20 16:58	3/20 17:58	
Nickel	ND		8.0	.53	mg/Kg		31/20 16:58	3/20 17:58	
Potassium	ND			.4	mg/Kg		31/20 16:58	3/20 17:58	
Selenium	ND		4.0	.68	mg/Kg		31/20 16:58	3/20 17:58	
Silver	ND		.0	.1	mg/Kg		31/20 16:58	3/20 17:58	
Sodium	ND			87.0	mg/Kg		31/20 16:58	3/20 17:58	
Thallium	ND		4.0	.62	mg/Kg		31/20 16:58	3/20 17:58	
Vanadium	ND		.0	.93	mg/Kg		31/20 16:58	3/20 17:58	
Zinc	ND		.0	.1	mg/Kg		31/20 16:58	3/20 17:58	

Lab Sample ID: LCSSRM 460-736461/2-A ^2
Matrix: Solid
Analysis Batch: 737066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736461

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8460	8051		mg/Kg		95.2	50.4 50.
Antimony		74.34		mg/Kg		.9	4.8 95.
Arsenic	95.5	96.34		mg/Kg		.9	82.8 7. 3
Barium	300	304.0		mg/Kg		.3	82.3 7. 7
Beryllium	3	.0		mg/Kg		7.8	82.8 . 5
Cadmium	35	37.6		mg/Kg		.9	83.0 7. 8
Calcium	4720	5065		mg/Kg		7.3	81.6 8.
Chromium	47	49.3		mg/Kg		.6	82.3 7. 7
Cobalt	43.2	45.23		mg/Kg		4.7	83.8 .
Copper	50	55.7		mg/Kg		3.8	84.0 .
Iron	4400	5330		mg/Kg		.5	.3 38. 9
Lead	92.3	95.05		mg/Kg		3.0	83.1 7.
Magnesium	300	370		mg/Kg		3.1	75.7 4. 3
Manganese	77	88.7		mg/Kg		.7	82.0 8.
Nickel	59.8	.14		mg/Kg		3.9	82.6 7.
Potassium	30	85		mg/Kg		.7	70.0 30.
Selenium	42.0	42.69		mg/Kg		.7	79.5 . 5
Silver	40.3	41.39		mg/Kg		.7	80.6 9. 4

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-736461/2-A ^2
Matrix: Solid
Analysis Batch: 737066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736461

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	39	30.6	J	mg/Kg		93.9	71.9 - 7.3
Thallium	83.1	89.86		mg/Kg		8.1	81.0 - 9.
Vanadium	96.9	5.9		mg/Kg		9.3	79.2 - .7
Zinc	369	374.5		mg/Kg		.5	80.8 - 9.

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-735508/1-A
Matrix: Water
Analysis Batch: 735551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735508

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.20	.091	ug/L		8/20 12:28	8/20 13:38	

Lab Sample ID: LCS 460-735508/2-A
Matrix: Water
Analysis Batch: 735551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	.00	.05		ug/L		5	80

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-735378/10-A
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735378

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.017	.0040	mg/Kg		8/20 02:58	8/20 06:18	

Lab Sample ID: LCSSRM 460-735378/11-A ^40
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735378

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.4	8.34		mg/Kg		99.7	.9 - 38.

Lab Sample ID: 460-221262-24 MS
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735378

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	.068		.105	.181		mg/Kg	☼	8	80

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-221262-24 DU
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735378

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Mercury	.068			.0744		mg/Kg	☼			92	

Lab Sample ID: MB 460-735383/1-A
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735383

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.017	.0040	mg/Kg		8/20 03:25	8/20 07:15	

Lab Sample ID: LCSSRM 460-735383/2-A ^40
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735383

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			8.4	8.29		mg/Kg		99.4	.9	38.	

Lab Sample ID: MB 460-735386/1-A
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735386

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.017	.0040	mg/Kg		8/20 03:49	8/20 08:17	

Lab Sample ID: LCSSRM 460-735386/2-A ^40
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735386

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			8.4	9.21		mg/Kg		4.4	.9	38.	

Lab Sample ID: 460-221262-6 MS
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735386

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	.039		.104	.153		mg/Kg	☼		80		

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 735489

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735386

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Mercury	.039			.0443		mg/Kg	☼			4	

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: MB 460-736624/10-A
Matrix: Solid
Analysis Batch: 736715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 736624

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		.017	.0040	mg/Kg		02:55	06:19	

Lab Sample ID: LCSSRM 460-736624/11-A ^40
Matrix: Solid
Analysis Batch: 736715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736624

Analyte	Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Mercury	8.4	8.34		mg/Kg		99.7	.9 38.	

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-734239/9
Matrix: Water
Analysis Batch: 734239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.0	8.1	ug/L			3/20 12:50	

Lab Sample ID: LCSSRM 460-734239/10
Matrix: Water
Analysis Batch: 734239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Chromium, hexavalent	77.8	75.57		ug/L		97.1	84.2 4.5	

Lab Sample ID: MB 460-735779/1-A
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735779

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.0	.35	mg/Kg		9/20 09:04	30/20 1 :13	

Lab Sample ID: LCSI 460-735779/3-A
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Spike Added	LCSI It	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits	
Chromium, hexavalent	708	761.6		mg/Kg		8	80	

Lab Sample ID: LCSSRM 460-735779/2-A
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Chromium, hexavalent	5.6	4.69		mg/Kg		94.4	84.2 4.5	

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-221262-6 MSI
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	902	48.9	F1	mg/Kg	☼	8	75	5		

Lab Sample ID: 460-221262-6 MSS
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	51.0	.94	F1	mg/Kg	☼	33	75	5		

Lab Sample ID: 460-221262-24 MSI
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	919	47.1	F1	mg/Kg	☼	7	75	5		

Lab Sample ID: 460-221262-24 MSS
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	51.9	5.46	F1	mg/Kg	☼	30	75	5		

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Chromium, hexavalent	ND	F1		ND		mg/Kg	☼			NC	

Lab Sample ID: 460-221262-24 DU
Matrix: Solid
Analysis Batch: 736100

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 735779

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Chromium, hexavalent	ND	F1		ND		mg/Kg	☼			NC	

Lab Sample ID: MB 460-735855/1-A
Matrix: Solid
Analysis Batch: 736102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735855

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.0	.35	mg/Kg		9/20 13:45	31/20 1 :24	

Lab Sample ID: LCSI 460-735855/3-A
Matrix: Solid
Analysis Batch: 736102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735855

Analyte			Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			708	763.5		mg/Kg		8	80			

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: LCSSRM 460-735855/2-A
Matrix: Solid
Analysis Batch: 736102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735855

Analyte			Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			5.6	5.67		mg/Kg		.7	84.2	4.5		

Lab Sample ID: MB 460-736559/1-A
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 736559

Analyte	MB It	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.0	.35	mg/Kg		12:08	13:13	

Lab Sample ID: LCSI 460-736559/3-A
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736559

Analyte			Spike Added	LCSI It	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			708	774.1		mg/Kg		9	80			

Lab Sample ID: LCSSRM 460-736559/2-A
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736559

Analyte			Spike Added	LCSSRM It	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			5.6	4.24		mg/Kg		91.5	84.2	4.5		

Lab Sample ID: 460-221262-6 MSI
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample It	Sample Qualifier	Spike Added	MSI It	MSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	902	92.4	F1	mg/Kg	☼	32	75	5		

Lab Sample ID: 460-221262-6 MSS
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample It	Sample Qualifier	Spike Added	MSS It	MSS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	51.0	.76	F1	mg/Kg	☼	45	75	5		

Lab Sample ID: 460-221262-24 MSI
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample It	Sample Qualifier	Spike Added	MSI It	MSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	908	37.2	F1	mg/Kg	☼		75	5		

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 460-221262-24 MSS
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent	ND	F1	51.5	9.18	F1	mg/Kg	☼	37	75	5		

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Chromium, hexavalent	ND	F1		ND		mg/Kg	☼			NC	

Lab Sample ID: 460-221262-24 DU
Matrix: Solid
Analysis Batch: 736763

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA
Prep Batch: 736559

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Chromium, hexavalent	ND	F1		ND		mg/Kg	☼			NC	

Lab Sample ID: MB 460-736963/1-A
Matrix: Solid
Analysis Batch: 736986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 736963

Analyte	MB Result	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		.0	.35	mg/Kg		3/20 07:39	3/20 14:40	

Lab Sample ID: LCSI 460-736963/3-A
Matrix: Solid
Analysis Batch: 736986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736963

Analyte			Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			708	735.0		mg/Kg		4	80			

Lab Sample ID: LCSSRM 460-736963/2-A
Matrix: Solid
Analysis Batch: 736986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 736963

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits			
Chromium, hexavalent			5.6	5.55		mg/Kg		99.9	84.2	4.5		

Method: Moisture - Percent Moisture

Lab Sample ID: 460-221262-4 DU
Matrix: Solid
Analysis Batch: 735208

Client Sample ID: S15-SOIL-102120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Percent Moisture	37.3			31.2		%				8	
Percent Moisture	37.3			31.2		%				8	
Percent Solids	.7			8.8		%				9	
Percent Solids	.7			8.8		%				9	

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 460-221262-6 DU
Matrix: Solid
Analysis Batch: 735208

Client Sample ID: S13-SOIL-102120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Percent Moisture	.5			.5		%					
Percent Solids	78.5			78.5		%					

Lab Sample ID: 460-221262-23 DU
Matrix: Solid
Analysis Batch: 735216

Client Sample ID: S9A-SOIL-102120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Percent Moisture	5.2			5.6		%					
Percent Solids	74.8			74.4		%				.6	

Lab Sample ID: 460-221262-24 DU
Matrix: Solid
Analysis Batch: 735216

Client Sample ID: S9B-SOIL-102120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			PD	PD Limit
Percent Moisture	3.0			3.0		%					
Percent Solids	77.0			77.0		%					

LCMS

Prep Batch: 426004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	3535	
460-221262-16	TB2-102120	Total/NA	Water	3535	
460-221262-25	Equipment Blank 102120	Total/NA	Water	3535	
460-221262-26	Field Blank 102120	Total/NA	Water	3535	
MB 320-426004/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-426004/2-A	Lab Control Sample	Total/NA	Water	3535	

Prep Batch: 426094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-12	S1 SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-13	S12-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	SHAKE	
MB 320-426094/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-426094/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-221262-12 MS	S1 SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-12 MSD	S1 SOIL-102120	Total/NA	Solid	SHAKE	

Prep Batch: 426095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-27	S5-Soil-102120	Total/NA	Solid	SHAKE	
460-221262-28	S10-Soil-102120	Total/NA	Solid	SHAKE	
MB 320-426095/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-426095/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-24MSD	S9B-SOIL-102120	Total/NA	Solid	SHAKE	

Analysis Batch: 426308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	537 (modified)	426004
460-221262-16	TB2-102120	Total/NA	Water	537 (modified)	426004
460-221262-25	Equipment Blank 102120	Total/NA	Water	537 (modified)	426004
460-221262-26	Field Blank 102120	Total/NA	Water	537 (modified)	426004
MB 320-426004/1-A	Method Blank	Total/NA	Water	537 (modified)	426004
LCS 320-426004/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	426004

Prep Batch: 426801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	SHAKE	
MB 320-426801/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-426801/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-221262-9 MS	DUP1-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-9 MSD	DUP1-SOIL-102120	Total/NA	Solid	SHAKE	

LCMS

Analysis Batch: 427153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	537 (modified)	426095
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	426095
460-221262-27	S5-Soil-102120	Total/NA	Solid	537 (modified)	426095
460-221262-28	S10-Soil-102120	Total/NA	Solid	537 (modified)	426095
MB 320-426095/1-A	Method Blank	Total/NA	Solid	537 (modified)	426095
LCS 320-426095/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	426095
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	426095
460-221262-24MSD	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	426095

Analysis Batch: 427508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-12	S1 SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-13	S12-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-15	S1-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	537 (modified)	426094
MB 320-426094/1-A	Method Blank	Total/NA	Solid	537 (modified)	426094
LCS 320-426094/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	426094
460-221262-12 MS	S1 SOIL-102120	Total/NA	Solid	537 (modified)	426094
460-221262-12 MSD	S1 SOIL-102120	Total/NA	Solid	537 (modified)	426094

Prep Batch: 427709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-1	PC1-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-3	PC2-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-4	S15-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-10	S3-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	SHAKE	
MB 320-427709/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-427709/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-6 MSD	S13-SOIL-102120	Total/NA	Solid	SHAKE	

Analysis Batch: 427738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	537 (modified)	426801
MB 320-426801/1-A	Method Blank	Total/NA	Solid	537 (modified)	426801
LCS 320-426801/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	426801
460-221262-9 MS	DUP1-SOIL-102120	Total/NA	Solid	537 (modified)	426801
460-221262-9 MSD	DUP1-SOIL-102120	Total/NA	Solid	537 (modified)	426801

LCMS

Analysis Batch: 428856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-1	PC1-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-3	PC2-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-4	S15-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-5	S14-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-6	S13-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-7	S16-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-8	S2-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-10	S3-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-1	S4-SOIL-102120	Total/NA	Solid	537 (modified)	427709
MB 320-427709/1-A	Method Blank	Total/NA	Solid	537 (modified)	427709
LCS 320-427709/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	427709
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	537 (modified)	427709
460-221262-6 MSD	S13-SOIL-102120	Total/NA	Solid	537 (modified)	427709

Prep Batch: 429933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-23 - RE	S9A-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-24 - RE	S9B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-27 - RE	S5-Soil-102120	Total/NA	Solid	SHAKE	
460-221262-28 - RE	S10-Soil-102120	Total/NA	Solid	SHAKE	
MB 320-429933/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-429933/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-221262-24 MS - RE	S9B-SOIL-102120	Total/NA	Solid	SHAKE	
460-221262-24MSD - RE	S9B-SOIL-102120	Total/NA	Solid	SHAKE	

Analysis Batch: 430542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-23 - RE	S9A-SOIL-102120	Total/NA	Solid	537 (modified)	429933
460-221262-24 - RE	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	429933
460-221262-27 - RE	S5-Soil-102120	Total/NA	Solid	537 (modified)	429933
460-221262-28 - RE	S10-Soil-102120	Total/NA	Solid	537 (modified)	429933
MB 320-429933/1-A	Method Blank	Total/NA	Solid	537 (modified)	429933
LCS 320-429933/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	429933
460-221262-24 MS - RE	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	429933
460-221262-24MSD - RE	S9B-SOIL-102120	Total/NA	Solid	537 (modified)	429933

Metals

Prep Batch: 734596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	3010A	
460-221262-16	TB2-102120	Total/NA	Water	3010A	
460-221262-25	Equipment Blank 102120	Total/NA	Water	3010A	
MB 460-734596/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-734596/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 734898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	D	734596
460-221262-16	TB2-102120	Total/NA	Water	D	734596
460-221262-25	Equipment Blank 102120	Total/NA	Water	D	734596

Metals (Continued)

Analysis Batch: 734898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-734596/1-A	Method Blank	Total/NA	Water	D	734596
LCS 460-734596/2-A	Lab Control Sample	Total/NA	Water	D	734596

Prep Batch: 735373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	3050B	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	3050B	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	3050B	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	3050B	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	3050B	
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	3050B	
460-221262-10	S3-SOIL-102120	Total/NA	Solid	3050B	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	3050B	
460-221262-12	S1 SOIL-102120	Total/NA	Solid	3050B	
MB 460-735373/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-735373/2-A ^	Lab Control Sample	Total/NA	Solid	3050B	
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	3050B	
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	3050B	

Prep Batch: 735378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-13	S12-SOIL-102120	Total/NA	Solid	7471B	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	7471B	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	7471B	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	7471B	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	7471B	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	7471B	
MB 460-735378/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-735378/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	7471B	
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	7471B	

Prep Batch: 735383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	7471B	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	7471B	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	7471B	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	7471B	
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	7471B	
460-221262-27	S5-Soil-102120	Total/NA	Solid	7471B	
MB 460-735383/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-735383/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 735386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	7471B	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	7471B	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	7471B	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	7471B	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	7471B	
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 735386 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-10	S3-SOIL-102120	Total/NA	Solid	7471B	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	7471B	
460-221262-12	S1 SOIL-102120	Total/NA	Solid	7471B	
MB 460-735386/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-735386/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	7471B	
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	7471B	

Analysis Batch: 735489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-5	S14-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-6	S13-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-7	S16-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-8	S2-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-10	S3-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-1	S4-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-12	S1 SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-13	S12-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-15	S1-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	7471B	735383
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	7471B	735383
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	7471B	735383
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	7471B	735383
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	7471B	735383
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-27	S5-Soil-102120	Total/NA	Solid	7471B	735383
MB 460-735378/10-A	Method Blank	Total/NA	Solid	7471B	735378
MB 460-735383/1-A	Method Blank	Total/NA	Solid	7471B	735383
MB 460-735386/1-A	Method Blank	Total/NA	Solid	7471B	735386
LCSSRM 460-735378/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	735378
LCSSRM 460-735383/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	735383
LCSSRM 460-735386/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	735386
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	7471B	735378
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	7471B	735386
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	7471B	735378

Analysis Batch: 735504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	D	735373
460-221262-5	S14-SOIL-102120	Total/NA	Solid	D	735373
460-221262-6	S13-SOIL-102120	Total/NA	Solid	D	735373
460-221262-7	S16-SOIL-102120	Total/NA	Solid	D	735373
460-221262-8	S2-SOIL-102120	Total/NA	Solid	D	735373
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	D	735373
460-221262-10	S3-SOIL-102120	Total/NA	Solid	D	735373

Metals (Continued)

Analysis Batch: 735504 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-1	S4-SOIL-102120	Total/NA	Solid	D	735373
460-221262-12	S1 SOIL-102120	Total/NA	Solid	D	735373
MB 460-735373/1-A ^2	Method Blank	Total/NA	Solid	D	735373
LCSSRM 460-735373/2-A ^	Lab Control Sample	Total/NA	Solid	D	735373
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	D	735373
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	D	735373

Prep Batch: 735508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	7470A	
460-221262-16	TB2-102120	Total/NA	Water	7470A	
460-221262-25	Equipment Blank 102120	Total/NA	Water	7470A	
MB 460-735508/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-735508/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 735551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	7470A	735508
460-221262-16	TB2-102120	Total/NA	Water	7470A	735508
460-221262-25	Equipment Blank 102120	Total/NA	Water	7470A	735508
MB 460-735508/1-A	Method Blank	Total/NA	Water	7470A	735508
LCS 460-735508/2-A	Lab Control Sample	Total/NA	Water	7470A	735508

Prep Batch: 735879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-13	S12-SOIL-102120	Total/NA	Solid	3050B	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	3050B	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	3050B	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	3050B	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	3050B	
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	3050B	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	3050B	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	3050B	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	3050B	
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	3050B	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	3050B	
460-221262-27	S5-Soil-102120	Total/NA	Solid	3050B	
MB 460-735879/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-735879/2-A ^	Lab Control Sample	Total/NA	Solid	3050B	
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	3050B	
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	3050B	

Analysis Batch: 736162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-13	S12-SOIL-102120	Total/NA	Solid	D	735879
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	D	735879
460-221262-15	S1-SOIL-102120	Total/NA	Solid	D	735879
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	D	735879
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	D	735879
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	D	735879
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	D	735879

Metals (Continued)

Analysis Batch: 736162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	D	735879
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	D	735879
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	D	735879
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	D	735879
460-221262-27	S5-Soil-102120	Total/NA	Solid	D	735879
MB 460-735879/1-A ^2	Method Blank	Total/NA	Solid	D	735879
LCSSRM 460-735879/2-A ^	Lab Control Sample	Total/NA	Solid	D	735879
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	D	735879
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	D	735879

Prep Batch: 736461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	3050B	
MB 460-736461/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-736461/2-A ^	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 736624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	7471B	
MB 460-736624/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-736624/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 736715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	7471B	736624
MB 460-736624/10-A	Method Blank	Total/NA	Solid	7471B	736624
LCSSRM 460-736624/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	736624

Analysis Batch: 737066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	D	736461
MB 460-736461/1-A ^2	Method Blank	Total/NA	Solid	D	736461
LCSSRM 460-736461/2-A ^	Lab Control Sample	Total/NA	Solid	D	736461

General Chemistry

Analysis Batch: 426264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-1	PC1-SOIL-102120	Total/NA	Solid	D 2216	
460-221262-3	PC2-SOIL-102120	Total/NA	Solid	D 2216	
460-221262-28	S10-Soil-102120	Total/NA	Solid	D 2216	

Analysis Batch: 734239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-2	TB1-102120	Total/NA	Water	7196A	
460-221262-16	TB2-102120	Total/NA	Water	7196A	
460-221262-25	Equipment Blank 102120	Total/NA	Water	7196A	
MB 460-734239/9	Method Blank	Total/NA	Water	7196A	
LCSSRM 460-734239/10	Lab Control Sample	Total/NA	Water	7196A	

General Chemistry

Analysis Batch: 735208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-10	S3-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-12	S1 SOIL-102120	Total/NA	Solid	Moisture	
460-221262-13	S12-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-6 MS	S13-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-6 MSD	S13-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-6 MSS	S13-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-4 DU	S15-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	Moisture	

Analysis Batch: 735216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-27	S5-Soil-102120	Total/NA	Solid	Moisture	
460-221262-24 MS	S9B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-24 MSS	S9B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-24MSD	S9B-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-23 DU	S9A-SOIL-102120	Total/NA	Solid	Moisture	
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	Moisture	

Prep Batch: 735779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	3060A	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	3060A	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	3060A	
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	3060A	
460-221262-10	S3-SOIL-102120	Total/NA	Solid	3060A	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	3060A	
460-221262-12	S1 SOIL-102120	Total/NA	Solid	3060A	
460-221262-13	S12-SOIL-102120	Total/NA	Solid	3060A	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	3060A	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	3060A	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	3060A	

General Chemistry (Continued)

Prep Batch: 735779 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	3060A	
MB 460-735779/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-735779/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-735779/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-221262-6 MSI	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6 MSS	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 MSI	S9B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 MSS	S9B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	3060A	

Prep Batch: 735855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-27	S5-Soil-102120	Total/NA	Solid	3060A	
MB 460-735855/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-735855/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-735855/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 736100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-5	S14-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-6	S13-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-7	S16-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-8	S2-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-10	S3-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-1	S4-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-12	S1 SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-13	S12-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-15	S1-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	7196A	735779
MB 460-735779/1-A	Method Blank	Total/NA	Solid	7196A	735779
LCSI 460-735779/3-A	Lab Control Sample	Total/NA	Solid	7196A	735779
LCSSRM 460-735779/2-A	Lab Control Sample	Total/NA	Solid	7196A	735779
460-221262-6 MSI	S13-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-6 MSS	S13-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-24 MSI	S9B-SOIL-102120	Total/NA	Solid	7196A	735779

General Chemistry (Continued)

Analysis Batch: 736100 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-24 MSS	S9B-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	7196A	735779
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	7196A	735779

Analysis Batch: 736102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-27	S5-Soil-102120	Total/NA	Solid	7196A	735855
MB 460-735855/1-A	Method Blank	Total/NA	Solid	7196A	735855
LCSI 460-735855/3-A	Lab Control Sample	Total/NA	Solid	7196A	735855
LCSSRM 460-735855/2-A	Lab Control Sample	Total/NA	Solid	7196A	735855

Prep Batch: 736559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	3060A	
460-221262-5	S14-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-7	S16-SOIL-102120	Total/NA	Solid	3060A	
460-221262-8	S2-SOIL-102120	Total/NA	Solid	3060A	
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	3060A	
460-221262-10	S3-SOIL-102120	Total/NA	Solid	3060A	
460-221262-1	S4-SOIL-102120	Total/NA	Solid	3060A	
460-221262-12	S1 SOIL-102120	Total/NA	Solid	3060A	
460-221262-13	S12-SOIL-102120	Total/NA	Solid	3060A	
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	3060A	
460-221262-15	S1-SOIL-102120	Total/NA	Solid	3060A	
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	3060A	
MB 460-736559/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-736559/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-736559/2-A	Lab Control Sample	Total/NA	Solid	3060A	
460-221262-6 MSI	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6 MSS	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 MSI	S9B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 MSS	S9B-SOIL-102120	Total/NA	Solid	3060A	
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	3060A	
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	3060A	

Analysis Batch: 736763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-5	S14-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-6	S13-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-7	S16-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-8	S2-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-9	DUP1-SOIL-102120	Total/NA	Solid	7196A	736559

General Chemistry (Continued)

Analysis Batch: 736763 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-10	S3-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-1	S4-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-12	S1 SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-13	S12-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-14	DUP2-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-15	S1-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-17	S6A-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-18	S6B-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-19	S7A-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-20	S7B-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-21	S8A-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-23	S9A-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-24	S9B-SOIL-102120	Total/NA	Solid	7196A	736559
MB 460-736559/1-A	Method Blank	Total/NA	Solid	7196A	736559
LCSI 460-736559/3-A	Lab Control Sample	Total/NA	Solid	7196A	736559
LCSSRM 460-736559/2-A	Lab Control Sample	Total/NA	Solid	7196A	736559
460-221262-6 MSI	S13-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-6 MSS	S13-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-24 MSI	S9B-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-24 MSS	S9B-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-6 DU	S13-SOIL-102120	Total/NA	Solid	7196A	736559
460-221262-24 DU	S9B-SOIL-102120	Total/NA	Solid	7196A	736559

Prep Batch: 736963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	3060A	
MB 460-736963/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-736963/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-736963/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 736986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-28	S10-Soil-102120	Total/NA	Solid	7196A	736963
MB 460-736963/1-A	Method Blank	Total/NA	Solid	7196A	736963
LCSI 460-736963/3-A	Lab Control Sample	Total/NA	Solid	7196A	736963
LCSSRM 460-736963/2-A	Lab Control Sample	Total/NA	Solid	7196A	736963

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: PC1-SOIL-102120 — Lab Sample ID: 460-221262-1
Date Collected: 10/21/20 08:45 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	426264	10/28/20 13:11	TCS	TAL SAC

Client Sample ID: PC1-SOIL-102120 — Lab Sample ID: 460-221262-1
Date Collected: 10/21/20 08:45 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 58.6**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 15:43	K1S	TAL SAC

Client Sample ID: TB1-102120 — Lab Sample ID: 460-221262-2
Date Collected: 10/21/20 00:00 — **Matrix: Water**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			426004	10/27/20 18:39	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	426308	10/28/20 23:33	K1S	TAL SAC
Total/NA	Prep	3010A			734596	10/24/20 20:00	GRB	TAL EDI
Total/NA	Analysis	6010D		1	734898	10/26/20 16:57	ZH	TAL EDI
Total/NA	Prep	7470A			735508	10/28/20 12:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	735551	10/28/20 14:19	RBS	TAL EDI
Total/NA	Analysis	7196A		1	734239	10/23/20 16:30	VBG	TAL EDI

Client Sample ID: PC2-SOIL-102120 — Lab Sample ID: 460-221262-3
Date Collected: 10/21/20 09:30 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	426264	10/28/20 13:11	TCS	TAL SAC

Client Sample ID: PC2-SOIL-102120 — Lab Sample ID: 460-221262-3
Date Collected: 10/21/20 09:30 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.8**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 15:53	K1S	TAL SAC

Client Sample ID: S15-SOIL-102120 — Lab Sample ID: 460-221262-4
Date Collected: 10/21/20 10:35 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S15-SOIL-102120
Lab Sample ID: 460-221262-4
Date Collected: 10/21/20 10:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 62.7

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 16:02	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 18:58	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:28	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 11:13	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:13	RPR	TAL EDI

Client Sample ID: S14-SOIL-102120
Lab Sample ID: 460-221262-5
Date Collected: 10/21/20 10:50
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S14-SOIL-102120
Lab Sample ID: 460-221262-5
Date Collected: 10/21/20 10:50
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.3

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 16:11	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:02	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:30	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S13-SOIL-102120
Lab Sample ID: 460-221262-6
Date Collected: 10/21/20 11:05
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S13-SOIL-102120

Lab Sample ID: 460-221262-6
Date Collected: 10/21/20 11:05
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 78.5

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 16:39	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 18:14	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:20	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 11:13	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:13	RPR	TAL EDI

Client Sample ID: S16-SOIL-102120

Lab Sample ID: 460-221262-7
Date Collected: 10/21/20 11:35
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S16-SOIL-102120

Lab Sample ID: 460-221262-7
Date Collected: 10/21/20 11:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 17:07	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:06	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:32	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S2-SOIL-102120

Lab Sample ID: 460-221262-8
Date Collected: 10/21/20 11:55
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S2-SOIL-102120

Lab Sample ID: 460-221262-8
Date Collected: 10/21/20 11:55
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 67.2

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 17:17	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:10	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:34	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: DUP1-SOIL-102120

Lab Sample ID: 460-221262-9
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: DUP1-SOIL-102120

Lab Sample ID: 460-221262-9
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 68.6

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426801	10/30/20 04:16	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427738	11/02/20 15:04	S1M	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:14	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:40	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S3-SOIL-102120

Lab Sample ID: 460-221262-10
Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S3-SOIL-102120
Date Collected: 10/21/20 17:15
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-10
Matrix: Solid
Percent Solids: 91.0

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 17:26	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:18	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:42	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S4-SOIL-102120
Date Collected: 10/21/20 17:49
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-11
Matrix: Solid

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S4-SOIL-102120
Date Collected: 10/21/20 17:49
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-11
Matrix: Solid
Percent Solids: 76.4

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			427709	11/02/20 12:18	EH	TAL SAC
Total/NA	Analysis	537 (modified)		1	428856	11/05/20 17:35	K1S	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:30	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:44	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S11-SOIL-102120
Date Collected: 10/21/20 17:37
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-12
Matrix: Solid

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: S11-SOIL-102120 — Lab Sample ID: 460-221262-12

Date Collected: 10/21/20 17:37 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 72.5**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/01/20 23:50	MNV	TAL SAC
Total/NA	Prep	3050B			735373	10/28/20 02:35	GMC	TAL EDI
Total/NA	Analysis	6010D		2	735504	10/28/20 19:34	CDC	TAL EDI
Total/NA	Prep	7471B			735386	10/28/20 03:49	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 08:46	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S12-SOIL-102120 — Lab Sample ID: 460-221262-13

Date Collected: 10/21/20 14:55 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S12-SOIL-102120 — Lab Sample ID: 460-221262-13

Date Collected: 10/21/20 14:55 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 81.3**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 00:18	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:34	CDC	TAL EDI
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:05	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: DUP2-SOIL-102120 — Lab Sample ID: 460-221262-14

Date Collected: 10/21/20 00:00 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: DUP2-SOIL-102120

Lab Sample ID: 460-221262-14
Date Collected: 10/21/20 00:00
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.6

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 00:28	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:38	CDC	TAL EDI
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:07	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: S1-SOIL-102120

Lab Sample ID: 460-221262-15
Date Collected: 10/21/20 16:30
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S1-SOIL-102120

Lab Sample ID: 460-221262-15
Date Collected: 10/21/20 16:30
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 73.2

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 00:37	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:42	CDC	TAL EDI
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:09	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 12:09	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 13:46	RPR	TAL EDI

Client Sample ID: TB2-102120

Lab Sample ID: 460-221262-16
Date Collected: 10/21/20 00:00
Matrix: Water
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			426004	10/27/20 18:39	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	426308	10/29/20 00:00	K1S	TAL SAC
Total/NA	Prep	3010A			734596	10/24/20 20:00	GRB	TAL EDI
Total/NA	Analysis	6010D		1	734898	10/26/20 17:01	ZH	TAL EDI
Total/NA	Prep	7470A			735508	10/28/20 12:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	735551	10/28/20 14:21	RBS	TAL EDI

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: TB2-102120 — Lab Sample ID: 460-221262-16

Date Collected: 10/21/20 00:00 — **Matrix: Water**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	734239	10/23/20 16:30	VBG	TAL EDI

Client Sample ID: S6A-SOIL-102120 — Lab Sample ID: 460-221262-17

Date Collected: 10/21/20 14:40 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S6A-SOIL-102120 — Lab Sample ID: 460-221262-17

Date Collected: 10/21/20 14:40 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 74.1**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 00:47	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:46	CDC	TAL EDI
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:11	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S6B-SOIL-102120 — Lab Sample ID: 460-221262-18

Date Collected: 10/21/20 14:50 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S6B-SOIL-102120 — Lab Sample ID: 460-221262-18

Date Collected: 10/21/20 14:50 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 77.0**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 00:56	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:50	CDC	TAL EDI
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:13	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: S6B-SOIL-102120 — Lab Sample ID: 460-221262-18

Date Collected: 10/21/20 14:50 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 77.0**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S7A-SOIL-102120 — Lab Sample ID: 460-221262-19

Date Collected: 10/21/20 15:05 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S7A-SOIL-102120 — Lab Sample ID: 460-221262-19

Date Collected: 10/21/20 15:05 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 73.5**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 01:24	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:54	CDC	TAL EDI
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:37	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S7B-SOIL-102120 — Lab Sample ID: 460-221262-20

Date Collected: 10/21/20 15:15 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:18	MMC	TAL EDI

Client Sample ID: S7B-SOIL-102120 — Lab Sample ID: 460-221262-20

Date Collected: 10/21/20 15:15 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.2**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 01:34	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:58	CDC	TAL EDI
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:39	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: S7B-SOIL-102120 — Lab Sample ID: 460-221262-20

Date Collected: 10/21/20 15:15 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.2**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S8A-SOIL-102120 — Lab Sample ID: 460-221262-21

Date Collected: 10/21/20 14:00 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:19	MMC	TAL EDI

Client Sample ID: S8A-SOIL-102120 — Lab Sample ID: 460-221262-21

Date Collected: 10/21/20 14:00 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 76.2**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 01:43	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 13:02	CDC	TAL EDI
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:41	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22

Date Collected: 10/21/20 14:10 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735208	10/27/20 13:19	MMC	TAL EDI

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22

Date Collected: 10/21/20 14:10 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.6**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426094	10/28/20 06:59	SS	TAL SAC
Total/NA	Analysis	537 (modified)		1	427508	11/02/20 01:52	MNV	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 13:06	CDC	TAL EDI
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:43	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22

Date Collected: 10/21/20 14:10 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.6**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S9A-SOIL-102120 — Lab Sample ID: 460-221262-23

Date Collected: 10/21/20 15:30 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735216	10/27/20 13:49	MMC	TAL EDI

Client Sample ID: S9A-SOIL-102120 — Lab Sample ID: 460-221262-23

Date Collected: 10/21/20 15:30 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 74.8**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426095	10/28/20 07:03	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	427153	10/30/20 21:56	S1M	TAL SAC
Total/NA	Prep	SHAKE	RE		429933	11/09/20 15:20	GWO	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	430542	11/11/20 11:06	IK	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 13:18	CDC	TAL EDI
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:45	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:10	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: S9B-SOIL-102120 — Lab Sample ID: 460-221262-24

Date Collected: 10/21/20 15:45 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735216	10/27/20 13:49	MMC	TAL EDI

Client Sample ID: S9B-SOIL-102120 — Lab Sample ID: 460-221262-24

Date Collected: 10/21/20 15:45 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 77.0**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426095	10/28/20 07:03	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	427153	10/30/20 22:06	S1M	TAL SAC
Total/NA	Prep	SHAKE	RE		429933	11/09/20 15:20	GWO	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	430542	11/11/20 11:15	IK	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 12:03	CDC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S9B-SOIL-102120
Lab Sample ID: 460-221262-24
Date Collected: 10/21/20 15:45
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 77.0

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			735378	10/28/20 02:58	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 06:21	TJS	TAL EDI
Total/NA	Prep	3060A			735779	10/29/20 09:04	RPR	TAL EDI
Total/NA	Analysis	7196A		1	736100	10/30/20 13:35	RPR	TAL EDI
Total/NA	Prep	3060A			736559	11/01/20 12:08	MBE	TAL EDI
Total/NA	Analysis	7196A		1	736763	11/02/20 14:22	RPR	TAL EDI

Client Sample ID: Equipment Blank 102120
Lab Sample ID: 460-221262-25
Date Collected: 10/21/20 14:30
Matrix: Water
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			426004	10/27/20 18:39	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	426308	10/29/20 00:09	K1S	TAL SAC
Total/NA	Prep	3010A			734596	10/24/20 20:00	GRB	TAL EDI
Total/NA	Analysis	6010D		1	734898	10/26/20 17:05	ZH	TAL EDI
Total/NA	Prep	7470A			735508	10/28/20 12:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	735551	10/28/20 14:22	RBS	TAL EDI
Total/NA	Analysis	7196A		1	734239	10/23/20 16:30	VBG	TAL EDI

Client Sample ID: Field Blank 102120
Lab Sample ID: 460-221262-26
Date Collected: 10/21/20 16:30
Matrix: Water
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			426004	10/27/20 18:39	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	426308	10/29/20 00:19	K1S	TAL SAC

Client Sample ID: S5-Soil-102120
Lab Sample ID: 460-221262-27
Date Collected: 10/21/20 16:48
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	735216	10/27/20 13:49	MMC	TAL EDI

Client Sample ID: S5-Soil-102120
Lab Sample ID: 460-221262-27
Date Collected: 10/21/20 16:48
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 69.7

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426095	10/28/20 07:03	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	427153	10/30/20 22:34	S1M	TAL SAC
Total/NA	Prep	SHAKE	RE		429933	11/09/20 15:20	GWO	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	430542	11/11/20 11:43	IK	TAL SAC
Total/NA	Prep	3050B			735879	10/29/20 15:00	GAE	TAL EDI
Total/NA	Analysis	6010D		2	736162	10/30/20 13:22	CDC	TAL EDI

Lab Chronicle

Client: New k State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Client Sample ID: S5-Soil-102120

Lab Sample ID: 460-221262-27
Date Collected: 10/21/20 16:48
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 69.7

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			735383	10/28/20 03:25	TJS	TAL EDI
Total/NA	Analysis	7471B		1	735489	10/28/20 07:47	TJS	TAL EDI
Total/NA	Prep	3060A			735855	10/29/20 13:45	PLS	TAL EDI
Total/NA	Analysis	7196A		1	736102	10/31/20 11:52	RPR	TAL EDI

Client Sample ID: S10-Soil-102120

Lab Sample ID: 460-221262-28
Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	426264	10/28/20 13:11	TCS	TAL SAC

Client Sample ID: S10-Soil-102120

Lab Sample ID: 460-221262-28
Date Collected: 10/21/20 17:15
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 62.4

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			426095	10/28/20 07:03	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	427153	10/30/20 22:43	S1M	TAL SAC
Total/NA	Prep	SHAKE	RE		429933	11/09/20 15:20	GWO	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	430542	11/11/20 11:53	IK	TAL SAC
Total/NA	Prep	3050B			736461	10/31/20 16:58	GRB	TAL EDI
Total/NA	Analysis	6010D		2	737066	11/03/20 19:51	CDC	TAL EDI
Total/NA	Prep	7471B			736624	11/02/20 02:55	TJS	TAL EDI
Total/NA	Analysis	7471B		3	736715	11/02/20 09:34	TJS	TAL EDI
Total/NA	Prep	3060A			736963	11/03/20 07:40	VBG	TAL EDI
Total/NA	Analysis	7196A		1	736986	11/03/20 15:16	RPR	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11452	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7470A	7470A	Water	Mercury
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFT iA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)
537 (modified)	SHAKE	Solid	6:2 FTS
537 (modified)	SHAKE	Solid	8:2 FTS
537 (modified)	SHAKE	Solid	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	SHAKE	Solid	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	SHAKE	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	SHAKE	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	SHAKE	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	SHAKE	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	SHAKE	Solid	Perfluorododecanoic acid (PFDoA)

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 460-221262-1
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento (Continued)

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

537 (modified)	SHAKE	Solid	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	SHAKE	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	SHAKE	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	SHAKE	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	SHAKE	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonamide (FOSA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	SHAKE	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	SHAKE	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	SHAKE	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	SHAKE	Solid	Perfluorotridecanoic acid (PFT iA)
537 (modified)	SHAKE	Solid	Perfluoroundecanoic acid (PFUnA)
D 2216		Solid	Percent Moisture
D 2216		Solid	Percent Solids

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
7196A	Chromium, Hexavalent	SW846	TAL EDI
D 2216	Percent Moisture	ASTM	TAL SAC
Moisture	Percent Moisture	EPA	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL EDI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL SAC

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-221262-1	PC1-SOIL-102120	Solid	08:45	3/20 10:00	
460-221262-2	TB1-102120	Water	00:00	3/20 10:00	
460-221262-3	PC2-SOIL-102120	Solid	09:30	3/20 10:00	
460-221262-4	S15-SOIL-102120	Solid	10:35	3/20 10:00	
460-221262-5	S14-SOIL-102120	Solid	10:50	3/20 10:00	
460-221262-6	S13-SOIL-102120	Solid	1 :05	3/20 10:00	
460-221262-7	S16-SOIL-102120	Solid	1 :35	3/20 10:00	
460-221262-8	S2-SOIL-102120	Solid	1 :55	3/20 10:00	
460-221262-9	DUP1-SOIL-102120	Solid	00:00	3/20 10:00	
460-221262-10	S3-SOIL-102120	Solid	17:15	3/20 10:00	
460-221262-1	S4-SOIL-102120	Solid	17:49	3/20 10:00	
460-221262-12	S1 SOIL-102120	Solid	17:37	3/20 10:00	
460-221262-13	S12-SOIL-102120	Solid	14:55	3/20 10:00	
460-221262-14	DUP2-SOIL-102120	Solid	00:00	3/20 10:00	
460-221262-15	S1-SOIL-102120	Solid	16:30	3/20 10:00	
460-221262-16	TB2-102120	Water	00:00	3/20 10:00	
460-221262-17	S6A-SOIL-102120	Solid	14:40	3/20 10:00	
460-221262-18	S6B-SOIL-102120	Solid	14:50	3/20 10:00	
460-221262-19	S7A-SOIL-102120	Solid	15:05	3/20 10:00	
460-221262-20	S7B-SOIL-102120	Solid	15:15	3/20 10:00	
460-221262-21	S8A-SOIL-102120	Solid	14:00	3/20 10:00	
460-221262-22	S8B-SOIL-102120	Solid	14:10	3/20 10:00	
460-221262-23	S9A-SOIL-102120	Solid	15:30	3/20 10:00	
460-221262-24	S9B-SOIL-102120	Solid	15:45	3/20 10:00	
460-221262-25	Equipment Blank 102120	Water	14:30	3/20 :00	
460-221262-26	Field Blank 102120	Water	16:30	3/20 10:0	
460-221262-27	S5-Soil-102120	Solid	16:48	3/20 10:00	
460-221262-28	S10-Soil-102120	Solid	17:15	3/20 10:00	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankauskas	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.1
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 7
Company: New York State D.E.C.				Job #: 221262
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

460-221262 Chain of Custody

SHORT HOLD

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	PFC - IDA - TOPS Assay	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	D	N			
PC1-SOIL-102120	10/21/20	845	G	Solid			X					1	1
TB1-102120	10/21/20	—	—	~~Solid~~ Water			X		X	X		2	35FS Trip Blank 4 containers 2
PC2-SOIL-102120	10/21/20	930	G	Solid			X					1	3
S15-SOIL-102120	10/21/20	1035	G	Solid			X	X		X	X	2	3FS 3 containers 4
S14-SOIL-102120	10/21/20	1050	G	Solid			X	X		X		2	5
S13-SOIL-102120	10/21/20	1105	G	Solid		X	X	X		X		6	ms/msd 6
S16-SOIL-102120	10/21/20	1135	G	Solid			X	X		X		2	7
S2-SOIL-102120	10/21/20	1155	G	Solid			X	X		X		2	8
DUP1-SOIL-102120	10/21/20	—	G	Solid			X	X		X		2	9
				Solid									
BFS				Solid									

J - DI Water
K - EDTA
L - EDA
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NYS EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/22/20 1040	NYS DEC		10-22-2020 1040	EETA
Relinquished by:	Date/Time: 10-22-2020 1700	Company EETA	Received by:	Date/Time:	Company
Relinquished by: FedEx	Date/Time: 10/23/20 1000	Company	Received by:	Date/Time: 10/23/20 1000	Company TA Edison

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.: cus present
Cooler Temperature(s) °C and Other Remarks: 4.5, 3.8°C IR#11

Ver: 01/16/2019

1/22/2021 (Rev. 1)

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.2
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 2 of 7
Company: New York State D.E.C.				Job #: 221262
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N		
S3-SOIL-102120	10/21/20	515	G	Solid			X	X		X	2	10
S4-SOIL-102120	10/21/20	549	G	Solid			X	X		X	2	11
S11-SOIL-102120	10/21/20	387	G	Solid			X	X		X	2	12
S12-SOIL-102120	10/21/20	255	G	Solid			X	X		X	2	13
DUP2-SOIL-102120	10/21/20	—	G	Solid			X	X		X	2	14
S1-SOIL-102120	10/21/20	430	G	Solid			X	X		X	2	15
TB2-102120	10/21/20	—	—	Solid			X		X	X	4	Trip Blank 16
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B NYSDEC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/22/20 10:40	NYSDEC		10-22-2020 1040	EETA
2	Jim Knollmeyer	10-22-2020 1700	EETA			
3	FedEx	10/23/20 1000			10/23/20 1000	TA Edison

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: CS present

Cooler Temperature(s) °C and Other Remarks: 1.5, 3.8oc IR#1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.3
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 3 of 7
Company: New York State D.E.C.				Job #: 22762
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	PFC_IDA - TOPS Assay	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N			
S6A-SOIL-102120	10/21/20	2:40	G	Solid			X	X		X		2	17
S6B-SOIL-102120	10/21/20	2:50	G	Solid			X	X		X		2	18
S7A-SOIL-102120	10/21/20	3:05	G	Solid			X	X		X		2	19
S7B-SOIL-102120	10/21/20	3:15	G	Solid			X	X		X		2	20
S8A-SOIL-102120	10/21/20	2:00	G	Solid			X	X		X		2	21
S8B-SOIL-102120	10/21/20	2:10	G	Solid			X	X		X	X	3	22
S9A-SOIL-102120	10/21/20	3:30	G	Solid			X	X		X		2	23
S9B-SOIL-102120	10/21/20	3:45	G	Solid	X		X	X		X		6	matrix spiked 24
Equipment Blank 102120	10/21/20	2:30	—	~~Solid~~ water			X		X	X		4	25
Field Blank 102120	10/21/20	4:30	—	~~Solid~~ water			X			X		2	26
S5-soil-102120	10/21/20	4:44	G	Solid			X	X		X		2	27

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NYS DEC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/22/20 10:40	NYSDEC		10-22-2020 1040	EETA
Relinquished by:	Date/Time: 10-22-2020 1700	Company: EETA	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 10/23/20 1000	Company	Received by:	Date/Time: 10/23/20 1000	Company: TA Edison

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.: CS present
Cooler Temperature(s) °C and Other Remarks: 4.5, 3.8° c IR#1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankowsky	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.7
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 7 of 7
Company: New York State D.E.C.				Job #: 22262

Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Albany	TAT Requested (days): Standard		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: NY, 12233-7014			
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041		
Email: lynn.winterberger@dec.ny.gov	WO #:		Other:
Project Name: Norlite - Cohoes #401041	Project #: 48022694		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N		
10-5011-102120	10/21/20	5:15	G	~~Solid~~ ~~Water~~			X	X		X	2	28

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NY3 DEC EDD	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/22/20 10:40	NYSDEC		10-22-2020 1040	EETA
Relinquished by:	Date/Time: 10-22-2020 1700	Company EETA	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 10/23/20 1000	Company	Received by:	Date/Time: 10/23/20 1000	Company TA Edison

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
	C.S present	T.S 3.8°C IR#1

Ver: 01/16/2019

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 224262

Number of Coolers: 2 IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	4.5 °C	4.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	3.8 °C	3.8 °C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				KZ											
25				KZ											

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: KZ Date: 10/23/20

EDS-WI-038, Rev 4.1
10/22/2019

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 320-199036.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 777 New Durham Road,	Due Date Requested: 10/30/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A/3060A Hexavalent Chromium - 7196	6010D/3050B TAL Metals	7471B/7471B_Prep Mercury	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/28/20 - 1630	GTASAC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/29/20 9.30	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3 - 1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-2
Address: 880 Riverside Parkway,	Due Date Requested: 11/4/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/TOPS_PostPrep_S TOPS Assay	PFC_IDA/TOPS_PrePrep_S TOPS Assay	Total_PFCA_Sum/Auto_TOPS_Post	Total_PFCA_Sum/Auto_TOPS_Pre	Total_PFCA_Diff	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
S15-SOIL-102120 (460-221262-4)	10/21/20	10:35 Eastern		Solid			X	X	X	X	X	2	
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X	X	X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	EAEL		10/27/20 950	EAEL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 113466	Cooler Temperature(s) °C and Other Remarks: 1.3 & 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
PC1-SOIL-102120 (460-221262-1)	10/21/20	08:45 Eastern		Solid			X		1	
TB1-102120 (460-221262-2)	10/21/20	Eastern		Water				X	2	
PC2-SOIL-102120 (460-221262-3)	10/21/20	09:30 Eastern		Solid			X		1	
S15-SOIL-102120 (460-221262-4)	10/21/20	10:35 Eastern		Solid			X		2	
S14-SOIL-102120 (460-221262-5)	10/21/20	10:50 Eastern		Solid			X		1	
S13-SOIL-102120 (460-221262-6)	10/21/20	11:05 Eastern		Solid			X		1	
S13-SOIL-102120 (460-221262-6MS)	10/21/20	11:05 Eastern	MS	Solid			X		1	
S13-SOIL-102120 (460-221262-6MSD)	10/21/20	11:05 Eastern	MSD	Solid			X		1	
S16-SOIL-102120 (460-221262-7)	10/21/20	11:35 Eastern		Solid			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/26/20 1900	ETAEdi		10/27/20 950	ETASac
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 1134166	Cooler Temperature(s) °C and Other Remarks: 1.3 ea 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
S2-SOIL-102120 (460-221262-8)	10/21/20	11:55 Eastern		Solid			X		1	
DUP1-SOIL-102120 (460-221262-9)	10/21/20	Eastern		Solid			X		1	
S3-SOIL-102120 (460-221262-10)	10/21/20	17:15 Eastern		Solid			X		1	
S4-SOIL-102120 (460-221262-11)	10/21/20	17:49 Eastern		Solid			X		1	
S11-SOIL-102120 (460-221262-12)	10/21/20	17:37 Eastern		Solid			X		1	
S12-SOIL-102120 (460-221262-13)	10/21/20	14:55 Eastern		Solid			X		1	
DUP2-SOIL-102120 (460-221262-14)	10/21/20	Eastern		Solid			X		1	
S1-SOIL-102120 (460-221262-15)	10/21/20	16:30 Eastern		Solid			X		1	
TB2-102120 (460-221262-16)	10/21/20	Eastern		Water				X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/26/20 1900	Company: E.T.A.	Received by:	Date/Time: 10/27/20 950	Company: ETASac
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: 1134166

Cooler Temperature(s) °C and Other Remarks: 1.3 cor 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
S6A-SOIL-102120 (460-221262-17)	10/21/20	14:40 Eastern		Solid			X		1	
S6B-SOIL-102120 (460-221262-18)	10/21/20	14:50 Eastern		Solid			X		1	
S7A-SOIL-102120 (460-221262-19)	10/21/20	15:05 Eastern		Solid			X		1	
S7B-SOIL-102120 (460-221262-20)	10/21/20	15:15 Eastern		Solid			X		1	
S8A-SOIL-102120 (460-221262-21)	10/21/20	14:00 Eastern		Solid			X		1	
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X		2	
S9A-SOIL-102120 (460-221262-23)	10/21/20	15:30 Eastern		Solid			X		1	
S9B-SOIL-102120 (460-221262-24)	10/21/20	15:45 Eastern		Solid			X		1	
S9B-SOIL-102120 (460-221262-24MS)	10/21/20	15:45 Eastern	MS	Solid			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	ETAS		10/27/20 950	STATest
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☑ Yes ☐ No	Custody Seal No.: 113416	Cooler Temperature(s) °C and Other Remarks: 1.3 ice 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Equipment Blank 102120 (460-221262-25)	10/21/20	14:30 Eastern		Water				X	2	
Field Blank 102120 (460-221262-26)	10/21/20	16:30 Eastern		Water				X	2	
S5-Soil-102120 (460-221262-27)	10/21/20	16:48 Eastern		Solid			X		1	
S10-Soil-102120 (460-221262-28)	10/21/20	17:15 Eastern		Solid			X		2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	Eurofins		10/27/20 950	Eurofins
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 134166	Cooler Temperature(s) °C and Other Remarks: 1.3 1.8

Ver: 01/16/2019

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Sacramento Sample Receiving Notes

460-221262 Field Sheet

Tracking #: 8142 9456 6408

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSO / OnTrac / Goldstreak / USPS / Other

Job:

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: AM11 Corr. Factor: (+/-) 0.5 °C

Ice ✓ Wet Gel Other

Cooler Custody Seal: 113466

Cooler ID: —

Temp Observed: 1.3 °C Corrected: 1.8 °C

From: Temp Blank ☐ Sample ☑

Notes: SAMPLES RECEIVED NOT ON COC. NCM WRITTEN WITH THE LIST OF SAMPLES RECEIVED. 10/27/20 FILED. DISREGARD

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐

Initials: ST Date: 10/27/20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Samples w/o discrepancies?	☑	☑	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: JS Date: 10/27/20

Trizma Lot #(s):

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed?	☑	☐	☑
Log Release checked in TALS?	☐	☐	☑

Initials: JS Date: 10/27/20

Login Sample Receipt Checklist

Client: New k State D.E.C.

Job Number: 460-221262-1

Login Number: 221262
List Number: 1
Creator: Rivera, Kenneth

List Source: Eurofins T stAmerica, Edison

Question	Answer	Comment
adioactivity either was not measured or, if measured, is at or below background	/A	
The cooler's custody seal, if present, is intact.	True	custody seal p esent
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	/A	

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 460-221262-1

Login Number: 221262
List Number: 2
Creator: Saephan, Kae C

List Source: Eurofins T stAmerica, Sacramento
List Creation: 10/27/20 01:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1134166
Sample custody seals, if present, are intact.	/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	b: 1.3c corr: 1.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	/A	

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 460-221262-1

Login Number: 221262
List Number: 3
Creator: Saephan, Kae C

List Source: Eurofins T stAmerica, Sacramento
List Creation: 10/27/20 02:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1134166
Sample custody seals, if present, are intact.	/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	b: 1.3c corr: 1.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-221262-2
Client Project/Site: Norlite - Cohoes #401041

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Lynn M Winterberger

Judy Stone

Authorized for release by:
11/5/2020 2:22:50 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: New York State D.E.C.
Job ID: 460-221262-2
Project/Site: Norlite - Cohoes #401041

Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*5	Isotope dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

ID: 460-221262-2

Laboratory: Eurofins TestAmerica, Edison

Narrative

Narrative
460-221262-2

Comments
This report provides the data for the TOPS assay including the Total Oxidation Precursor summary in the Client Results section.

Receipt
The samples were received on 10/23/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 4.5º C.

LCMS
Method 537 (modified): The labeled analyte M2-4:2FTS is converted to PFBA during the oxidation step of the TOP assay. The PFBA result in the Post-Treatment Method Blank (MB) indicates how much of a field sample's Post-Treatment PFBA result is contributed by the Reverse Surrogate, when adjusted for dilution factors. (MB 320-426024/1-A)

Method 537 (modified): Zero percent recovery of precursor analytes (4:2FTS, 6:2FTS, 8:2FTS, FOSA, NMeFOSAA, and NEtFOSAA) and enhanced recoveries of PFCAs is observed in the Post-Treatment Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) associated with these samples, consistent with the expected oxidation of precursor analytes. (LCS 320-426024/2-A) and (LCSD 320-426024/3-A)

Method 537 (modified): The labeled analyte M2-4:2FTS is employed in this analysis as a “Reverse Surrogate”. It is used to monitor the oxidation efficiency of the TOP assay. This analyte is fortified into all sample fractions prior to any processing. The recove y of this analyte should be 0% in Post-Treatment fractions, indicating complete oxidation of the sample. S15-SOIL-102120 (460-221262-4), S8B-SOIL-102120 (460-221262-22), (LCS 320-426022/2-A), (LCS 320-426024/2-A), (LCSD 320-426022/3-A), (LCSD 320-426024/3-A), (MB 320-426022/1-A) and (MB 320-426024/1-A)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS in the following sample: S15-SOIL-102120 (460-221262-4). Quantitation by isotope dilution generally precludes any adverse effect n data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS in the following sample: S8B-SOIL-102120 (460-221262-22). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. S15-SOIL-102120 (460-221262-4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method TOP Post-Prep: Due to the matrix, the initial volumes used for the following samples deviated from the standard procedu e: S15-SOIL-102120 (460-221262-4) and S8B-SOIL-102120 (460-221262-22). The reporting limits (RLs) have been adjusted proportionately.

Method TOP Post-Prep: There was a layer of water on sample surface: S8B-SOIL-102120 (460-221262-22).

Method TOP Pre-Prep: Due to the matrix, the initial volumes used for the following samples deviated from the standard procedure: S15-SOIL-102120 (460-221262-4) and S8B-SOIL-102120 (460-221262-22). The reporting limits (RLs) have been adjusted proportionately.

Method TOP Pre-Prep: There was a layer of water on sample surface: S8B-SOIL-102120 (460-221262-22).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Client Sample ID: S15-SOIL-102120 — Lab Sample ID: 460-221262-4

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.25	J	.80	.1	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorohexanoic acid (PFHxA)	.18	J	.80	.18	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluoroheptanoic acid (PFHpA)	.22	J	.80	.12	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorooctanoic acid (PFOA)	.83		.80	.35	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorononanoic acid (PFNA)	.36	J	.80	.14	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorodecanoic acid (PFDA)	.32	J	.80	.088	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluoroundecanoic acid (PFUnA)	.31	J	.80	.14	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorooctanesulfonic acid (PFOS)	.1	J	.0	.80	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorobutanoic acid (PFBA)	.2	* B	.80	.1	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorohexanoic acid (PFHxA)	.42	J I	.80	.18	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	.24	J	.80	.12	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorooctanoic acid (PFOA)	.80	*	.80	.35	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorononanoic acid (PFNA)	.36	J	.80	.14	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorodecanoic acid (PFDA)	.29	J	.80	.088	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluoroundecanoic acid (PFUnA)	.22	J	.80	.14	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	.95	J	.0	.80	ug/Kg		☼	537 (modified)	Post-Treatment
PFBA	.98				ug/Kg			Total PFCA-Dif	Total/NA
PFPA	.00				ug/Kg			Total PFCA-Dif	Total/NA
PFHxA	.24				ug/Kg			Total PFCA-Dif	Total/NA
PFHpA	.026				ug/Kg			Total PFCA-Dif	Total/NA
PFOA	.00				ug/Kg			Total PFCA-Dif	Total/NA
PFNA	.00				ug/Kg			Total PFCA-Dif	Total/NA
Total PFCA	.2				ug/Kg			Total PFCA-Dif	Total/NA
Total PFCA	.8				ug/Kg			Total PFCA-Sum	Pre-Treatment
Total PFCA	3.0				ug/Kg			Total PFCA-Sum	Post-Treatment

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	.16	J	.62	.087	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluoropentanoic acid (PFPeA)	.27	J	.62	.24	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorohexanoic acid (PFHxA)	.23	J	.62	.14	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluoroheptanoic acid (PFHpA)	.13	J	.62	.091	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorooctanoic acid (PFOA)	.40	J	.62	.27	ug/Kg		☼	537 (modified)	Pre-Treatment

This Detection Summary does not include radiochemical test results.

Client Sample ID: S8B-SOIL-102120 (Continued)

Lab Sample ID: 460-221262-22

nalyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	.9		.62	.1	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorodecanoic acid (PFDA)	.80		.62	.068	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluoroundecanoic acid (PFUnA)	.2		.62	.1	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorododecanoic acid (PFDoA)	.36	J	.62	.21	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorotridecanoic acid (PFTriA)	.22	J	.62	.16	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorobutanesulfonic acid (PFBS)	.14	J	.62	.078	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorooctanesulfonic acid (PFOS)	3.9		.6	.62	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorodecanesulfonic acid (PFDS)	4.8		.62	.12	ug/Kg		☼	537 (modified)	Pre-Treatment
Perfluorobutanoic acid (PFBA)	.2	* B	.62	.087	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluoropentanoic acid (PFPeA)	.50	J	.62	.24	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorohexanoic acid (PFHxA)	.56	J	.62	.14	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	.36	J	.62	.090	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorooctanoic acid (PFOA)	.2	*	.62	.27	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorononanoic acid (PFNA)	.9		.62	.1	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorodecanoic acid (PFDA)	.83		.62	.068	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluoroundecanoic acid (PFUnA)	.0		.62	.1	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorododecanoic acid (PFDoA)	.44	J	.62	.21	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorotridecanoic acid (PFTriA)	.35	J	.62	.16	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorotetradecanoic acid (PFTeA)	.19	J	.62	.17	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	.18	J	.62	.078	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	3.6		.5	.62	ug/Kg		☼	537 (modified)	Post-Treatment
Perfluorodecanesulfonic acid (PFDS)	4.1		.62	.12	ug/Kg		☼	537 (modified)	Post-Treatment
PFBA	.1				ug/Kg			Total PFCA-Dif	Total/NA
PFPA	.23				ug/Kg			Total PFCA-Dif	Total/NA
PFHxA	.33				ug/Kg			Total PFCA-Dif	Total/NA
PFHpA	.24				ug/Kg			Total PFCA-Dif	Total/NA
PFOA	.79				ug/Kg			Total PFCA-Dif	Total/NA
PFNA	.030				ug/Kg			Total PFCA-Dif	Total/NA
Total PFCA	3.6				ug/Kg			Total PFCA-Dif	Total/NA
Total PFCA	3.1				ug/Kg			Total PFCA-Sum	Pre-Treatment
Total PFCA	.7				ug/Kg			Total PFCA-Sum	Post-Treatment

This Detection Summary does not include radiochemical test results.

Total Oxidation Precursors

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

TestAmerica Job ID: 460-221262-2

Client Sample ID: S15-SOIL-102120

Lab Sample ID: 460-221262-4
Matrix: Solid

	Pre-Treatment Method 537 (modified)			Post-Treatment Method 537 (modified)			Difference [1]	
Analyte	**Result**	**Qualifier**	**Unit**	**Result**	**Qualifier**	**Unit**	**Result**	**Unit**
Perfluorobutanoic acid (PFBA)	0.25		ug/Kg	1.2		ug/Kg	0.98	ug/Kg
Perfluoropentanoic acid (PFPeA)	ND		ug/Kg	ND		ug/Kg	0.00	ug/Kg
Perfluorohexanoic acid (PFHxA)	0.18		ug/Kg	0.42		ug/Kg	0.24	ug/Kg
Perfluoroheptanoic acid (PFHpA)	0.22		ug/Kg	0.24		ug/Kg	0.026	ug/Kg
Perfluorooctanoic acid (PFOA)	0.83		ug/Kg	0.80		ug/Kg	0.00	ug/Kg
Perfluorononanoic acid (PFNA)	0.36		ug/Kg	0.36		ug/Kg	0.00	ug/Kg
Total PFCA	1.8		ug/Kg	3.0		ug/Kg	1.2	ug/Kg

Client Sample ID: S8B-SOIL-102120

Lab Sample ID: 460-221262-22
Matrix: Solid

	Pre-Treatment Method 537 (modified)			Post-Treatment Method 537 (modified)			Difference [1]	
Analyte	**Result**	**Qualifier**	**Unit**	**Result**	**Qualifier**	**Unit**	**Result**	**Unit**
Perfluorobutanoic acid (PFBA)	0.16		ug/Kg	2.2		ug/Kg	2.1	ug/Kg
Perfluoropentanoic acid (PFPeA)	0.27		ug/Kg	0.50		ug/Kg	0.23	ug/Kg
Perfluorohexanoic acid (PFHxA)	0.23		ug/Kg	0.56		ug/Kg	0.33	ug/Kg
Perfluoroheptanoic acid (PFHpA)	0.13		ug/Kg	0.36		ug/Kg	0.24	ug/Kg
Perfluorooctanoic acid (PFOA)	0.40		ug/Kg	1.2		ug/Kg	0.79	ug/Kg
Perfluorononanoic acid (PFNA)	1.9		ug/Kg	1.9		ug/Kg	0.030	ug/Kg
Total PFCA	3.1		ug/Kg	6.7		ug/Kg	3.6	ug/Kg

[1] Difference = Post-Treatment - Pre-Treament

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Client Sample ID: S15-SOIL-102120
Date Collected: 10/21/20 10:35
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-4
Matrix: Solid
Percent Solids: 62.7

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.25**	**J**	.80	.1	ug/Kg	☼	7/20 20:12	23:03	
Perfluoropentanoic acid (PFPeA)	ND		.80	.30	ug/Kg	☼	7/20 20:12	23:03	
Perfluorohexanoic acid (PFHxA)	**0.18**	**J**	.80	.18	ug/Kg	☼	7/20 20:12	23:03	
Perfluoroheptanoic acid (PFHpA)	**0.22**	**J**	.80	.12	ug/Kg	☼	7/20 20:12	23:03	
Perfluorooctanoic acid (PFOA)	**0.83**		.80	.35	ug/Kg	☼	7/20 20:12	23:03	
Perfluorononanoic acid (PFNA)	**0.36**	**J**	.80	.14	ug/Kg	☼	7/20 20:12	23:03	
Perfluorodecanoic acid (PFDA)	**0.32**	**J**	.80	.088	ug/Kg	☼	7/20 20:12	23:03	
Perfluoroundecanoic acid (PFUnA)	**0.31**	**J**	.80	.14	ug/Kg	☼	7/20 20:12	23:03	
Perfluorododecanoic acid (PFDoA)	ND		.80	.27	ug/Kg	☼	7/20 20:12	23:03	
Perfluorotridecanoic acid (PFTriA)	ND		.80	.21	ug/Kg	☼	7/20 20:12	23:03	
Perfluorotetradecanoic acid (PFTeA)	ND		.80	.22	ug/Kg	☼	7/20 20:12	23:03	
Perfluorobutanesulfonic acid (PFBS)	ND		.80	.10	ug/Kg	☼	7/20 20:12	23:03	
Perfluorohexanesulfonic acid (PFHxS)	ND		.80	.12	ug/Kg	☼	7/20 20:12	23:03	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.80	.14	ug/Kg	☼	7/20 20:12	23:03	
Perfluorooctanesulfonic acid (PFOS)	**1.1**	**J**	.0	.80	ug/Kg	☼	7/20 20:12	23:03	
Perfluorodecanesulfonic acid (PFDS)	ND		.80	.16	ug/Kg	☼	7/20 20:12	23:03	
Perfluorooctanesulfonamide (FOSA)	ND		.80	.33	ug/Kg	☼	7/20 20:12	23:03	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		8.0	.6	ug/Kg	☼	7/20 20:12	23:03	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		8.0	.5	ug/Kg	☼	7/20 20:12	23:03	
:2 FTS	ND		8.0	.61	ug/Kg	☼	7/20 20:12	23:03	
8:2 FTS	ND		8.0	.0	ug/Kg	☼	7/20 20:12	23:03	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C5 PFPeA	*94*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C2 PFHxA	*97*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C4 PFHpA	*104*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C4 PFOA	*99*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C5 PFNA	*104*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C2 PFDA	*99*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C2 PFUnA	*100*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C2 PFDoA	*78*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C2 PFTeDA	*90*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C3 PFBS	*110*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
18O2 PFHxS	*106*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C4 PFOS	*103*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
13C8 FOSA	*104*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
d3-NMeFOSAA	*107*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
NEtFOSAA	*110*		*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
M2-6:2 FTS	*159*	**5*	*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
M2-8:2 FTS	*153*	**5*	*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*
M2-4:2 FTS	*30*	**5*	*150*	*10/27/20 20:12*	*11/02/20 23:03*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.2**	*** B**	.80	.1	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluoropentanoic acid (PFPeA)	ND		.80	.30	ug/Kg	☼	7/20 20:17	3/20 00:19	

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Client Sample ID: S15-SOIL-102120
Date Collected: 10/21/20 10:35
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-4
Matrix: Solid
Percent Solids: 62.7

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	**0.42**	**J I**	.80	.18	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluoroheptanoic acid (PFHpA)	**0.24**	**J**	.80	.12	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorooctanoic acid (PFOA)	**0.80**	*****	.80	.35	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorononanoic acid (PFNA)	**0.36**	**J**	.80	.14	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorodecanoic acid (PFDA)	**0.29**	**J**	.80	.088	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluoroundecanoic acid (PFUnA)	**0.22**	**J**	.80	.14	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorododecanoic acid (PFDoA)	ND		.80	.27	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorotridecanoic acid (PFTriA)	ND		.80	.21	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorotetradecanoic acid (PFTeA)	ND		.80	.22	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorobutanesulfonic acid (PFBS)	ND		.80	.10	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorohexanesulfonic acid (PFHxS)	ND		.80	.12	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.80	.14	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorooctanesulfonic acid (PFOS)	**0.95**	**J**	.0	.80	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorodecanesulfonic acid (PFDS)	ND		.80	.16	ug/Kg	☼	7/20 20:17	3/20 00:19	
Perfluorooctanesulfonamide (FOSA)	ND		.80	.33	ug/Kg	☼	7/20 20:17	3/20 00:19	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		8.0	.6	ug/Kg	☼	7/20 20:17	3/20 00:19	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		8.0	.5	ug/Kg	☼	7/20 20:17	3/20 00:19	
:2 FTS	ND		8.0	.61	ug/Kg	☼	7/20 20:17	3/20 00:19	
8:2 FTS	ND		8.0	.0	ug/Kg	☼	7/20 20:17	3/20 00:19	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C5 PFPeA	*96*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C2 PFHxA	*96*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C4 PFHpA	*104*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C4 PFOA	*98*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C5 PFNA	*99*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C2 PFDA	*90*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C2 PFUnA	*92*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C2 PFDoA	*88*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C2 PFTeDA	*89*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C3 PFBS	*102*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
18O2 PFHxS	*106*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C4 PFOS	*99*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
13C8 FOSA	*102*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
d3-NMeFOSAA	*88*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
NEtFOSAA	*98*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
M2-6:2 FTS	*113*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
M2-8:2 FTS	*111*		*150*	*10/27/20 20:17*	*11/03/20 00:19*	*1*
M2-4:2 FTS			*10*	*10/27/20 20:17*	*11/03/20 00:19*	*1*

Method: Total PFCA-Dif - Total PFCA (Treatment Difference)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PFBA	**0.98**				ug/Kg			4/20 10:37	
PFPA	**0.00**				ug/Kg			4/20 10:37	
PFHxA	**0.24**				ug/Kg			4/20 10:37	
PFHpA	**0.026**				ug/Kg			4/20 10:37	

Client Sample ID: S15-SOIL-102120

Lab Sample ID: 460-221262-4
Date Collected: 10/21/20 10:35
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 62.7

Method: Total PFCA-Dif - Total PFCA (Treatment Difference) (Continued)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PFOA	0.00				ug/Kg			4/20 10:37	
PFNA	0.00				ug/Kg			4/20 10:37	
Total PFCA	1.2				ug/Kg			4/20 10:37	

Method: Total PFCA-Sum - Total PFCA (Summary) - Pre-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	1.8				ug/Kg			4/20 10:34	

Method: Total PFCA-Sum - Total PFCA (Summary) - Post-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	3.0				ug/Kg			4/20 10:36	

Client Sample ID: S8B-SOIL-102120

Lab Sample ID: 460-221262-22
Date Collected: 10/21/20 14:10
Matrix: Solid
Date Received: 10/23/20 10:00
Percent Solids: 79.6

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.16	J	.62	.087	ug/Kg	☼	7/20 20:12	23:13	
Perfluoropentanoic acid (PFPeA)	0.27	J	.62	.24	ug/Kg	☼	7/20 20:12	23:13	
Perfluorohexanoic acid (PFHxA)	0.23	J	.62	.14	ug/Kg	☼	7/20 20:12	23:13	
Perfluoroheptanoic acid (PFHpA)	0.13	J	.62	.091	ug/Kg	☼	7/20 20:12	23:13	
Perfluorooctanoic acid (PFOA)	0.40	J	.62	.27	ug/Kg	☼	7/20 20:12	23:13	
Perfluorononanoic acid (PFNA)	1.9		.62	.1	ug/Kg	☼	7/20 20:12	23:13	
Perfluorodecanoic acid (PFDA)	0.80		.62	.068	ug/Kg	☼	7/20 20:12	23:13	
Perfluoroundecanoic acid (PFUnA)	1.2		.62	.1	ug/Kg	☼	7/20 20:12	23:13	
Perfluorododecanoic acid (PFDoA)	0.36	J	.62	.21	ug/Kg	☼	7/20 20:12	23:13	
Perfluorotridecanoic acid (PFTriA)	0.22	J	.62	.16	ug/Kg	☼	7/20 20:12	23:13	
Perfluorotetradecanoic acid (PFTeA)	ND		.62	.17	ug/Kg	☼	7/20 20:12	23:13	
Perfluorobutanesulfonic acid (PFBS)	0.14	J	.62	.078	ug/Kg	☼	7/20 20:12	23:13	
Perfluorohexanesulfonic acid (PFHxS)	ND		.62	.097	ug/Kg	☼	7/20 20:12	23:13	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.62	.1	ug/Kg	☼	7/20 20:12	23:13	
Perfluorooctanesulfonic acid (PFOS)	3.9		.6	.62	ug/Kg	☼	7/20 20:12	23:13	
Perfluorodecanesulfonic acid (PFDS)	4.8		.62	.12	ug/Kg	☼	7/20 20:12	23:13	
Perfluorooctanesulfonamide (FOSA)	ND		.62	.26	ug/Kg	☼	7/20 20:12	23:13	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.2	.2	ug/Kg	☼	7/20 20:12	23:13	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.2	.2	ug/Kg	☼	7/20 20:12	23:13	
:2 FTS	ND		.2	.47	ug/Kg	☼	7/20 20:12	23:13	
8:2 FTS	ND		.2	.78	ug/Kg	☼	7/20 20:12	23:13	

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*150*	*10/27/20 20:12*	*11/02/20 23:13*	*1*
13C5 PFPeA	*90*		*150*	*10/27/20 20:12*	*11/02/20 23:13*	*1*
13C2 PFHxA	*102*		*150*	*10/27/20 20:12*	*11/02/20 23:13*	*1*
13C4 PFHpA	*103*		*150*	*10/27/20 20:12*	*11/02/20 23:13*	*1*

Client Sample ID: S8B-SOIL-102120
Date Collected: 10/21/20 14:10
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-22
Matrix: Solid
Percent Solids: 79.6

Method: 537 (modified) - Fluorinated Alkyl Substances - Pre-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	94		150	10/27/20 20:12	11/02/20 23:13	1
13C5 PFNA	103		150	10/27/20 20:12	11/02/20 23:13	1
13C2 PFDA	97		150	10/27/20 20:12	11/02/20 23:13	1
13C2 PFUnA	106		150	10/27/20 20:12	11/02/20 23:13	1
13C2 PFDoA	87		150	10/27/20 20:12	11/02/20 23:13	1
13C2 PFTeDA	92		150	10/27/20 20:12	11/02/20 23:13	1
13C3 PFBS	103		150	10/27/20 20:12	11/02/20 23:13	1
18O2 PFHxS	106		150	10/27/20 20:12	11/02/20 23:13	1
13C4 PFOS	101		150	10/27/20 20:12	11/02/20 23:13	1
13C8 FOSA	100		150	10/27/20 20:12	11/02/20 23:13	1
d3-NMeFOSAA	115		150	10/27/20 20:12	11/02/20 23:13	1
NEtFOSAA	106		150	10/27/20 20:12	11/02/20 23:13	1
M2-6:2 FTS	151	*5	150	10/27/20 20:12	11/02/20 23:13	1
M2-8:2 FTS	132		150	10/27/20 20:12	11/02/20 23:13	1
M2-4:2 FTS	197	*5	150	10/27/20 20:12	11/02/20 23:13	1

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment

Analyte	esult	Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.2	* B	.62	.087	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluoropentanoic acid (PFPeA)	0.50	J	.62	.24	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorohexanoic acid (PFHxA)	0.56	J	.62	.14	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluoroheptanoic acid (PFHpA)	0.36	J	.62	.090	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorooctanoic acid (PFOA)	1.2	*	.62	.27	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorononanoic acid (PFNA)	1.9		.62	.1	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorodecanoic acid (PFDA)	0.83		.62	.068	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluoroundecanoic acid (PFUnA)	1.0		.62	.1	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorododecanoic acid (PFDoA)	0.44	J	.62	.21	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorotridecanoic acid (PFTriA)	0.35	J	.62	.16	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorotetradecanoic acid (PFTeA)	0.19	J	.62	.17	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorobutanesulfonic acid (PFBS)	0.18	J	.62	.078	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorohexanesulfonic acid (PFHxS)	ND		.62	.096	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.62	.1	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorooctanesulfonic acid (PFOS)	3.6		.5	.62	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorodecanesulfonic acid (PFDS)	4.1		.62	.12	ug/Kg	☼	7/20 20:17	3/20 00:28	
Perfluorooctanesulfonamide (FOSA)	ND		.62	.26	ug/Kg	☼	7/20 20:17	3/20 00:28	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		.2	.2	ug/Kg	☼	7/20 20:17	3/20 00:28	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		.2	.2	ug/Kg	☼	7/20 20:17	3/20 00:28	
:2 FTS	ND		.2	.47	ug/Kg	☼	7/20 20:17	3/20 00:28	
8:2 FTS	ND		.2	.78	ug/Kg	☼	7/20 20:17	3/20 00:28	

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		150	10/27/20 20:17	11/03/20 00:28	1
13C5 PFPeA	103		150	10/27/20 20:17	11/03/20 00:28	1
13C2 PFHxA	99		150	10/27/20 20:17	11/03/20 00:28	1

Client Sample ID: S8B-SOIL-102120
Date Collected: 10/21/20 14:10
Date Received: 10/23/20 10:00

Lab Sample ID: 460-221262-22
Matrix: Solid
Percent Solids: 79.6

Method: 537 (modified) - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	105		150	10/27/20 20:17	11/03/20 00:28	1
13C4 PFOA	101		150	10/27/20 20:17	11/03/20 00:28	1
13C5 PFNA	105		150	10/27/20 20:17	11/03/20 00:28	1
13C2 PFDA	93		150	10/27/20 20:17	11/03/20 00:28	1
13C2 PFUnA	104		150	10/27/20 20:17	11/03/20 00:28	1
13C2 PFDoA	83		150	10/27/20 20:17	11/03/20 00:28	1
13C2 PFTeDA	85		150	10/27/20 20:17	11/03/20 00:28	1
13C3 PFBS	112		150	10/27/20 20:17	11/03/20 00:28	1
18O2 PFHxS	112		150	10/27/20 20:17	11/03/20 00:28	1
13C4 PFOS	106		150	10/27/20 20:17	11/03/20 00:28	1
13C8 FOSA	101		150	10/27/20 20:17	11/03/20 00:28	1
d3-NMeFOSAA	93		150	10/27/20 20:17	11/03/20 00:28	1
NEtFOSAA	94		150	10/27/20 20:17	11/03/20 00:28	1
M2-6:2 FTS	115		150	10/27/20 20:17	11/03/20 00:28	1
M2-8:2 FTS	101		150	10/27/20 20:17	11/03/20 00:28	1
M2-4:2 FTS			10	10/27/20 20:17	11/03/20 00:28	1

Method: Total PFCA-Dif - Total PFCA (Treatment Difference)

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PFBA	2.1				ug/Kg			4/20 10:37	
PFPA	0.23				ug/Kg			4/20 10:37	
PFHxA	0.33				ug/Kg			4/20 10:37	
PFHpA	0.24				ug/Kg			4/20 10:37	
PFOA	0.79				ug/Kg			4/20 10:37	
PFNA	0.030				ug/Kg			4/20 10:37	
Total PFCA	3.6				ug/Kg			4/20 10:37	

Method: Total PFCA-Sum - Total PFCA (Summary) - Pre-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	3.1				ug/Kg			4/20 10:34	

Method: Total PFCA-Sum - Total PFCA (Summary) - Post-Treatment

Analyte	esult	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total PFCA	6.7				ug/Kg			4/20 10:36	

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Pre-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
460-221262-4	S15-SOIL-102120		94	97	4	99	4	99	
460-221262-22	S8B-SOIL-102120	98	90		3	94	3	97	
LCS 320-426022/2-A	Lab Control Sample	4	3	98		3	4	98	92
LCSD 320-426022/3-A	Lab Control Sample Dup		98	95			96	85	96
MB 320-426022/1-A	Method Blank		97	97	8			95	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
460-221262-4	S15-SOIL-102120	78	90			3	4	7	
460-221262-22	S8B-SOIL-102120	87	92	3				5	
LCS 320-426022/2-A	Lab Control Sample	82	83		3		95	98	95
LCSD 320-426022/3-A	Lab Control Sample Dup	94	87	7	7			95	92
MB 320-426022/1-A	Method Blank	94	97	7	7	8	5	3	

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)
460-221262-4	S15-SOIL-102120	59 *5	53 *5	30 *5
460-221262-22	S8B-SOIL-102120	51 *5	32	97 *5
LCS 320-426022/2-A	Lab Control Sample	30		5
LCSD 320-426022/3-A	Lab Control Sample Dup	4	3	
MB 320-426022/1-A	Method Blank	34		

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
460-221262-4	S15-SOIL-102120	96	96	96	4	98	99	90	92

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 460-221262-2
Project/Site: Norlite - Cohoes #401041

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
460-221262-22	S8B-SOIL-102120		3	99	5		5	93	4
LCS 320-426024/2-A	Lab Control Sample		4		3		4		97
LCSD 320-426024/3-A	Lab Control Sample Dup	97	7			99	9	99	
MB 320-426024/1-A	Method Blank	98	98	3	99	96	4	90	92

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFO (25-150)	d5NEFO (25-150)
460-221262-4	S15-SOIL-102120	88	89			99		88	98
460-221262-22	S8B-SOIL-102120	83	85					93	94
LCS 320-426024/2-A	Lab Control Sample	94	96				99	97	9
LCSD 320-426024/3-A	Lab Control Sample Dup	91	89						94
MB 320-426024/1-A	Method Blank	90	80		5	5	98	92	91

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (0-10)
460-221262-4	S15-SOIL-102120	3		
460-221262-22	S8B-SOIL-102120	5		
LCS 320-426024/2-A	Lab Control Sample		8	
LCSD 320-426024/3-A	Lab Control Sample Dup	9	98	
MB 320-426024/1-A	Method Blank	9	9	

rrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-426022/1-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Method Blank
Prep Type: Pre-Treatment
Prep Batch: 426022

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		.50	.070	ug/Kg		7/20 20:12	22:35	
Perfluoropentanoic acid (PFPeA)	ND		.50	.19	ug/Kg		7/20 20:12	22:35	
Perfluorohexanoic acid (PFHxA)	ND		.50	.1	ug/Kg		7/20 20:12	22:35	
Perfluoroheptanoic acid (PFHpA)	ND		.50	.073	ug/Kg		7/20 20:12	22:35	
Perfluorooctanoic acid (PFOA)	ND		.50	.22	ug/Kg		7/20 20:12	22:35	
Perfluorononanoic acid (PFNA)	ND		.50	.090	ug/Kg		7/20 20:12	22:35	
Perfluorodecanoic acid (PFDA)	ND		.50	.055	ug/Kg		7/20 20:12	22:35	
Perfluoroundecanoic acid (PFUnA)	ND		.50	.090	ug/Kg		7/20 20:12	22:35	
Perfluorododecanoic acid (PFDoA)	ND		.50	.17	ug/Kg		7/20 20:12	22:35	
Perfluorotridecanoic acid (PFTriA)	ND		.50	.13	ug/Kg		7/20 20:12	22:35	
Perfluorotetradecanoic acid (PFTeA)	ND		.50	.14	ug/Kg		7/20 20:12	22:35	
Perfluorobutanesulfonic acid (PFBS)	ND		.50	.063	ug/Kg		7/20 20:12	22:35	
Perfluorohexanesulfonic acid (PFHxS)	ND		.50	.078	ug/Kg		7/20 20:12	22:35	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.50	.088	ug/Kg		7/20 20:12	22:35	
Perfluorooctanesulfonic acid (PFOS)	ND		.3	.50	ug/Kg		7/20 20:12	22:35	
Perfluorodecanesulfonic acid (PFDS)	ND		.50	.098	ug/Kg		7/20 20:12	22:35	
Perfluorooctanesulfonamide (FOSA)	ND		.50	.21	ug/Kg		7/20 20:12	22:35	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	.98	ug/Kg		7/20 20:12	22:35	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	.93	ug/Kg		7/20 20:12	22:35	
:2 FTS	ND		5.0	.38	ug/Kg		7/20 20:12	22:35	
8:2 FTS	ND		5.0	.63	ug/Kg		7/20 20:12	22:35	

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Fac*
13C4 PFBA	*101*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C5 PFPeA	*97*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C2 PFHxA	*97*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C4 PFHpA	*108*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C4 PFOA	*101*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C5 PFNA	*102*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C2 PFDA	*95*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C2 PFUnA	*98*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C2 PFDoA	*94*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C2 PFTeDA	*97*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C3 PFBS	*107*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
18O2 PFHxS	*107*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C4 PFOS	*108*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
13C8 FOSA	*105*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
d3-NMeFOSAA	*103*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
d5-NEtFOSAA	*102*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
-6:2 FTS	*134*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
-8:2 FTS	*110*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*
4:2 FTS	*102*		*150*	*10/27/20 20:12*	*11/02/20 22:35*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426022/2-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample
Prep Type: Pre-Treatment
Prep Batch: 426022

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	5.00	4.93		ug/Kg		99	76	36
Perfluoropentanoic acid (PFPeA)	5.00	4.37		ug/Kg		87	9	9
Perfluorohexanoic acid (PFHxA)	5.00	5.06		ug/Kg			71	31
Perfluoroheptanoic acid (PFHpA)	5.00	4.79		ug/Kg		96	71	31
Perfluorooctanoic acid (PFOA)	5.00	4.66		ug/Kg		93	72	32
Perfluorononanoic acid (PFNA)	5.00	4.74		ug/Kg		95	73	33
Perfluorodecanoic acid (PFDA)	5.00	4.88		ug/Kg		98	72	32
Perfluoroundecanoic acid (PFUnA)	5.00	4.56		ug/Kg		91		
Perfluorododecanoic acid (PFDoA)	5.00	5.70		ug/Kg		4	71	31
Perfluorotridecanoic acid (PFTriA)	5.00	5.87		ug/Kg		7	71	31
Perfluorotetradecanoic acid (PFTeA)	5.00	5.06		ug/Kg			7	7
Perfluorobutanesulfonic acid (PFBS)	4.42	4.16		ug/Kg		94	9	9
Perfluorohexanesulfonic acid (PFHxS)	4.55	4.26		ug/Kg		94		
Perfluoroheptanesulfonic Acid (PFHpS)	4.76	4.94		ug/Kg		4	76	36
Perfluorooctanesulfonic acid (PFOS)	4.64	4.35		ug/Kg		94	8	41
Perfluorodecanesulfonic acid (PFDS)	4.82	4.36		ug/Kg		90	71	31
Perfluorooctanesulfonamide (FOSA)	5.00	4.99		ug/Kg			77	37
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	4.69	J	ug/Kg		94	72	32
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	4.80	J	ug/Kg		96	72	32
:2 FTS	4.74	4.18	J	ug/Kg		88	73	39
8:2 FTS	4.79	4.71	J	ug/Kg		98	75	35

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*150*
13C5 PFPeA	*103*		*150*
13C2 PFHxA	*98*		*150*
13C4 PFHpA	*111*		*150*
13C4 PFOA	*103*		*150*
13C5 PFNA	*104*		*150*
13C2 PFDA	*98*		*150*
13C2 PFUnA	*92*		*150*
13C2 PFDoA	*82*		*150*
13C2 PFTeDA	*83*		*150*
13C3 PFBS	*116*		*150*
18O2 PFHxS	*113*		*150*
13C4 PFOS	*11*		*150*
13C8 FOSA	*95*		*150*
d3-NMeFOSAA	*98*		*150*
d5-NEtFOSAA	*95*		*150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-426022/2-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample
Prep Type: Pre-Treatment
Prep Batch: 426022

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
-6:2 FTS	130		150
-8:2 FTS	101		150
4:2 FTS	105		150

Lab Sample ID: LCSD 320-426022/3-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample Dup
Prep Type: Pre-Treatment
Prep Batch: 426022

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)			5.00	4.97		ug/Kg		99	76	36		3
Perfluoropentanoic acid (PFPeA)			5.00	4.48		ug/Kg		90	9	9		30
Perfluorohexanoic acid (PFHxA)			5.00	5.01		ug/Kg			71	31		30
Perfluoroheptanoic acid (PFHpA)			5.00	4.93		ug/Kg		99	71	31	3	30
Perfluorooctanoic acid (PFOA)			5.00	4.64		ug/Kg		93	72	32		30
Perfluorononanoic acid (PFNA)			5.00	5.01		ug/Kg			73	33		30
Perfluorodecanoic acid (PFDA)			5.00	5.53		ug/Kg			72	32	3	30
Perfluoroundecanoic acid (PFUnA)			5.00	4.98		ug/Kg					9	30
Perfluorododecanoic acid (PFDoA)			5.00	4.99		ug/Kg			71	31	3	30
Perfluorotridecanoic acid (PFTriA)			5.00	5.60		ug/Kg			71	31	5	30
Perfluorotetradecanoic acid (PFTeA)			5.00	5.02		ug/Kg			7	7		30
Perfluorobutanesulfonic acid (PFBS)			4.42	4.34		ug/Kg		98	9	9	4	30
Perfluorohexanesulfonic acid (PFHxS)			4.55	4.12		ug/Kg		91			3	30
Perfluoroheptanesulfonic Acid (PFHpS)			4.76	5.07		ug/Kg		7	76	36	3	30
Perfluorooctanesulfonic acid (PFOS)			4.64	4.48		ug/Kg		97	8	41	3	30
Perfluorodecanesulfonic acid (PFDS)			4.82	4.93		ug/Kg			71	31		30
Perfluorooctanesulfonamide (FOSA)			5.00	4.82		ug/Kg		96	77	37	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			5.00	4.74	J	ug/Kg		95	72	32		30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			5.00	4.90	J	ug/Kg		98	72	32		30
:2 FTS			4.74	4.44	J	ug/Kg		94	73	39		30
8:2 FTS			4.79	4.42	J	ug/Kg		92	75	35		30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	100		150
13C5 PFPeA	98		150
13C2 PFHxA	95		150
13C4 PFHpA	102		150
13C4 PFOA	102		150
13C5 PFNA	96		150
13C2 PFDA	85		150
13C2 PFUnA	96		150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-426022/3-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample Dup
Prep Type: Pre-Treatment
Prep Batch: 426022

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFDoA	94		150
13C2 PFTeDA	87		150
13C3 PFBS	107		150
18O2 PFHxS	107		150
13C4 PFOS	100		150
13C8 FOSA	100		150
d3-NMeFOSAA	95		150
d5-NEtFOSAA	92		150
6:2 FTS	124		150
8:2 FTS	103		150
4:2 FTS	11		150

Lab Sample ID: MB 320-426024/1-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 426024

Analyte	MB lt	MB Qualifier	L	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	.12		.50	.070	ug/Kg		7/20 20:17	23:50	
Perfluoropentanoic acid (PFPeA)	ND		.50	.19	ug/Kg		7/20 20:17	23:50	
Perfluorohexanoic acid (PFHxA)	ND		.50	.1	ug/Kg		7/20 20:17	23:50	
Perfluoroheptanoic acid (PFHpA)	ND		.50	.073	ug/Kg		7/20 20:17	23:50	
Perfluorooctanoic acid (PFOA)	ND		.50	.22	ug/Kg		7/20 20:17	23:50	
Perfluorononanoic acid (PFNA)	ND		.50	.090	ug/Kg		7/20 20:17	23:50	
Perfluorodecanoic acid (PFDA)	ND		.50	.055	ug/Kg		7/20 20:17	23:50	
Perfluoroundecanoic acid (PFUnA)	ND		.50	.090	ug/Kg		7/20 20:17	23:50	
Perfluorododecanoic acid (PFDoA)	ND		.50	.17	ug/Kg		7/20 20:17	23:50	
Perfluorotridecanoic acid (PFTriA)	ND		.50	.13	ug/Kg		7/20 20:17	23:50	
Perfluorotetradecanoic acid (PFTeA)	ND		.50	.14	ug/Kg		7/20 20:17	23:50	
Perfluorobutanesulfonic acid (PFBS)	ND		.50	.063	ug/Kg		7/20 20:17	23:50	
Perfluorohexanesulfonic acid (PFHxS)	ND		.50	.078	ug/Kg		7/20 20:17	23:50	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		.50	.088	ug/Kg		7/20 20:17	23:50	
Perfluorooctanesulfonic acid (PFOS)	ND		.3	.50	ug/Kg		7/20 20:17	23:50	
Perfluorodecanesulfonic acid (PFDS)	ND		.50	.098	ug/Kg		7/20 20:17	23:50	
Perfluorooctanesulfonamide (FOSA)	ND		.50	.21	ug/Kg		7/20 20:17	23:50	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	.98	ug/Kg		7/20 20:17	23:50	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	.93	ug/Kg		7/20 20:17	23:50	
:2 FTS	ND		5.0	.38	ug/Kg		7/20 20:17	23:50	
8:2 FTS	ND		5.0	.63	ug/Kg		7/20 20:17	23:50	

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C4 PFBA	98		150	10/27/20 20:17	11/02/20 23:50	1
13C5 PFPeA	98		150	10/27/20 20:17	11/02/20 23:50	1
13C2 PFHxA	103		150	10/27/20 20:17	11/02/20 23:50	1
13C4 PFHpA	99		150	10/27/20 20:17	11/02/20 23:50	1
13C4 PFOA	96		150	10/27/20 20:17	11/02/20 23:50	1
13C5 PFNA	104		150	10/27/20 20:17	11/02/20 23:50	1
13C2 PFDA	90		150	10/27/20 20:17	11/02/20 23:50	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-426024/1-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 426024

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Fac
13C2 PFUnA	92		150	10/27/20 20:17	11/02/20 23:50	1
13C2 PFDoA	90		150	10/27/20 20:17	11/02/20 23:50	1
13C2 PFTeDA	80		150	10/27/20 20:17	11/02/20 23:50	1
13C3 PFBS	106		150	10/27/20 20:17	11/02/20 23:50	1
18O2 PFHxS	105		150	10/27/20 20:17	11/02/20 23:50	1
13C4 PFOS	105		150	10/27/20 20:17	11/02/20 23:50	1
13C8 FOSA	98		150	10/27/20 20:17	11/02/20 23:50	1
d3-NMeFOSAA	92		150	10/27/20 20:17	11/02/20 23:50	1
d5-NEtFOSAA	91		150	10/27/20 20:17	11/02/20 23:50	1
-6:2 FTS	109		150	10/27/20 20:17	11/02/20 23:50	1
-8:2 FTS	109		150	10/27/20 20:17	11/02/20 23:50	1
4:2 FTS			10	10/27/20 20:17	11/02/20 23:50	1

Lab Sample ID: LCS 320-426024/2-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 426024

Analyte	Spike Added	LCS lt	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanoic acid (PFBA)	5.00	.93	*	ug/Kg		39	70	30
Perfluoropentanoic acid (PFPeA)	5.00	5.01		ug/Kg			70	30
Perfluorohexanoic acid (PFHxA)	5.00	5.85		ug/Kg		7	70	30
Perfluoroheptanoic acid (PFHpA)	5.00	.1		ug/Kg			70	30
Perfluorooctanoic acid (PFOA)	5.00	.9	*	ug/Kg		59	70	30
Perfluorononanoic acid (PFNA)	5.00	5.34		ug/Kg		7	70	30
Perfluorodecanoic acid (PFDA)	5.00	5.53		ug/Kg			70	30
Perfluoroundecanoic acid (PFUnA)	5.00	4.34		ug/Kg		87	70	30
Perfluorododecanoic acid (PFDoA)	5.00	4.84		ug/Kg		97	70	30
Perfluorotridecanoic acid (PFTriA)	5.00	4.79		ug/Kg		96	70	30
Perfluorotetradecanoic acid (PFTeA)	5.00	3.95		ug/Kg		79	70	30
Perfluorobutanesulfonic acid (PFBS)	4.42	4.16		ug/Kg		94	70	30
Perfluorohexanesulfonic acid (PFHxS)	4.55	4.07		ug/Kg		90	70	30
Perfluoroheptanesulfonic Acid (PFHpS)	4.76	4.25		ug/Kg		89	70	30
Perfluorooctanesulfonic acid (PFOS)	4.64	4.61		ug/Kg		99	70	30
Perfluorodecanesulfonic acid (PFDS)	4.82	4.12		ug/Kg		85	70	30
Perfluorooctanesulfonamide (FOSA)	5.00	ND		ug/Kg				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	ND		ug/Kg				
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	ND		ug/Kg				
:2 FTS	4.74	ND		ug/Kg				
8:2 FTS	4.79	ND		ug/Kg				

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	101		150
13C5 PFPeA	104		150
13C2 PFHxA	102		150
13C4 PFHpA	103		150
13C4 PFOA	100		150
13C5 PFNA	104		150
13C2 PFDA	100		150
13C2 PFUnA	97		150
13C2 PFDoA	94		150
13C2 PFTeDA	96		150
13C3 PFBS	11		150
18O2 PFHxS	111		150
13C4 PFOS	11		150
13C8 FOSA	99		150
d3-NMeFOSAA	97		150
d5-NEtFOSAA	91		150
6:2 FTS	101		150
8:2 FTS	108		150
4:2 FTS			10

Lab Sample ID: LCSD 320-426024/3-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 426024

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		PD	PD Limit
Perfluorobutanoic acid (PFBA)			5.00	7.25	*	ug/Kg		45	70	30	5	3
Perfluoropentanoic acid (PFPeA)			5.00	4.89		ug/Kg		98	70	30	3	30
Perfluorohexanoic acid (PFHxA)			5.00	5.96		ug/Kg		9	70	30		30
Perfluoroheptanoic acid (PFHpA)			5.00	.07		ug/Kg			70	30		30
Perfluorooctanoic acid (PFOA)			5.00	4.3	*	ug/Kg		87	70	30		30
Perfluorononanoic acid (PFNA)			5.00	5.39		ug/Kg		8	70	30		30
Perfluorodecanoic acid (PFDA)			5.00	5.25		ug/Kg		5	70	30	5	30
Perfluoroundecanoic acid (PFUnA)			5.00	4.34		ug/Kg		87	70	30		30
Perfluorododecanoic acid (PFDoA)			5.00	4.77		ug/Kg		95	70	30		30
Perfluorotridecanoic acid (PFTriA)			5.00	4.48		ug/Kg		90	70	30	7	30
Perfluorotetradecanoic acid (PFTeA)			5.00	4.18		ug/Kg		84	70	30		30
Perfluorobutanesulfonic acid (PFBS)			4.42	4.37		ug/Kg		99	70	30	5	30
Perfluorohexanesulfonic acid (PFHxS)			4.55	3.98		ug/Kg		88	70	30		30
Perfluoroheptanesulfonic Acid (PFHpS)			4.76	4.48		ug/Kg		94	70	30	5	30
Perfluorooctanesulfonic acid (PFOS)			4.64	4.79		ug/Kg		3	70	30	4	30
Perfluorodecanesulfonic acid (PFDS)			4.82	4.08		ug/Kg		85	70	30		30
Perfluorooctanesulfonamide (FOSA)			5.00	ND		ug/Kg					NC	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			5.00	ND		ug/Kg					NC	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-426024/3-A
Matrix: Solid
Analysis Batch: 427825

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 426024

Analyte			Spike Added	LCSD lt	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	PD	PD Limit
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			5.00	ND		ug/Kg				NC	30
:2 FTS			4.74	ND		ug/Kg				NC	30
8:2 FTS			4.79	ND		ug/Kg				NC	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*97*		*150*
13C5 PFPeA	*107*		*150*
13C2 PFHxA	*102*		*150*
13C4 PFHpA	*106*		*150*
13C4 PFOA	*99*		*150*
13C5 PFNA	*109*		*150*
13C2 PFDA	*99*		*150*
13C2 PFUnA	*101*		*150*
13C2 PFDoA	*91*		*150*
13C2 PFTeDA	*89*		*150*
13C3 PFBS	*11*		*150*
18O2 PFHxS	*11*		*150*
13C4 PFOS	*11*		*150*
13C8 FOSA	*101*		*150*
d3-NMeFOSAA	*101*		*150*
d5-NEtFOSAA	*94*		*150*
6:2 FTS	*109*		*150*
8:2 FTS	*98*		*150*
4:2 FTS			*10*

LCMS

Prep Batch: 426022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Pre-Treatment	Solid	TOP Pre-Prep	
460-221262-22	S8B-SOIL-102120	Pre-Treatment	Solid	TOP Pre-Prep	
MB 320-426022/1-A	Method Blank	Pre-Treatment	Solid	TOP Pre-Prep	
LCS 320-426022/2-A	Lab Control Sample	Pre-Treatment	Solid	TOP Pre-Prep	
LCSD 320-426022/3-A	Lab Control Sample Dup	Pre-Treatment	Solid	TOP Pre-Prep	

Prep Batch: 426024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Post-Treatment	Solid	TOP Post-Prep	
460-221262-22	S8B-SOIL-102120	Post-Treatment	Solid	TOP Post-Prep	
MB 320-426024/1-A	Method Blank	Post-Treatment	Solid	TOP Post-Prep	
LCS 320-426024/2-A	Lab Control Sample	Post-Treatment	Solid	TOP Post-Prep	
LCSD 320-426024/3-A	Lab Control Sample Dup	Post-Treatment	Solid	TOP Post-Prep	

Analysis Batch: 427825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Post-Treatment	Solid	537 (modified)	426024
460-221262-4	S15-SOIL-102120	Pre-Treatment	Solid	537 (modified)	426022
460-221262-22	S8B-SOIL-102120	Post-Treatment	Solid	537 (modified)	426024
460-221262-22	S8B-SOIL-102120	Pre-Treatment	Solid	537 (modified)	426022
MB 320-426022/1-A	Method Blank	Pre-Treatment	Solid	537 (modified)	426022
MB 320-426024/1-A	Method Blank	Post-Treatment	Solid	537 (modified)	426024
LCS 320-426022/2-A	Lab Control Sample	Pre-Treatment	Solid	537 (modified)	426022
LCS 320-426024/2-A	Lab Control Sample	Post-Treatment	Solid	537 (modified)	426024
LCSD 320-426022/3-A	Lab Control Sample Dup	Pre-Treatment	Solid	537 (modified)	426022
LCSD 320-426024/3-A	Lab Control Sample Dup	Post-Treatment	Solid	537 (modified)	426024

Analysis Batch: 428349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Pre-Treatment	Solid	Total PFCA-Sum	
460-221262-22	S8B-SOIL-102120	Pre-Treatment	Solid	Total PFCA-Sum	

Analysis Batch: 428350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Post-Treatment	Solid	Total PFCA-Sum	
460-221262-22	S8B-SOIL-102120	Post-Treatment	Solid	Total PFCA-Sum	

Analysis Batch: 428352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-221262-4	S15-SOIL-102120	Total/NA	Solid	Total PFCA-Dif	
460-221262-22	S8B-SOIL-102120	Total/NA	Solid	Total PFCA-Dif	

Lab Chronicle

Client: New k State D.E.C. Job ID: 460-221262-2
Project/Site: Norlite - Cohoes #401041

Client Sample ID: S15-SOIL-102120 — Lab Sample ID: 460-221262-4
Date Collected: 10/21/20 10:35 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
T tal/NA	Analysis	T tal PFCA-Dif		1	428352	11/04/20 10:37	SHK	TAL SAC
Post-T eatment	Analysis	T tal PFCA-Sum		1	428350	11/04/20 10:36	SHK	TAL SAC
Pre-T eatment	Analysis	T tal PFCA-Sum		1	428349	11/04/20 10:34	SHK	TAL SAC

Client Sample ID: S15-SOIL-102120 — Lab Sample ID: 460-221262-4
Date Collected: 10/21/20 10:35 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 62.7**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Post-T eatment	Prep	TOP Post-Prep			426024	10/27/20 20:17	JER	TAL SAC
Post-T eatment	Analysis	537 (modified)		1	427825	11/03/20 00:19	JRB	TAL SAC
Pre-T eatment	Prep	TOP Pre-Prep			426022	10/27/20 20:12	JER	TAL SAC
Pre-T eatment	Analysis	537 (modified)		1	427825	11/02/20 23:03	JRB	TAL SAC

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22
Date Collected: 10/21/20 14:10 — **Matrix: Solid**
Date Received: 10/23/20 10:00

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
T tal/NA	Analysis	T tal PFCA-Dif		1	428352	11/04/20 10:37	SHK	TAL SAC
Post-T eatment	Analysis	T tal PFCA-Sum		1	428350	11/04/20 10:36	SHK	TAL SAC
Pre-T eatment	Analysis	T tal PFCA-Sum		1	428349	11/04/20 10:34	SHK	TAL SAC

Client Sample ID: S8B-SOIL-102120 — Lab Sample ID: 460-221262-22
Date Collected: 10/21/20 14:10 — **Matrix: Solid**
Date Received: 10/23/20 10:00 — **Percent Solids: 79.6**

Prep Type	Batch Typ	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Post-T eatment	Prep	TOP Post-Prep			426024	10/27/20 20:17	JER	TAL SAC
Post-T eatment	Analysis	537 (modified)		1	427825	11/03/20 00:28	JRB	TAL SAC
Pre-T eatment	Prep	TOP Pre-Prep			426022	10/27/20 20:12	JER	TAL SAC
Pre-T eatment	Analysis	537 (modified)		1	427825	11/02/20 23:13	JRB	TAL SAC

Laboratory References:
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 460-221262-2
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	TOP Post-Prep	Solid	6:2 FTS
537 (modified)	TOP Post-Prep	Solid	8:2 FTS
537 (modified)	TOP Post-Prep	Solid	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	TOP Post-Prep	Solid	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	TOP Post-Prep	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	TOP Post-Prep	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	TOP Post-Prep	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	TOP Post-Prep	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	TOP Post-Prep	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	TOP Post-Prep	Solid	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	TOP Post-Prep	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	TOP Post-Prep	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	TOP Post-Prep	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	TOP Post-Prep	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	TOP Post-Prep	Solid	Perfluorooctanesulfonamide (FOSA)
537 (modified)	TOP Post-Prep	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	TOP Post-Prep	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	TOP Post-Prep	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	TOP Post-Prep	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	TOP Post-Prep	Solid	Perfluorotridecanoic acid (PFT iA)
537 (modified)	TOP Post-Prep	Solid	Perfluoroundecanoic acid (PFUnA)
537 (modified)	TOP Pre-Prep	Solid	6:2 FTS
537 (modified)	TOP Pre-Prep	Solid	8:2 FTS
537 (modified)	TOP Pre-Prep	Solid	-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	TOP Pre-Prep	Solid	-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	TOP Pre-Prep	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	TOP Pre-Prep	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	TOP Pre-Prep	Solid	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	TOP Pre-Prep	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	TOP Pre-Prep	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorooctanesulfonamide (FOSA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	TOP Pre-Prep	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	TOP Pre-Prep	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	TOP Pre-Prep	Solid	Perfluorotridecanoic acid (PFTriA)
537 (modified)	TOP Pre-Prep	Solid	Perfluoroundecanoic acid (PFUnA)

Accreditation/Certification Summary

Client: New k State D.E.C. Job ID: 460-221262-2
Project/Site: Norlite - Cohoes #401041

Laboratory: Eurofins TestAmerica, Sacramento (Continued)

Unless otherwise noted, all analytes for this laboratory were c vered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ew k	ELAP	11666	04-01-21

Ttal PFCA-Dif	Solid	PFBA
Ttal PFCA-Dif	Solid	PFHpA
Ttal PFCA-Dif	Solid	PFHxA
Ttal PFCA-Dif	Solid	PFNA
Ttal PFCA-Dif	Solid	PFOA
Ttal PFCA-Dif	Solid	PFPA
Ttal PFCA-Dif	Solid	Ttal PFCA
Ttal PFCA-Sum	Solid	Ttal PFCA

Method Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
Total PFCA-Dif	Total PFCA (Treatment Difference)	TAL SOP	TAL SAC
Total PFCA-Sum	Total PFCA (Summary)	TAL SOP	TAL SAC
TOP Post-Prep	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL SAC
TOP Pre-Prep	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Norlite - Cohoes #401041

Job ID: 460-221262-2

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-221262-4	S15-SOIL-102120	Solid	10:35	3/20 10:00	
460-221262-22	S8B-SOIL-102120	Solid	14:10	3/20 10:00	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankauskas	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.1
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 7
Company: New York State D.E.C.				Job #: 221262
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

460-221262 Chain of Custody

SHORT HOLD

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	PFC - IDA - TOPS Assay	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	D	N			
PC1-SOIL-102120	10/21/20	845	G	Solid			X					1	1
TB1-102120	10/21/20	—	—	~~Solid~~ Water			X		X	X		2	35FS Trip Blank 4 containers 2
PC2-SOIL-102120	10/21/20	930	G	Solid			X					1	3
S15-SOIL-102120	10/21/20	1035	G	Solid			X	X		X	X	2	3FS 3 containers 4
S14-SOIL-102120	10/21/20	1050	G	Solid			X	X		X		2	5
S13-SOIL-102120	10/21/20	1105	G	Solid		X	X	X		X		6	ms/msD 6
S16-SOIL-102120	10/21/20	1135	G	Solid			X	X		X		2	7
S2-SOIL-102120	10/21/20	1155	G	Solid			X	X		X		2	8
DUP1-SOIL-102120	10/21/20	—	G	Solid			X	X		X		2	9
				Solid									
BFS				Solid									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (~~A fee may be assessed if samples are retained longer than 1 month~~)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NYS EDD

Special Instructions/QC Requirements:

J - DI Water V - MCAA
K - EDTA W - pH 4-5
L - EDA Z - other (specify)
Other:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/22/20 1040	NYS DEC	[signature]	10-22-2020 1040	EETA
2	[signature]	10-22-2020 1700	EETA			
3	[signature] FedEx	10/23/20 1000		[signature]	10/23/20 1000	TA Edison

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.: 05 present
Cooler Temperature(s) °C and Other Remarks: 4.5, 3.8°C IR#11

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.2
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 2 of 7
Company: New York State D.E.C.				Job #: 221262
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N		
S3-SOIL-102120	10/21/20	515	G	Solid			X	X		X	2	10
S4-SOIL-102120	10/21/20	549	G	Solid			X	X		X	2	11
S11-SOIL-102120	10/21/20	387	G	Solid			X	X		X	2	12
S12-SOIL-102120	10/21/20	255	G	Solid			X	X		X	2	13
DUP2-SOIL-102120	10/21/20	—	G	Solid			X	X		X	2	14
S1-SOIL-102120	10/21/20	430	G	Solid			X	X		X	2	15
TB2-102120	10/21/20	—	—	Solid			X		X	X	4	Trip Blank 16
				Solid								BFJ
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B NYSDEC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/22/20 1040	NYSDEC		10-22-2020 1040	EETA
2	Tim Knollman Fed Ex	10-22-2020 1700	EETA			
3		10/23/20 1000			10/23/20 1000	TA Edison

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: CS present

Cooler Temperature(s) °C and Other Remarks: 1.5, 3.8oc IR#1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.3
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 3 of 7
Company: New York State D.E.C.				Job #: 22762
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	PFC_IDA - TOPS Assay	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N			
S6A-SOIL-102120	10/21/20	2:40	G	Solid			X	X		X		2	17
S6B-SOIL-102120	10/21/20	2:50	G	Solid			X	X		X		2	18
S7A-SOIL-102120	10/21/20	3:05	G	Solid			X	X		X		2	19
S7B-SOIL-102120	10/21/20	3:15	G	Solid			X	X		X		2	20
S8A-SOIL-102120	10/21/20	2:00	G	Solid			X	X		X		2	21
S8B-SOIL-102120	10/21/20	2:10	G	Solid			X	X		X	X	3	22
S9A-SOIL-102120	10/21/20	3:30	G	Solid			X	X		X		2	23
S9B-SOIL-102120	10/21/20	3:45	G	Solid	X		X	X		X		6	matrix spiked 24
Equipment Blank 102120	10/21/20	2:30	—	~~Solid~~ water			X		X	X		4	25
Field Blank 102120	10/21/20	4:30	—	~~Solid~~ water			X			X		2	26
S5-soil-102120	10/21/20	4:44	G	Solid			X	X		X		2	27

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NYS DEC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/22/20 10:40	NYSDEC		10-22-2020 1040	EETA
Relinquished by:	10-22-2020 1700	EETA	Received by:	Date/Time:	Company
Relinquished by:	10/23/20 1000		Received by:	10/23/20 1000	TA Edison

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.: CS present
Cooler Temperature(s) °C and other remarks: 4.5, 3.8° c IR#1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Brian Jankowsky	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-150123-33366.7
Client Contact: Lynn Winterberger	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 7 of 7
Company: New York State D.E.C.				Job #: 22262
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			Preservation Codes:
City: Albany	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 12233-7014				
Phone: 518-402-9267(Tel)	PO #: Call Out DMM R4 - 401041			Other:
Email: lynn.winterberger@dec.ny.gov	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	6010D, 7196A, 7471B	6010D, 7470A	7196A - Hexavalent Chromium - 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	N		
10-5011-102120	10/21/20	5:15	G	Solid ~~Water~~			X	X		X	2	28

Page 31 of 42

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Cat B, NY3 DEC EDD	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/22/20 10:40	NYSDEC		10-22-2020 1040	EETA
Relinquished by:	10-22-2020 1700	EETA	Received by:	Date/Time:	Company
Relinquished by:	10/23/20 1000	Company	Received by:	10/23/20 1000	TA Edison

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
	C.S present	3.8°C IR#1

Ver: 01/16/2019

11/5/2020

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 224262

Number of Coolers: 2 IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	4.5 °C	4.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	3.8 °C	3.8 °C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				LL											
25				LL											

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: SV Date: 10/23/20

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 320-199036.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 777 New Durham Road,	Due Date Requested: 10/30/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A/3060A Hexavalent Chromium - 7196	6010D/3050B TAL Metals	7471B/7471B_Prep Mercury	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/28/20 - 1630	GTASAC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/29/20 9.30	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3 -1

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-2
Address: 880 Riverside Parkway,	Due Date Requested: 11/4/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/TOPS_PostPrep_S TOPS Assay	PFC_IDA/TOPS_PrePrep_S TOPS Assay	Total_PFCA_Sum/Auto_TOPS_Post	Total_PFCA_Sum/Auto_TOPS_Pre	Total_PFCA_Diff	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
S15-SOIL-102120 (460-221262-4)	10/21/20	10:35 Eastern		Solid			X	X	X	X	X	2	
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X	X	X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	ENEL		10/27/20 950	GAFEL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ▲ Yes △ No	Custody Seal No.: 1134166	Cooler Temperature(s) °C and Other Remarks: 1.3 & 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
PC1-SOIL-102120 (460-221262-1)	10/21/20	08:45 Eastern		Solid			X		1	
TB1-102120 (460-221262-2)	10/21/20	Eastern		Water				X	2	
PC2-SOIL-102120 (460-221262-3)	10/21/20	09:30 Eastern		Solid			X		1	
S15-SOIL-102120 (460-221262-4)	10/21/20	10:35 Eastern		Solid			X		2	
S14-SOIL-102120 (460-221262-5)	10/21/20	10:50 Eastern		Solid			X		1	
S13-SOIL-102120 (460-221262-6)	10/21/20	11:05 Eastern		Solid			X		1	
S13-SOIL-102120 (460-221262-6MS)	10/21/20	11:05 Eastern	MS	Solid			X		1	
S13-SOIL-102120 (460-221262-6MSD)	10/21/20	11:05 Eastern	MSD	Solid			X		1	
S16-SOIL-102120 (460-221262-7)	10/21/20	11:35 Eastern		Solid			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/26/20 1900	Company: EAEdi	Received by:	Date/Time: 10/27/20 950	Company: EASac
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☑ Yes ☐ No	Custody Seal No.: 1134166	Cooler Temperature(s) °C and Other Remarks: 1.3 cx 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
S2-SOIL-102120 (460-221262-8)	10/21/20	11:55 Eastern		Solid			X		1	
DUP1-SOIL-102120 (460-221262-9)	10/21/20	Eastern		Solid			X		1	
S3-SOIL-102120 (460-221262-10)	10/21/20	17:15 Eastern		Solid			X		1	
S4-SOIL-102120 (460-221262-11)	10/21/20	17:49 Eastern		Solid			X		1	
S11-SOIL-102120 (460-221262-12)	10/21/20	17:37 Eastern		Solid			X		1	
S12-SOIL-102120 (460-221262-13)	10/21/20	14:55 Eastern		Solid			X		1	
DUP2-SOIL-102120 (460-221262-14)	10/21/20	Eastern		Solid			X		1	
S1-SOIL-102120 (460-221262-15)	10/21/20	16:30 Eastern		Solid			X		1	
TB2-102120 (460-221262-16)	10/21/20	Eastern		Water				X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/26/20 1900	Company: E.TAS	Received by:	Date/Time: 10/27/20 950	Company: ETAS
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 1134166

Cooler Temperature(s) °C and Other Remarks: 1.3 cor 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
S6A-SOIL-102120 (460-221262-17)	10/21/20	14:40 Eastern		Solid			X		1	
S6B-SOIL-102120 (460-221262-18)	10/21/20	14:50 Eastern		Solid			X		1	
S7A-SOIL-102120 (460-221262-19)	10/21/20	15:05 Eastern		Solid			X		1	
S7B-SOIL-102120 (460-221262-20)	10/21/20	15:15 Eastern		Solid			X		1	
S8A-SOIL-102120 (460-221262-21)	10/21/20	14:00 Eastern		Solid			X		1	
S8B-SOIL-102120 (460-221262-22)	10/21/20	14:10 Eastern		Solid			X		2	
S9A-SOIL-102120 (460-221262-23)	10/21/20	15:30 Eastern		Solid			X		1	
S9B-SOIL-102120 (460-221262-24)	10/21/20	15:45 Eastern		Solid			X		1	
S9B-SOIL-102120 (460-221262-24MS)	10/21/20	15:45 Eastern	MS	Solid			X		1	

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Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	ETAS		10/27/20 950	STAT
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 113416	Cooler Temperature(s) °C and Other Remarks: 1.3 ice 1.8

Ver: 01/16/2019

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 460-59828.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-221262-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/30/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Norlite - Cohoes #401041	Project #: 48022694			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 Analytes)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Equipment Blank 102120 (460-221262-25)	10/21/20	14:30 Eastern		Water				X	2	
Field Blank 102120 (460-221262-26)	10/21/20	16:30 Eastern		Water				X	2	
S5-Soil-102120 (460-221262-27)	10/21/20	16:48 Eastern		Solid			X		1	
S10-Soil-102120 (460-221262-28)	10/21/20	17:15 Eastern		Solid			X		2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/26/20 1900	Eurofins		10/27/20 950	Eurofins
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 134166	Cooler Temperature(s) °C and Other Remarks: 1.3 cw 1.8

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

Sacramento Sample Receiving Notes

460-221262 Field Sheet

Tracking #: 8142 9456 6408

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSO / OnTrac / Goldstreak / USPS / Other

Job:

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: AM11 Corr. Factor: (+/-) 0.5 °C

Ice ✓ Wet Gel Other

Cooler Custody Seal: 113466

Cooler ID: —

Temp Observed: 1.3 °C Corrected: 1.8 °C

From: Temp Blank ☐ Sample ☑

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐

Initials: ST Date: 10/27/20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Samples w/o discrepancies?	☑	☑	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: JS Date: 10/27/20

Notes: SAMPLES RECEIVED NOT ON COC. NCM WRITTEN WITH THE LIST OF SAMPLES RECEIVED. JS 10/27/20 FILED. DISREGARD JS

Trizma Lot #(s):

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed?	JS ☐	☐	☑
Log Release checked in TALS?	☐	☐	☑

Initials: JS Date: 10/27/20

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 460-221262-2

Login Number: 221262 **List Source: Eurofins T stAmerica, Edison**
List Number: 1
Creator: Rivera, Kenneth

Question	Answer	Comment
adioactivity either was not measured or, if measured, is at or below background	/A	
The cooler's custody seal, if present, is intact.	True	custody seal p esent
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	/A	

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 460-221262-2

Login Number: 221262
List Number: 2
Creator: Saephan, Kae C

List Source: Eurofins T stAmerica, Sacramento
List Creation: 10/27/20 01:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1134166
Sample custody seals, if present, are intact.	/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	b: 1.3c corr: 1.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	/A	

Login Sample Receipt Checklist

Client: New k State D.E.C. Job Number: 460-221262-2

Login Number: 221262
List Number: 3
Creator: Saephan, Kae C

List Source: Eurofins T stAmerica, Sacramento
List Creation: 10/27/20 02:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1134166
Sample custody seals, if present, are intact.	/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	b: 1.3c corr: 1.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	/A	
There is sufficient vol. for all requested analyses, incl. any equested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	/A	

Data Usability Summary Report – Norlite Cohoes Site

Review by Dana M. Barbarossa
NYSDEC
Division of Environmental Remediation
Bureau of Technical Support

A review of the analytical data has been completed for twenty-eight soil samples and nineteen surface water samples collected on October 21, 2020, October 30, 2020, and November 6, 2020, as part of an investigation related to the Norlite facility in Cohoes, NY. Soil and surface water samples were analyzed at Eurofins Test America in Sacramento, California for a specific list of twenty-one per- and polyfluoroalkyl substances (PFAS) using a modified 537 methodology (Modified 537). Two soil samples and two surface water samples were analyzed for Total Oxidizable Precursors (TOP Assay) using Test America's SOP and modified 537.

Data was evaluated using guidelines set forth in NYSDEC's Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (October 2020) and USEPA National Functional Guidelines for Organic Data Review.

Some data required qualification that may or may not affect data quality and usability. Data that was qualified during the quality assurance review is detailed below. Full data review summaries can be found attached to this report.

Holding time and preservation

Several soil samples were re-prepared outside of holding time due to the lab control spike for the data recovering outside of the control limits. The results from both sets of samples were compared and the relative percent difference (RPD) calculated. The RPD of the set of results were within 20% relative percent difference. The samples analyzed within the holding time were reported.

Signal to Noise Ratio

The signal to noise ratio for several analytes did not meet the criteria of 3:1. PFPeA ion ratios were below the criteria of 3:1 in samples HFPCW2, HFW2, HFW3, HFW4, HFW DUP, HFW1, PC1. The signal to noise ratios for PFBS in HFPCW2, PFBA in PC1, and PFHxA in HFW1 were below 3:1 as well.

The peaks for the individual analytes were evaluated to determine if they were discernable from what would be considered baseline noise. In each instance, the peaks did not appear to be baseline noise and results were reported with no qualification as a result. These findings were consistent with the laboratory's analyst findings.

Secondary Ions

The ratio of quantifier to qualifier ion was outside of the lab derived criteria for several analytes in multiple different samples. PFuNA in S1, PFHxS in S6A, S6B, S7A, and S9A, PFNA in HFW3, PFOS in HFW3 and HFSCW2, and PFBS in HFSCW1.

The affected analytes were qualified by the lab with the addition of an “I” flag indicating that ratios were outside of the range and that the identity of these analytes have some degree of uncertainty. All the samples were already qualified with a “J” flag due to analyte concentrations below the reporting limit, therefore, further qualification of those samples is not necessary.

Blanks

Equipment blanks, trip blanks, and field blanks were collected as part of the sampling effort. The lab also analyzed method blanks as prescribed in the SOP. Field-generated blanks had no detections indicating samples were not contaminated by field activities or equipment. The laboratory method blanks for the soil samples had detections of PFOS and PFBA below the reporting limit. The corresponding analytes in the samples were qualified or changed in one of the three ways: (1) qualified with a J+ qualifier indicating a high bias (2) the result changed to non-detect at the reporting limit if the amount in the blank and sample were both below the reporting limit and (3) the B flag applied by the lab was removed because the amount in the samples was ten times that of the blank indicating the result was not due to lab contamination. The detailed qualifications for each sample can be found in the attached data review summaries.

Both post treatment method blanks for the TOP Assay analysis had detections of PFBA due to oxidation of the reverse surrogate. The soil method blank had a PFBA detection of 1.12 ug/kg and the water method blank 11.3 ng/L. Although blank subtraction is not typically practiced, the PFBA in this case should be subtracted from the post treatment samples to allow for a more accurate indication of precursor transformation in the sample.

Lab Control Spike

One lab control spike (320-426095/2-A) was outside of the lab derived control limits for PFOS and PFDS with recoveries of 166% and 62%, respectively. PFOS in S9A, S9B, S5, and S10 is biased high and qualified accordingly with a “J+”. Results for PFDS in S9A, S9B, S5, and S10 are biased low, therefore, all positive detections are qualified with a “J-“ qualifier and non-detects with a “UJ” qualifier.

The lab control spike and lab control spike duplicate for the post treatment TOP Assay soil samples recovered high for PFOS. Therefore, the PFOS detections in the post treatment samples are biased high and qualified with a “J+”.

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Matrix Spike/Matrix Spike Duplicate

Two matrix spikes and matrix spike duplicates, 460-221262-12 and 460-221262-9, were outside of the control limits for PFUnA. Since the lab control spikes were within the quality control criteria, matrix interferences are suspected. Detections of PFUnA in parent samples, S-11 and Dup1, are qualified as estimated with a “J” flag.

Isotope Dilution Analytes

The isotope dilution analyte recoveries for 6:2FTS and 8:2FTS were outside of the control limits for several soil and water samples:

PC1-SOIL (M26SFTS 188%; M282FTS 209%), PC2-SOIL (M26SFTS 159%; M282FTS 186%), S2-SOIL (M26SFTS 153%), S15-SOIL (M282FTS 178%), S13-SOIL(M282FTS 172%), S2-SOIL (M282FTS 191%), LFWater4 (M262FTS 163%; M282FTS 155%), LFWater7 (M262FTS 166%; M282FTS 151%)

Since the recoveries were outside of the quality control limits, positive detections of the affected native analytes are qualified with a “J” and non-detects qualified with a “UJ”.

Reporting Limits

Reporting limits met the project objectives as outlined in NYSDEC’s Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) PFAS Sampling guidance with a few exceptions. NMeFOSAA, NEtFOSAA, 6:2 FTS, and 8:2 FTS in soil samples and PFBA, NMeFOSAA, NEtFOSAA, and 6:2 FTS in water samples were approximately ten times higher than the reporting limits for the remaining analytes. These analytes can be problematic; therefore, the lab has raised the reporting limits to allow for more accurate and reproducible reporting. The elevated reporting limits for these compounds were approved prior to the start of the project.

SITE Norlite – Cohoes 401041	**SDG No.** 320-66212-1
LABORATORY Eurofins Test America Sacramento	**NO. OF SAMPLES** 12
SAMPLE ID HFPCW2-Water-10302020 HFPCW2-Water-10302020 HFW3-Water-10302020 HFW4-Water-10302020 HFW DUP 10302020 HFW-Equipment Blank-10302020 HFW-Field Blank-10302020 HFSCW2-Water-10302020 HFSCW1-Water-10302020 HFW1-Water-10302020 HFPCW3-Water-10302020 HFPCW4-Water-10302020	**COMPLETION DATE** 12/28/2020
DATES SAMPLED 10/30/2020	**ANALYTICAL METHOD** Modified 537

PFAS Non-Potable Water

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Sampled 10/30/2020 Prepared 11/2/2020 Analyzed 11/4/2020 Criteria were met	No action necessary
Calibration	-5 Standards -%RSD <20	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	Criteria were met	No action necessary
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary

Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10th sample 70-130% Recovery	Criteria were met	No action necessary
Duplicates	RPD ≤ 30% for analyte concentrations greater than 2x the reporting limit	A field duplicate was collected at location HFW4-Water 10302020 RPDs were <30	No action necessary
MS/MSD	In house limits 70-130% RPD <30%	Criteria were met	No action necessary
Extracted Internal Standards (Isotope Dilution Analytes)	25-150%	Criteria were met	No action necessary
Lab Control Spike	70-130% or in house control limits 1 per 20 samples	Criteria were met	No action necessary
Sample Result Info Accuracy	Sample information on result pages must match COC	Discrepancies were noted in the Case Narrative and samples logged in according to the Chain of Custody	No action necessary
Peak Integration	Peaks must be integrated properly	Peaks were integrated properly	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must be within lab defined criteria	Criteria were not met for the following samples and analytes: <u>HFW3</u> PFNA PFOS <u>HFSCW2</u> PFOS <u>HFSCW1</u> PFBS Analytes were qualified by the lab with an “I” qualifier	No additional qualification necessary

		indicating the ion ratios are outside of the criteria and the identification of those analytes have some degree of uncertainty.	
Signal to noise ratio	Signal to noise ratio should be calculated for each compound. s/n > 3 for quant ion	HFPCW2 PFPeA 2.6 PFBS 2.8 HFW2 PFPeA 0.9 HFW3 PFPeA 1.4 HFW4 PFPeA 2.4 HFW DUP PFPeA 2.3 HFW1 PFPeA 0.8 PFHxA 2.9 Signal to noise less than 3. However, peaks do not appear to be baseline noise based on peak intensity and shape.	No action necessary
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary
Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	Must meet project objectives 2 ng/L for PFOA and PFOS	Reporting limits met the project objectives with the following exceptions. The reporting limits for	No action necessary

		NMeFOSAA, NEtFOSAA, 6:2FTS, and PFBA are ~10x higher than other analytes. These elevated reporting limits have been pre-approved by DEC.	

Data Reviewed By: DMB

SITE Norlite – Cohoes 401041	**SDG No.** 460-221262-1
LABORATORY Eurofins Test America Sacramento	**NO. OF SAMPLES** 28
SAMPLE ID PC1-SOIL-102120 PC2-SOIL-102120 S15-SOIL-102120 S14-SOIL-102120 S13-SOIL-102120 S16-SOIL-102120 S2-SOIL-102120 DUP1-SOIL-102120 S3-SOIL-102120 S4-SOIL-102120 S11-SOIL-102120 S12-SOIL-102120 Equipment Blank 102120 DUP2-SOIL-102120 Field Blank 102120 S1-SOIL-102120 S6A-SOIL-102120 S6B-SOIL-102120 S7A-SOIL-102120 S7B-SOIL-102120 S8A-SOIL-102120 S8B-SOIL-102120 S9A-SOIL-102120 S9B-SOIL-102120 S5-Soil-102120 S10-Soil-102120 TB1-102120 TB2-102120	**COMPLETION DATE** 1/15/2021
DATES SAMPLED 10/21/2020	**ANALYTICAL METHOD** Modified 537

PFAS Soil

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Sampled 10/21/2020 Extracted 10/27/2020,10/28/2020, 10/30/2020, 11/2/2020 Analyzed 10/28/2020, 10/29/2020, 10/30/2020, 11/1/2020, 11/2/2020, 11/5/2020 *S9A-SOIL, S9B-SOIL, S9B-SOIL MS, S9B-SOIL MSD, S5-SOIL, S10-SOIL were re-prepared out of holding time due to the LCS recovery being outside of the limits. Both sets of data were reported.	Preservation and holding time requirements were met Both sets of results compared within 20%. Recommend reporting results extracted within holding time.

Calibration	5 Standards %RSD <20	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	MB 320-426095/1-A PFOS 0.479J PFBA 0.03895J MB 320-426094/1-A PFOS 0.3275J Equipment blank, trip blanks, and field blanks had no detections.	S11-SOIL PFOS J+ S12-SOIL PFOS change to ND at RL DUP2-SOIL PFOS change to ND at RL S1-SOIL PFOS J+ S6A-SOIL PFOS J+ S6B-SOIL PFOS J+ S7A-SOIL PFOS J+ S7B-SOIL PFOS J+ S8A-SOIL PFOS remove B flag S8B-SOIL PFOS remove B flag S9A-SOIL PFOS J+ PFBA change to ND at RL S9B-SOIL PFOS J+ PFBA change to ND at RL S5-SOIL PFOS J+ PFBA remove B flag S10-SOIL PFOS J+ PFBA remove B flag
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary
Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10th sample 70-130% Recovery	Criteria were met	No action necessary

Duplicates	RPD ≤ 30% for analyte concentrations greater than 2x the reporting limit	Duplicates were collected at S2-SOIL and S4-SOIL RPDs were within limits	No action necessary
MS/MSD	In house limits 70-130% RPD <30%	460-221262-12 MS/MSD PFUnA (133%/145%) 460-221262-9 MS/MSD PFUnA (148%/151%)	S11-soil PFUnA J flag Dup1 PFUnA J flag
Extracted Internal Standards (Isotope Dilution Analytes)	25-150%	M262FTS: PC1-SOIL (188%), PC2-SOIL (159%), S2-SOIL (153%) M282FTS: PC1-SOIL (209%), PC2-SOIL (186%), S15-SOIL (178%), S13-SOIL(172%), S2-SOIL (191%)	Corresponding positive detections of the native compounds were qualified by the lab – no additional qualification needed. Qualify non-detects with a UJ.
Lab Control Spike	Lab derived control limits of ~70-130% were used 1 LCS per 20 samples	LCS 320-426095/2-A PFOS (166%) PFDS (62%)	S9A-SOIL-102120 PFOS J+ PFDS J- S9B-SOIL-102120 PFOS J+ PFDS J- S5-Soil-102120 PFOS J+ PFDS UJ S10-Soil-102120 PFOS J+ PFDS UJ
Sample Result Info Accuracy	Sample information on result pages must match COC	Sample information on result pages matched the COC	No action necessary
Peak Integration	Peaks must be integrated properly	Peaks were integrated properly	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must	Ion ratios did not meet criteria for S1-SOIL PFUnA	No additional qualification necessary

	be within lab defined criteria	S6A-SOIL, S6B-SOIL, S7A-SOIL, S9A-SOIL PFHxS Analytes were qualified by the lab with an "I" qualifier indicating the ion ratios are outside of the criteria and the identification of those analytes have some degree of uncertainty.	
Signal to noise ratio	Signal to noise ratio should be calculated for each compound. s/n > 3 for quant ion	PC1-SOIL PFBA 2.1 PFPeA 2.0 S8B-SOIL PFPeA 2.6 Signal to noise ratio was less than 3. However, peaks do not appear to be baseline noise based on peak intensity and shape.	No action necessary
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary
Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	Must meet project objectives 0.5 ug/kg for all analytes	Reporting limits met the project objectives with the following exceptions. The reporting limits for NMeFOSAA, NEtFOSAA, 6:2FTS, and 8:2 FTS are ~10x	No action necessary

		higher than other analytes. These elevated reporting limits have been pre-approved by DEC. PFOS reporting limits were between 0.5ug/kg and 0.83 ug/kg.	

Data Reviewed By: DMB

SITE Norlite – Cohoes 401041	**SDG No.** 320-66472-1
LABORATORY Eurofins Test America Sacramento	**NO. OF SAMPLES** 11
SAMPLE ID LF Water 2 11062020 LF Water 3 11062020 LF Water 6 11062020 LF Water 4 11062020 LF Water 5 11062020 LF Water 7 11062020 LF Water 8 11062020 DUP 11062020 Field Blank 11062020 Equipment Blank 11062020 Trip Blank 11062020	**COMPLETION DATE** 12/28/2020
DATES SAMPLED 11/6/2020	**ANALYTICAL METHOD** Modified 537

PFAS Non-Potable Water

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Sample 11/6/2020 Prepared 11/11/2020 Analyzed 11/12/2020 Criteria were met	No action necessary
Calibration	-5 Standards -%RSD <20 -R^2 > 0.99 (linear fit)	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	Criteria were met	No action necessary
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary

Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10th sample 70-130% Recovery	Criteria were met	No action necessary
Duplicates	RPD ≤ 30% for analyte concentrations greater than 2x the reporting limit	A field duplicate was collected at location LFWater 7 Criteria were met	No action necessary
MS/MSD	In house limits 70-130% RPD <30%	Criteria were met	No action necessary
Extracted Internal Standards (Isotope Dilution Analytes)	25-150%	LFWater4, LFWater7 M262FTS (163%, 166%), M282FTS (155%,151%)	LFWater 4 6:2FTS J 8:2FTS UJ LFWater 7 6:2FTS UJ 8:2FTS UJ
Lab Control Spike	70-130% or in house control limits 1 per 20 samples	Criteria were met	No action necessary
Sample Result Info Accuracy	Sample information on result pages must match COC	Sample information on result pages matched the COC	No action necessary
Peak Integration	Peaks must be integrated properly	Criteria were met	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must be within lab defined criteria	Criteria were met	No action necessary

Signal to noise ratio	Signal to noise ratio should be calculated for each compound. s/n > 3 for quant ion	LF Water 6 PFPeA 2.8 Signal to noise less than 3. However, peaks do not appear to be baseline noise based on peak intensity and shape.	No action necessary
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary
Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	Must meet project objectives 2 ng/L for PFOA and PFOS	Reporting limits met the project objectives with the following exceptions. The reporting limits for NMeFOSAA, NEtFOSAA, 6:2FTS, and PFBA are ~10x higher than other analytes. These elevated reporting limits have been pre-approved by DEC.	No action necessary

Data Reviewed By: DMB

SITE Norlite - Cohoes #401041	**SDG No.** 320-66473-1
LABORATORY Eurofins Test America - Sacramento	**NO. OF SAMPLES** 07
SAMPLE ID LFSCW2-Water-11062020 LFSCW1-Water-11062020 LFW1-Water-11062020 LFPCW1-Water-11062020 LFPCW2-Water-11062020 LFPCW3-Water-11062020 LFPCW4-Water-11062020	**COMPLETION DATE** 12/17/2020
DATES SAMPLED 11/6/2020	**ANALYTICAL METHOD** Modified 537

PFAS Non-Potable Water

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Samples 11/6/2020 Prepared 11/13/2020 Analyzed 11/14/2020 Criteria were met	No action necessary
Calibration	5 Standards %RSD <20 R^2 > 0.99 (linear fit)	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	Criteria were met	No action necessary
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary
Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10^{th} sample 70-130% Recovery	Criteria were met	No action necessary

Duplicates	RPD ≤ 30% for analyte concentrations greater than 2x the reporting limit	A field duplicate was not collected	Could not be evaluated
MS/MSD	In house limits 70-130% RPD <30%	A matrix spike and matrix spike duplicate were not collected	Matrix effects could not be evaluated
Extracted Internal Standards (Isotope Dilution Analytes)	25-150%	Criteria were met	No action necessary
Lab Control Spike	70-130% or in house control limits 1 per 20 samples	Criteria were met	No action necessary
Sample Result Info Accuracy	Sample information on result pages must match COC	Sample information on result pages matches the COC	No action necessary
Peak Integration	Peaks must be integrated properly	Criteria were met	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must be within lab defined criteria	Criteria were met	No action necessary
Signal to noise ratio	Signal to noise ratio should be calculated for each compound. s/n > 3 for quant ion	Criteria were met	No action necessary
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary

Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	Must meet project objectives 2 ng/L for PFOA and PFOS	Reporting limits met the project objectives with the following exceptions. The reporting limits for NMeFOSAA, NEtFOSAA, 6:2FTS, and 8:2 FTS are ~10x higher than other analytes. These elevated reporting limits have been pre-approved by DEC.	

Data Reviewed By: DMB

SITE Norlite - Cohoes #401041	**SDG No.** 460-221262-2
LABORATORY Eurofins Test America Sacramento	**NO. OF SAMPLES** 02
SAMPLE ID S15-SOIL-102120 S8B-SOIL-102120	**COMPLETION DATE** 1/29/2020
DATES SAMPLED 10/21/2020	**ANALYTICAL METHOD** TOP Assay via TAL SOP & Modified 537

Total Oxidizable Precursor Assay – PFAS

S15-SOIL-102120
Pre Top PFCA 1.8 ug/kg
Post TOP PFCA 3.0 ug/kg – 1.1 ug/kg (from blank) = 1.9 ug/kg
Difference 0.1 ng/L

S8B-SOIL-102120
Pre Top PFCA 3.1 ug/kg
Post TOP PFCA 6.7 ug/kg – 1.1 ug/kg (from blank) = 5.4 ug/kg
Difference 2.3 ug/kg

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Sample 10/21/2020 Prepared 10/27/2020 Analyzed 11/02/2020 Criteria were met	No action necessary
Calibration	-5 Standards -%RSD <20	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	MB 320-426024/1-A (Post treatment blank) PFBA 1.12 ug/kg The reverse surrogate M2-4:2FTS is oxidized in the post treatment sample and converted to PFBA. This amount indicates how much	Typically, blank subtraction is not practiced. However, in this instance, if the PFBA in the blank is not subtracted from the post top sample, the increase in post top PFCAs will be biased high. Subtracting a blank value in this instance

		the PFBA in the blank has contributed to the PFBA in the post treatment sample.	will allow for a more accurate indication of precursor transformation in the sample.
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary
Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10th sample 70-130% Recovery	Criteria were met	No action necessary
Extracted Internal Standards (Isotope Dilution Analytes)	50-150%	S15 SOIL M262FTS (**159**%) M282FTS (**153**%) S8BSOIL MS62FTS (**151**%)	No action necessary
Lab Control Spike	70-130% or in house control limits 1 per 20 samples Precursor recovery 0-10%	Post Treatment PFOA (**259**%/**287**%) PFBA (**139**%/**145**%	PFOA results in the post treatment sample are biased high Add J+ qualifier
Sample Result Info Accuracy	Sample information on result pages must match COC	Sample information on result pages matched the COC	No action necessary
Peak Integration	Peaks must be integrated properly	Peaks were integrated properly	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must be within lab defined criteria	Criteria were met	No action necessary
Reverse Surrogate	0-10% Recovery of reserve surrogate M2-4:2FTS	Criteria were met, 0% recovery	No action necessary

Signal to noise ratio	Signal to noise ratio should be calculated for each compound. s/n > 3 for quant ion	Criteria were met	No action necessary
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary
Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	No criteria for TOP Assay	Reporting limits were elevated due to matrix interference. Reporting limits were approximately twice the typical reporting limits	No action necessary

SITE Norlite - Cohoes #401041	**SDG No.** 320-66472-2
LABORATORY Eurofins Test America Sacramento	**NO. OF SAMPLES** 02
SAMPLE ID LF Water 4 11062020 LF Water 7 11062020	**COMPLETION DATE** 1/27/2020
DATES SAMPLED 11/6/2020	**ANALYTICAL METHOD** TOP Assay via TAL SOP & Modified 537

Total Oxidizable Precursor Assay – PFAS

LF Water 4
Pre Top PFCA 60ng/L
Post TOP PFCA 81 – 11(from blank) = 70 ng/L
Difference 10 ng/L

LF Water 7
Pre Top PFCA 62ng/L
Post TOP PFCA 100 – 11(from blank) = 89 ng/L
Difference 27 ng/L

Review Criteria	Acceptance Criteria	Criteria Met (Y/N)	Comments/Action
Preservation and Holding Times	< 14 days to extract, 28 days to analyze extract <10C when received at the lab (not to exceed 10C within the first 48 hours)	Sample 11/6/2020 Prepared 11/16/2020 Analyzed 11/18/2020 Criteria were met	No action necessary
Calibration	-5 Standards -%RSD <20	Criteria were met	No action necessary
Blanks	No detections above the reporting limit	MB 320-432348/1-A (Post treatment blank) PFBA 11.3 ng/L The reverse surrogate M2-4:2FTS is oxidized in the post treatment sample and converted to PFBA. This amount indicates how much	Typically, blank subtraction is not practiced. However, in this instance, if the PFBA in the blank is not subtracted from the post top sample, the increase in post top PFCAs will be biased high. Subtracting a blank value in this instance

		the PFBA in the blank has contributed to the PFBA in the post treatment sample.	will allow for a more accurate indication of precursor transformation in the sample.
Initial Calibration Verification	LL ICV 50-150% HL ICV 70-130%	Criteria were met	No action necessary
Continuing Calibration Checks (CCC)	Frequency – beginning and end of run, and after every 10^{th} sample 70-130% Recovery	Criteria were met	No action necessary
Extracted Internal Standards (Isotope Dilution Analytes)	50-150%	Criteria were met	No action necessary
Lab Control Spike	70-130% or in house control limits 1 per 20 samples Precursor recovery 0-10%	Criteria were met	No action necessary
Sample Result Info Accuracy	Sample information on result pages must match COC	Sample information on result pages matched the COC	No action necessary
Peak Integration	Peaks must be integrated properly	Peaks were integrated properly	No action necessary
Secondary ion (qualifier ion) monitoring	Secondary ion transition should be monitored, and the ratio of quantifier ion to qualifier ion must be within lab defined criteria	Criteria were met	No action necessary
Reverse Surrogate	0-10% Recovery of reserve surrogate M2-4:2FTS	Criteria were met, 0% recovery	No action necessary
Signal to noise ratio	Signal to noise ratio should be calculated	Criteria were met	No action necessary

	for each compound. s/n > 3 for quant ion		
Branched and linear isomers	Both branched and linear isomers should be used for calibration curves and sample quantification	Branched and linear isomers were used	No action necessary
Ion Transitions	PFOA 413 > 369 PFOS 499 > 80 PFHxS 399 > 80 PFBS 299 > 80 6:2 FTS 427 > 407 8:2 FTS 527 > 507 NEtFOSAA 584 > 419 NMeFOSAA 570 > 419	The correct ion transitions were used	No action necessary
Reporting Limits	No criteria for TOP Assay	Reporting limits were elevated due to matrix interference. Reporting limits were 5ng/L for all compounds except NMeFOSAA, NEtFOSAA, 6:2FTS, and 8:2FTS at 50ng/L	No action necessary

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Memorandum

To: Mr. Dan Evans, Director, Bureau of Hazardous Waste and Radiation Management

From: JAM John A. Miller, Bureau of Pesticides Management, Product Registration Section

Subject: Environmental Sampling Conducted by DEC Associated with Norlite, Matrix – Soils, Targets – Metals, Eurofins Job Number 460-221262-1

Date: January 21, 2021

The environmental soil samples collected by NYSDEC at the Norlite property were reviewed for quality and usability. Some QC findings, such as the analytical holding time for the hexachrome water blank samples, resulted in that data being unusable. Also, the hexachrome matrix spike recoveries for samples S13-SOIL-102120 and S9B-SOIL-102120 were below its control limits and are also determined to be unusable. All other data were found to be sufficiently accurate, precise, complete and usable for their intended purpose and flagged appropriately by the lab. All "J" flags were due to the result falling above the detection limits but below the reporting limits. Details regarding the QC sample findings are discussed in the sections below.

The following table lists the soil samples that will be covered with this data review for metals by methods 6010D (TAL Metals), 7196A (CrVI) and 7471A (Mercury). These samples are listed in the order that they appear on page 10 of the lab's pdf report file. Water samples, such as trip blanks, are not listed but their corresponding QC results/findings will be covered in the corresponding section(s) below:

Client Sample ID	Lab Sample ID	Matrix	Collected	Received
PC1-SOIL-102120	460-221262-1	Soil	10/2120 08:45	10/23/20 10:00
PC2-SOIL-102120	460-221262-3	Soil	10/2120 09:30	10/23/20 10:00
S15-SOIL-102120	460-221262-4	Soil	10/2120 10:35	10/23/20 10:00
S14-SOIL-102120	460-221262-5	Soil	10/2120 10:50	10/23/20 10:00
S13-SOIL-102120	460-221262-6	Soil	10/2120 11:05	10/23/20 10:00
S16-SOIL-102120	460-221262-7	Soil	10/2120 11:35	10/23/20 10:00
S2-SOIL-102120	460-221262-8	Soil	10/2120 11:55	10/23/20 10:00
DUP1-SOIL-102120	460-221262-9	Soil	10/2120 00:00	10/23/20 10:00
S3-SOIL-102120	460-221262-10	Soil	10/2120 17:15	10/23/20 10:00
S4-SOIL-102120	460-221262-11	Soil	10/2120 17:49	10/23/20 10:00
S11-SOIL-102120	460-221262-12	Soil	10/2120 17:37	10/23/20 10:00
S12-SOIL-102120	460-221262-13	Soil	10/2120 14:55	10/23/20 10:00
DUP2-SOIL-102120	460-221262-14	Soil	10/2120 00:00	10/23/20 10:00
S1-SOIL-102120	460-221262-15	Soil	10/2120 16:30	10/23/20 10:00
S6A-SOIL-102120	460-221262-17	Soil	10/2120 14:40	10/23/20 10:00

Client Sample ID	Lab Sample ID	Matrix	Collected	Received
S6B-SOIL-102120	460-221262-18	Soil	10/2120 14:50	10/23/20 10:00
S7A-SOIL-102120	460-221262-19	Soil	10/2120 15:05	10/23/20 10:00
S7B-SOIL-102120	460-221262-20	Soil	10/2120 15:15	10/23/20 10:00
S8A-SOIL-102120	460-221262-21	Soil	10/212014:00	10/23/20 10:00
S8B-SOIL-102120	460-221262-22	Soil	10/2120 14:10	10/23/20 10:00
S9A-SOIL-102120	460-221262-23	Soil	10/2120 15:30	10/23/20 10:00
S9B-SOIL-102120	460-221262-24	Soil	10/2120 15:45	10/23/20 10:00
S5-SOIL-102120	460-221262-27	Soil	10/2120 16:48	10/23/20 10:00
S10-SOIL-102120	460-221262-28	Soil	10/2120 17:15	10/23/20 10:00

Sample Preservation and Analytical Holding Times

On pages 4267 thru 4269 of the lab report are the Login Sample Receipt Checklist pages and they indicate that, with the exception of the water samples, specifically the trip blank, the equipment blank, and the field blank, all soil samples were properly preserved and received and analyzed by the lab within analytical holding times.

The hexachrome method (method 7196A), however, requires a 24-hr holding time for hexachrome analyses of soils after sample extraction and since the blanks are water samples, the clock starts ticking immediately upon filling the sample container. The finding that the blank samples exceeded the hexachrome method holding time indicates that those data are unusable but is inconsequential for the soil samples.

Initial and Continuing Calibration Verification

All initial and continuing calibration recoveries fell within their respective control limits[1] indicating that the sample data can be regarded as sufficiently accurate and precise providing that all other QC criteria are met. There were 22 TAL metals internal standards run and 21 mercury. The following table lists the calibration recovery ranges:

Metal	Min %R	Max %R
Aluminum	96	100
Antimony	97	100
Arsenic	96	102
Barium	97	100
Beryllium	96	105
Cadmium	97	101
Calcium	97	102
Chromium	97	101
Cobalt	99	102
Copper	97	101
Iron	98	102
Lead	96	101
Magnesium	96	104
Manganese	98	101
Nickel	98	101
Potassium	98	109

[1] Mercury limits: 100 ± 15%; All other metals: 100 ± 10%.

Metal	Min %R	Max %R
Selenium	98	103
Silver	97	101
Sodium	97	109
Thallium	99	102
Vanadium	98	108
Zinc	98	101
Mercury	97	109
Cr-VI	99	104

Blank Sample Results

With the exception of potassium and sodium, all reported blank sample results were non-detected. All of the potassium and sodium detections were significantly below their respective reporting limit indicating that these blank results can be disregarded. The reporting limits for both of these metals was 5,000 µg/L (ppb) and the range of potassium values was from 143.2 to 251.0 µg/L while the range of sodium values was from 102.2 to 107.9 µg/L. All blank results for mercury and Cr-VI were non-detect.

Interference Check Sample Recoveries

Four interference check samples were analyzed and all recoveries fell within the 100 ± 20% control limits indicating that the instrument was capable of overcoming any interfering materials that may have been present within the sample matrix. The following table lists these recoveries and there are no ICS recoveries for mercury and hexachrome:

Metal	1st %R	2nd %R	3rd %R	4th %R
Aluminum	92	91	89	89
Antimony	106	95	99	90
Arsenic	93	97	100	100
Barium	98	94	98	96
Beryllium	99	96	93	99
Cadmium	98	93	95	95
Calcium	101	100	101	96
Chromium	100	99	101	98
Cobalt	98	95	97	95
Copper	98	96	108	106
Iron	99	98	98	94
Lead	101	91	84	94
Magnesium	102	99	102	99
Manganese	103	98	90	100
Nickel	94	93	95	90
Potassium	103	101	103	100
Selenium	93	98	99	93
Silver	100	98	102	105
Sodium	105	101	105	104
Thallium	89	95	91	96
Vanadium	99	95	99	96

Metal	1st %R	2nd %R	3rd %R	4th %R
Zinc	95	94	96	93

Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs
Samples S13-SOIL-102120 and S9B-SOIL-102120 (MS 2) were run as matrix spikes for the TAL metals and it does not appear that a matrix spike duplicate was run although it does appear on the chain-of-custody that a MS/MSD pair was requested for sample S13-SOIL-102120. As a result, no relative percent difference value on the pages of the report are available for review.

It can be seen in the following table that both matrix spike recoveries for antimony fell below the control limits which indicates that there may be a low bias in the corresponding environmental sample data (hence the "F1" qualifier).

The qualifier "4" for the aluminum, iron and manganese recoveries indicates that the amount found in the original samples was greater than or equal to four times the amount spiked (four times rule), which indicates that the difference between what was in the samples before and after spiking falls within the method margin of error so no meaningful finding can be made for those metals based on the spike recoveries.

For all of the TAL metals with spike recoveries falling within their control limits, it's indicated that the sample data can be regarded as sufficiently accurate and unbiased with respect to any interfering materials that may have been present within the sample matrix. The matrix spike samples used for the hexachrome analyses were samples S13-SOIL-102120 and S9B-SOIL-102120 and the recoveries fell below the control limits and those corresponding sample results for those samples only are flagged with the F1 qualifier and should be regarded as unusable. Those hexachrome recoveries ranged from 26% to 45%.

Metal	S13-SOIL-102120 %R	Data Qualifier	S9B-SOIL-102120 %R	Data Qualifier	Control Limits %R
Aluminum	1136	4	389	4	75-125
Antimony	45	F1	32	F1	75-125
Arsenic	95		94		75-125
Barium	105		90		75-125
Beryllium	98		93		75-125
Cadmium	96		95		75-125
Calcium	95		84		75-125
Chromium	101		105		75-125
Cobalt	98		94		75-125
Copper	93		93		75-125
Iron	972	4	-334	4	75-125
Lead	100		109		75-125
Magnesium	96		95		75-125
Manganese	579	4	69	4	75-125
Nickel	100		96		75-125
Potassium	99		88		75-125
Selenium	92		92		75-125

Metal	S13-SOIL-102120 %R	Data Qualifier	S9B-SOIL-102120 %R	Data Qualifier	Control Limits %R
Silver	93		90		75-125
Sodium	100		94		75-125
Thallium	98		97		75-125
Vanadium	101		93		75-125
Zinc	102		89		75-125
Mercury	110		108		80-120
Hexachrome	51.0 – 51.9	F1	26 - 32	F1	75-125

Laboratory Control Sample Recoveries - Liquid

The following table lists the method 6010D metal recoveries from the analysis of the laboratory control sample in a liquid matrix and it can be seen that all recoveries fell within the 100 ± 20% control limits indicating that the lab was capable of performing these analyses as per method specifications at the levels listed in the "True" column using a clean matrix. There were four sets of LCS results for hexachrome:

Metal	True (µg/L)	Found (µg/L)	%R	Control Limits
Aluminum	2,000	2,002	100	80-120
Antimony	500	473.7	95	80-120
Arsenic	2,000	2,085	104	80-120
Barium	2,000	2,033	102	80-120
Beryllium	50.0	49.74	99	80-120
Cadmium	50.0	52.05	104	80-120
Calcium	20,000	20,280	101	80-120
Chromium	200	208.3	104	80-120
Cobalt	500	522.5	105	80-120
Copper	250	254.6	102	80-120
Iron	1,000	1,047	105	80-120
Lead	500	519.4	104	80-120
Magnesium	20,000	20,510	103	80-120
Manganese	500	516.4	103	80-120
Nickel	500	520.1	104	80-120
Potassium	20,000	19,230	96	80-120
Selenium	2,000	2,022	101	80-120
Silver	50.0	51.99	104	80-120
Sodium	20,000	19,290	96	80-120
Thallium	2,000	2,069	103	80-120
Vanadium	500	521.1	104	80-120
Zinc	500	518.6	104	80-120

Laboratory Control Sample Recoveries - Solid

Several laboratory control samples were analyzed and the following tables list the method 6010D metal recoveries from the analysis of the laboratory control sample in a certified solid matrix and it can be seen that all recoveries fell within their respective control limits indicating that the lab was capable of performing these analyses as per method specifications at the levels listed in the "True" column using a clean matrix:

Metal	True (mg/Kg)	Found 1 (mg/Kg)	%R 1	Found 2 (mg/Kg)	%R 2	Found 3 (mg/Kg)	%R 3	Control Limits
Aluminum	8,460	7,406	87.5	7,294	86.2	8,051	95.2	50.4-150.1
Antimony	120	78.5	65.4	77.36	64.5	74.34	61.9	4.8-195.0
Arsenic	95.5	93.84	98.3	91.58	95.9	96.34	100.9	82.8-117.3
Barium	300	295.0	98.3	281.2	93.7	304.0	101.3	82.3-117.7
Beryllium	103	100.2	97.3	96.96	94.1	111.0	107.8	82.8-116.5
Cadmium	135	132.8	98.4	135	131.1	137.6	101.9	83.0-117.8
Calcium	4,720	4,520	95.8	4,578	97.0	5,065	107.3	81.6-118.6
Chromium	147	142.7	97.1	138.5	94.2	149.3	101.6	82.3-117.7
Cobalt	43.2	43.48	100.6	42.16	97.6	45.23	104.7	83.8-116.2
Copper	150	148.4	99.0	145.6	97.1	155.7	103.8	84.0-116.0
Iron	14,400	14,030	97.4	14,200	98.6	15,330	106.5	61.3-138.9
Lead	92.3	92.38	100.1	89.12	96.6	95.05	103.0	83.1-117.0
Magnesium	2,300	2,170	94.3	2,134	92.8	2,370	103.1	75.7-124.3
Manganese	677	659.4	97.4	671.2	99.1	688.7	101.7	82.0-118.2
Nickel	59.8	59.86	100.1	59.70	99.8	62.14	103.9	82.6-117.6
Potassium	2,030	1,946	95.9	1,868	92.0	2,085	102.7	70.0-130.0
Selenium	42.0	41.04	97.7	41.16	98.0	42.69	101.7	79.5-120.5
Silver	40.3	37.72	93.6	36.60	90.8	41.39	102.7	80.6-119.4
Sodium	139	132.8	95.5	119.9	86.2	130.6	93.9	71.9-127.3
Thallium	83.1	85.54	102.9	85.18	102.5	89.86	108.1	81.0-119.0
Vanadium	96.9	94.72	97.8	91.90	94.8	105.9	109.3	79.2-120.7
Zinc	369	357.6	96.9	358.8	97.2	374.5	101.5	80.8-119.2
Hexachrome[2]	15.6	14.24 – 15.67	91.5-100.7					84.2-114.5

ICP Serial Dilution Percent Differences

All serial dilution percent differences fell below the 10% control limit maximum indicating the absence of any significant biases in the sample data due to the sample matrix. These percent differences ranged from 0.62 percent for aluminum to 3.0 percent for manganese.

All questions regarding this data review can be sent via phone call or email to:

John Miller

ecc JMiller's Files: Env Sampling Conducted by DEC Associated with Norlite.Data Review.Metals.JAM.docx

[2] There were four sets of LCS results for hexachrome and what appears in the table are the ranges.

Appendix E2 – Category B Analytical Data Packages

Available on Request